Assessing the Effectiveness of Community-Based Health and Sanitation Program in Nepal:

(A Field Study of Sunapati Rural Municipality of Ramechhap District)

A Thesis Submitted to

Central Department of Rural Development

Tribhuvan University

in Partial Fulfillment of the Requirement for the

Degree of Master's in Arts (M.A.) in Rural Development

Submitted By

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2023

DECLARATION LETTER

I, hereby, declare that my thesis entitled **Assessing the Effectiveness of Community-Based Health and Sanitation Programs in Nepal:** (A field study of Sunapati Rural Municipality of Ramechhap District) submitted to the Central Department of Rural Development, Tribhuvan University, is entirely original work prepared under the guidance and supervision of my supervisor. Any help I received during my research and thesis preparation is appreciated. I also confirm that the reference section of the thesis includes all information sources and citations of works cited. The results of this thesis presented, or any other submissions made as part of the requirements for the degree, have never been used to obtain the degree. In addition, I certify that no part of the content of this thesis has been previously published in any form.

……..

Milan Kumar Ghising

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Date: 2080/05/24

(10 September, 2023)

LETTER OF RECOMMENDATION

This is to certify that Milan Kumar Ghising has prepared this thesis entitled, **Assessing the Effectiveness of Community-Based Health and Sanitation Program in Nepal:** *(A field study of Sunapati Rural Municipality, Ramechhap District)* under my guidance and supervision. I hereby forwarded this thesis to the evaluation committee for final evaluation and approval.

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Assist. Prof. Ramesh Naupane

Thesis Supervisor

Date: 2080/05/26

(12 September, 2023)

APPROVAL SHEET

The Evaluation Committee has approved this thesis entitled **Assessing the Effectiveness of Community-Based Health and Sanitation Program in Nepal:** *(A field study of Sunapati Rural Municipality of Ramechhap District)* submitted by Mr. Milan Kumar Ghising for the partial fulfillment of the requirements for the Degree of Master's in Arts (M.A.) in Rural Development.

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This thesis, entitled **Assessing the Effectiveness of Community-Based Health and Sanitation Program in Nepal:** *(A field study of Sunapati Rural Municipality of Ramechhap District)* was prepared in partial completion for the degree of Master's in Arts (M.A.) in Rural Development under the course designed by T.U.'s Faculty of Humanities and Social Sciences. This research is based on the prescribed research format and involves the use of qualitative and quantitative data through the field survey, focused group discussion, key informant interview and observation.

I consulted with a number of people while putting this study together. With gratitude, I would like to convey my heartfelt appreciation to Associate Professor Bishnu Bahadur Khatri, Head of the Department. My thesis supervisor Assist. Professor Ramesh Naupane along with research department, lecturers and who helped me through my research effort by offering helpful suggestions, assistance and supervision.

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Thank you.

Milan Kumar Ghising
Ramechhap, Nepal

Date: 2080/06/15

To, Head of the Department
Central Department of Rural Development
Kirtipur

Subject: Self Declaration.

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ABSTRACT

This academic study was focused on **Assessing the Effectiveness of Community-Based Health and Sanitation Program in Nepal:** which is a project area of the Community Development Society (CDS) and has executed a community-based health and sanitation program. The study adopted to mixed method, so conducted a household survey for quantitative data collection and focused group discussion, key informants interview and field observation for qualitative data collection.

The general objective of the study was to analyze the effectiveness of the community-based health and sanitation program WaSH-related activities, which were simplified and segregated to identify the water, sanitation and hygiene (WaSH) sector in Sunapati Rural Municipality. Similarly, other objectives were to analyze the program's alignment with Sustainable Development Goals-6 (SDGs-6) and to assess the impact on the sanitation status of the beneficiaries before and after project initiation.

Two types of data were collected: qualitative and quantitative. Qualitative data describes a certain subject's characteristics, qualities and other non-quantifiable traits. For the data collection, 131 household surveys, 5 focus group discussion with women groups, 10 key informant interviews and 11 drinking water schemes and 11 schools were observed.

Both quantitative and qualitative data analysis revealed that community-based health and sanitation programs work on areas related to sanitation and hygiene, such as drinking water, lavatories construction and regular hygiene as soon as they are directly connected to the health. The majority of respondents are generally found to have a good attitude toward the program and to be pleased and content with the advancement that the community-based programs have brought to the municipality. The analysis further showed the effectiveness with which the CDS program correspond to the SDG-6. The study found that the CDS programs were effective and contributed to improvements in the health and sanitation sectors in Sunapati Rural Municipality.

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ABBREVIATION/ACRONYMS

AFHS	: Adolescent-Friendly Health Services
CBHS	: Community Based Health Services
CDS	: Community Development Society
DCC	: District Coordination Committee
FCHVs	: Female Community Health Volunteers
FGD	: Focus Group Discussion
GoN	: Government of Nepal
HIV/AIDs	: Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
INGOs	: International Non-Government Organisations
IWRM	: Integrated Water Resource Management
JMP	: Joint Monitoring Program
KII	: Key Informants Interview
MCH	: Maternal and Child Health
MDGs	: Millenium Development Goals
MoWS	: Ministry of Water Supply
NCDs	: Non-Communicable Diseases
NDHS	: Nepal Demographic Health Survey
NGOs	: Non-Government Organisations
NHFS	: National Health Facility Survey
NPC	: National Planning Commission
ODF	: Open Defecation Free
PHC	: Primary Health Care
RM	: Rural Municipality
SDGs	: Sustainable Development Goals
SDP	: Sectoral Development Plan
SPSS	: Statistical Package for Social Sciences
SWA	: Sanitation and Water for All
UNICEF	: United Nations Children's Fund
VDC	: Village Development Committee
WaSH	: Water, Sanitation and Hygiene
WHO	: World Health Organisation

CHAPTER - ONE

INTRODUCTION

1.1 Background of the Study

Health denotes continuous adaptation to the environment for optimal performance as well as the absence of pain and suffering. The term health comes from the root "hal", which means "healthy, sound, and whole." The most essential concern for everyone on the planet is health, which is directly tied to economic progress and educational attainment. Health facilities are sought after based on each individual's level of awareness and financial well-being. The frequency with which medical facilities are used is determined by the availability of health services that fulfill people's needs. Other criteria include accessibility, affordability, acceptance, and availability in distinct geographical areas.

According to the World Health Organization (2020) health is "a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity. It implies that health is a multifaceted phenomenon with biological and sociological components. In general, it is conceived of as a dearth of disease in people, the environment, and other physical places.

Health is defined as "a condition or quality of the human organism expressing the organism's adequate functioning in given conditions, genetic or environmental" (Rai, 2016). Thus, health signifies the absence of disease and the fact that the individual is functioning normally, as well as the assurance that the body's parts are functioning properly and in relation to one another. (Mckenzie et al., 2016) describe health as a "dynamic state or condition that is multidimensional in nature and results from a person's adaptations to his or her environment."

The sanitation involves facilities, services, and behaviors that prevent the spread of infections and diseases. Necessary sanitation developments include water systems, sewer systems, and garbage disposal. Sanitation also refers to killing germs. When you effectively clean something, you sanitize it.

Hygiene involves the behaviors that help to improve sanitation and maintain good health. Practicing good hygiene involves adopting routine habits such as washing your hands with soap, bathing, brushing your teeth, cleaning and sanitizing your home.

Sanitation systems help to support hygiene. Access to toilets is a necessary foundation to maintaining hygiene and preventing the spread of disease caused by contact with the bacteria in human waste. Unfortunately, many people in the world still lack access to proper sanitation systems. Drinking water, also known as distribution through pipe, is water that's considered safe to drink or use for preparing food. Drinking contaminated water can lead to illness and symptoms such as nausea, diarrhea, stomach cramping, or dehydration.

With the advent of new era after 1950, a number of social organisation (NGOs) came into existence, such as Nepal Scout, Nepal Tuberculoses eradication, Marwadi Sewa Samiti, Rotary Club, Nepal Children Association, Nepal Red-cross, Leprosy Eradication Association. NGOs facilitate government policies to reach remote areas and enhance the overall effectiveness of social welfare schemes. NGOs perform a variety of services for social wellbeing either through implementing development projects or through policy advocacy. Community Development Society (CDS) is a non-profit making, non-governmental social development organization established in September 2001 under the Society Registration Act 1977 of Nepal.

CDS has been carrying out a health and sanitation program in Sunapati Rural Municipality of Ramechhap district to support the national priorities stated in the government's plan, which are aligned with the Sustainable Development Goals (SDGs), specifically SDG-6: "ensure the availability and sustainable management of water and sanitation for all'.

But despite these efforts, a complete examination of the efficacy of CDS initiatives in the health and sanitation sector is required. Understanding the impact of CDS interventions, measuring the standard of health services provided, and determining how these programs match with the SDGs is critical. Furthermore, investigating community involvement and contentment with CDS activities will provide information regarding the organization's function in tackling local health and sanitation concerns. As a result, as an evidence-based analysis, this study seeks to provide significant knowledge to improve health and sanitation achievements in Sunapati Rural Municipality, as well as recommendations for increasing the effectiveness of CDS initiatives in the WaSH sector. In addition, this study aims to examine how community-based health and sanitation initiatives match with WaSH-related SDGs, as well as assess the impact of sanitation program on beneficiaries.

1.2 Statement of the Problem

Community-based health services (CBHS) are commonly regarded as a subsystem of the wider health-care system, a tier between primary care and the community. Without this system-wide perspective, community-based services are deemed inefficient, with gaps and duplications in provision. CBHS as a multifaceted phenomenon, address not only health but also other social and biological aspects. WaSH is fundamental to human health and well-being; hence WaSH is an important component of the health-related phenomena.

The fifteenth 5-year plan for sanitation envisioned "clean, safe, easily accessible, and sustainable drinking water and sanitation services." Furthermore, the WaSH sector strives to promote public health by providing adequate, safe, equitable and conveniently accessible drinking water and sanitation services. The World Health Organization /United Nations Children's Fund (WHO/UNICEF), Joint Monitoring Program (JMP) for water supply and sanitation estimates that, "in 2015, 663 million people lacked improved drinking water sources and 2.4 billion lacked improved sanitation facilities" (Shrestha et al., 2017). The Millennium Development Goals (MDGs) timeframe, from 2000 to 2015, contained particular targets for "improved" access to drinking water supplies and "basic sanitation"; nevertheless, coverage fell short of the sanitation target.

Nepal has been faced with a number of WaSH-related problems. The WHO/UNICEF JMP stated in 2015 that 92% of the Nepalese population had access to improved water, thereby meeting this specific MDGs target. However, it needs to be seen whether the improved water is safe for ingestion. Such activities are linked to people's health. As a result, it is critical to do a comparative analysis of WaSH and community-based programs. As one's health cannot be improved unless WaSH is improved, as a result, this study examined the situation in the Ramechhap district.

Ramechhap is one of Bagmati Province's 13 most marginalized districts. The district is located 200 kilometers east of Kathmandu, the capital city. Road transportation has lately become available to numerous locations within the area. Similarly, Sunapati Rural Municipality (RM) is located in the southern half of Ramechap. People in the villages are mainly unaware of the importance of health, hygiene, and sanitation.

Sunapati RM has benefited from CDS efforts to improve overall health and sanitation conditions. A thorough evaluation of the consequences of CDS service delivery in the health and sanitation sectors is required, taking into account the quality of health services provided, the effectiveness of sanitation initiatives, and community participation in these interventions. It is also critical to look into the barriers to service delivery and how the CDS's objectives correspond to the SDGs. As a result, my research objective is to find answers to the following questions:

i. Does the community-based health and sanitation program play a major role to impactful in the health sector of Sunapati Rural Municipality?
ii. How are the community-based health and sanitation programs aligning with WaSH-related SDGs?
iii. What are the significant changes brought by the project in the WaSH sector?

1.3 Objectives

The general objective of this study is to analyze the effectiveness of the community-based health program of Sunapati RM of Ramechhap, Nepal. Similarly, the study has furnished specific objectives for this study which are as follows.

i. To identify the community-based health program in the water, sanitation and hygiene (WaSH) sector in Sunapati RM.
ii. To analyze the program's alignment with SDGs.
iii. To access impact of the health on sanitation status of the beneficiaries before and after launching the project.

1.4 Significance of the Study

Health and sanitation interventions are critical for rural development. The success of these programs must be evaluated to ensure that they achieve their goals and have a beneficial impact on the community. By reviewing the organization's service performance in the health and sanitation sectors in Sunapati RM, the CDS contributions and areas for improvement are clarified. The review also underlined how effectively the CDS programs adhere to the SDGs, as well as any potential consequences for larger-scale development initiatives. The findings and discussions in this study will assist researchers and studies, as well as planners, NGOs, INGOs, and relevant authorities, in developing future plans, programs, strategies, and studies.

1.5 Limitations of the Study

The research study is mainly for the academic purpose and to incorporated the academic research procedure to complete the study. Hence, the study has set the following limitations to make it more relevant and reliability of research.

I. The study is focused only on finding out the WaSH-related activities under the community-based health program carried out by the CDS in the Sunapati RM of Ramechhap.
II. The study is focused on finding the relevance of SDG-6 (Clean water and sanitation).
III. The study focuses on analyzing the effectiveness or impact of the project based on the baseline report.
IV. The study focused on exploring and analyzing the program's effectiveness, intervened by the CDS.
V. The only program beneficiaries are adopted to the sample population in the study.
VI. The mixed methodology is adopted and used for primary and secondary data during the development of the thesis.

1.6 The Organization of the Study

There are five chapters throughout the entire study. The introduction comes first, followed by a review of the relevant literature, the research methodology, the presentation and analysis of the data, a summary, the conclusion, and a set of general recommendations for the entire study. An overview of this chapter is provided below.

Chapter one is the introduction part which comprises the study's background, aims, objectives, significance, constraints, and organization. It also includes the study's emphasis and explanation of the problem. Followed by Chapter two including review of literature that deals with the review of available literature in the field of the study being conducted. This includes conceptual framework along with a review of the theories of the concerned topic, a review of supportive text, a review of related articles, and a review of previous studies.

Likewise, chapter three is about the research methodology which explains the research methodology employed to conduct the study and the tools and techniques used in the analysis of the data as well. This chapter includes research design, sources of data, population and sample sizes, methods of data analysis, and various analytical tools.

Chapter four is the result and discussion which is devoted to the presentation and analysis of data through a defined course of research methodology. The main purpose of this chapter is to analyze different variables. Major findings of the study are also included in this chapter. And chapter five including summary and conclusion which is the last chapter of the study, which provides a summary of findings, conclusion and recommendations for improving the future.

Besides these, a references and annexes also be presented at the end of the thesis. Similarly, acknowledgements, a table of content, a list of tables, and abbreviations/acronyms are included in the front part of the thesis report.

CHAPTER -TWO

LITERATURE REVIEW

This chapter presents studies on community-based health and sanitation program. It primarily concentrates on a theme connected to health initiatives and related programs. As a result, a review of health-related concerns has been done using both academic and non-academic materials and reports.

2.1 Conceptual Review

Conceptual review refers to the understanding of the conceptualization of the association between different variables or the indicators. The conceptual review is a drawn upon the objective of this study. In the figure below I have included main areas of intervention related to WaSh and they are also related to the indicators of SDG-6 analyzed in this paper.

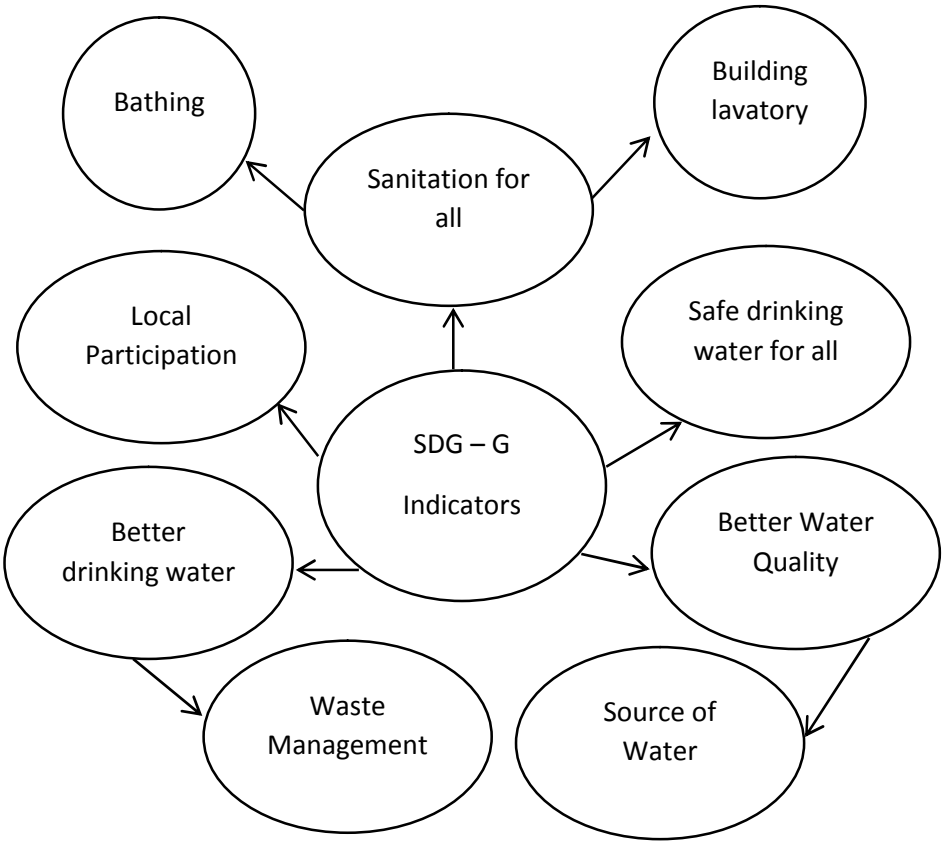


Fig 1: Conceptual Framework of Wash and SDG –6

2.2 Theoretical Review

The Rio Earth Summit, also known as Agenda 21, which called for the development of "systems for monitoring and evaluating progress towards achieving sustainable development by adopting indicators that measure changes across economic, social, and environmental dimensions," was the first time that measuring sustainable development and setting indicators for assessment and continuous improvement of a nation's development were discussed. Since then, a broad variety of indices have been put forth, each of which aims to rank nations according to their accomplishments across several sets of variables (Strezov et al. 2017).

The adoption of the MDGs was another significant historical development. The MDGs represent a successful and historic strategy of international mobilization to achieve a number of crucial social priorities on a global scale. They convey the general public's worry about issues like gender inequality, environmental degradation, unmet educational needs, and poverty, hunger, and disease (Sachs 2012). The 2012 Rio-20 Summit sought to balance the global community's economic and environmental goals (United Nations 2015b). In a report, it urges the adoption of a set of SDGs, which will build on the MDGs and align with the post-2015 development agenda.

The SDGs are a significant concept that could finally shift the globe onto a sustainable trajectory, according to Sachs (2012). If the SDGs do really surface in subsequent diplomatic processes, there will be substantial debate and discussion about its specific content. The research by Roy details the difficulties India has in monitoring and achieving the United Nations SDG-6 targets. We have selected 28 indicators for the biophysical and social development elements of water and sanitation, under two main divisions, in recognition of the role that society and the economy play in the sustainability paradigm. We have observed a decline in the amount of biophysical water resources available per person in India as well as sluggish to rapid social development indicators connected to SDG 6. We estimated India's biophysical consumption up to 2050 based on historical trends.

Theory of change is popular for the analysis of Sustainable goal. And as this paper intend to evaluate the impact of change throughout the period of program running theory of change has been applied with recognizing, “the context in which the change effort will occur” (Reinholz & Andrews, 2020).

2.3 Empirical Review

A qualitative study among community members and stakeholders found that COVID-19 and the lockdown negatively impacted health services delivery, particularly on maternity services, immunization, and essential medicine supply. The study also reported that community perceptions and experiences of health services during COVID-19 were influenced by lack of awareness, misinformation, stigma, fear of infection, closure of local health facilities, limited affordability and involvement of private health sectors, disruption of transportation services, and poor testing, isolation, and quarantine services (Singh, D.R., et al., 2021).

Another study on utilizing Adolescent-Friendly Health Services (AFHS) in Nepal found that only 18.5% of adolescents aged 10–19 had ever visited AFHS. The study identified several barriers to AFHS utilization, such as lack of knowledge, distance, cost, privacy, confidentiality, provider attitude, and social norms. The study suggested that scaling up AFHS in all local health facilities, increasing awareness and demand generation activities among adolescents and their parents, improving the quality and availability of AFHS providers, and addressing sociocultural barriers are essential to improve AFHS utilization in Nepal (Sharma M, Khatri B, et al., 2023).

A third study on the equity of geographical access to public health facilities in Nepal found significant disparities in physical accessibility across different regions, districts, ecological zones, and development regions. The study used a two-step floating catchment area method to measure the geographical accessibility to Nepal's primary, secondary, and tertiary-level public health facilities. The study found that the mountain region had the lowest accessibility to all levels of health facilities, followed by the hill region. The Terai region had the highest accessibility to primary and secondary level facilities but not tertiary. The study also found that the Far-Western development region had the lowest accessibility to all levels of health facilities, followed by the Mid-Western development region. The Central Development region had the highest accessibility to primary and secondary level facilities but not tertiary. The study recommended that policymakers consider the geographical variations in accessibility when allocating health resources and planning health services in Nepal (Karmacharya B, et al., 2021).

In addition, Unsafe water, poor sanitation, and unhygienic behaviors are major contributors to morbidity and mortality in Nepal. Diarrheal disease is responsible for 15.3 percent of mortality, and Acute Respiratory Illness (ARI) an additional 24.8 percent in Nepali children between 1 and 59 months. Most diarrheal deaths, and 13 percent out of 24.8 percent of ARI, are attributable to poor water, sanitation, and hygiene. Poor WaSH practices are also related to nutritional status. Analysis of the 2011 and 2016 Nepal Demographic and Health Surveys (NDHS) shows a correlation between a decrease in open defecation and a decrease in stunting across the nation.

According to the Ministry of Water Supply (MoWS), in 2019, 88 percent of households had access to basic drinking water services. Regarding water quality, the latest Nepal Multiple Indicator Cluster Survey (MICS 2019) found 75 percent of water sources and 85 percent of household drinking water showed fecal contamination, indicating additional contamination during transport and storage. Ultimately, only 19 percent of the population used a safely managed drinking water service located on the premises, available when needed, and free from contamination. Global gaps in access to clean water and sanitary facilities still exist, notwithstanding these efforts. According to estimates from UNICEF and WHO, 4.2 billion people and 2.2 billion people lack access to safe sanitation facilities and clean drinking water, respectively. The Nepal government has established SDGs 3.2.1 and 3.2.2 goals to lower infant and under-five mortality rates. Neonatal death rates have plateaued between 2016 and 2022, despite tremendous progress in reducing child mortality (Fadul, 2019).

2.4. Policy Review

2.4.1 Health and Sanitation Program

Community based health and sanitation program was initiated in 2 wards of Sunapati RM from April 2017 with funding support from the Pharmaciens Sans Frontieres (PSF) Luxembourg and with the Nepal office of terre des homms (tdh) Germany. In the second phase, the project was expanded for three years from January 2020 to Gunsi, Helidebi and Bethan in three adjacent wards of Sunapati RM. The project aim is to improve health and sanitation conditions of the marginalized communities through access of safe drinking water, toilet construction, awareness raising and sustainable quality health services at local level.

During the project period, the facilities and services of the government health posts were expected to improve. With this, the local community will be empowered in health matters. And drinking water supply and domestic health and sanitation conditions will improve. Following activities were design and determined the targets to achieve the expected results.

The main beneficiaries of the program are women, children and youth. Most of the activities are focused on women, children and youth. The program has formed 71 women groups in which 2038 women are affiliated and 65 child club, 7 child club network and 5 youth networks have been formed in the program area. Program has benefited RM health worker including FCHVs and poor and marginalised suffering from suffering from eye illness, uterine prolapse, dental and other health problems.

2.4.2 SDG's Goals

The Sustainable Development Goals (SDGs) is a bold, universal agreement to end poverty in all dimensions and craft an equal, just, and secure world for people, the planet, and prosperity by 2030. The 17 SDGs and 169 targets are a part of Transforming our World: the 2030 Agenda for Sustainable Development, adopted by 193 Member States at the historic UN General Assembly Summit in September 2015 and took effect on 1 January 2016. The SDGs have been developed through an unprecedented consultative process that brought national governments and millions of citizens from across the globe together to negotiate and adopt this ambitious agenda.

The SDGs, or Global Goals, build on the MDGs. While the SDGs are not legally binding, governments must take ownership and establish national frameworks to achieve the 17 Goals. Countries are primarily responsible for following up and reviewing the progress in implementing the Goals, which will require quality, accessible, and timely data collection. Regional follow-up and review will be based on national-level analyses and contribute to follow-up and study at the global level.

SDG-6 is about "clean water and sanitation for all". It is one of 17 SDGs established by the United Nations General Assembly in 2015; the official wording is: "Ensure availability and sustainable management of water and sanitation for all". These are the key indicator related to goal-6 in Nepal: SDG-6 has eight targets. Six will be achieved by 2030, one by 2020, and one with no target year. Each of the targets also has one or two indicators that will be used to measure progress. The six outcome targets include safe and affordable drinking water, end open defecation and provide access to sanitation and hygiene, improve water quality, wastewater treatment, and safe reuse, increase water-use efficiency and ensure freshwater supplies, implement IWRM and protect and restore water-related ecosystems. The two means of implementation targets are to expand water and sanitation support to developing countries and to support local engagement in water and sanitation management. Under the water and sanitation theme, some indicators goals are mentioned below.

- By 2030, achieve universal and equitable access to safe and affordable drinking water.
- By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
- By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.
- By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- By 2030, implement integrated water resources management at all levels, including through transboundary cooperation, as appropriate.

- By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes.
- By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
- Support and strengthen the participation of local communities in improving water and sanitation management.

Despite great progress, billions still lack safe drinking water, sanitation, and hygiene access. Achieving universal coverage by 2030 will require a substantial increase in current global rates of progress: sixfold for drinking water, fivefold for sanitation, and threefold for hygiene. Water use efficiency has risen by 9 percent, but water stress and scarcity remain a concern in many parts of the world. In 2020, 2.4 billion people lived in water-stressed countries. Key strategies to get Goal-6 back on track include increasing sector-wide investment and capacity-building, promoting innovation and evidence-based action, enhancing cross-sectoral coordination and cooperation.

The proportion of the world's population with access to safely managed drinking water services increased from 69 to 73 percent; safely managed sanitation services increased from 49 to 57 percent; and basic hygiene services increased from 67 to 75 percent. This progress signifies an additional 687 million, 911 million, and 637 million people gaining access to these essential services. Open defecation decreased from 715 million to 419 million during this period. However, in 2022, 2.2 billion people still lacked safely managed drinking water, including 703 million without a basic water service; 3.5 billion people lacked safely managed sanitation, including 1.5 billion without basic sanitation services; and 2 billion lacked a basic handwashing facility with soap and water at home, including 653 million with no handwashing facility at all. To achieve universal coverage by 2030, the current rates of progress would need to increase by three to six times (SDG's progress report 2023).

The proportion of the population using a safely managed drinking water service; an improved source located on premises, available when needed and free from contamination; in the country declined from 27.0% in 2000 to 18.0% in 2020. The proportion of the population using a safely managed sanitation service, a basic facility that safely disposes of human waste, increased from 9.0% in 2000 to 49.0% in 2020. The population with basic handwashing facilities on premises rose from 46.0% in 2005 to 62.0% in 2020 (SDG Country Profile Nepal 2023).

2.4.3 Wash

Nepal's constitution has guaranteed a fundamental right to water and sanitation, and people should get free health services without any barriers and discrimination. Similarly, the Sustainable Development Goal indicates that 89% of the population has access to basic-level drinking water facilities, and 21% has access to higher-level or mid-standard drinking water services. Regarding sanitation, 99% of households have enjoyed basic sanitation facilities in recent years (National Planning Commission).

The Government of Nepal (GoN) aims to achieve universal, safely managed water and sanitation access, in line with SDG-6, by 2030. The major challenges to achieving this goal include the functionality of WaSH infrastructure, seasonal or permanent water shortages, and water quality. Now that Nepal has been declared ODF, the plan incorporates a continuation of hygiene promotion activities in line with the GoN's total sanitation guidelines. The plan also includes the first strategic engagement linking water resource management and WaSH. This activity will generate evidence on linkages between watershed management and safe water availability for both domestic and productive purposes and will create policy recommendations for the scale-up of proven interventions (Nepal country plan 2020).

The Ministry of Water Supply (MoWS) is the lead WaSH ministry. Building on the success of the MDGs, Nepal is committed to pursuing and achieving the SDGs by 2030. The water and sanitation-related targets in SDG-6 are inherent in the country's periodic development plan and guided by Nepal's WaSH Sector Development Plan (SDP 2016-2030). The MoWS is currently reviewing its sector planning and monitoring systems to be applicable within the federal system. To

roll out SDP, WaSH plans at the municipality level are under preparation with a joint effort of three tiers of government and will be extended to all municipalities. This will help monitor progress on SDGs and improve evidence-based decision-making. Multi-stakeholder efforts have long been in place through the National Sanitation and Hygiene Coordination Committee, active at the national level and WaSH coordination committees at the Provincial, District, and Municipality (Rural and Urban) levels.

Nepal's WaSH sector has a comprehensive policy and legislative environment under a dedicated MoWS. A new Drinking Water and Sanitation Bill is before the Cabinet and is expected to be endorsed. The draft bill covers all the components of the right to water and sanitation: quality, quantity, reliability, affordability, equity, transparency, and accountability. It prioritizes water for domestic use over other uses like irrigation and hydropower. A new National Water Supply and Sanitation Sector Policy is also under development. Nepal has drafted a WaSH SDP 2019-2029, also under review at the MoWS. Almost three percent of the GoN's total budget is allocated for the WaSH sector, and the WaSH budget has doubled from US$249 to $431 million from Fiscal Year (FY) 2015 to FY 2020.

The draft SDP estimates a requirement of US$14.5 billion to meet SDG WaSH targets by 2030. This means there will be a gap of US$1 billion if prevailing budget trends continue. Nepal's WaSH budget is highly dependent on external funding, with 49 percent coming from external sources, especially loans (41 percent). Although private sector engagement is crucial to reduce dependency on external funds, the private sector's involvement in water and WaSH-related services are underdeveloped in Nepal. This may be due to lacking mechanisms, frameworks, and guidelines to facilitate engagement. While the draft SDP considers water a valuable commodity that people must be willing to pay for to appeal to the private sector, many Nepalis expect water to be free and are reluctant to pay tariffs.

CHAPTER -THREE

METHODOLOGY

3.1 Research Design

This study's completion involved the use of both an exploratory and a descriptive research design. A mixed-methods approach has also been used in this study, combining quantitative surveys with in-depth qualitative interviews and focus groups. With this strategy, the community development programs for health and sanitation in Sunapati Rural Municipality are extensively evaluated for their efficacy.

3.2 The Rationale for the Selection of the Study Area

To raise awareness of the need for a strong connection between community-based health approaches and WaSH, which is crucial for the residents of Sunapati RM in Ramechhap district and a focus of the CDS, Manthali, Ramechhap district, with regard to the analysis of community problems and their resolution. The study's focus area was chosen because it is easily accessible, the researcher is familiar with it, and it exhibits the characteristics of population heterogeneity as well as heterogeneity in socioeconomic structure and geographic location. The assistance of local nonprofit organizations benefits all socioeconomic groups in this area equally.

3.3 Research Area:

This academic study was carried out in the Sunapati RM of the Ramechhap district, a working area of the CDS, Manthali, Ramechhap, and where a community health and sanitation program had been implemented because the goal of the study is to evaluate the efficacy of a community health program that is connected to a research proposal.

3.4. Nature and Source of Data

Data from the quantitative as well as qualitative spheres were combined according to their nature. The primary data was gathered through focus groups, a structured questionnaire, and observation. In a similar vein, the study also used secondary data, which were gathered from the project document. For the secondary data, books, reports, and other published and unpublished written documents were also studied.

3.5 Universe, Sample and Sampling Procedure

3.5.1 Universe Population

The beneficiaries of Sunapati Rural Municipality's community-based health program in Ramechhap constitute the entire study's universe. In total, 2038 households received direct benefits from the project intervention. The project is also supporting 76 women's clubs, 11 water systems, and 17 schools.

3.5.2 Sample Size Determination

This research adopted household beneficiaries which are 2038, so based on that total universe population, the study sample size determines as below through the formula of a finite sample population. The procedure has been adopted for a known population sample size determination (Sarmah & Hazarika, 2012).

$$n = \frac{N}{1 + N(e)^2}$$

Where,

n: the desired sample size

N: is the total population of 2038 (Which corresponds to the 90% confidence level and $\pm$10% precision)

e: absolute precision or accuracy, set at 0.10

Here, $n = \frac{2}{1+2 \quad (0.1)^2}$

= 95.322

n = 96 (Proposed sample size)

According to the formula for sampling size determination of a finite population, 96 households are determined as the sample population for this research.

3.5.3 Sampling Procedure

A simple random sampling method was applied to select the sample population from the universe population for this study. The household name was entered into the workbook and calculated by simple random sampling formula on the computer. Then the computer generated the value code and shorten it from the smallest to the greater number. Finally, picked out 151 households (at least 30Hhs from each ward) that was short the smallest to greater value number process.

3.6 Data Collection Techniques and Tools

Generally, data collection can yield two kinds of data: qualitative and quantitative. Qualitative data describes a certain subject's characteristics, qualities and other non-quantifiable traits. This includes personal opinions, descriptions of a certain place, event, or behaviour, or the quality of a certain item. Qualitative data is often hard to measure with numbers, so they are analyzed based on their qualities or patterns. On the other hand, quantitative data refers to quantifiable or countable data such as statistics, the number of respondents or test subjects, and those under certain measurement standards such as temperature. Quantitative and qualitative data have similar data collection techniques, as they often work together to help create a more in-depth data analysis. There are many ways to collect data depending on the data needed and the tasks. In this research following techniques and tools are used to collect the data:

Households (HHs) Survey:

The household survey technique was applied to collect primary data from the randomly selected households through structured questionnaire tools. The household survey was conducted among 131Hhs through the use of KOBO tools software. The format of HHs survey questioner has been attached in annex I.

Focus Group Discussion (FGD):

Focus group discussion ware conducted in 5 women groups (one from each ward). There are 5 wards in rural municipality, so each ward represented at least one women group for the FGDs. 127 members were participated in the FGDs form 5 women groups during the discussion. For the conduct of FGD, a guideline was developed and used according to research objectives. Guideline of FGDs has been attached in annex II.

Key Informants Interview (KII):

The primary data were also collected from key informants using the unstructured interview method. Interview were taken with 10 key persons which are Chairperson and Vice-chairperson, Chief Administrative Officer, Health Section In-charge and 5 ward Chairpersons of the RM and Program Coordinator of the project. The people of different walk of life were interviewed to make the reliable data through the cross-

checking methods. To conduct KII, a guideline was developed and used according to research objectives. Guideline for KII has been attached in annex III.

Observation

The researcher visited the study area and observe the intervention and its impact based on the project document, FGDs and KII in project area. To explore the practice of community people the field was visited frequently. The practices of community people and respondents were noted in the diary and these were compiled while completing this study. The following area were observed directly and compared with project outcomes:

- Personal and family hygiene
- Proper use of toilet
- Waste management practice
- Behaviour changes
- Proper and safe use of drinking water
- Condition of spring, intake and reservoir tanks of water supply schemes
- Condition and use of school toilets
- Condition and use of drinking water in school

During the observation, family and personal hygiene, use of toilets, kitchens and waste management practices of 131 HHs were observed. 11 drinking water schemes and 11 school toilets and drinking water facilities also visited. For the observation a checklist was developed and used according to research objectives. Observation checklist has been attached in annex IV.

3.7 Data Presentation and Analysis

The collected data were edited, coded, tabulated and analyzed by using different methods. The help of software such as SPSS and MS-Excel were taken. And analyzed data were presented by using simple statistical tools like tables, graphs and diagrams based on the nature of the data.

3.8 Ethical Consent

The researcher has taken consent in every process and ensures respect for the right of individual privacy, dignity, and freedom during the implementation of the research cycle. Similarly, the researcher has remained committed to maintaining the respondent's confidentiality in every research process step. Therefore, monetary and any other influence was not there on respondents and research was did not conduct any physical and verbal violence against them. Besides, the data was not manipulated for personal benefit and interest and has followed the university's rules.

CHAPTER-FOUR

ANALYSIS AND INTERPRETATION OF DATA

Chapter four deals with data analysis and interpretation, which was collected during the study according to the research plan and objectives. Also, analysis and interpretation are furnished based on the study's objectives.

4.1 Study Area at Glance

This chapter includes the location of Sunapati Rural Municipality of Ramechhap district, along with the population, and name list of community organizations, role of community organization and other related information of the Municipality as field area of this study.

4.1.1 Sunapati Rural Municipality of Ramechhap district

The Ramechhap district is home to the Sunapati Rural Municipality. This Rural Municipality was founded on 27 Phalgun, 2073 B.S. (10 March, 2017). Its borders are the Sunkoshi River on the south, the Doramba Rural Municipality on the north, the Khandadebi Rural Municipality on the east, and Chaurikhola on the west. The five previous VDCs that make up this Rural Municipality are Gunsi, Dimipokhari, Hiledebi, Bethan, and Khaniyapani. This rural municipality has an area of around 86.98 square kilometers. This Rural Municipality has 18128 residents in total.

4.1.2 Biodiversity

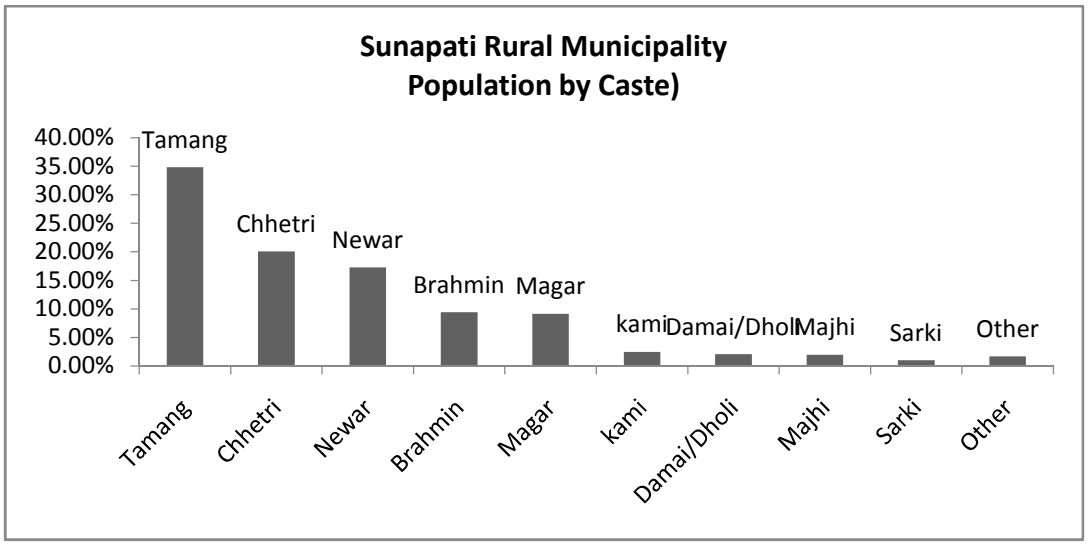
The Sunapati Rural Municipality's jungle is home to a variety of creatures, including Bagh, Chituwa, Shyal, Lokharke, Dumsi, and Ban Biralo. In this Municipality, common bird species include the Bakulla, Parewa, Kalij, Kagh, and Saras. The municipality's common domesticated animals include cows, buffalo, goats, pigs, and rabbits, and etc.

4.1.3 Social Structure and Population

According to the 2021 census, there were 18,128 people living in Sunapati Rural Municipality, 8,348 of them were men and 9,780 of whom were women. Additionally, the project intervention directly helped 2038 homes in total.

The majority of the 6,318 residents in Sunapati RM were members of the Tamang caste, according to the Central Bureau of Statistics' (CBS) 2011 census. Only 13 people from the Badi caste made up the entire population. Chhetri, Newar, Brahmin-Hill, Magar, Kami, Damai/Dholi, Majhi, Sarki, Gharti/Bhujel, Dalit Others, Pahari, Hyolmo, Badi, etc. are some of the other castes represented in Sunapati. The table only shows the population of castes with more than 1,000 members.

Fig 2: Population of Sunapati Rural Municipality

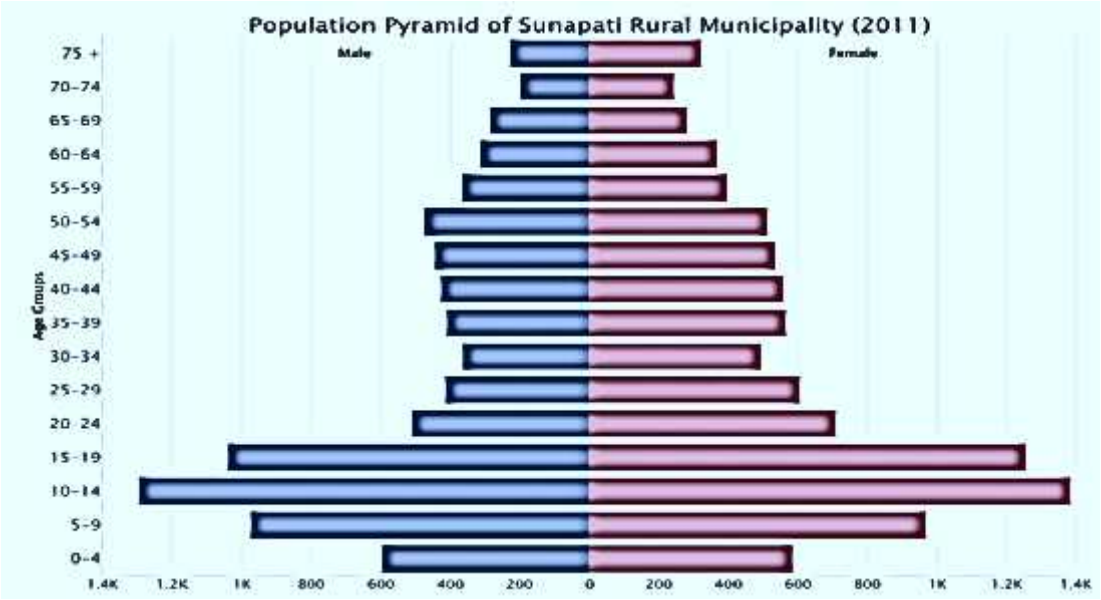


Source: CBS Nepal, 2020

4.1.4 Age-wise Population of the Sunapati RM

In Sunapati Rural Municipality, people between the ages of 10 and 14 made up 2,680 of the population. There were 1,295 men and 1,385 women in the same age group, respectively. The age group with the lowest population, 70 to 74, had a total of 442 people, 198 men, and 244 women. With a total population of 9,320, the top 5 age groups by population were those between the ages of 10 and 14 (2,680), 15 to 19 (2,295), 5 to 9 (1,942), 20 to 24 (1,221), and below 4 (1,182). With a combined population of 3,006 people, the bottom 5 age categories with the lowest population were those between 70 and 74 (442), above 75 (551), between 65 and 69 (568), between 60 and 64 (681), and between 55 and 59 (764) years old. With an average population of 982, the median age range of the entire population is between 40 and 44 and between 45 and 49.

Fig 3: Pyramid of population according to age and sex

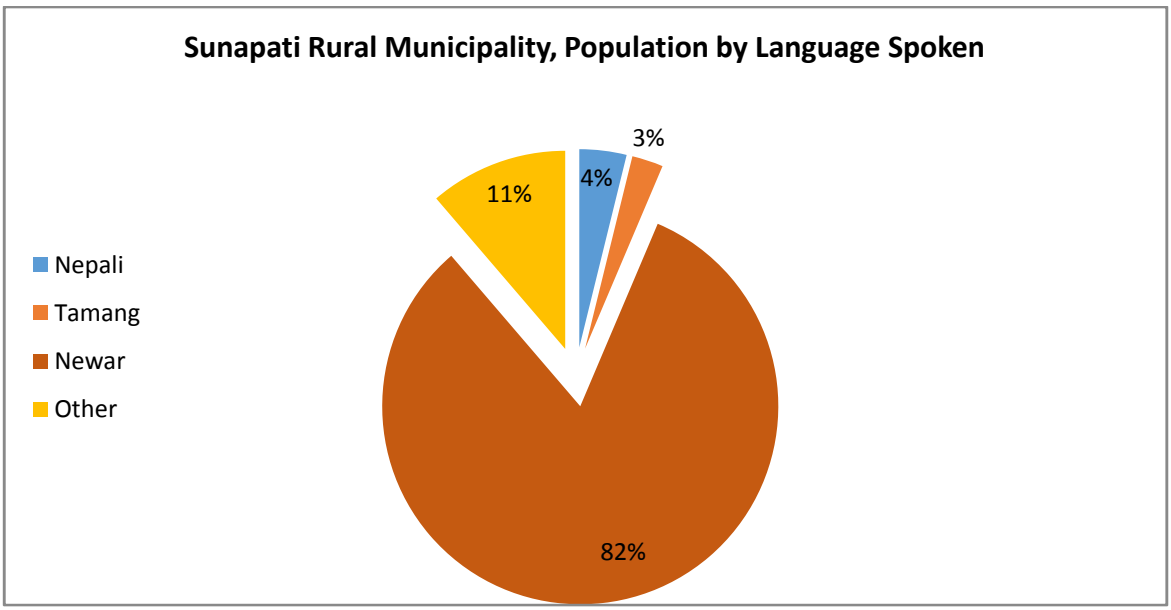


Source: CBS Nepal, 2020

4.1.5 Population by Language Spoken

Nepali is the most commonly spoken language in Sunapati, with 9,537 people speaking it. Other languages spoken in Sunapati include Tamang, Newar, Majhi, Magar, Hyolmo/Yholmo, and others. The data has been presented in the pie-chart below:

Fig 4: Pie chart of Population by Language Spoken



Source: CBS Nepal, 2020

4.2 Socio Economic Status of Respondents

Among the total 131 respondent the almost equal number of the respondents were taken from every ward (1-5 wards) and majority of respondents are taken from economically active age group. The primary occupation of respondents is agriculture. The total number of respondents, 142 respondents from five different wards of Sunapati RM have a lavatory in their household. People are aware of hygiene and sanitation. The majority of respondents use tap water for drinking purposes.

4.2.1 Ward-wise Respondents

The almost equal number of the respondents were taken from ward 1 to ward 5 of the Sunapati Municipality of Ramechhap which is presented in the table below:

Table No. 4.1 Ward-wise Respondents

Wards	Frequency	Percent
Ward No. 1	31	20.5
Ward No. 2	30	19.9
Ward No. 3	30	19.9
Ward No. 4	30	19.9
Ward No. 5	30	19.9
Total	151	100.0
Mean	2.99	
Standard Deviation (S.D)	1.424	

Source: Field Survey, 2023

Table 4.1 shows that almost equal number of respondents were taken from each ward of Sunapati RM that is 19.9% respondents from ward 2 to 5 and 20.5% respondents from ward 1 for the analysis of effectiveness of program in the sector of health and sanitation in respective wards. The standard deviation is 1.424 which is lower than the average ratio which shows that data is closure to mean.

4.2.2 Age Composition

People from the age group who are particularly economically active made up the survey's respondents. The classification of respondents by age group is shown in the following table.

Table No. 4.2 Age Composition

Age Group	Frequency	Percent
Lower than 30	19	12.6
31 – 40	45	29.8
41 – 50	38	25.2
51 – 60	29	19.2
Above 60	20	13.2
Total	151	100.0
Mean	2.9073	
Standard Deviation	1.23478	

Source: Field Survey, 2023

Table 4.2 show that the majority of respondents are taken from economically active age groups of 31-40 and 41–50 that is 29.8% and 25.2 % respectively. Followed by the age group of 51–60 which is 19.2%. And next is respondents with the age below 30 and above 60 that is 12.6 % and 13.2 % respectively. The average mean ratio of the given variables is 2.9073 and standard deviation is 1.234. It shows that data are closer to the entire sum of values.

4.2.3 Occupational Status

For this study to be conducted objectively, respondents from a variety of occupational groups were chosen. The following table shows the respondents' employment status.

Table No. 4.3 Occupational Status

Occupation	Frequency	Percent
Agriculture	126	83.4
Job	9	6.0
Business	10	6.6
Abroad Job	6	4.0
Total	151	100.0
Mean	0.31	
Standard Deviation (S.D)	0.768	

Source: Field Survey, 2023

Above table 4.3 shows that the majority of the respondents taken are from agriculture occupation 83.4%. Followed by respondents engaged in the business which is 6.6%. The other occupations of respondents are: 6.0% doing jobs, and 4.0% abroad jobs. It indicates that the primary occupation of people of Sunapati RM is agriculture. The average ratio of occupation status of respondents is 0.31 which is lesser than standard deviation which is 0.768. This shows that the datas are spread out in excess of a large series of values.

4.2.4 Ward-wise Lavatory

The cross-tabulation test was performed to determine the distribution of respondents by ward and the proportion of those who had built lavatories. The details of the data are shown in the table below:

Table no. 4 .4 Ward-wise Lavatory

Wards	6.1. Is there lavatory in your house?		Total
	a) Yes	b) No	
Ward no. 1	31	0	31
Ward no. 2	25	5	30
Ward no. 3	29	0	29
Ward no. 4	27	3	30
Ward no. 5	30	0	30
Total	142	8	150

P = 0.007

Source: Field Survey, 2023

Table No. 4.4 shows that among the total number of respondents, 142 respondents from five different wards of Sunapati RM have a lavatory in their household. Among the 31 and 30 respondents taken from Wards 1, 3, and 5, all of them have lavatories. While 5 of the 30 Ward 2 respondents do not have lavatories. Similarly, among 30 respondents from Ward 4, 3 don't have the lavatory.

The chi-square test's P-value is less than 0.05, which shows a statistically significant association between wards about the distribution of respondents having lavatories in their household. This information could be used to develop targeted

interventions to improve people's knowledge and understanding of hygiene and sanitation and community health.

4.3 Status of Community Based Health and Sanitation Program

Community based health and sanitation program was initiated in 2 wards of Sunapati RM from April 2017 with funding support from the Pharmaciens Sans Frontieres (PSF) Luxembourg and with the Nepal office of terre des homms (tdh) Germany. In the second phase the project was expanded in adjoining three wards i.e Gunsi, Hiledebi and Bethan of Sunapati RM from January 2020 where the similar problems were prevalent. The project aim is to improve health and sanitation conditions of the marginalized communities through access of safe drinking water, toilet construction, awareness raising and sustainable quality health services at local level.

4.3.1 Beneficiaries of the Program

The main beneficiaries of the program are women, children and youth. Most of the activities are focused on women, children and youth. The program has formed 71 women groups in which 2038 women are affiliated and 65 child club, 7 child club network and 5 youth networks have been formed in the program area. Program has benefited RM health worker including FCHVs and poor and marginalised suffering from suffering from eye illness, uterine prolapse, dental and other health problems.

4.3.2 Areas of Program Intervention

The community-based health and sanitation program has been working mainly followings 5 thematic areas. Thus, program intervention also related to the thematic areas.

i. Ensure access to primary health care,
ii. Improvement of health services
iii. Assist to diagnosis and receive effective treatment
iv. Empowering and capacity building of women, children and youth
v. Awareness raising on issues concerning health, hygiene, reproductive rights and improved nutrition

4.3.4 Carried out Major Activities

It has been found that there are 27 different activities in the program. The Major activities of the program are as follows.

- Women group formation and regular mobilization
- Chil club and child club network formation and regular mobilization
- Youth network formation and regular mobilization
- Capacity building training for women group, child club and youth network
- Training for FCHVs
- Support to establish outreach clinic, community health unit and medicine, equipment and material support
- Promote to Antenatal Care and institutional delivery
- Annual interaction for decentralizing and improving health services
- Commemoration of health-related special day
- Publication of Poster/Pamphlets/ Education Materials/radio program
- Skilled Birth Attendants (SBA) training for health personnel
- Organised Operational Health Camp
- Construction and renovation of existing toilets/urinals, incinerator, drinking water connection, hand washing station and rubbish pits in schools.
- Formation of School WASH-CC
- Drinking water scheme support
- Toilet construction support
- Sanitation campaign and awareness rising
- Conduction of first aid training
- Support to establish medical desk in school
- Kitchen garden promotion and basic nutrition training

4.3.4 Wash Related Intervention

During the period, 71 (2080 members) women groups, 46 (951 member) child clubs and 5 (105 members) youth network has been formed and mobilized regularly. 1080 toilets have been constructed in the program area. 11 Drinking Water Supply Schemes has provided drinking water facilities to the 769 households and 4441 population. The program has supported to construction of

toilets in 16 schools and drinking water with wash station in 7 schools. Regular sanitation campaigns and day celebration related to WaSH have been organised. The program provided the technical supported for prepare the Wash Plan of Sunapati RM level. *(Source: Semi-annual Report, 2023).*

4.4 Program Alignment with SDG-6

4.4.1 SDG-6 and It's Indicator

SDG-6 is about "clean water and sanitation for all". It is one of 17 SDGs established by the United Nations General Assembly in 2015; the official wording is: "Ensure availability and sustainable management of water and sanitation for all."[1] SDG-6 has eight targets. Six will be achieved by 2030, one by 2020, and one with no target year. The six outcome targets include Safe and affordable drinking water; end open defecation and provide access to sanitation and hygiene; improve water quality, wastewater treatment, and safe reuse; increase water-use efficiency and ensure freshwater supplies; implement IWRM; protect and restore water-related ecosystems.

4.4.2 Analysis of Result and Evaluation of SDGs - 6

The project's overall purpose is sustainable improvement in health and sanitation in Sunapati Rural Municipalities in Ramechhap district. From the analysis it was found that the situation of Rural Municipality has improve after the program. Among five indicator of SDGs stated in conceptual framework along with their subcategory project has been found to be working in sector of all of them. One of the indicators of SDGs–6 is achieving universal and equitable access to safe and affordable drinking water for all and it was found that 11 drinking water schemes were constructed and 769 households and 4441 population were benefited. Thus, ensuring that local people has the pure access to drinking water. Further project has contributed in forming 71 (2080 Member) Women Groups, 5 (105 Member) Youth Network and 46 (951 members) Child Clubs along with scheduling regular meeting facilitation in monthly basis among these group which shows the fulfillment of another SDGs–6 planning that is achieving the goals through joint effort and formation of the local groups. This groups worked for the organized sanitation campaigns and conducted training conduction on sanitation.

In term of, sanitation for all another indicator of SDGs-6 project provided material for 1080 household to construct the toilet and 5 toilets were constructed in school too. And the table 5 also shows that among 151 respondents 28 respondents state to have built lavatory only after the program initiation. Thus, it is concluded that the situation has been improved through program and it matches the indicator of evaluation set for SDGs–6 which do support the WASH plans.

4.5 Impact of the Program

During the FGDs and KII, they stated that they had the opportunity to learn new things. They stated that CDS has provided the materials for building toilets, such as pans, pipes, cement. And they stated that almost every household has a toilet that was built during this program. And now they are keen about maintaining hygiene, and they keep their toilets hygienic.

Through the focused group discussions, it was found that most of them store water in an earthen pot and cover it with plates. They Drink boiled water in winter and when someone is sick at home. And the water is mostly used for bathing, washing clothes, irrigation, and drinking. They stated that there has been a great improvement in the field of WaSH after this program. As of now, they have started taking baths, washing clothes at least once a week, and brushing their teeth once in the morning. And the waste is managed by selling the plastic bottles, giving food waste to animals, and burning some of them.

They further stated before that there was a problem of diseases such as diarrhea, stomach aches, and gastroenteritis, which has been under control now to some extent. And they stated that they gained knowledge about the WaSH through group discussions and trainings. And they pointed out the improvement brought by the program in the field of WaSH. Among which: covering the water, regular cleaning the sanitation, washing hands and feet regularly, taking a bath, and cutting nails are some of the major lessons taught during the training.

Both quantitative and qualitative data analysis revealed that community-based health and sanitation programs work on areas related to sanitation and hygiene, such as drinking water, lavatories construction and regular hygiene as soon as they are directly connected to the health. The majority of respondents are generally found to have a good attitude toward the program and to be pleased and content with the advancement that the community-based programs have brought to the municipality.

4.5.1 Lavatory at House of Respondents

Community health programs play a crucial part in the cleanliness and hygiene of the populace and are concerned with the health of the populace. The survey was undertaken to determine if the respondents' homes had toilets or not, and the results are shown below:

Table No. 4.5 Lavatory at House of Respondents

Variables	Frequency	Percent
Yes	143	94.7
No	8	5.3
Total	151	100.0
Mean	0.05	
Standard deviation (S.D)	0.225	

Source: Field Survey, 2023

Table no. 5 shows among 151 respondents' maximum number of respondents: 94.7% has the lavatory in their household while only 5.3% respondents do not have lavatory in their household. The average ratio of it is 0.05 and standard deviation is 0.225. This shows values of data spread over the larger area.

4.5.2 Construction of Lavatory Before and After the Program

It was investigated whether a lavatory was built before or after the program for measuring the level of awareness in order to determine the success of the program, and its data is shown below:

Table No. 4.6 Construction of Lavatory Before and After the Program

Variables	Frequency	Percent
After facilitation of project	28	18.5
Before start of the project	115	76.2
Total	143	94.7
Mean	1.80	
Standard Deviation (S.D)	0.398	

Source: *Field Survey, 2023*

Table no. 4.6 shows that among 143 respondents out of 151 the maximum number of respondents: 76.2% already had the lavatory in their household before the facilitation of the program which shows that respondents were already aware of hygiene and the 28 respondents state to have build lavatory only after the facilitation of the project which is 18.5%. The 5.3% respondents still do not have the lavatory in their house which shows more awareness and information about the necessary of lavatory for maintain hygiene is necessary as community health is directly associated with the proper hygiene and surrounding environment. The average mean ratio: 1.80 is greater than standard deviation which shows the data are closure to the mean.

4.5.3 Sources of Drinking Water

The use of hygiene, which is essential to preventing not just acute respiratory infections and several neglected tropical diseases, but also diarrheal disorders, is made easier by access to safe and sufficient water. As a result, the researcher examined this connection between the source of drinking water and community health in this work. Additionally, the information on the respondents' source of drinking water is shown in the table below.

Table No. 4.7 Source of Drinking Water

Variables	Frequency	Percent
Open River	30	19.9
Tap	119	78.8
Other	2	1.3
Total	151	100.0
Mean	1.81	
Standard Deviation (S.D)	0.423	

Source: Field Survey, 2023

The table no 4.7 shows the sources of drinking water used by the respondents. And among 151 respondents majority of them that is 119 (78.8%) respondents are found to use tab water for drinking purpose whereas 30 (19.9%) respondents using water from from river for drinking. And 2 (1.3%) respondents using the other sources of drinking water such as well. The standard deviation: 0.423 is lesser than average mean ratio which shows data are closure to the value of the mean.

4.5.4 Testing the Quality of Drinking Water

Depending on the state of the water sources from which it is derived and the treatment it receives, drinking water quality differs from location to location. Additionally, it is important to evaluate the water's purity before consuming it because toxins could be present that could cause health problems like gastrointestinal illnesses, neurological disorders, and more. The table below indicates whether or not the respondents' sources of drinking water had their water quality inspected.

Table No. 4.8 Testing the Quality of Drinking Water

Variables	Frequency	Percent
Yes	94	62.3
No	57	37.7
Total	151	100.0
Mean	0.62	
Standard Deviation (S.D)	0.486	

Sources: Field Survey, 2023

The table above shows whether the drinking water was tested or not before the consumption by the respondents. And it shows that maximum of respondents that is 62.3% stated that testing of water quality was done while 37.7% respondents stated that the test was not conducted. In SDG-6 the world has set goal for ensuring clean water and sanitation as water is crucial to one’s health. Though results shows majority of respondents have tested it but still 37.7% respondents are deprive of it so, the community should carry out testing of water in such houses soon in ensure everyone has access to clean water. The average mean ratio is 0.62 which is greater than the standard deviation which is 0.486.

4.5.5 Practice of Taking Bath

The bathing helps to reduce the pain and inflammation and also calm nervous system reducing the levels of stress and anxiety. From this it can be staed that bath is inter-connected to the community health. Thus, the data of bathing schedule of the respondents was studied and has been presented in the table below:

Table No. 4.9 Practice of Taking Bath

Variables	Frequency	Percent
Daily	3	2.0
Once a week	140	92.7
Over the weekend	8	5.3
Total	151	100.0
Mean	2.03	
Standard Deviation (S.D)	0.269	

Source: Field Survey, 2023

The table above shows that among 151 respondents' majority of the respondents which is 92.7% respondents have the practice of taking bath once a week followed by 5.3% respondents taking bath over the weekend. While, 2.0% respondents taking bath on daily basis. It shows that people are still unaware the importance of taking bath to maintain good health as many doctors states one should at least take bath two or three times a week to maintain health and hygiene. The standard deviation: 0.269 is lesser than the average mean ratio: 2.03 which shows that datas are closure to the average values.

4.5.6 Method of Disposal of Waste Materials

The production of trash and its disposal are crucial for maintaining human health. Additionally, inappropriate waste generation and management may have a negative impact on people's health. As a result, the manner of trash disposal was a focus of this study, and the respondents' responses are shown below:

Table No. 4.10 Method of Disposal of Waste Materials

Variables	Frequency	Percent
Pit	35	23.2
Open space	79	52.3
Burning	37	24.5
Total	151	100.0
Mean	2.01	
Standard Deviation (S.D)	0.693	

Source: Field Survey, 2023

The table above shows among 151 respondents' majority of respondents which is 52.3% dispose the waste in open space. Followed by 24.5% respondents digging pit for waste disposal while 23.2% respondents are used to burning the waste. The average mean ratio is greater than the value of the standard deviation in the table given.

4.5.7 Decrease in the Number of Patients After the Program

The community health program mainly focused on the community health of Sunapati municipality in relation to the drinking water, lavatory and regular hygiene. And to analyse its effectiveness it was tested whether number of patients suffering from health issues caused by improper maintenance of sanitation has decreased or not. And the table below shows response taken from respondents about it.

Table No. 4.11 Decrease in the Number of Patients After the Program

	Frequency	**Percent**
No changes	4	2.6
Little changes	29	19.2
High changes	118	78.1
Total	151	100.0
Mean	2.75	
Standard Deviation (S.D)	0.489	

Source: Field Survey, 2023

The table above shows among 151respondents majority of the respondents which is 78.1% respondents stated that they have seen the significant decrease in the number of patients after the community health program while 19.2% respondents claimed to have seen the little changes. While, 2.6% respondents stated there was no changes. The analysis shows that the community health program has been effective and it has been the improvement in the health of the citizens living in Sunapati Municipality. As seen in the table, the average mean ration is 2.75 which is greater than standard deviation.

4.5.8 Helpfulness of Program to Community Health Improvement

The participants and respondents to this study were found to be keen observers of the activities undertaken during the community health program. The table below shows the respondents' real level of satisfaction with the function of programs in community development. The respondents viewed the role of programs to be extremely fascinating and positive.

Table No. 4.12 Helpfulness of Program to Community Health Improvement

Variables	Frequency	Percent
Not helpful	2	1.3
Little helpful	32	21.2
Very helpful	117	77.5
Total	151	100.0
Mean	2.76	
Standard Deviation (S.D)	0.458	

Source: Field Survey, 2023

The table above shows that among total number of respondents majority of respondents which is 77.5% have found the program very helpful for the improvement of the community health and 21.2% respondents found it little helpful. While, 1.3% respondents found the program of no help. The standard deviation is less then the average mean ration in the given table.

4.5.9 Construction of Ward-wise Lavatory

The cross-tabulation test was performed to determine the distribution of respondents by ward and the proportion of those who had built lavatories before and after the facilitation of the program. The details of the data is shown in the table below:

Table No. 4.13: Construction of Ward-wise Lavatory

Wards		When did you build lavatory?				Total
		After facilitation of project	Percent (%)	Before start of the project	Percent (%)	
Ward no	1	0	0	31	100	31
	2	6	20	24	80	30
	3	21	67.74	9	32.26	30
	4	3	10	27	90	30
	5	6	20	24	80	30
Total		36		115		151

P = 0.000

Table 4.13 shows the distribution of the total number of respondents having lavatories in the five wards of Sunapati Municipality. The table shows the majority of respondents had built lavatories before the project, which is 151 respondents. And among them, 100% respondents are from Ward No. 1. Followed by 90% and 80% respondents from Wards 4, 2 and 5, respectively. Likewise, 32.26% respondents are from ward 3. The chi-square test shows a P-value less than 0.05, which shows a statistically significant association between Wards and the construction of the lavatory.

4.5.10 Respondents by Age Group vs Source of Drinking Water

The cross-tabulation test was performed to determine the distribution of respondents by age group and the proportion of respondents'source of drinking water. The details of the data is shown in the table below:

Table No. 4.14 Respondents by Age Group vs Source of Drinking Water

Age group	From where do you get drinking water?			Total
	Open River	Tap	Other	
Lower than 30	3	16	0	19
31 - 40	10	35	0	45
41 - 50	7	30	1	38
51 - 60	9	19	1	29
Above 60	1	19	0	20
Total	30	119	2	151

P = 0.400

Table No. 14 shows the categorization of respondents' age groups and the distribution of the total number of respondents according to the source of drinking water used by them. The table shows the majority of respondents in the age group 31–40, which is 35, use tab water, followed by respondents in the age group 41–50, which is 30. Likewise, 19 respondents from each age group use tap water. While 10 and 9 respondents from age groups 31–40 and 51–60 use open rivers, while two respondents in the age groups 41–50 and 51–60 use other sources of drinking water as well, the chi-square test shows a P-value greater than 0.05, which shows there is no statistically significant association between age group and source of drinking water.

CHAPTER - FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents a summary of the findings, a conclusion, and some recommendations for mitigation measures for the research region, local groups, and government authorities.

5.1 Summary of Findings

The majority of the respondents (66%) are taken from economically active age groups 31–40 and 41–50, which is 29.8% and 25.2%, respectively, for the study. An almost equal number of respondents were taken for study, that is, 30 (19.9%) respondents from wards 2 to 5 and 20.5% respondents from ward 1.

The maximum number of respondents: 94.7% have a lavatory in their household, while only 5.3% don't. Among the 143 respondents who had a lavatory in their house, 76.2% had the lavatory before the facilitation of the program, while 18.5% respondents built it after the facilitation of the program. The majority of respondents, which is 78.8%, are found to use tap water for drinking purposes, whereas 19.9% respondents use water from rivers for drinking. And 1.3% respondents used other sources of drinking water as well.

It was found that the maximum number of respondents, which is 62.3%, stated that testing of water quality was done, while 37.7% respondents stated that the test was not conducted. The 92.7% respondents have the practice of taking a bath once a week, followed by 5.3% respondents who take a bath over the weekend. while 2.0% respondents take a bath on a daily basis. The majority of respondents, which is 52.3%, were found to dispose of the waste in open space. Followed by 24.5% respondents digging pits for waste disposal, while 23.2% respondents are used to burning the waste.

The majority of respondents, 118 (78.1%), stated that they had seen a significant decrease in the number of patients after the community health program, while 19.2% claimed to have seen little changes. while 2.6% respondents stated there were no changes. The 77.5% respondents found the program very helpful for the improvement of community health, and 21.2% respondents found it little helpful. while 1.3%

respondents found the program of no help. The chi-square test's P-value is less than 0.05, which shows a statistically significant association between wards about the distribution of respondents having lavatories in their household. This shows there is a gap in respondents between five different wards and their practice of building laboratories.

The overall assessment of community-based programs has been found to be satisfactory. As it has brought improvements in the sectors of health, hygiene, sanitation, and drinking water. The result of the quantitative analysis was found to be equivalent to the result generated through the focus group discussion with the Mahila Samuha of the five wards of Sunapati Municipality.

5.2 Conclusion

A community-based health and sanitation program is defined as the empowering women and children to increase the access on health facilities and improve the condition of sanitation. With the addition of health education, a safe water supply, sanitation facilities, and the provision of necessary medical supplies, activities are proposed in a total of eight areas.

In this study, five wards of Sunapati RM were taken as the population and 151 respondents as the sample size. Through the study, it was found that people are aware of hygiene and sanitation. Most respondents have lavatories, and the majority of respondents use tap water for drinking purposes. It is the right of everyone to have access to clear drinking water and sanitation, as SDG-6 targets to ensure "availability and sustainable management of water and sanitation for all" (“SDG 6 Synth. Rep. 2018 Water Sanit.,” 2018).

Likewise majority of respondents were found to not take bath frequently which is necessary for proper health as study has shown, “daily immersion bathing, suggesting systemic improvement of metabolism by taking an immersion bath” (Goto et al., 2018).

Through the study, it was found that most of the people have seen changes and improvements in community health, along with hygiene and sanitation, after the community-based health and sanitation program of Sunapati RM of Ramechhap, Nepal. And the program has been found to be effective in improving health and

sanitation status since launching the project. As the analysis and examples in this report have demonstrated, a wide array of factors influences a community's health, and many entities in the community share responsibility for maintaining and improving its health. And it was found that the changes have come with the improvement in the field of sanitation and drinking water as stated or aimed in SDG–6.

5.3 Recommendations

On the basis of field study and findings of the study the following relevant recommendations are made:

i. Community-based health and sanitation programs should design its own set of explicit, concrete quantitative performance indicators that align with SDGs, national priorities and goal of RM.
ii. CDS should strike a balance between the strategic potential for long-term health development and the target set by SDG-6, the effect of which can be observed quickly. CDS appeared to be using the same tactics in all five wards to maintain community health, but there is a difference between wards and management. Before formulating and implementing any health-improvement strategy, CDS should first assess the state of health in each ward.
iii. As previously stated, community coalitions guiding CDS should strive for strategic inclusiveness, incorporating individuals, groups, and organizations interested in health outcomes, who can take actions to improve community health, or who can contribute data and analytic capabilities required for performance monitoring.

REFERENCES

Annual Report, (2022). Community Development Society, Manthali, Ramechhap District, Nepal. https://www.cdsramechhap.org.np

DOHS/MOHP, (2019). Department of Health Services, Annual Report 2020/21. Fresenius.Com, 78 (December), 2–2. https://sec.gov.gh/wp-content/uploads/Annual-Reports/2019-Annual-Report.pdfFF

Fadul, M.F. (2019). Nepal Demographic Health Survey Key findings. NDHS Survey Key Findings 2022

Government of Nepal. (2020). National Health Sector Strategy 2015-2020. Ministry of Health and Population. Kathmandu, Nepal.

Government of Nepal. (2015). The Constitution of Nepal. www.lawcomission.gov.np

Hu, R., Liao, Y., Du, Z., Hao, Y., Liang, H., & Shi, L. (2016). Types of health care facilities and the quality of primary care: A study of characteristics and experiences of Chinese patients in Guangdong Province, China. BMC Health Services Research, 16(1), 1–11.

Khan, M. S., Mansour, M. A. A., Khadar, S. D. A., & Mallick, Z. (2020). Evaluating healthcare performance using fuzzy logic. *South African Journal of Industrial Engineering*, *31*(1), 133-143.

Marasini, B. (2020). Health system development in Nepal. *JNMA: Journal of the Nepal Medical Association*, *58*(221), 65.

Devlin, K., Egan, K. F., & Merchant, H. F. (2015). Nepal ' s Community-based Health System Model : Structure , Strategies , and Learning. *Advancing Partners and Communities, December*, 1–8.

Goto, Y., Hayasaka, S., Kurihara, S., & Nakamura, Y. (2018). Physical and Mental Effects of Bathing: A Randomized Intervention Study. *Evidence-Based Complementary and Alternative Medicine*, *2018*. https://doi.org/10.1155/2018/9521086

Mckenzie, J. F., Pinger, R. R., & Kotecki, J. E. (2016). An Introduction to Community

Health. In *Jones and Barlett* (Vol. 5, Issue April). https://cran.r-project.org/doc/Rnews/

Ministry of Health and Population. (2010). *National Female Community Health Volunteer Program Strategy Unoffi cial Translation Ministry of Health and Population Department of Health Services Family Health Division*. 28. https://www.advancingpartners.org/sites/default/files/nepal_national_female_chv_program_strategy.

Reinholz, D. L., & Andrews, T. C. (2020). Change theory and theory of change: what's the difference anyway? *International Journal of STEM Education*, *7*(1).

Sachs, J., Schmidt-Traub, G., Kroll, C., Durand-Delacre, D., & Teksoz, K. (2016). SDG index & dashboards: A global report. Gütersloh: Bertelsmann Stiftung.

Sarmah, H. K., & Hazarika, B. B. (2012). Importance of the Size of Sample and its Determination in the Context of Data Related to the Schools of Greater Guwahati. *Bulletin of the Gauhati University Mathematics Association*, *12*(1), 16.

SDG 6 Synthesis Report 2018 on Water and Sanitation. (2018). In *SDG 6 Synthesis Report 2018 on Water and Sanitation*. https://doi.org/10.18356/e8fc060b-en

Shrestha, A., Sharma, S., Gerold, J., Erismann, S., Sagar, S., Koju, R., Schindler, C., Odermatt, P., Utzinger, J., & Cissé, G. (2017). Water quality, sanitation, and hygiene conditions in schools and households in dolakha and ramechhap districts, Nepal: Results from a cross-sectional survey. *International Journal of Environmental Research and Public Health*, *14*(1).

Subedi, L., Regmi, M. C., & Giri, Y. (2018). Assessment of Community Based Health Insurance in Sunsari District. *Kathmandu University Medical Journal (KUMJ)*, *16*(61), 53–59.

WHO. (2016). Community-based Health Services: A Vital Part of Universal Health Coverage. *SEARO Technical Consultation Seminar*, 1–16.

WHO Result Report. (2020). In *World Health Organization - Technical Report Series: Vol. No.558*.

Annex-1

House Hold Survey Form-2023

Date:

1. Brief Information of Respondent

Name: ……Age:…….. Gender:…… Ethnicity:……..

Address:……Rural Municipality, Ward No ……. House No……

District:…….. Province:……..Occupation:……Contact No……...

Relation of Respondent with Head of the House:……

2. Brief Demographic Information of Family

a) Female:…….. b) Male:…… c) Total ……...

d) Name of Househead:…… e) Sex :……

3. Educational Status of Family

S.n.	Education Level	Male	Female	Total	Remarks
1	Unable to read and write				
2	Able to read but not write				
3	Primary Level (1-5)				
4	Basic Level (6-8)				
5	Secondary Level (9-12)				
6	University Level (Bachelor and More that it)				
7	Child below school age				

4. Economic Status of Family

a) What is the main income source of your family? Please mark the (¯) in appropriate answer.

S.n.	Source of Income	Sign (¯)
1	Agriculture	
2	Government Job	
3	Private Job	
4	Foreign Employment	
5	Business	
6	If any …….	

b) What is the annual income of your family?

S.n.	Source of Income	Income in Figure (NRs)
1	Agriculture	
2	Government Job	
3	Private Job	
4	Foreign Employment	
5	Business	
6	If any …….	

c) How long is your agriculture production last for your family?

S.n.	Source of Income	Sing (¯)
1	Up to 3 Months	
2	4-6 Months	
3	7-9 Months	
4	10-12 Month	
5	More than 12 Month	

6. Subjective Description (Please marks (¯) in appropriate answer.

6.1 Do you have toilet or not?

a) Yes b) No (If answer is no sift to the question 6.9)

6.2 When was the toilet build?

a) Before the project start b) After the project facilitation

6.3 Did you get any support for the toilet construction?

a) No, self-contribution b) Project c) If any mention the name ……

6.4 Did you get any support for the toilet construction?

a) Regular (Dailly) b) Sometime c) Not special

6.5 Do you use the soap after using the toilet?

a) Yes b) No c) I have no idea (If the answer is c than sift question no 6.7)

6.6 How do you know to wash the hand after using the toilet?

a) Yes b) Learn from the project c) Radio/TV/social media

6.7 Please observe the toilet condition and choose the answer given bellow.

a) Water availability & use b) No use of water c) Use of Herpec/Soap/Brush

6.8 How is the condition of the toilet? Observe the toilet and choose the answer given bellow.

a) Water available & use b) No use of water c) Use of Herpec/Soap/Brush etc

6.9 How much toilet benefited?

a) Very much b) Satisfactory c) Not so more

6.10 If using tap for drinking water, from when using the Tap?

a) Very much b) Satisfactory c) Not so more

6.11 Who has helped to build the Tap?

a) By project b) Community themselves c) Local Government d) If any ……..

6.12 Observe the drinking water scheme/Tap and select the given option?

a) Very good b) Satisfactory c) Not good

6.13 How often do you clean the water tank?

a) Regular b) Sometime c) Rarely

6.14 Have you tested the water quality to see if it is potable?

a) Yes b) No

6.15 How do you purify water?

a) Use of Filter b) Use of medicine c) Sodish method d) No method

6.16 Do you cover the water at home?

a) Yes b) No

6.17 How often do you Bath?

a) Dailly b) Weekly c) A week later

6.18 Do you brush regularly?

a) Yes, regularly b) Sometime c) No

6.19 When from you brushed the teeth?

a) From past b) After project c) No Idea

6.20 Do you cut nails or not?

a) Regularly b) Sometime c) Rarely

6.21 How do you manage the waste?

a) Burning b) Cow shade c) Garbage pit d) Open

6.22 How much have water related diseases reduced after the project?

a) Very much b) A little c) Not more

7. What benefits did you get from this project?

a) Financially b) Socially c) Health d) Sanitation e) Treatment

8. How much benefits in community health have you feel since starting the project?

a) Very much b) A little c) Not more

9. How important do you and your community consider this project?

a) Very much b) A little c) General

10. Can you continue the activities after project is completed?

a) Yes, we can b) A little c) General d) No

Thanks.

Annex-2

(Guideline for Key Informant Interview (KII)

Date:

1. Information of Key Informant

Name: …… Age:…….. Gender:…… Ethnicity:……

Address:……Rural Municipality, Ward No ……. House No……...

District:…… Province:……Occupation:…… Contact No……

Office:…….. Designation ……

2. Questions

2.1 What do you know about health and sanitation project run by the CDS? Please explain based on your knowledge.

2.2 Do you know what kind of major activities related to health and sanitation were conducted through the project?

2.3 What are the major improvements brought by the project in the health and sanitation sector?

2.4 How this project contributed the development of RM and SDG-6? Explain.

2.5 What changes have you seen in knowledge, attitude and behaviour in the health and sanitation sector?

2.6 What would have been better if this project was done in the health and sanitation sector?

Thanks.

Annex-3

(Guideline for Focus Group Discussion (FGD)

Date:

1. Group Information

Group's Name: …….

Address:……Rural Municipality, Ward No ……. Settelment…….....

Formed Date:…… Member……Female:…… Male:…….

2. Guideline for Discussion

2.1 Information related to the project

2.2 Received support from the project

2.3 Is there toilet or not, date of construction, support from the project etc.

2.4 Practice of defecation before the toilet facilities.

2.5 Condition of toilet, cleanliness, schedule and method used for cleaning.

2.6 Hand washing practice after defecation, knowledge and source of knowledge.

2.7 Source of drinking water, condition of schemes, repair and maintenance system, practice of water test and treatment.

2.8 Practice of water use in house, water purification practice, advantage,

2.9 Condition of personal hygiene.

2.10 Practice of waste management

2.11 Illness of water related disease, comparison with before and after the project intervention, major illness.

2.12 Source of knowledge related to health, hygiene and sanitation

2.13 Positive changes related to knowledge, attitude and behaviour

2.14 Area of improve and suggestion for the project

Thanks

Annex-4

(Observation Checklist)

a) Related to Drinking Water Schemes

Date:

S.n.	Name of Scheme	Address	Checklist														
			Condition of Spring/Intek			Condition of water tank			Condition of Tap and surroundings			Condition of Maintenance Fund			Condition of Maintenance Policy		
			Highly Satisfactory	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**

b) Related to School Toilet and Drinking Water Facilities

Date:

S.n.	Name of Scheme	Address	Checklist														
			Condition of water tank			Condition of tap and surroundings			Condition of toilet			Waste management practice			Condition of Personal hygiene		
			Highly Satisfactory	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**

C) Related to School Toilet and Drinking Water Facilities

Date:

S.n.	Name of Scheme	Address	Checklist														
			Condition of water tank			Condition of tap and surroundings			Condition of toilet			Waste management practice			Condition of Personal hygiene		
			Highly Satisfactory	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**	**Highly Satisfactory**	**Satisfactory**	**Not Satisfactory**

PHOTO GALLERY

Photograph of Group Meeting of Swastha Mahila Samuha

Photograph of Group Meeting of Swastha Mahila Samuha

Photograph of Water Tank Consturcted by the Program

Photograph of Water Tap Consturcted by the Program

Photograph of Water Tap Consturcted by the Program

Photograph of School Toilet Consturcted by the Program

A Wash Station at School Consturcted by the Program

Photograph of Distribution of Hygine Material by the Program

Photograph of Sanitation Activity Initiated by Mahila Samuha