HOLISTIC IMPACT POSED ON BEHAVIOR CHANGE AFTER HYGIENE AND SANITATION INTERVENTION IN LIMITHANA VDC, PARBAT DISTRICT

PROJECT WORK

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Acronyms/Abbreviations

BSC	Basic Sanitation Package
CDRF	Chautarfi Development Resource Forum
CGD	Child, Gender and Differently-abled
CHSAC	Community Hygiene & Sanitation Action Committee
CLTBC	Community-Led Total Behavioral Change
CLTS	Community-Led Total Sanitation
DACAW	Decentralized Action for Children and Women
DDC	District Development Council
DWIG	District WASH Program Implementation
DWSS	Department of Water Supply and Sewerage
FCHV	Female Community Health Volunteers.
FGD	Focus Group Discussion
GoN	Government of Nepal
INGO	International Non-Government Organization
IRC	International Water and Sanitation Centre
IWA	International Water Association
MDG	Millennium Development Goals
NGO	Non-Government Organization
NSAW	National Sanitation Action Week
ODF	Open Defecation Free
PRA	Participatory Rural Appraisal
RWSSP-WN	Rural Water Supply and Sanitation Project -Western Nepal
SDA	Small Doable Actions
SLT	School Led Total Sanitation
SPSS	Statistical Package for Social Science
SSHE	School Sanitation and Hygiene Education
UNICEF	United Nations Children's Fund
VDC	Village Development Committee
VWASHCC	Village Water & Sanitation Hygiene Co-ordination Committee
WASH	Water Sanitation and Hygiene
WHO	World Health Organization
WSP	Water Supply Project
WUC	Water User's Community

Abstract

This paper explores the holistic impact of the most important hygiene practices on behavior change after project intervention in Limithana VDC of Parbat district which sounds simple on hearing but it is actually a complex goal to accomplish. True said Rome was not built in a day. Likewise, behavior change also cannot take place in a day. It takes time and rigorous commitment of concerned people.

WASH is an exemplary advent of DDC Parbat in Limithana VDC. Until DDC Parbat had intervened WASH and worked smoothly on ODF declaration along with dissemination of effective information on hygiene and sanitary behaviors, people in Limithana would never feel the need and importance of sanitation. They would have never known the comparative advantages of central hygiene and sanitary conduct and they would have never started washing hands at all critical times, practicing five key hygiene behaviors to remain happy and healthy, having and using toilets, safe disposal of solid and liquid wastes, storing drinking water safely etc that have a major health impact in human's life.

Nevertheless, every project equally does possess both the cons and pros relating to its impact. Still there are many more complications which Limithana dwellers will have to vigorously overcome to head towards 'Community Led Total Behavior Change'.

From the interview with 60 respondents, focused group discussion with government structure at local level i.e. CHSAC and VWASCC followed by observation at households and various institutions of Limithana VDC, the concrete finding is that the triggering process aimed towards accelerating local mobilization and facilitation of community for collective decision-making to implement sanitation and hygiene activities is creditable attempt of DDC in support from RWSSP-WN to add up milestone in the development of Limithana VDC. As such it has beyond doubt led to the gradual improvement on behavior change of people and has played a significant role in creating positive environment at its best to ensure wellbeing of the Limithana pepol

Holistic Impact posed on Behavior Change after Hygiene and Sanitation Interventions in LimithanaVDC, Parbat District

Chapter-I

Introduction

1.1 Background

Behavior change regarding sanitation and hygiene still pertains to be the complex entity that has been extensively focused by many nations and continues to be of great concern even today. Poor hygiene practices and random open defecation by the majority of people in countryside has been the causal factors to spread disease and infection through the fecal oral route and bacteriological contamination of water sources thus, leading to the most serious environmental threats to the public health (Water and Sanitation Program, 2007). More importantly, an insufficient access to hygiene and sanitation has been recognized as one of the major hindrances to disease free health of the people. Thousands of children die every day from diarrhoeal diseases alone and a large proportion of diarrhoeal disease in the developing countries is due to poor water supply, sanitation and hygiene i.e. (WASH)-related diseases (UNICEF, 2003). Millions more people continue to suffer ill-health, missed educational opportunities, lost productivity, indignity, and environmental degradation, with the burden falling significantly on the poor and vulnerable communities with children, women and girls at utmost.

1.1.1 Global Hygiene and Sanitation Scenario

Around 2.5 billion people, almost two fifths of the world's population, do not have access to adequate sanitation. Over 880 million people, roughly one person in eight, do not have access to safe water (Sanitation and Water Conference Melbourne, 2008). Hence, the meticulous approach to WASH (Water, Sanitation and Hygiene) as a fundamental underpinning to achieving the Millennium Development Goals (MDGs) has been advocated by many formal health services, NGO's, INGO's, local government and the international community for so long. Today, the reality however is that many developing countries still reach only a proportion of these necessities. This is because of the limitations imposed by an inadequate level of awareness,

poverty, carelessness, and an insufficient level of decentralization to ensure adequate access to safe drinking water, hygiene and sanitation requirements and a paucity of proper utilization of locally available human and financial resources. To solve these problems in the Health and Sanitation sector, adequate efforts to prevent open defecation through Community Led total behavior change in hygiene and sanitation followed by rapid construction of sanitary toilets, it's appropriate usage and education relating to five key hygiene behaviors are being carried out as effective tools in many countries. In fact, they are also the actual means to reaching the national target and Millennium Development Goals elsewhere in all the Least Developed countries (Sanitation drive, 2015).

1.1.2 In the context of Nepal

An organized effort for sanitation promotion dates back to the 1980s along with the United Nations (UN) declaration of the International Decade of Drinking Water Supply and Sanitation. Since then, promotion of sanitation has been taking place as an integral component of water supply projects. Major effort on sanitation is found to have started from the early 90s. In 1987, UNICEF partnered with the Department of Water Supply and Sewerage (DWSS) to design and implement a water supply and sanitation program. Then, in 1994, the Nepal Government formulated sanitation policy that aimed to promote sanitation throughout the country (SACOSAN IV, 2011).

After a number of efforts which were made in the sector, a national baseline survey of 1994 reported increased latrine coverage of 12%. That compares to 6% latrine coverage in 1990. In 1998, a national level sanitation steering committee was established bringing together government agencies, donors, international governmental organizations (INGOs), non-governmental organizations (NGOs), and relevant organizations. In the succeeding year, a Basic Sanitation Package (BSP) was developed and implemented in most water supply districts of Nepal. Since 2000, National Sanitation Action Week (NSAW) and School Sanitation and Hygiene Education (SSHE) programmes were introduced. Both programmes are generating good results in the hygiene and sanitation sector. In the recent years, sanitation has been recognized as the basis of health, dignity and development (Water Aid and IRC International Water and Sanitation Centre, 2008).

However, Nepal is experiencing widespread open defecation and poor sanitation problems in most of its rural villages until now. Interrupted behavioral change of people regarding health, hygiene and sanitation is not only closely related to the question of security of health but remains the biggest development challenge to meet the national target of 100% sanitation coverage by 2017.

Despite the gradual achievements in sanitation, still 57% of the country's population lacks access to a toilet. A gap of 37 % between people's access to water supply (80.4%) and sanitation (43.04%) facilities stands as a big challenge in achieving the perceived health benefits from water supply and sanitation services. Nepal has to achieve at least 53% toilet coverage by 2015 to meet the sanitation Millennium Development Goal (MDG). The trend of toilet coverage indicates that Nepal will attain the MDG but it needs pragmatic vision, operational strategies, strengthened institutional arrangements, adequate resources and stakeholders' collaborative efforts to achieve the national goal of universal toilet coverage by 2017 (GoN, 2011).

The present sanitation coverage in one-third of 75 districts of Nepal is even less than 20%. The coverage amongst the rich people is 80% whereas it is just 12% amongst the poor. Similarly, the coverage in rural areas is 21% and 53% in urban areas. Among the public and community schools, only 41% of them have toilet facilities. This percentage indicates that it has serious consequences for Nepal which has been bearing the loss of some Rs.10 billion annually in terms of public health expenses ultimately leading to poverty in Poor rural villages (GD Nepal, 2010).

- **Rural Water Supply and Sanitation Project-Western Nepal:**

RWSSP-WN is a rural water supply, sanitation and hygiene sector support-program funded by the Government of Nepal and Finland in mutual support and contributions of local body and community which is committed to support the Government of Nepal holding budget of approximately 14 million Euros. It has been working rigorously in 9 districts of Western Nepal to provide those district's dwellers with the basic level of water supply and sanitation services by the year 2017. The project period is for four years from 2008 until 2012.

1.1.3 DDC's intervention in Limithana VDC: An overview

Limithana VDC, one of the WASH project implemented VDCs of Parbat district in Western Nepal. ~~which has been carrying out WASH activities over here.~~ RWSSP-WN is rigorously supporting the WASH unit/DDC Parbat in planning, monitoring and supervision of WASH activities in the VDC. Also, NGO namely, Chautarfi Development Resource Forum, CDRF-Nepal, Parbat, is actively working as a service provider hired by DDC to support DDC/VDC and community in implementing the WASH program in Limithana VDC.

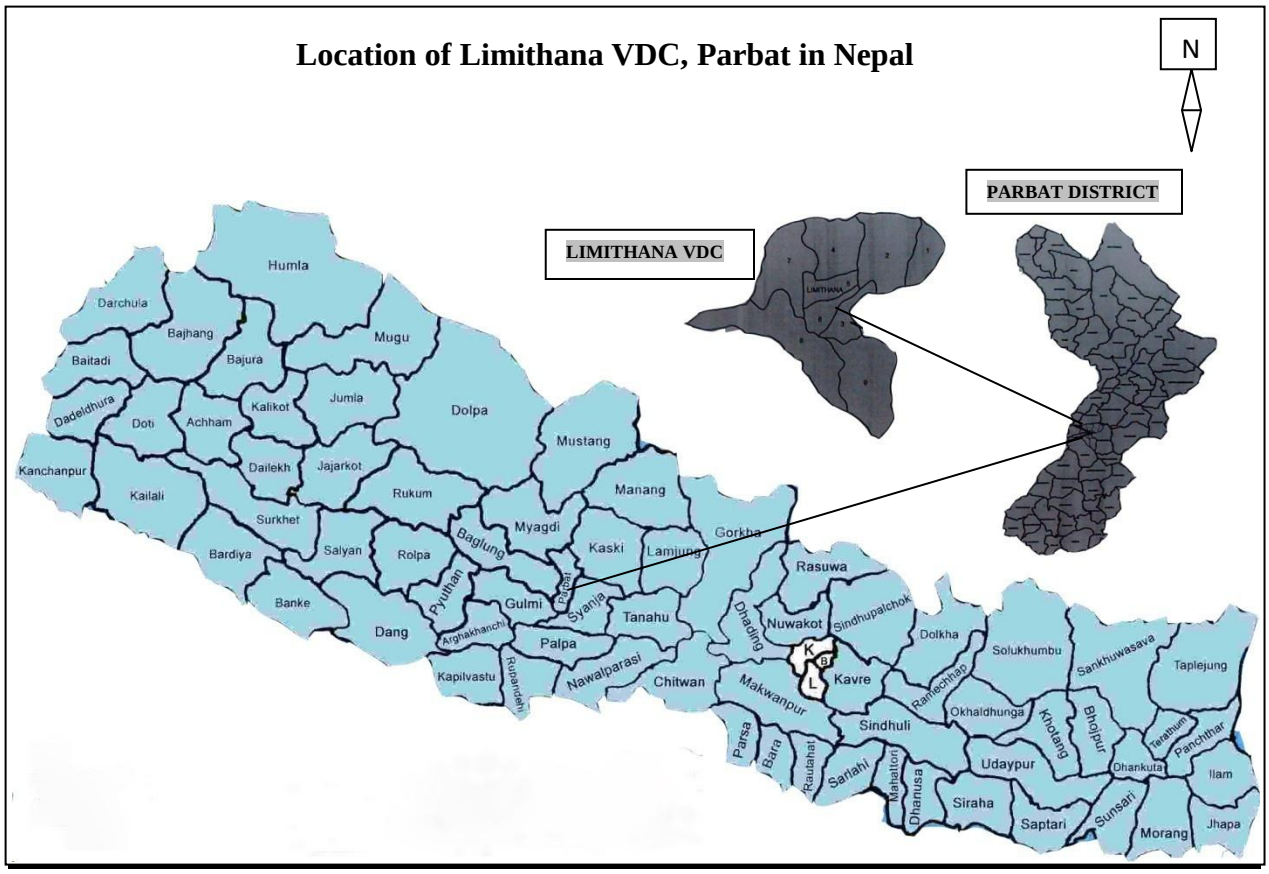

Figure 1: LOCATION OF LIMITHANA VDC IN MAP OF NEPAL (Source: DDC Parbat)

1.1.4 Project Area: Limithana in general

Limithana is one amongst the poor rural 55 VDCs in Parbat district of western Nepal having an incongruous WASH situation. Parbat district is a part of Dhaulagiri zone and the smallest hilly area that covers total area of 536.86 sq Km. (778.30 ha) from North to South of Western Development Region. Limithana VDC is situated in the central Southern Part from district headquarter Kushma in between latitude 28˚08'00" to 28˚08'53"north and longitude 83˚08'53"to 83˚40'50"east. It has 9 Wards with total households 384 and its VDC office is positioned at Ward No. 5. The entire administrative work of this VDC is being run by VDC office itself. The VDC is surrounded by Thanamaula VDC in the east, some part of Kurgha and Devisthan VDCs in the west, Khanigaon VDC in the north and Kurgha VDC in the south. It is located 700 meter from mean sea level to 1,068 meters that's why both, the sub-tropical and temperate climate is found in this VDC. This VDC consists of 384 households with total population 2176 (1103 female and 1073 male) with majority of Brahmin and Chhetri settlements (DDC: Household survey, F/Y 2010/2011).

According to the political division of Nepal, Limithana VDC is located in Illaka No. 7 of election sector No. 2 of Parbat district. Out of its total land area, Cultivable land is 116 ha with 127 ha Pakhobari land and 176 ha grazing land. Subsistence agriculture and livestock farming are the major occupations of people residing in Limithana VDC. Majority of people here are still living below poverty line.

Limithana VDC which was recognized as poor from health and sanitation point of view few years back has achieved significant changes after water, sanitation and hygiene interventions (WASH, 2010). It is important to note that, this VDC has already been declared an ODF in June, 2010. However; there are still 18 households in Dalit community who still use temporary toilet (direct pit) to defecate. The sanitation and hygiene behaviour of people residing here is still contradictory. Most of the households still do lack access to safe drinking water. In such situation, an effort to declare this VDC as VDC having Community Led Total Behaviour Change (CLTBC) soon in the near future has further stood here out as the unique challenge before local government bodies (DDC, VDC), RWSSP-WN, CDRF, Limithana dwellers, facilitators and stakeholders.

1.2. Statement of the Problem

Nepal is categorized as least developed country having low human development index in the world. Basically in rural villages which cover majority population of a country like Nepal, people are still compelled to live a life as those in 'Stone Age' because over the years, these people have been practicing open defecation in jungle, behind bushes, in fields, plastic bags and ditches.

In such circumstance, these poor rural people are not only experiencing key problems like poor sanitation, health hazards, environmental degradation coupled with inadequate access to basic toilet, but these problems have been subsequently the primary causes behind incidence of terrible water-borne diseases like diarrhea, cholera etc. This has been killing children in even more numbers every year followed by high mortality and morbidity in today's rural Nepal, a major hindrance to development. To overcome all these problems, the country should focus its especial attention to carrying out effective course of measures on addressing them bit by bit.

The persisting problem of poor hygiene behavior, drinking water problem, open defecation in remote areas of the country clearly shows that the demand overwhelming the need of awareness campaign, community active participation, sustainable project intervention, people's willingness towards behavior change and commitment to national target. Not only behavior change could meet the gap in attaining healthier life of people, but can make a decent profit to the country by saving the loss of some Rs.10 billion annually in terms of public health expenditure. This empirical study tries to learn what is hindering the anticipated behavior change in the people by learning from the experiences of a handful of hygiene and sanitation intervention in the VDC.

Limithana VDC in Parbat District is practicing open defecation free actions after being declared an ODF in June, 2010. After hygiene and sanitation interventions via drinking water supply, Total Behavior Change (TBC) Trigger's Training and Mobilization for triggering and awareness raising activities and basic toilet construction followed by Post ODF, people in this VDC are enabling to access to drinking water and basic toilet facilities to some extent. But the behavioral change in terms of making appropriate use of constructed toilets, practicing good health habits, five key hygiene behaviors like washing hands with soap after using toilet and before taking

meal, brushing teeth, maintaining hygiene and cleanliness of the houses, toilet and surrounding area, proper disposal of wastes is still debatable. So, state and non-state actors need to study the holistic impact of these interventions in quality as well as in quantity and come up with effective solutions to promote Community Led Total Sanitation (CLTS) in this VDC. This can take place through active community participation, adequate permanent toilet erection, renovation of the toilets that are in fragile state and sanitation coverage in each individual household along with timely monitoring of the hygiene behavior of these people.

- **Research Questions:**

The study aims to explore answers to following research questions:

- What kind of holistic impact has been posed on behavior change of people after hygiene and sanitation intervention by DDC Parbat in Limithana VDC?

- What is the existing perception of VWASHCC, CHSAC formed under WASH project towards the efforts to prevent open defecation and to promote hygiene and sanitary behavior change in the VDC?

1.3. Rationale of the study

Access to proper sanitation and hygiene is considered to be the fundamental right of people. It is the base of life free from burden of diseases and thus a motivating factor for self-esteem and energetic lifestyle. Considering the gravity of hygiene and sanitation issues, DDC in collaboration with state and non-state actors, has taken a conscientious attempt to vitalize the situation by running WASH related activities like safe water supply, toilet construction, hygiene and sanitation programs in this VDC.

Though, there are 54 VDCs and 553 community level structures being supported by RWSSP-WN in 9 districts of Nepal, but particularly Limithana has been chosen a research site for this project work because it was known that, this VDC comprises of active women who made it possible to declare this VDC an ODF and also, community people here were highly aware on

hygiene and sanitation practices (GD Nepal, 2010). At the same time, despite the modest attempts of development project, it was reported that Limithana dwellers do have access to permanent toilet but few of the households out of 384 still practice defecation in direct pit and the VDC is still struggling for adequate drinking water. These led to raise a question of whether the level of awareness in such situation, considering the behavioral change practice in hygiene and sanitation was actually agreeable or so are suffering from hygiene- and sanitation-borne ailments in this VDC? A curiosity to ascertain the fact was the main rationale of the Research.

Besides, this study is believed to act as a catalyst for researchers, the academicians, development practitioners, professors, students along with decision makers and planners to identify the real picture of hygiene and sanitation state in rural villages of Nepal along with the holistic impact of various interventions time and again in concerned sector. This will help them understand where changes are actually required for sustainable behavior change in long term. It'll also help in pointing out the steps to be adopted for further improvement of Community Led Total Sanitation (CLTS) in poor rural villages of Nepal. To add, this study will benefit the government and private stakeholders to prioritize the mitigation measures and come up with productive idea in hygiene and sanitation sector in other proposed VDCs/districts of Nepal in the near future.

1.4. Objectives of the Research

The fundamental objective of this research (as specified in TOR) is to assess the existing situation of Hygiene and Sanitation and the various challenges associated with it in rural villages of Nepal on the basis of holistic impact study of Limithana VDC.

In particular, the Project work has the following specific objectives:

i. To observe the holistic impact posed on behavior change after hygiene and sanitation intervention by DDC Parbat in Limithana VDC.

ii. To analyze the existing perception of the VWASHCC, CHSAC formed under WASH project towards the efforts to prevent open defecation and to promote hygiene and sanitary behavior change in the VDC.

1.5. Scope of the study

The research (as specified in TOR) was carried out within the periphery of 9 Wards of Limithana VDC of Parbat district, Western Nepal. The research is bounded with Rural Water Supply and Sanitation Project-Western Nepal which has been facilitating WASH services in Limithana VDC through DDC, Parbat for last 2-3 years. The holistic impact study of behavioral change after hygiene and sanitation interventions in Limithana VDC was the major scope to scrutinize.The scope of the study was also centered to analyze the existing perception of the VWASHCC, CHSAC formed under WASH project towards the efforts to prevent open defecation and promote hygiene and sanitary behavior change in this VDC. Besides, the study was also focused to reveal the situation of community people to access basic toilet facilities and sanitation coverage before and after project intervention in the VDC.

1.6. Limitation of the Study

The paper purely focuses on the analysis of general performance status of community people regarding hygiene and sanitary behavior change, situation analysis of toilets, their use, post ODF activities and the recent working status of VWASHCC and CHSAC to prevent open defecation and to promote hygiene and sanitary behavior change in this VDC. So far the sample size consists of only 60 households; merely the virtual generalization of the situation can be done.

The analysis is based on the respondent's response on the questionnaire and basic observation from the researcher. The study, at the same time, excludes legal, scientific, political, economic, and other technical perspectives of analysis in Limithana VDC. Due to constraints in time and availability of resources, the researcher excludes the study of challenges and gaps, the development partners/projects had to face or are facing to achieve Community Led total behavioral change in hygiene and sanitation in the VDC, also the comprehensive analysis on safe water supply and drainage in this VDC along with role of sanitation and hygiene behavior change in poverty reduction is not included within the scope of this paper.

1.7. Organization of the Report

Chapter I: The first chapter gives brief introduction on the general scenario of Hygiene and sanitation in Nepal and World as a whole and the various issue related to it in Limithana VDC of Parbat district. Also this chapter deals with the research problem, objectives, rationale of the study, limitations of the paper.

Chapter II: This chapter provides the pertinent review of the previous literature in the same and the related topics. The literature review is briefly presented.

Chapter III: This chapter deals with the methodology, sample selection and sampling with justifications of the study this paper has undertaken.

Chapter IV: This chapter presents the findings and the discussions of the results from the study.

Chapter V: This chapter finally gives the overall conclusion and recommendations from the study undertaken by the researcher.

Chapter-II

Review of Literature

2.1 An abstract of earlier researches

Although there are comparatively different sorts of studies on various issue regarding hygiene and sanitation worldwide, but to the best of the researchers knowledge there have not been any similar studies on the topic of sanitation and hygiene elsewhere through holistic impact posed on behavior change perspective specifically after interventions. Particularly, when the concern goes to Nepal, it shows the sanitation coverage is lagging far behind and the level of emphasis that should be given in this sector is actually feeble. It seems the foremost preference is given in making access to basic sanitation facilities (Toilet construction) to the people. On the contrary, these people who receive them are found not to feel the need of hygiene and sanitary behavior change. However, the main focus of studies on available literature is placed on the main title of the Project Work to achieve its objectives. To the fact, these studies indicate that there are few projects particularly working to ensure hygiene and sanitation in the poor rural villages of Nepal foremost focusing chiefly on declaring ODF. If only hygiene behavior of people could be changed, there would be great possibilities for health benefits finally resulting in poverty reduction and enhanced wellbeing of the people.

Sanitation in general

A Model for District WASH Program Implementation (DWIG) Guideline in 2009 has defined 'Sanitation' as the safe management of human excreta, including the hardware (toilets, etc.) and software (regulation, hygiene promotion, etc.) needed to reduce fecal-oral disease transmission. Environmental Sanitation refers to the wider concept of controlling all the factors in the physical environment that may have a deleterious impact on human health and well-being. It normally includes drainage, solid waste management, and vector control, in addition to the activities covered by sanitation. Hygiene and sanitation facilities are basic human needs. A person is compelled to live a life full of numerous health hazards in the absence of appropriate

hygiene and sanitary behavior. Thus, the straight forward actions must be adopted by the state and various working organizations in the very sector to enhance and encourage people to compulsorily follow certain hygiene and sanitary behavior for healthy life and environment.

National Hygiene and Sanitation Master Plan (NHSMP 2011) of Nepal has defined an improved sanitation facility as one that hygienically separates human excreta from human contact. Similarly, Total Sanitation is defined as a range of facilities and hygiene behaviors that lead to achieve sanitized condition of the designated areas. It concentrates on ending Open Defecation as a first significant step to an entry point of changing behavior. The second step includes all arrangements leading to sustainable hygiene and sanitation behaviors.

Open Defecation (OD), Open Defecation Free (ODF) and Post ODF situation in general

National Hygiene and Sanitation Master Plan (NHSMP 2011) of Nepal has emphasized on Open Defecation (OD) as defecating in the open and leaving the feces exposed while ODF as 'Open Defecation Free' i.e. no feces are openly exposed to the air. The collection of feces in a direct pit with no lid is also a form of OD but with a fly proof lid it then qualifies for ODF. The report has described 'Total Sanitized Post-ODF Situation' as ensuring:

(1) Five key hygiene and sanitation behaviors such as sustainable use of toilets, practice of hand washing with soap or cleaning agent at critical times, safe handling and treatment of drinking water at household level, maintenance of personal hygiene and proper solid and liquid management in and out of the home,

(2) Household sanitation which focuses on all households should have toilet and hand washing facilities such as soap, washing platform, etc, availability of brush, brooms, cleaning agent, etc. at the toilet, covering food and water, regular cleaning of rooms, yards, and household compound, availability of managed animal shed, availability of covered waste water pit, access of safe drinking water, availability of bins/pits to collect/dispose solid waste, and availability of improved cooking stove/bio-gas (optional).

(3) Institutional sanitation that focuses on all institutions should have users-friendly clean, hygienic toilets with hand washing with soap station and proper waste management facilities, and all schools must have Child, Gender and Differently-abled (CGD) friendly water, toilet and

hand washing (with soap station) facilities including menstrual hygiene facilities. The schools must have garbage pit facilities within the school premise and all institutions should keep their premises in clean and hygienic condition.

Kar, 2008 has emphasized the range of behaviors that the Total Sanitation includes such as: stopping all open defecation; ensuring that everyone uses a hygienic toilet; washing hands with soap before preparing food and eating, after using the toilet, and after contact with babies' feces, or birds and animals; handling food and water in a hygienic manner; and safe disposal of animal and domestic waste to create a clean and safe environment. He has pointed out that the CLTS concentrates on ending open defecation (OD) as a first significant step to changing behavior. It starts by enabling people to do their own sanitation profile through appraisal, observation and analysis of their practices of OD and the effects these have. This kindles feelings of shame and disgust, and often creates a desire to stop OD and clean up their neighborhood.

Sanitation situation in Nepal

Government of Nepal, 2006 pointed out that 37 per cent (14 million) people wash their hands with water and 12 per cent (3.4 million) with soap during critical times in Nepal. The economic benefits of WASH are immense as investment of Rs 1 in sanitation will give back return of Rs.9.

WaterAid in Nepal, 2008 and Ministry of Finance, 2009 reported that Nepal needs an annual investment of Rs 7.5 billion to meet the universal access to basic water and sanitation facilities by 2017.

WaterAid in Nepal, (2005-2010), pointed out that despite increase in the national sanitation coverage, sanitation services are still not reaching the poorest and most vulnerable people. The National Living Standard Survey, 2004 reported that richest quintiles are eight times more likely to have improved sanitation (79% vs. 10%) than the poor. The subsidy approaches adopted by the government and other agencies, with the aim of targeting the poor, have failed to actually reach the poor. In reality it has been the rich rather than poor people who have capitalized on, and benefited from, the subsidy that have been made available.

SACOSAN IV, 2011 reported that the national sanitation coverage was only 6% of the population in 1990; however it reached 43% in 2010. Gradual progress can be noticed in the very sector within the gap of 2 decades but Hygiene and sanitary behavior change is still in contradiction.

Nepal Wash Sector Status, 2011 reported that currently 16 million (57%) lack adequate sanitation facilities in Nepal. These people openly defecate every day due to the lack of latrines in their homes. The national target is for universal access to sanitation by 2017. The existing coverage compares with the MDG targets for 2015 of 53% for sanitation and the current three-year plan (2011-2013) targets of 60% for sanitation. However, that until relatively recently, the focus of activities are aimed at strengthening sanitation services in Nepal powerfully, it is hard to meet these targets within scheduled date. Similarly, the report emphasized on diarrhoea being the third most primary cause of death of children under five. Nepal is one of the countries reporting maximum child deaths worldwide. Prevalence of diarrhoea still remains at 14 percent of all children under the age of five. Every year about 36,000 children under five are dying with diarrhoea and it represents 4.8% of the total death of children under five.

Sanitation budget

Government of Nepal, 2011 emphasized on up to 20% of the Water Supply Project budget should be allocated for sanitation and hygiene promotional programs and related activities as provisioned in the Rural Water Supply and Sanitation National Policy-2004.

WaterAid in Nepal, 2011 reported that during the last four decades and the current year, (1970's to 2011/12), the government of Nepal allocated about Rs 86 billion for the drinking water and sanitation sector. At present, the per capita budget allocation in the sector stands at around Rs 3000. A total of Rs. 9billion (US$ 125 million) has been allotted for the sector in FY2011/12. However, the budget allocated for sanitation programmes, which was Rs 21 crore last year, has been increased to 32 crore this year that shows linear growth of 53%. According to the budget speech of 2010/11, the government will make it mandatory for all community schools to have separate toilets for girls. Stake holders of the sector, who have seen the "One House One

Toilet Policy" stated in 2009/10 got phased out without making an impact, but it is believed that there is not much significance of these slogans in the budget except it does boost motivation in the sector.

Various approaches on hygiene and sanitation

Gurung, 2010 defined Community Led Total Behavioral Change in Hygiene & Sanitation (CLTBCHS) as 'Households or institutions don't just construct and use toilets but the approach includes behavioral change in personal and household hygiene and sanitation, and in hygienic drinking water management for the prevention of waterborne diseases in 'TOTAL' including all socio-economic groups of the society'. The CLTBCHS process uses commonly known participator and community led approach: Community Led Total Sanitation (CLTS) and School Led Total Sanitation (SLTS). CLTS is based on a number of premises, most notably no subsidy and its promotion of a sense of disgust to trigger behavior change. In SLTS, school is taken as the entry point and child clubs/teachers are mobilized to trigger communities in the school catchment area to achieve ODF. Thus, SLTS and CLTS create hygiene and sanitation awareness at all levels and produces tangible results in terms of toilet construction and change in hygiene behavior.

IRC International Water and Sanitation Centre, 2008 reported the successful story emphasizing on, out of 200 School Led Total Sanitation (SLTS) school catchment areas targeted in 15 Decentralized Action for Children and Women (DACAW) districts of Nepal, 75 are No Open Defecation areas. All 75 schools have child/gender friendly latrines and water supply facilities. All 40,000 households inside the 75 school catchments areas have access to latrine facilities. In the 15 DACAW districts, four VDCs have been already declared No Open Defecation areas. The other 125 school catchment areas are moving towards No Open Defecation status during the International Year of Sanitation 2008. This is truly a dramatic progress report aimed at sanitation and hygiene coverage in schools of various districts of Nepal.

Goudel, 2011 emphasized on an approach "Community Led Total Behavior Change in hygiene and sanitation" piloted by RWSSP-WN in total population of selected VDCs i.e. 329,186 in 55,794 households of 9 districts of Western Nepal for its planning, implementation, monitoring

and ensuring the sustainability. Total 66 VDCs declared Open Defecation Free and started Small Doable Actions (SDAs) serving 253,794 populations. ECOSAN, organic fertilizer promotion and nutrition activities were also implemented. As a result, it was noticed that hygiene and sanitation situation within the project working area has greatly improved resulting into a reduction in morbidity and mortality, ultimately saving an economic cost equivalent to (USD 8000000.00) caused by Hygiene and sanitation-related diseases per year.

Training and Triggering procedure for Total Behavior Change (TBC)

Goudel, 2010 pointed out that the persons having direct responsibility for household hygiene and sanitation improvement, the training module is designed to train the VDC level TBC Triggers, who in turn deliver the skills and provide support to Community Health Volunteers (CHVs), lead mothers, social mobilisers, teachers and health workers to enhance their capacity to improve the health and hygiene situation on a larger scale. The triggerers start the triggering and negotiation for change on Small Doable Actions (SDA) at household level to improve the hygiene and sanitation behaviors. The process makes people realize that because of open defecation they are eating their own and their neighbors' shit. Once the community people realize this, they start thinking, and take the decision to stop open defecation and ultimately decide to declare the Total Behavior Change in Hygiene and Sanitation in each village, ward, VDC and district. The Natural Leaders, FCHVs, Lead Mothers, Teachers, Social Mobilisers and Health workers with a maximum of 25-30 triggers (or one TBC trigger for about 50 Households) in each VDC will be trained by Lead TBC Facilitators. He stressed on the training which is designed to be highly interactive, employing a variety of training methodologies. Role plays, case studies, group work, lecture style inputs, and presentations are employed to different learning styles and facilitate maximum learning.

WASH interventions in Parbat district

GD Nepal, 2010 reported as Parbat district lies in the 7th rank from the sanitation coverage point of view; the total sanitation coverage of Nepal is around 43% (NMIP/DWSS, 2010). DDC council approved a challenging plan towards Open Defecation Free (ODF) district within 3 years. After the TBC Triggerer's Training, community people are aware on Sanitation and Hygiene practices, training was given to 37 participants of the Limithana VDC. In result, after one month

of TBC Triggerer's Training, VDC has been declared second open defecation free VDC in Parbat district".

Government of Nepal (DDC, Parbat) in 2010 reported that in the course of availability of very few facilities in health and sanitation sector at Limithana VDC, the situation of toilet construction is medium. There are around 384 households in this VDC where 18 Dalit households still consist of temporary toilets and 366 households consist of well-built pan set used toilets. Similarly, hand washing facility with soap after using toilet is accessible in 350 households while 34 households are still deprived of the facility. In such situation, the VDC has been declared ODF. To the fact, 27 facilitators, 45 villagers, health and sanitation committee at present have been playing a key role in constructing well-built Pan set toilets in each individual households. This process is likely to be proved to be the helpful tool to declare this VDC, a complete Community Led Total behavioural change VDC as soon as possible. It is creditable that no households practice open defecation at present and the VDC is slowly putting an effort towards total behavior change.

VDC Water, Sanitation and Hygiene Coordination Committee (V-WASH-CC) iDDC Parbat, 2011 mentioned that VDC being the smallest unit for planning and programming of the sanitation programme in rural areas, Village WASH Coordination Committee (VWASHCC) has been formed on June, 2010 and mobilized accordingly in Limithana VDC with the purpose of overall planning, monitoring, systematic management, supervision and implementation along with post implementation of the sanitation and hygiene promotional activities. The facilitators/representative member from DDC under RWSSP-WN supported WASH project in co-ordination with VDC secretary called upon meeting of altogether 45 people in the village and thus, selected representative members from Community Hygiene and Sanitation Action Committee (CHSAC) involved other active community based committees, civil servants, local leaders of political parties, teachers, female health volunteers and few influential locals and reached into the conclusion of forming VWASHCC. It thus, tends to gather all the localities together in the village level holding the government authority to put questions if incase any problem arise regarding water supply, hygiene and sanitation in due course of time. The unique feature of local governing structure VWASHCC is that it comprises the proportional

representation of locals at village level irrespective of caste, color, sex, race, ethnicity and class to ensure social inclusion.

Community Health and Sanitation Action Committee (CHSAC) in general

Joshi, 2011 reported CHSAC in general as a body of action, responsible for overall implementation and coordination of water, sanitation and hygiene activities at ward or community level. The boundary of a CHSAC is an imaginary boundary, which could be fixed based on the social village settlement, scheme area coverage and the catchment. The communities themselves elected the composition of CHSAC. It was recommendable to note that all the CHSACs formed in Limithana VDC had 50% women and in some cases even more. Similarly, in order to ensure the proportionate representation from excluded/marginalized groups, Dalits have also been included in many numbers. Such procedure as result has provided equal representation of all probable candidates in the village.

CHAPTER- III

RESEARCH METHODOLOGY

3.1. Selection and description of research site

This study was conducted in Limithana Village Development Committee (VDC) located in the middle part of Parbat District. The VDC is located some 40 km approximately Southern direction from district headquarter Kushma.

This is smallest VDC among the 6 program VDCs of RWSSP-WN. It has 384 Households; this VDC has been declared an ODF VDC on June 2010. Awareness level in women of this VDC is very high as such it has been possible to declare an ODF under the VWASHCC and CHSAC leadership of women. Hence, the selection of the study area is very rationale and also convenient for researcher too.

3.2 Nature and Sources of Data

The quantitative nature of the study demanded primary data for the analysis. A structured closed and open ended questionnaire which were pretested and piloted prior to the field work was administered to collect the data.

Besides the primary data, relevant secondary data have also been used. These secondary data have been collected from different publications, research papers, published and unpublished previous studies and map etc

3.3 Sampling Frame

The spatial coverage of the Limithana VDC covers 384 households with total population 2176 (DDC Parbat: Household survey, F/Y 067/068). Out of 9 wards, DDC Parbat implemented hygiene and sanitation interventions in almost each ward and the researcher's current household survey along with tentative study have covered all these wards. The sample size of the study is 60 households

(each representing whole family members) followed by focused group discussion with members of VWASHCC and CHSAC and observation at households, health post and government school that could highly represent the study area as the study area is more or less homogeneous in the sense of physiographic, and socio- economic status of the people. Altogether 6/7 households were visited at random in each ward using non-probability sampling procedure.

3.4 Method of Data Analysis

The data is explorative in nature including both qualitative and quantitative tools. They are centered upon the Conceptual framework, literature review and objectives of the study even though researcher had already taken it into consideration before conducting this research.

3.5 Test and analysis of data

Data were analyzed using inferential statistics at large. Retrospective data filling along with Graphical presentation is prepared for the interpretation of descriptive data and also the data are analyzed in Excel.

3.6 Data Processing

Scrutiny of completed questionnaire was done to assure that the data are suitable, accurate, consistent, uniformly entered and have been arranged to facilitate coding and tabulation. The information collected through questionnaire was appropriately coded and analyzed.

Chapter- IV

Conceptual Framework

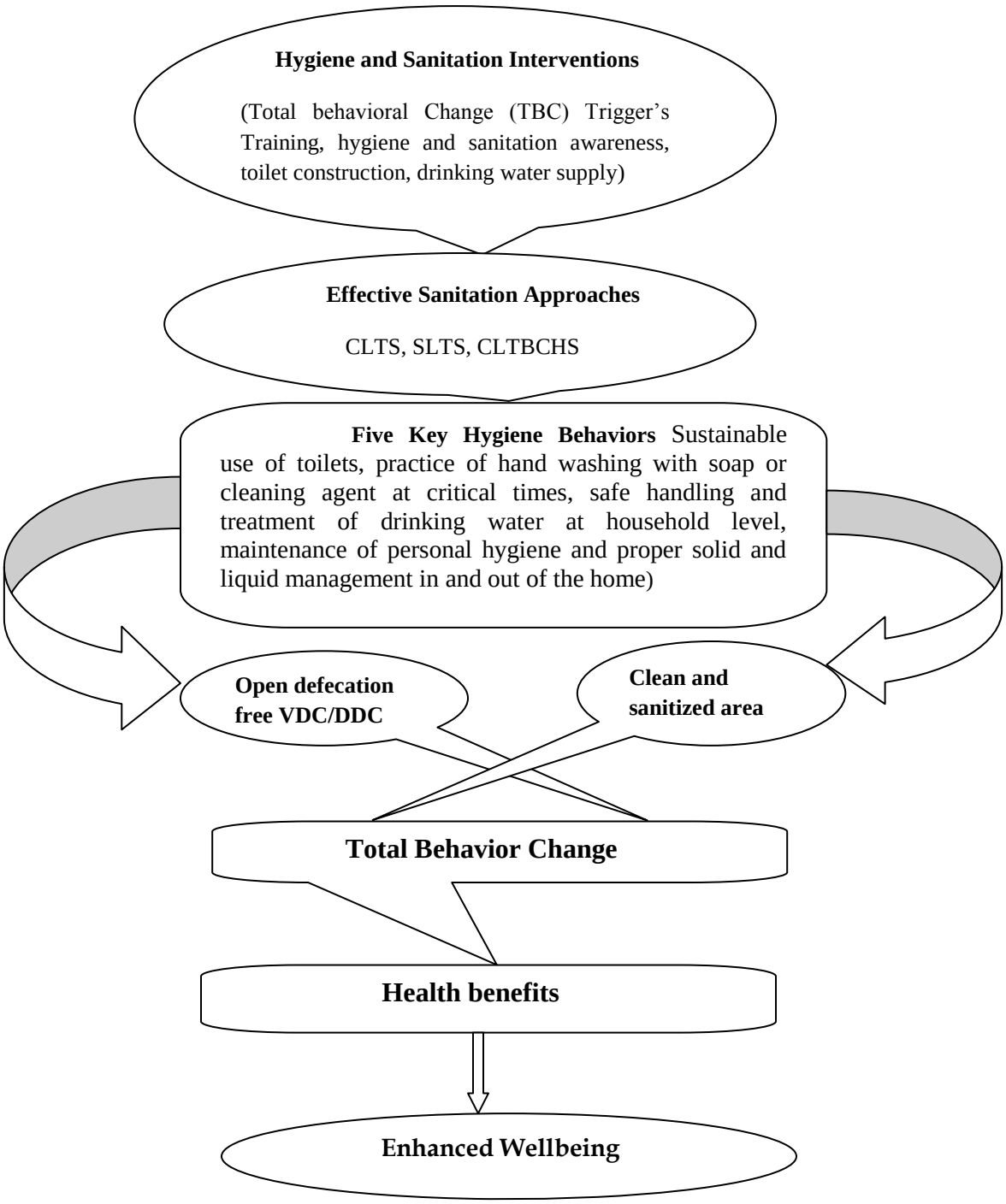

Figure 2: Role of hygiene & sanitation interventions in behavioral change & wellbeing of a community

The conceptual framework of study is summarized in the schematic diagram of figure 1. It represents the relationships between major components of hygiene and sanitation and shows how initial intervention in sanitation and hygiene can play a significant role in enhancing people's welfare through hygiene and sanitation behavioral change through five key hygiene behaviors in particular VDC. Though, attaining behavioral change in rural villages in itself is a challenging task but still this is the most important factor which helps to prevent open defecation, leading to a clean sanitized community. To the matter of fact, this results in positive health impacts consequently followed by enhanced wellbeing as a consequence of total behavior change. But it requires effective sanitation approaches such as SLTS (School Led Total Sanitation), CLTS (Community Led Total Sanitation) and CLTBCHS (Community Led Total Behavioral Change in Hygiene and Sanitation)

DDC Parbat also aims to enhance wellbeing of people residing in Limithana VDC through hygiene and sanitation intervention in a sustainable way. That's why it intervened the VDC with WASH program primarily focusing on water supply and toilet construction and also provided triggers' training based on facilitating people with information on importance of five key hygiene behaviors such as proper use of toilet, personal hygiene and cleanliness maintenance, management of solid and liquid wastes in and out of house etc. through hygiene and sanitation campaigning and the most importantly, it succeeded in declaring VDC an ODF.

In fact, if people follow and practically implement hygiene behaviors in their day to day life without carelessness then they can actually tend towards sustainable total behavior change. This is the key to reducing poverty that has been acting as root factor for rural poor, marginalized groups and communities incur extra expenses in health as a result of harmful water-borne diseases in remote rural areas of Nepal. Integrated hygiene and sanitation promotion program is must essential to sustain the hygiene behavior. Hence, the schematic diagram of the conceptual framework of the study clearly shows the simple but effective technique/means to reach the ultimate goal of sustainable complete behavior change with better livelihood.

CHAPTER-V

FINDINGS AND DISCUSSION

5.1 Household Profile:

The empirical data collected by interviewing various respondents dwelling in the Limithana VDC fortifies the gradual changing thoughts as well as behavior of people towards the need and importance of hygiene and sanitation. In the process of collecting data, twenty four close-ended questionnaire followed by ten open-ended questionnaire were developed to better understand the problem and situation related to holistic impact posed on behavior change after hygiene and sanitation interventions in Limithana VDC. Also the study includes observation of post ODF activities at different institutions located in the VDC.

This segment of the study deals with the findings followed by the discussions. The first section deals with the graphic presentation of the data related to the background information of interviewed respondents such as age, sex, ethnicity, occupation, family types etc while the second section deals with eloquent study in the form of graph and pie-charts addressing the developed questionnaire ultimately aimed to meet the objectives of the research.

In Limithana VDC, altogether 3 Wards (3, 6 and 8) found to have dwelled Dalits to the greater number and the researcher has emphasized these wards to the utmost in order to ensure social inclusion on one hand and to observe the situation of hygiene and sanitary behavior of these people and their access to sanitation facilities on the other. Similarly, households at rest of the wards have also been surveyed to stumble on the hygiene and sanitation situation amongst Brahmin and Chhetri community, the perception of people towards hygiene and sanitation interventions and the constraints they faced before and after project interventions. So, the researcher has taken these areas as the sample size and has also collected the possible relevant data from these areas.

5.1.1 Age group

Out of 60 respondents, 18 (30%) were found to be between 20-35 years, 24 i.e. (40%) were found to be between 36-50 years of age. Similarly, 12 i.e. (20%) were found to be between 51-65 years of age and the rest i.e. 6 (10%) respondents were found above 65 years of age. (Refer Figure 3)

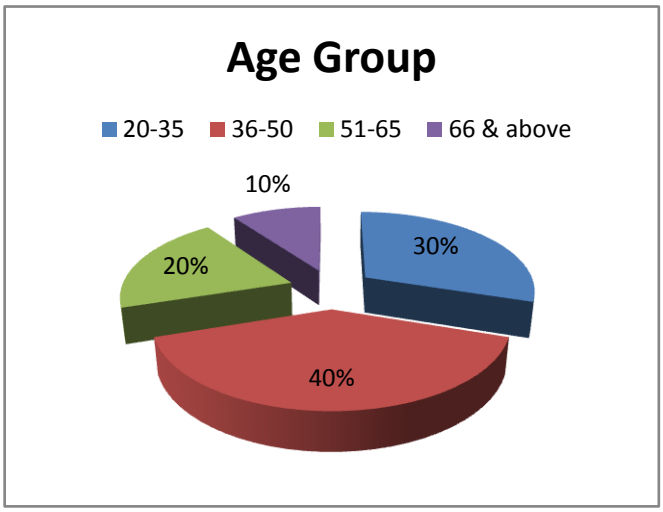

Figure 3: Graph showing the respondents by age

5.1.2 Gender

Out of 60 respondents, 36 i.e. (60 %) were male and 24 i.e. (40 %) were female, as shown in Figure 4.

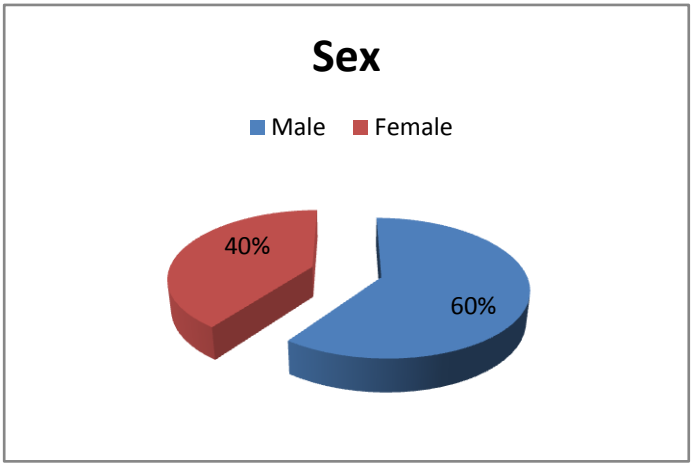

Figure 4: Graph showing the respondents by gender

5.1.3 Ethnic Group

Out of total respondents, 30 (50%) were Brahmin, 3 (5%) were found to be Chhetri and 27 (45%) were found to be Dalit as shown in figure 5. This shows that Brahmin is the highest ethnic group residing in this area.

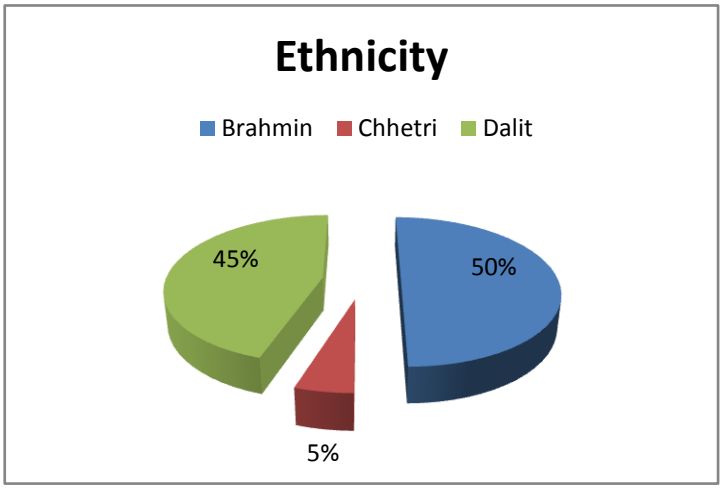

Figure 5: Graph showing the respondents by ethnicity

5.1.4 Education

Out of the total respondents interviewed during household survey, 24 (40%) were found to be illiterate, 15 (25%) were found to be under S.L.C., 12 (20 %) were found to have passed S.L.C. Similarly, 6(10%) were found to have passed the intermediate and those who have completed Bachelor degree were found to be 3 (5 %). (Refer figure 6)

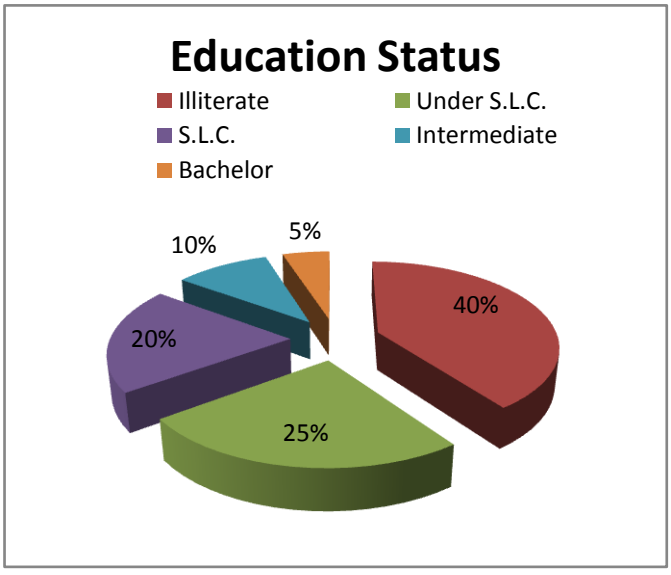

Figure 6: Graph showing the respondents by education

5.1.4 Occupation

Out of total respondents, 45 (75%) respondents were found to be engaged in agriculture, 3 (5%) were teacher. Similarly, 3 (5%) were student, 6 (10%) were found to be involved in small scale business and 3(5%) were found to be postman, health worker etc as shown in figure 7. This shows that the highest ranking goes to the agriculture as the place is renowned for the agriculture as major occupation.

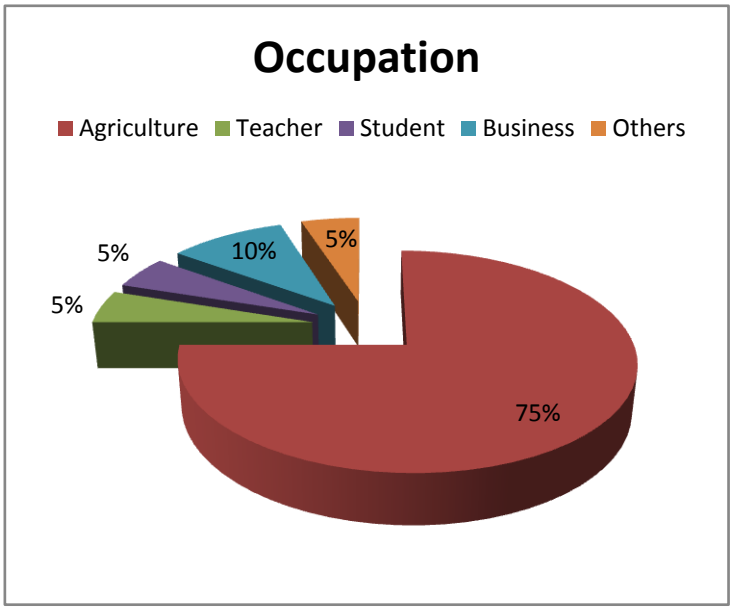

Figure 7: Graph showing respondents by occupation

5.1.6 Family type

The data shows out of the total respondents, 36 (60%) were found to have nuclear family whereas 24(40%) were found to be belonged to the joint family. (Refer figure 8)

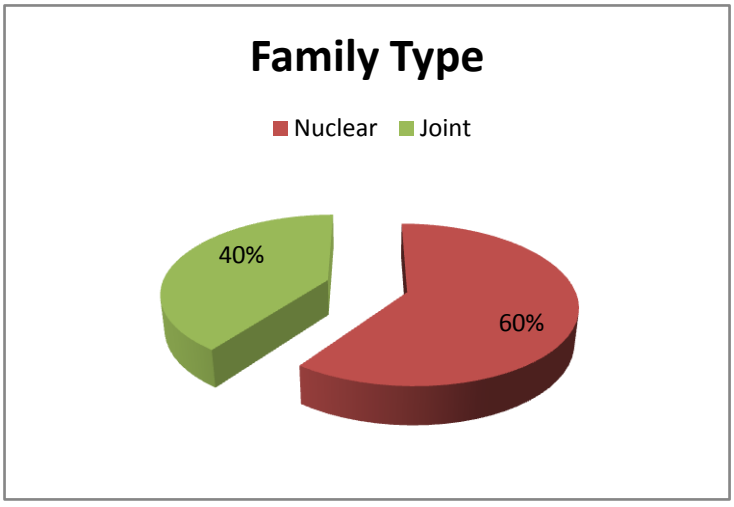

Figure 8: Graph showing the respondents by family type

5.2. Hygiene and sanitation situation before and after the project intervention

Gradual improvement can be noticed after the intervention of the project. Comparative findings of 60 households' actual hygiene and sanitation situation before and after project intervention in Limithana VDC are shown below:

5.2.1 Place of Defecation

Table 1: Defecation scenario of the households prior and after the project

S. No.	Place of defecation	No. of households before the project	No of households after the project
1.	Temporary toilet (Direct pit)	33	9
2.	Permanent toilet (water sealed)	21	51
3.	Open defecation	6	0
	Total	60	60

Before the project had intervened the VDC, out of 60 households, 33 used to defecate in temporary toilet, 21 in permanent toilet while 6 defecated in open area. At present,out of 60 households, 9 defecate in temporary toilet, 51 defecate in permanent and nobody practice open defecation.

Over the years, these people have practiced open defecation behind bushes, jungle, kitchen garden and khetbari as shown in figure 9.

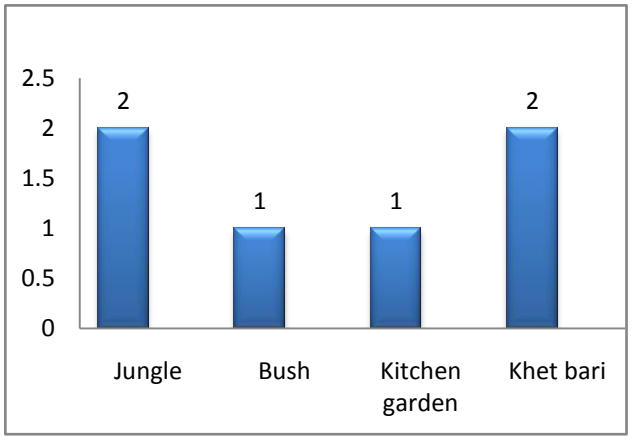

Figure 9: Graph showing the places in open area prior the project

5.2.2 Types of toilet used in the community

The graph shows the types of toilet that are recently in use by the interviewed households. Out of total 60 households, 9 from Dalit households use direct pit (i.e. khaldo khanera banaiyeko toilet) while majority of them i.e. 51 (30 Brahmin households, 3 Chhetri households and 18 Dalit households) use water sealed toilet. (Refer Figure 5 & 10 respectively). There are no other types of latrines such as VIP, offset or urine diversion in the community. There are also no Brahmin and Chettri households who use temporary latrines. Its Dalit households who have temporary latrines the most.

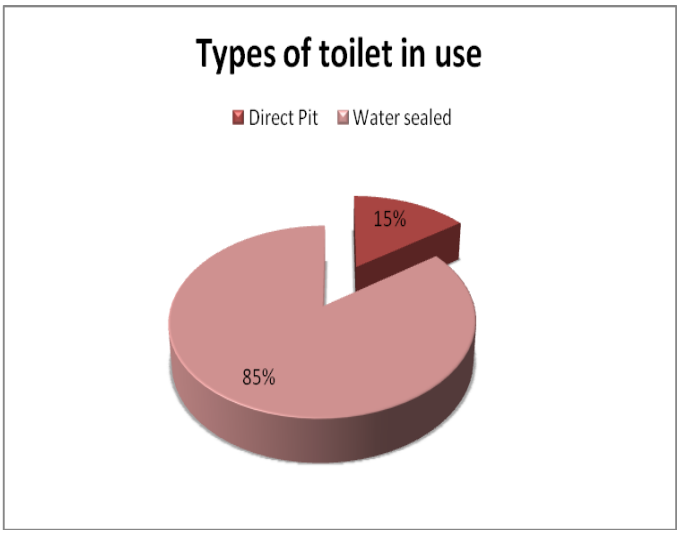

Figure 10: Graph showing the types of toilet used

5.2.3 Maintenance of suitable sanitary condition of toilet

Only construction of latrine does not bring healthy and hygienic environment in the community. Proper usage of those constructed latrine is most essential. In the community, out of 60 surveyed households, 46 (77%) were found to have maintained suitable sanitary condition of latrine. Unfortunately there were also counting number of respondents i.e. 14(23%) particularly the Dalits and their family members who had very poor sanitary condition of toilet. (Refer figure 11)

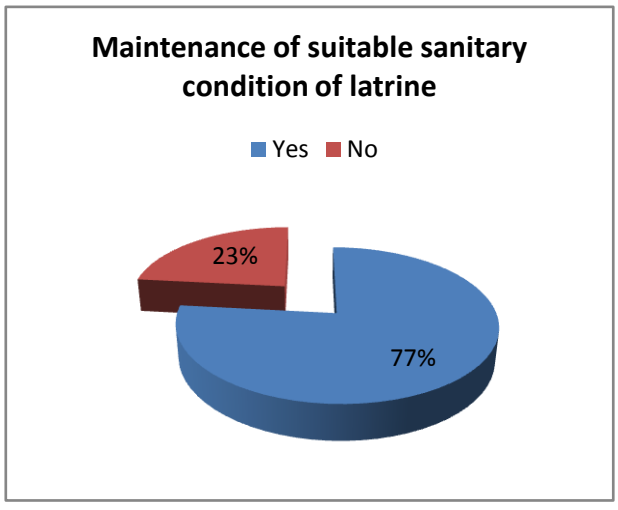

Figure 11: Graph showing the pattern of using toilet

5.2.4 Hand washing practice

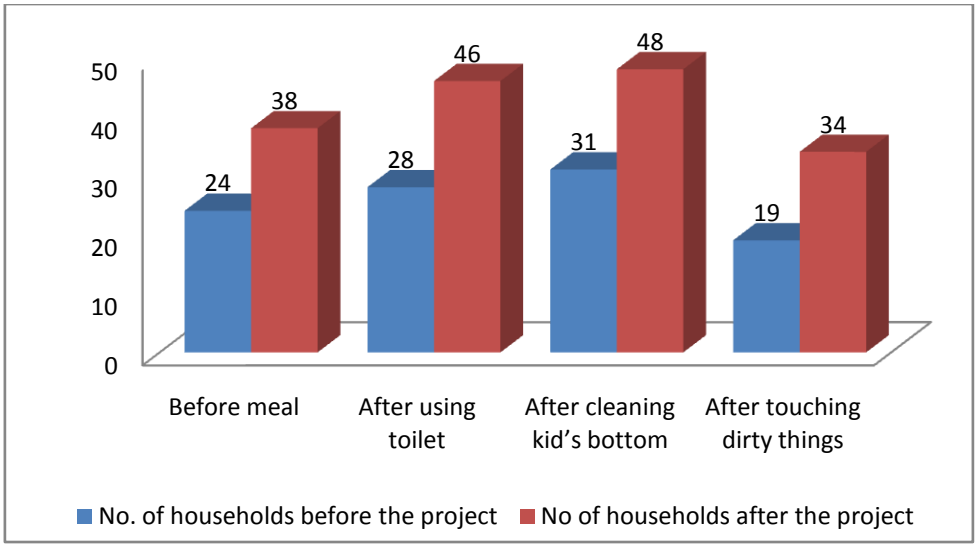

Figure 12: Graph showing the hand washing practice prior and after the project

Handwashing at four critical times plays an important role in health and hygiene. Prior the project, 24 out of 60 respondents were found to wash hands before meal, 28 out of 60 were found to wash hands after using toilet, and 31 out of 60 were found to wash hands after cleaning kid's bottom. Similarly, 19 out of 60 were found to wash their hands after touching dirty things. But there is positive change in the community after the project intervention. 38 out of 60 respondents were found to wash hands before meal, 46 out of 60 were found to wash hands after using toilet, 48 out of 60 were found to wash hands after cleaning kid's bottom. Similarly, 34 out of 60 were found to wash their hands after touching dirty things. This shows gradual improvement in hand washing practice after project as given in figure 12.

5.2.5 Treatment of Household Drinking Water

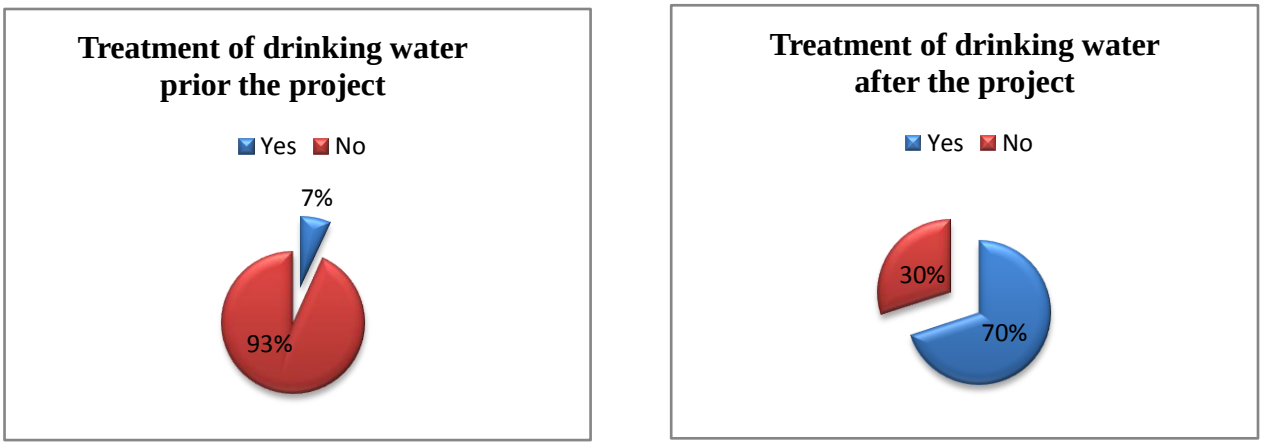

Figure 13: Graphs showing the safe handling and treatment of drinking water prior and after the project

Figure 13 shows the state of safe handling and treatment of household drinking water by the households before and after the hygiene and sanitation intervention. Prior the project, the situation seems broke because out of 60 respondents, there were only 4 (7%) who were found to drink water after treatment i.e. by boiling it but majority of them i.e. 56 (93%) were not found to drink water with proper treatment, nor did they handle it safely. After the project intervention, the situation seems improving because majority of them i.e. 42(70%) respondents were found to be careful regarding safe handling (covering the water) and treatment of household drinking water but still 18(30%) out of 60 were found to drink water without proper treatment, nor did they handle it safely.

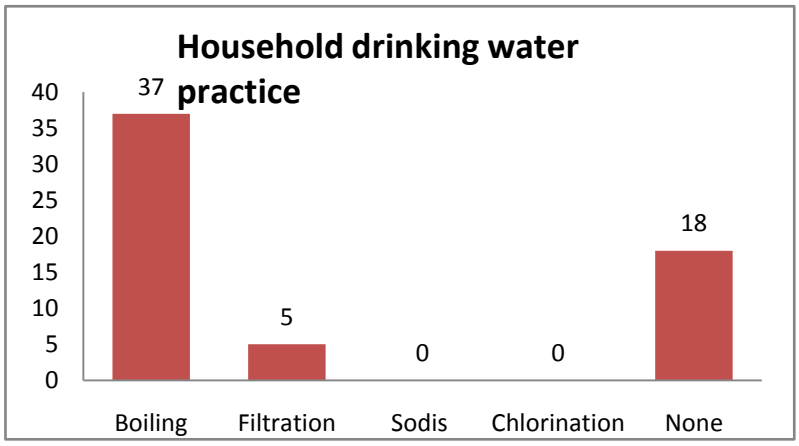

Figure 14: Graph showing the household drinking water practice

As shown Figure 14, out of 60 respondents, 37 today drink water after boiling, 5 drink water after filtering it and 18 drink water doing no treatment, nothing at all. Nobody is found to use sodis or do chlorination for treatment of drinking water.

5.2.6 Personal hygiene and cleanliness practice

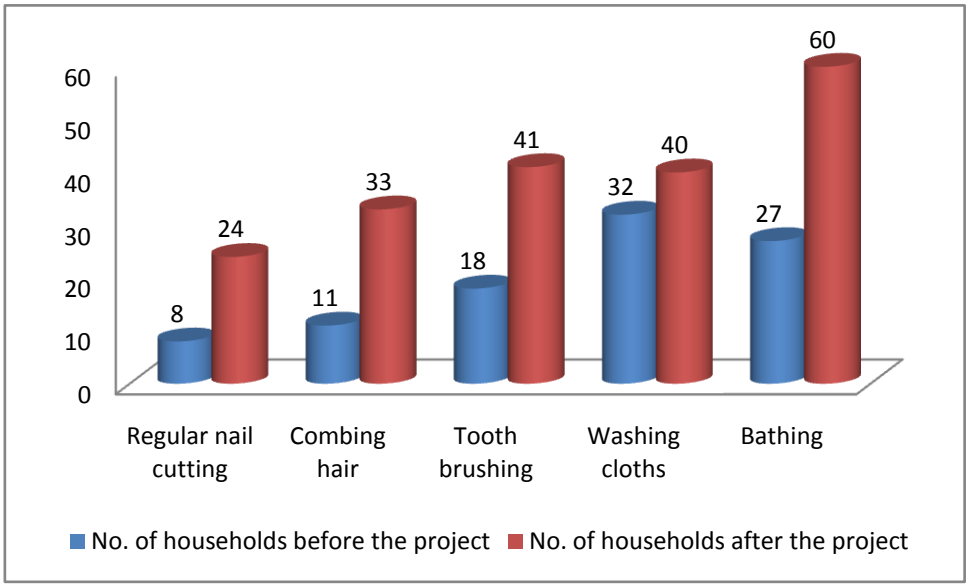

Figure 15: Graph showing personal hygiene and cleanliness practice prior and after the project

Figure 15 shows personal hygiene and cleanliness practice before and after intervention. In the survey, 8 out of 60 households were found to cut nail regularly, 11 out of 60 were found to comb hair, 18 out of 60 were found to brush teeth, 32 out of 60 were found to wash clothes and 27 out of 60 were found to take bath timely to ensure personal hygiene and cleanliness practice before hygiene and sanitation intervention. Similarly, the graph shows increment in personal hygiene and cleanliness practice after intervention. In the survey, 24 out of 60 households were found to cut nail regularly, 33 out of 60 were found to comb hair, 41 out of 60 were found to brush teeth, 40 out of 60 were found to wash clothes and almost all the respondents were found to take bath timely at least twice a week if not weekly to ensure personal hygiene and cleanliness practice after hygiene and sanitation intervention.

5.2.7 Safe disposal of the solid and liquid waste

Gradual improvement can be noticed in terms of safe disposal of the solid and liquid waste in and out of the house as given in Table 2.

Table 2: Safe disposal of wastes of the households prior and after the project

S. No.	Safe disposal of the solid and liquid waste	No. of households before the project	No. of households after the project
1.	Yes	9	52
2.	No	51	8
	Total	60	60

The above data shows that prior the intervention, out of 60 households, 9 were found to practice safe disposal of the solid and liquid waste while majority of them i.e. 51 were found practicing haphazard disposal. Similarly, after the hygiene and sanitation intervention, , there were 52 respondents who were found to practice safe disposal of the solid and liquid waste and very few respondents from Dalit community i.e. 8 were found to practice unsafe/random disposal of solid and liquid waste in and out of home.

Now, excluding these 8 households, out of 52 households, 9(17%) were found to dispose solid and liquid waste in garbage pit, 35(67%) were found to use it in the kitchen garden while 8(16%) were found to dispose it in the compost pit for its further use in the agriculture as shown in the graph 16.

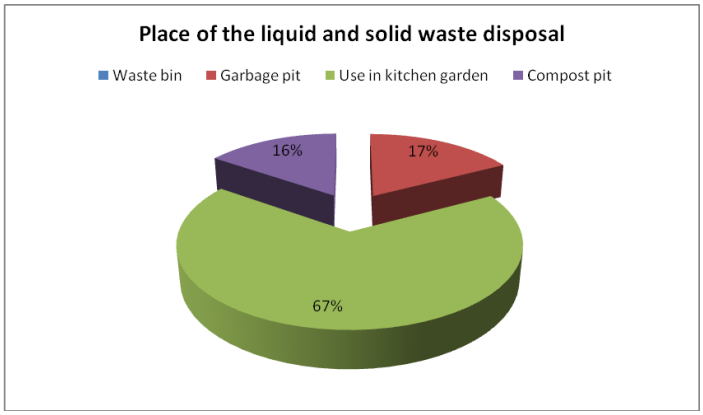

Figure 16: Graph showing solid and liquid waste disposal place after intervention

5.2.8 An idea about an appropriate use of human excreta after intervention

No households in the VDC were aware of appropriate use of human excreta. Hence, there is no household using excreta as fertilizers (under ECOSAN or Bio-gas) in the community.

5.2.9 Perception of the community on sanitary and hygiene behavior change after project intervention

The graph shows that 39 (65 %) respondents out of 60 were found to have sanitary and hygiene behavior change after intervention at the same time, there were also 21 (35%) respondents from Dalit as well as Brahmin community who opposed the point. The finding shows this is only the 'Change in perception of the community on sanitary and hygiene behavior' but not the change in practice. (Refer figure 12 and 17)

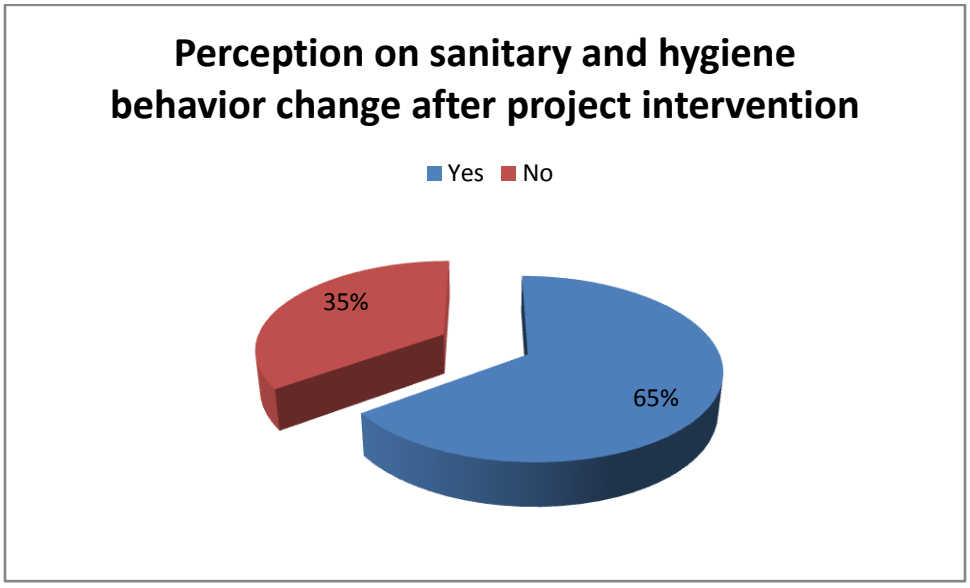

Figure 17: Graph showing perception on sanitary and hygiene behavior change after project

5.3 Findings from the focused group discussions with members and representatives of VWASHCC and CHSAC, Limithana VDC

The structured open-ended questions were put forward to the members of VWASHCC and CHSAC in two separate focused group discussion who gave the researchers ample time and a comprehensive set of answers to the queries. The answers below labeled represent views and opinions, which are in coherence with VDC level governing structure VWASHCC and community level organization CHSAC.

5.3.1 What impacts of the project were noticed in the prevalence of diseases in the community before and after Project interventions in Limithana VDC?

VWASHCC: Acquiring ODF status alone acts as one of the stepping-stones to overcome the health problems in any poorly sanitized VDC. Multiple diseases like diarrhea, cholera, respiratory diseases were widespread in Limithana VDC few years back. Open defecation, dirty surroundings, poor hygiene and sanitary behavior and insufficient access to safe drinking water made its extremely difficult for us to survive these acute water-borne diseases before project intervention. When DDC mediated ODF expedition and drinking water supply (WASH), village experienced reduction in prevalence of such diseases with improved health and hygiene. The reluctance in behavior change can be noticed still amongst poor dalit community. Somewhere, the rare incidents of water-borne disease occurrence in few Dalit households come into hearing as a consequence of poor health habits. They are found to complain about undergoing major financial and constructional obstacles to turn temporary toilets into the permanent one. But the fact is, the construction work is moving on in a smooth manner, reported members of VWASHCC

CHSAC: The village faced many more obstacles. We prefer to call it 'Dark days'. A distant walk to fetch water for domestic chores used to result into the bacterial infection in our foot particularly during monsoon. Unawareness about water treatment caused acute water borne and communicable diseases during those days. Even health hazards like diarrhea also broke out in the village. Later on after project intervention, we realized it was all caused by germ carrier flies and severe mosquito bite produced from the open defecation and dirty environment around. Those

were troublesome days. We are indebted to sanitation and hygiene intervention facilitated by RWSSP-WN in the VDC because no health hazards have been noticed at present. Everybody has understood the need and importance of behavior change regarding hygiene and sanitation for well-being and to live a healthy life. Now, they agree with the motto, 'Healthy mind exists in a healthy body' reported CHSAC members.

Table 3: Summary of answers to 5.3.1

Community level organization	Impacts of project in prevalence of diseases before and after intervention
○VWASHCC	•Reduction in prevalence of diarrhoeal diseases after intervention.
○CHSAC	•Increased awareness level after intervention helped to solve the problems of diarrhoeal diseases, and act as a forum for positive growth.

5.3.2 What is the existing perception of VWASHCC, CHSAC formed under WASH project towards the efforts to prevent open defecation and to promote Hygiene and Sanitary behavior change in the VDC?

VWASHCC: The village noticed changes to some extent after project intervention and active participation of community people in terms of hygiene, sanitation, toilet construction and ODF declaration but not to the extent it was opt to. The unclear activities and politicization within the working framework of TBC Triggerers, VWASHCC, CHSAC and even FCHV made its tremendously difficult for villagers to acquire anticipated project benefit and output in equal and equitable manner; this is sad news to begin with. The DDC which wants to develop the Limithana VDC and at the same time make a buck for themselves out of reward money, a perfect win-win situation, cannot be explained in a simple manner. There must be vested interest of certain groups of crooked people within VDC/DDC or WASH unit who benefit from lesser number of toilet construction materials like pipes, pan set and cement owed for poor Dalits.

These mal-natured people are delaying the development process of VDC by not distributing toilet construction materials to the needy said male representatives of VWASHCC attending focused group discussion.

CHSAC: Local people are extremely happy about the intervention and all the efforts carried out by TBC Trigger's, Female community health volunteers and members of VWASHCC, CHSAC formed under the project in co-ordination with local people and local government bodies. This training benefited women most as it developed leadership quality in them and has made them active. Every individual member of VWASHCC and CHSAC played significant role and worked rigorously in running awareness campaign regarding negative impacts of open defecation, poor health and hygiene behavior throughout the VDC during ODF declaration time. Therefore, to highlight on the existing perception of the locals towards efforts of TBC Trigger's Training, VWASHCC, CHSAC, FCHV and active participation of women to prevent open defecation through total hygiene and sanitation intervention in the VDC, we must say, it is extremely favorable, said women representatives attending focused group discussion of CHSAC.

Table 4: Summary of answers to 5.3.2

Community level organization	Perception of locals towards hygiene and sanitary behavior change
○VWASHCC	•VWASHCC points out a kind of dissatisfaction associated with incomplete intervention so its perception towards behavior change seems to be antagonistic (opposed).
○CHSAC	•CHSAC finds increased leadership quality in women as a result of intervention so have optimistic attitude towards hygiene and sanitary behavior change.

5.3.3 What kind of behavioral changes have you been noticing in community people regarding practicing five key hygiene behaviors such as Hand washing at four critical times with Soap or Cleaning Agent, 2) Safe disposal of feces, 3) Safe handling and treatment of

Household Drinking Water, 4) Regular nail cutting, bathing, cloth washing, daily combing, tooth brushing and 5) Proper waste management in and out of home?

VWASHCC: Its very true that majority of people in the VDC were careless about importance of practicing five key hygiene behaviors particularly before project intervention. Behavioral changes regarding practicing five key hygiene behaviors is of paramount importance in day to day livelihood to have sound health, however they are equally challenging to be pursued every day when the issue comes about poverty. This issue becomes very controversial at local level. A man first off, seeks to solve his hand to mouth problem before tackling rest of the hierarchical needs. Same is the case here with poor people of this VDC. How can they afford expensive soap? How can they have time to run after five key hygiene behaviors? The bitter fact is, it would have been better if the money taken in loan was not spend on toilet construction, would have invested in productive sectors whereby the underprivileged and poor people could have earned money to fight poverty and they would not have remained broke in payback of loan. These normal hygiene behaviors must be followed to stay healthy but what if the poor doesn't have food to eat, clothes to wear and roof to protect himself and his family members from severe cold, insects bite, theft and animal attack? Does hygiene behavior alone can overcome and replace these primary necessities of life? Therefore, NGOs, INGOs and government of the state first and foremost should be very mindful about addressing this issue to promote subsistence livelihood of people said VWASCC representatives in the focused group discussion as response to the above question.

CHSAC: The Limithana dwellers have positive mindset about slow but sure changes regarding practicing five key hygiene behaviors such as regarding Hand washing at four critical times with soap or cleaning agent, 2) safe disposal of feces, 3) safe handling and treatment of household drinking water, 4) regular nail cutting, bathing, cloth washing, daily combing, tooth brushing and 5) proper waste management in and out of home. We acknowledge the effort of DDC and WASH unit as a whole who showed us right direction concerning the healthy way of living. Today there are rare houses in the VDC who run their livelihood without washing hands at four critical times or without practicing five key hygiene behaviors. For instance, the changes can be

observed in the surroundings of Limithana VDC. When compared with the situation that used to be before intervention, the environment used to be very dirty, people used to have bad health habits, and complete carelessness led people remain unhealthy. But the case is vice-versa at present, everybody is cautious of hygiene and sanitary behavior. Almost every household is at least aware about it. The story is different if few households do careless to practice 5 key hygiene behaviors but open defecation has been completely stopped in the VDC, a great achievement we consider, said CHSAC representatives in FGD. If adequate drinking water could be at everybody's reach, then the day is not so far, VDC will be soon declared CLTBC (Community Led Total Behavior Change) VDC.

Table 5: Summary of answers to 5.3.3

Community level organization	Opinion towards practicing five key hygiene behaviors
○VWASHCC	• VWASHCC prioritizes on addressing poverty to create buoyant environment for practicing five key hygiene behaviors.
○CHSAC	• CHSAC discloses intervention acting as bridge stone to boost up locals form habit to practicing five key hygiene behaviors.

5.3.4 How are the toilets being constructed? (Self investment of individual household, in co-ordination with project, sole initiative of project or if any other please specify).

VWASHCC: VDC already had toilets in most of the houses. The credit goes to JICA who few years back constructed simple-pit latrine over here but still open defecation was rampant. It was yes, RWSSP-WN which 2 years ago intervened hygiene and sanitation intervention in the VDC to declare VDC an ODF VDC by smoothly mobilizing community dwellers, female community health volunteers and in the active participation of VDC women, TBC triggers' training ran for four days succeeded to convince villagers about ODF declaration. So far, there were 92 temporary toilets when VDC was declared an ODF. These people were convinced they will be provided with construction materials and financial support to convert those temporary toilets into the permanent one. But the things didn't come about as it was assured. Unfortunately, there are

still 18 households altogether in ward 3 and 8 (source: recent survey) where people defecate in direct pit. Sad to say, there are many households who have not been able to pay back loan they had taken while constructing toilet in self investment and sole initiative. This is the gloomy chronicle hidden behind ODF declaration. As post ODF activities, total reward money of about NRS. 46,000 were allocated in the VDC to support poor households in order to manage pan-set, cement and pipes but the effort went in trash as the amount and those materials got misused, said VWASHCC representatives.

CHSAC: ODF expedition was successfully ran in the VDC under the leadership and guidance of DDC Parbat and project representatives. As a result, Limithana is the 2nd VDC in Parbat district which has been declared an ODF VDC. There are still few households in Ward No. 3 and 8 where squatter Dalits settle who don't show interest in transforming temporary toilets into the permanent one due to poverty and carelessness. If they could construct permanent toilets, every household in Limithana would enjoy defecating in water-sealed latrines. It's the sole responsibility of households in Limithana to construct permanent toilets if they realize they are having each other's feces in one way or the other. The project just helped us with reward money for renovation and reconstruction of toilets in Dalit community but the amount was insufficient to do so. This was just the post ODF activity of DDC, said CHSAC representatives.

Table 6: Summary of answers to 5.3.4

Community level organization	Opinion towards toilet construction
○VWASHCC ○CHSAC	•Do not promise for financial assistance for toilet construction •Do not ask community for toilet construction but make them understand that they are eating each other's shit then they will no doubt construct toilet in sole responsibility.

5.3.5 What kind of holistic impact has project intervention posed on hygiene and sanitary behavior change of people residing in Limithana VDC?

VWASHCC: Regarding holistic impact created on behavior change after hygiene and sanitation intervention in Limithana VDC, what we fervidly focus on is special attention must be paid by the project/NGO into two issues: post ODF activities and regular/timely monitoring of WASH situation in the VDC. Both of these depend on how best the project has intervened WASH in the VDC. A fundamental question arise here how many times did they visit VDC after intervention? Why the VDC still suffers extreme shortage of water despite having abundant water resources like 'UpalloMuhaan', 'Kalidaha', 'Kafalbot'? Why there are still so many households who still practice defecation in direct pit (khaldokhanekocharpi)? If there is no water, how can it be possible to practice five key hygiene behaviors as instructed us to be followed during TBC Triggers' Training? Exaggeration and falsification of the reality cannot be hidden any longer. Villagers before ODF declaration were assured by the project that they will be provided with enough incentives/compensation if they support project by constructing toilet on sole initiative. Later on, sufferer of project realized they have been cheated. Today these poor people are facing problems for not being able to repay the loan of about NRS.15, 000 taken to construct single permanent toilet during ODF declaration time. This issue doesn't necessarily mean there is no behavior change at all. Changes can be noticed in people's behavior but not to the level it has to be. Therefore, ultimate solution to the entire problems is hard but it's not impossible. It is recommended to promote transparency and accountability by project in WASH intervention. On the other hand, even by sincerely running post ODF activities as promised to us and regular monitoring of WASH in Limithana VDC may bring positive results said VWASHCC representatives in response to above questionnaire.

CHSAC: The strength of WASH intervention in Limithana VDC is that locals are able to have sound health. This intervention helped locals realize an enormous water resources potential in the VDC which means that we have sufficient source of water. If utilized sustainably, it provides a distinct advantage to embark on a program of rapid Total Behavior Change (TBC) in the VDC. By endorsing the locals via sanitation and hygiene intervention; the project has helped locals

learn to practice five key hygiene behaviors, keep the surroundings clean, complete avoidance of unhygienic open defecation practice and many more. It has not only helped locals tackle their prime problem of unhealthy lifestyle but has helped one way or the other to reduce poverty. Subsequently, they are able to save capital which before intervention they at larger used to spend on health related problems. Limithana dwellers have experienced the most significant changes in their hygiene and sanitary behavior over the past 2/3 years. It was unbelievable certain things would change out blue said CHSAC representatives.

Table 7: Summary of answers to 5.3.5

Community level organization	Holistic impact posed on behavior change after intervention
○VWASHCC ○CHSAC	• Unsound contribution of project after intervention end up into meager behavior change, just opposite of expectation made during ODF declaration time. • Ample of productive advantages and benefit are being posed on regular life of locals after hygiene and sanitation intervention.

5.3.6 Has anybody caught practicing open defecation even after the VDC being already declared an open defecation free VDC?

VWASHCC: This is the strength of WASH intervention that nobody has found practicing open defecation after ODF declaration. At present, VDC inhabitants practice defecation in toilet no matter whether it is temporary or permanent. But it cannot be guaranteed this practice will remain sustainable, soon if they are not provided with subsidy/incentives/compensation. To highlight on the matter, the situation of permanent toilets is also in pathetic stage. If project anymore delays in timely monitoring, study of sustainability indicators and follow-up of the intervention, then VDC may return back to its initial stage as that of before project intervention. Therefore, we want sustainable project intervention said VWASHCC members.

CHSAC: VDC changed its structure when ODF got declared, one of the big challenges. Today nobody practice open defecation. They have understood practicing open defecation means ultimately consuming one's own and neighbor's feces, a disgraceful act. Today everybody in the VDC is committed on ending open defecation (OD) as a first crucial step and concentrates on entry point to gradual behavior change as a second momentous step said CHSAC members.

Table 8: Summary of answers to 5.3.6

Community level organization	Anybody caught red handed after ODF declaration?
○VWASHCC ○CHSAC	•Increased level of awareness doesn't let anybody further practice open defecation in the VDC. •Nobody dares to practice open defecation today because of strong feeling of disgust and shame.

5.3.7 What are the Post ODF activities carried out in the community to ensure sustainability of ODF, hygiene and sanitation intervention? /What types of expeditions are being carried out by Project/Community to ensure sustainability of hygiene and sanitary practice? (Regular monitoring, TBC Trigger's Training, Awareness campaign if any)

VWASHCC: The main lacunae of WASH intervention in Limithana VDC are incomplete ODF activities, inadequate monitoring mechanisms, no subsidy as promised to be given and comparatively low progress in hygiene behavior change that subsequently could not address couple of problems associated with WASH. Moreover, people's dissatisfaction lies in declaration of ODF without addressing couple of problems of the VDC such as still many more households practice defecation in temporary toilet (khaldo khaneko) which are extremely in disgraceful and dirty stage nearby settlements. Most of the permanent toilets are gradually turning out into the pitiable stage with broken doors and broken pan-set and are in filthy condition. All the same, most of them do not have even bucket and jug. Every ward suffers scarcity of water. Stopping

open defecation practice doesn't necessarily mean there are sufficient post ODF activities being carried out to sustain a sanitized condition. Reward money of NRS. 46,000 distributed by VWASHCC under supervision of DDC after ODF declaration is never plenty to make sure adequate post ODF activities are being conducted said VWASHCC members.

CHSAC: Actually, CHSAC is supposed to establish community mobilization system for behavior change in hygiene and sanitation in order to deal with post ODF activities like sanitation CHAUTARI, community conversation program, institutional hygiene and sanitation plan, sanitation campaign, awareness program, strategy of model houses, model village and process of ODF, TBC declaration and rewarding. Indeed, they could not be put into practice due to passive presence and partial attempt of concerned WASH stakeholders i.e. DDC, RWSSP-WN, CDRF, local bodies (under supervision of DoLIDAR), local leaders, natural leaders, female community health volunteers, women groups, CBOs and local people. To add, there have not been effective and efficient post ODF activities as enlightened during ignition and Triggerers training program. VDC dwellers in isolation are facing by and by stumbling obstruct regarding hygiene and sanitary behavior change. As a result, this has not only slowed down the motivation of people but WASH stakeholders and Lead TBC Triggerers are also unable to capture the projected influencing image of VDC dwellers due to ample loopholes. Besides, no any specific expeditions are being carried out by Project/Community to ensure sustainability of hygiene and sanitary behavior practice said CHSAC members.

Table 9: Summary of answers to 5.3.7

Community level organization	Opinion towards Post ODF activities
○VWASHCC	• Greatly dissatisfied with just single post ODF activity i.e. short supply of reward money that is always inadequate.
○CHSAC	• Comparatively minor post ODF activity was conducted in the VDC after ODF declaration, doesn't hold up affirmative opinion of locals towards intervention.

5.3.8 How will you rate the following as the top priority for changes in order to encourage Community-Led Total Behavioral Change in terms of Hygiene and Sanitation? Please number them according to priorities you place:

i. **Initiatives must be taken by local authorities, project, donors and community.**
ii. **Social responsiveness**
iii. **Post ODF activities**
iv. **If any other, please specify**

Numbering of the priorities by VWASHCC and CHSAC:

First: Initiatives must be taken by local authorities, project, donors and community and social responsiveness

Second: Prioritization of post ODF activities

Third: Avoidance of stakeholder's corrupt practices and provision of economic and financial incentives.

VWASHCC and CHSAC both rated above options of priority for change in following combined ways:

- **Priority for change: Number one priority**

The first priority for change is equally divided among 'Initiatives must be taken by local authorities, project, donors and community' and 'Social responsiveness'. Representatives of VWASHCC and CHSAC both argued these two factors as primary hurdle for complete behavior change regarding hygiene and sanitation in the VDC. The problems like inadequate initiatives in performing responsibilities by the local authorities, project, donor and community along with irresponsible social attitude of Limithana people have discouraged wide array of potential behavior change in the hygiene and sanitation sector. According to the VWASHCC and CHSAC, it should be remembered by DDC that it not only represents itself as rural water supply, sanitation and hygiene sector support-program but it should actively and transparently work thus

in mutual support of local body and community on one hand while the feeling of social responsiveness must crop up in Limithana people in order to encourage Community Led Total Behavioral Change on the other ultimately helping VDC walk in the path of progress and development.

- **Priority for change: Number two priority**

Ranking at number two, too little prioritization of post ODF activities remains a major challenge for most of the households towards complete behavior change argued the participants of VWASHCC and CHSAC in FGD. According to them, lack of ample post ODF activities on one hand and just allocation of reward money of about NRS.46, 000 with the purpose of purchasing pan-set, pipes, tin as post ODF activity that even suffered corruption, served as major problems in slow behavior change of Brahmin/Chhetri and Dalit community. As such, they focused on the special consideration that should be given on carrying out smooth post ODF activities because it can help raise the hygiene and sanitation standards of the whole community by creating positive externalities. They also focused on including community acceptance of the projects, general awareness about the development activities that the project will induce, bettering the lifestyle even further.

- **Priority for change: Number three priority**

The third priority for change is equally divided among stakeholder's corrupt practices and provision of economic and financial incentives by the representatives of VWASHCC and CHSAC. They pointed out inability to pay back mandatory loan taken for toilet construction, exorbitant interest rates incurred by the loan, promise made to locals for subsidy at the time of ODF declaration two years back by the project, need of extra sum to reconstruct/renovate the permanent toilets that are in ruined state and the households who have not yet transformed their direct pit into water-sealed as major challenges that needs to be addressed by means of provision of economic and financial incentives in order to promote behavior change.

Similarly, they equally stressed on stakeholder's corrupt practices that has led to the disputes in the locality for division of construction materials like pan-set, pipes, tin etc purchased out of reward money. They also discussed on exorbitant demands for tap-water construction per household alike toilets, corruption in reward money allocated as subsidy to ease toilet

construction expedition of poor and needy households and lack of proper disbursement of reward money in the targeted community i.e. Dalit community posed a major threat to community led total behavioral change. The ideological differences in the politically influenced local's need of monetary help and conflicting interests often hindered the hygiene and sanitary behavior change.

5.4 Findings from the observation

5.4.1 At households:

Altogether 60 households were observed during household survey at Limithana VDC.

Considering the situation analysis of hygiene and sanitation at households during observation, it was found that the condition of toilets were not in good state so needs an improvement in terms of renovation, in tems of cleanliness maintenance and in terms of conversion of direct pit into water-sealed specifically in the Dalit community. Similarly, the situation of surrounding area around households was safisfactory, it looked somewhat clean excluding few households of Dalit community. The situation of personal hygiene maintenance also needs improvement. The situation of safe water storage was also satisfactory. They had put water jar covered.They were found to leave their cloths get dried in the sun after washing them so the situation of cloths after washing was also satisfactory. The situation of menstrual hygiene management was also satisfactory. Females were found to use pieces of cloths as sanitary pad to ensure menstrual hygiene management and protect themselves from urine infection or any other bacterial infection during menstruation.

The situation of utilization of reward money needs an improvement. It requires right utilization that it was targeted for and the project must care to ensure regular monitoring of it whether it has reached to the targeted member of the community or not. Similarly, the monitoring situation of sanitary behavior/use of toilet/maintenance of hygiene and cleanliness by community also needs an improvement. Project must consider it seriously. On obeservation, the situation of dalits in terms of sanitary and hygiene practices was also

satisfactory. But the situation of post ODF activities at households needs an improvement. A serious groundwork must be done by the project, VWASHCC and CHSAC for it.

5.4.2 At health post:

Limithana health post located at ward.6 of Limithana VDC was observed.

No concerned person was available in health post to provide researcher with the required data of health status prior and after the project. As such, eventhough few minutes observation cannot generalize the results and actual situation of the health status of Limithana people but considering the situation analysis of hygiene and sanitation after intervention at health post, on observation for few minutes, it was found that situation of babies health was satisfactory. They were not found to suffer from any water-borne diseases except normal fever. The situation of children's health was also satisfactory. They were not suffered from diarrhoea, ARI or any other grave diseases. On observation, only one child could be noticed at health post for tooth check-up. Similarly, the situation of personal health of patient was also satisfactory. They didn't complain about any serious diseases. Same was the case with the situation of family health at large. It was found satisfactory. Nobody complained suffered from serious communicable diseases after intervention. But the health assistant and patients at health post complained about unsatisfactory post ODF activities at health post on one hand while the hygiene and sanitation condition of health post itself was not good on the other. The surrounding environment within the health post boundary was poor. It needs serious improvement. Hazardous wastes like syringes, needles, scalpels, broken glass, gloves, drugs, medication, and vaccines of health post were thrown haphazardly.

5.4.3 At Government School:

Limithana Secondary School holding around 400 students located at ward.5 of Limithana VDC was observed.

Considering the situation analysis of hygiene and sanitation at government school of Limithana, it was found the most worst situation out of every concerned sectors. Be it the

situation of toilet, be it the situation of food health habits, be it the situation of (Gender/Child/Disable friendly) GCD, be it the situation of use of water for drinking purpose, be it the situation of menstrual hygiene management, be it the situation of post ODF activities, or be it the situation of ensuring disable right in terms of drinking clean water/construction of disable friendly toilet , every sectors were found to be in a vulnerable stage. For instance, female students were compelled to run towards house incase they got menstruation. Most of the students were found to run towards home for defecation. Moreover, there were only 3 toilets in the school for teachers as well as for students constructed by school itself. No support has been received from DDC for toilet construction at school. During observation, 2 toilets allocated for teachers were locked and the only toilet (common for both girls and boys) which was opened for students was in most worst state. The availabilty of water was good as DDC constructed 3 taps with plenty water flow but no treatment or safe handling of water could be noticed. The surrounding area of school and tap water was also extremely dirty. Hence, every individual sectors need an immediate and serious improvement to ensure behaviour change in hygiene and sanitation at government school of Limthana VDC.

The collected data of the observation is attached in Annexes 1, 2 and 3 respectively.

5.5 Discussion of results:

Inadequate water supply, hygiene and sanitation infrastructure continue to pose a great challenge for the government and people of Nepal. Poor quality drinking water and unfavorable sanitation situation has not only contributed to the poor health of localities but it has been acting as causal factor for high burden diseases and a significantly large number of deaths every year. It indeed put off them from being productive citizen of state, in general, and for their family, in particular.

Analysing the holistic impact of the project, DDC has posed significant positive changes in hygiene and sanitary behavior of Limithana people through use of treatments like campaigning, triggering, capacity building, mobilizing FCHVs and women along with awareness raising activities prior the ODF declaration. As a result, the most considerable achievement of VDC is that nobody today practice open defecation. There is also reduction in use of direct pit for defecation with the increment in construction of water-sealed toilet. Maintenance of personal hygiene and sanitation was in vicious position before intervention, completely unaware about

importance of sanitation that had hindered a vigorous life of people in the VDC. Mass of people were entitled to unhygenic practices ultimately hampering their health prior intervention but today the case is bit different, improvement can be noticed in households. Yes, it's the bright part of project intervention, today at least they do understand and feel the need of behavior change. This proves steady changing pattern and changing behavior of people towards hygiene and sanitation after intervention of DDC.

Latrine issues:

In Limithana VDC, most of the people defecate in water-sealed toilet after intervention excluding few dalit households who still defecate in direct pit. The structural state of those temporary toilets was not satisfactory. Users of the direct pit were not found to be serious regarding cleanliness of the toilet for various reasons like not having sufficient water to clean toilet, not having required sum to repair damaged parts of toilet, not getting time to clean the toilet, some of them even told temporary toilets (direct pit) doesn't need cleanliness etc. In fact, they also disclosed about poor financial condition being the plausible proof of not being able to turn unhygienic temporary toilet into the permanent one.

At the same time the fact cannot be denied that parasitic nature of majority people on project has resulted in interrupted behavioral change. For instance, toilets are gradually getting disfigured, backdrop of existing permanent toilets in the VDC. But still they want project to renovate and reconstruct their toilets. What it indicates? Not only on WASH intervention, are they generally habituated to the mindset 'Don't change until external help comes in to solve your problems' for any development effort in the VDC?

Hygiene and behaviour change issues:

From the survey it was found that majority of people have knowledge on hygienic behavior. This shows that the project has succeeded in creating awareness on health, hygiene and sanitation in the community, however behavior change which is the most important part when observed was found to be lacking in the project. Most of the people though have proper knowledge on five key hygiene behaviors, many are found not practicing those behaviors. For e.g. in case of hand washing, majority knows the critical times for washing hand but when observed they are not

washing hands as required. According to the community, he major reasons for not washing hand as required is due to difficulty in having sufficient water and affordability to buy soap.

Regarding safe handling and treatment of drinking water, majority in the community have knowledge on point of use water treatment, but still significant number of people in the VDC believe that water is natural resource, nature naturally cleans and purifies it so no need of treatment or boiling. While, on the part of personal hygiene and cleanliness maintenance, most of them were found to be serious about regular nail cutting, combing hair, tooth brushing and washing clothes. Very few of them were found doing negligence. Despite the existence of several problems in accessing water, the bathing practice seems satisfactory if compared with other factors associated with personal hygiene and sanitation in the VDC. They expressed despite wanting to take bath regularly to keep themselves fit and fine everyday, they have not been able to do so due to shortage of water even though drinking water projects are under operation at present.

It was indeed the matter of surprise to most of the respondents to hear about an idea regarding appropriate use of human excreta. When told about its uses and advantages, some of them responded human excreta as disgust, shouldn't be used in the crop while others were completely amused to hear about the advantages of bio-gas that can be produced out of human excreta.

No doubt, VDC suffers decade's long extreme scarcity of water despite having abundant water resources within and nearby. Striving towards total behavior change is never possible unless there is sufficient availability of water. Considering the problem, DDC projected 'One house one tap construction policy', the project has almost completed the task. But still VDC dwellers are facing problems for required amount of water.

Meanwhile, during observation, household's sanitation situation excluding few Dalit households was satisfactory but the school and health post sanitation situation was not found to be agreeable. Government school was found to lack separate toilet for male and female students. The available toilets were also in complete terrible state. Elder boys and girls were found to use toilets just for urinating during school hours. Lack of toilet and urinal in school has resulted in the drop-out rate among girls during their puberty. This has caused serious taboo in hygiene and sanitary behavior change of school students. Also, the Health post waste management was found weaker. This

might carry viruses, fungi, bacteria, or parasites and that could be spread and infect other people or areas of a health post.

Management and sustainability issues

Considering the management and sustainability of hygiene and sanitation, it is indeed the most striking issue that needs to be addressed as soonest as possible to promote sustained ODF and other hygiene and sanitation behavior change in the VDC. RWSSP-WN, local bodies, VWASHCC, CHSAC and community in fact should pose special consideration on the matter. There are numerous obstructing factors which have been pointed out as the prime causes behind unsustainable and mismanagement of hygiene and sanitation practices in Limithana VDC which are explained below:

Problems related to sustainability of hygiene and sanitation interventions: Locals ambiguity could be noticed in Limithana that holds back the sustainability and overall community ownership of the sanitation and hygiene interventions. Sustainability requires commitment of concerned WASH stakeholders, leading project, local government and every member of project intervened locality followed by regular monitoring and appraisal of the project area. But Limithana lacks all these. Apart from this, inconsistency in VWASHCC and CHSAC functioning of this VDC shows no clear demarcation of responsibilities between CHSAC and VWASHCC. There are conflicting community based structures with similar work scope that has question marked the issue of sustainability of hygiene and sanitation intervention in Limithana VDC.

Economic related problems: Unemployment and poverty primarily needs to get addressed if behavioral change is to ensured, said Dalits. Given the widespread economic and financial problem in the VDC, particularly to the Dalits of ward 3 and 8, their affordability has posed a big challenge to construct permanent toilet. In fact, they still struggle with hand to mouth problem as a result of unemployment and no alternative employment option. Missing youth representation in focused group discussion and household survey indicates youngsters in many numbers have already moved away either to the gulf countries/ overseas or neighboring country India in search of better opportunities. All these problems have question marked the sustainability of hygiene behavior in the VDC.

Unsatisfactory post ODF activities: They looked highly dissatisfied and deflated with unsatisfactory post ODF activities and complete absence of timely monitoring of WASH situation in the respective areas by the existing institutions, schools, communities and VDCs under the leadership of the VWASHCC and CHSAC. Post ODF campaigning is essentail to upgrade the degraded toilets and to promote hygiene behavior activities such as hand washing with soap at critical times, food hygiene, waste management, houeholds and environment sanitation in order to attain 'clean and healthy village' ultimately leading to the 'Total Sanitized Community/VDC'. Hence to sustain behavior; refreshers trainings, exposure visits, networkings, documentation and publicity etc. should be held from time to time in the VDC.

Lack of proper financial information by Users' committee to the rural citizens: There should be an immediate and precise dissemination of information on financial matters in the local language at the village level. The availability of information not only increases transparency but also creates responsibility and accountability whip for the project staffs and local government.

Inter and intra Ward conflict: Inter and intra unabashed ward conflict has hindered the proper utilization of reward money and materials provided by DDC targeted towards poor and needy which has highly affected behavior change in Limithana VDC. It thus, reveals the VDC is lagging far behind in development achievement. There at a standstill predominantly exist haves who dominate have-nots and exclude them in terms of equal resource sharing. The suitable example can be the FGD with CHSAC and VWASHCC during household survey in the VDC that included Brahmins and Chhetris in majority with unsound participation of disadvantaged members of the community, the reason was undeniably inter-ward ethnic clash. Conflict resolution/negotiation can only be the best solutions to get rid off this problem which can then encourage people foresee behavior change in terms of hygiene and sanitation.

Detrimental political influence: local political dilemma, social irresponsiveness and latent community concern are pointed out to be the prime cause behind interrupted behavioral change. Local political influence in each ward of the VDC has not only provided enough opportunities for few people in the VDC serve their own vested interest but has created a corrupt environment throughout the VDC, the chief cause of inter-ward/ethnic conflict. That's why Limithana VDC is popularly known for politically prejudiced VDC in the entire Parbat district. It has played a key

role in backwardness of VDC followed by least development in any aspect of development be it in terms of remoteness, be it in terms of inaccessible village and cultural mindsets, be it in terms of transportation, be it in terms of agriculture or be it in terms of health, hygiene and sanitation. Almost every development aspects of this VDC require constructive changes. For this, detrimental political authority exercised by few powerful people in the VDC must be highly discouraged. If it happens, this will automatically start persuading people towards need of behavior change.

Problems in reward money mobilization: DDC had even made provision of pan set, pipe, tin and cement out of reward money for needy but ruling class benefitted from it keeping additional stock of toilet construction materials at their home. To add, poor people complained about insufficient reward money i.e. NRS. 46,000 which were never sufficient to buy required number of pan set, pipe, tin etc required to convert direct pit into the permanent one. Local people preferred to call it, *'Khasi dekhayera farsidinuhuncha'*. Misuse of reward money by the concerned authority was the contemporaneous cause of interrupted behavioral change as it could not reach to the targeted Dalit households. There are households in much number who complain about inability to pay back loan taken for toilet construction during ODF declaration time. Now, their inquisitiveness deceit in incomplete project intervention and the inadequate reward money.

CHAPTER-VI

CONCLUSION AND RECOMMENDATION

6.1 Conclusion:

The focused group discussion with the representatives of local governing structure VWASHCC and local organization at community level i.e. CHSAC, hour-long interview in 60 households representing 9 wards and overall study from observation lead us to the conclusion that WASH project implemented by DDC Parbat in supports from RWSSP-WN has beyond doubt made precise effort to capture the people's attention in sanitation sector at Limithana. Their slow but sure improvement proves it because people's unanimous effort towards hygiene behavior change cannot be considered unsatisfactory if compared with prior the project. The project has tried at its best to encourage people towards behavior change through participatory approach, massive capacity building, mass sensitization and the use and mobilization of natural leaders along with VDC level triggers to create VDC level ODF status sustainable during ODF campaigning. It has motivated people to construct users friendly toilet in the local context during ODF campaigning. The project is also thoroughly working to reduce coverage gap between water supply and sanitation so as to get the apparent health benefits from water supply and sanitation sector interventions. Water supply is an indispensible entity for sustainable use of toilet and promotion of hygiene and sanitation behavior. So far, the project has already covered households in many numbers with tap construction under 'One house one tap policy' to motivate VDC dwellers towards sustainable changes in hygiene behaviors.

Despite all these efforts, project equally possesses numerous challenges. Post ODF intervention seems weaker due to the poor performance and functionality of DDC along with VDC level committees like VWASHCC and CHSAC set up at grass root level and there is lack of flexibility in financial support eventually resulting into the slower improvement in hygiene behavior change of Limithana dwellers. They still do have specific problems in terms of insufficient WASH intervention, inefficient evaluation and irregular monitoring status of the VDC sanitation situation. This has hindered people from being encouraged towards speedy total behavior change in hygiene and sanitation as much as could have been possible as of now. In any case, villagers

want concerned WASH stakeholders and local governments pay their special attention to overcome these lacunas and loopholes as soonest as possible.

In nutshell, the conclusion is, it is equally an important issue that still many people in Limithana do careless regarding hygiene and sanitation practices. Nevertheless the fact cannot be denied community participation; consistent community engagement and ownership are the most essential elements to strive towards total behavior change. Considering the existing challenges and barriers to overcome, effective monitoring and facilitation is essential to be in place to accelerate the pace of sanitation promotion and ultimately achieve the set targets within the given time frame.

6.2 Recommendations:

From the discussion in the preceding chapters, it is explicitly clear that despite the rigorous attempt of the WASH program to change unhygienic lifestyle of people in Limithana VDC, it is not yet abide of various challenges. Problems have been analyzed on the basis of findings of the study. Following is the set of recommendations:

1. Poverty analysis should be done initially to encourage people towards total behavior change. Unless this problem of hand to mouth is addressed no poor wills to practice behavior change.
2. Sustainability of the interventions should be ensured. Authentic and adequate post ODF activities including strong follow ups should be immediately initiated by the project to improve ODF status and also to find out whether there is an improvement in behavior change of people in terms or hygiene and sanitation practices or not.
3. The appropriate monitoring and evaluation of five key hygiene behavior practices, usage of toilet, cleanliness maintenance etc. should be done by the implementing project and local government time to time to promote total behavior change.
4. VWASHCC and CHSAC must work collaboratively to identify the actual problems of the VDC and try to solve them on their own effort apart from expecting it with project.
5. The project should mainstream hygiene and sanitation practices not only in households but also in community institutions such as schools, health institutions, and community buildings.

6. The poor mindset of 'Do not change until external help comes in to solve your problems' in rural people should be strictly discouraged.
7. Reward money should be distinctly and transparently utilized.
8. Consensus building should be done amongst local government structures to continue the process of reviewing and reflecting WASH situation of the VDC periodically.
9. Non-subsidy policy for toilet construction should be encouraged.
10. Unhealthy political practice should be strongly discouraged in the community to ensure community led total sanitation.
11. Inter and intra ward conflict should not be given space as it hinders community development.
12. Proper and transparent financial information should be disseminated amongst the community people to ensure positive growth and changes.
13. Information gap should be reduced between implementing project, local government and the community people to ensure sustainability of hygiene and sanitation intervention.
14. Socio-cultural aspects/taboos of the VDC should be well studied before any project intervention to get succeed because it can be the biggest factor to hinder the hygiene behavior change.
15. Mainstreaming the vulnerable and marginalized of the society should be given foremost priority in action rather than just in policies and strategies to ensure equity and social inclusion for sustainable hygiene and sanitation practices in the VDC.
16. Finally, DDC should focus on complete behavior change with foremost priority on universal access, the diverse approaches and modalities to maintain uniformity and standardization in the hygiene and sanitation sector.

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Annex 1: Observation at Households

1. Situation observation of hygiene and sanitation at households:	Good	Satisfactory	Needs an improvement
➢ Condition of toilet (What is being used to ensure cleanliness of toilet? (water, covering human shit with ash/straw if any)			✓
➢ Situation of surrounding area (Environment)		✓	
➢ Situation of Personal hygiene maintenance			✓
➢ Situation of safe water storage (whether water jar/bottle is covered or not)		✓	
➢ Situation of cloths after washing (left in sun to get dried/ or left haphazardly)		✓	
➢ Situation of Menstrual Hygiene Management at household		✓	
➢ Situation of utilization of reward money			✓
➢ Monitoring situation of sanitary behavior/use of toilet/maintenance of hygiene and cleanliness by community.			✓
➢ Situation of Dalits in terms of sanitary and hygiene practices.		✓	
➢ Situation of Post ODF activities at households			✓

Annex 2: Observation at Health Post

2. Sanitation and Hygiene related observation at health post:	Good	Satisfactory	Needs an improvement
➢ Situation of babies health		✓	
➢ Situation of children's health (diarrhea, ARI, …)Record the illness mentioned by the respondent)		✓	
➢ Situation of personal health of patient		✓	
➢ Situation of family health at large (including males, elderly, female etc)		✓	
➢ Situation of Post ODF activities at health post			✓
➢ Situation of hygiene and sanitation at health post			✓

Annex 3: Observation at Government School

3. Situation observation of hygiene and sanitation at government School:	**Good**	**Satisfactory**	**Needs an improvement**
➢ **Situation of toilet**			✓
➢ **Situation of food health habits**			✓
➢ **Situation of (GCD i.e. Gender/Child/Disable friendly)**			✓
➢ **Situation of availability of water**		✓	
➢ **Situation of use of water for drinking purpose (filtering/boiling if any)**			✓
➢ **Situation of menstrual hygiene management (availability of Sanitary pad, disposing pad safely, burning it weekly if any)**			✓
➢ **Situation of ensuring disable right in terms of drinking clean water/ construction of disable friendly toilet)**			✓
➢ **Situation of Post ODF activities at government school**			✓

Annex 4

Questionnaire:

- Household No. :

Name of District:	**Name of VDC:**
Ward No.:	**Tole:**
Name of Respondent:	**Sex:**
Age:	**Marital Status:**
Occupation:	**Education:**
Ethnicity:	**No. of family members:**

- **Structured/Close ended-questions (Yes/No questions)**

A. {Before Hygiene and sanitation intervention in Limithana VDC}

1. Where did you use to defecate?

   Toilet ☐ Open area ☐

2. Can you specify the places of defecation in open area?

   Jungle ☐ Bush ☐ Kitchen Garden ☐ Khet Bari ☐

3. When did you use to wash your hand?

   Before meal ☐ After using toilet ☐ After cleaning children's bottom ☐
   After touching dirty thing ☐

4. Did you use to practice safe handling and treatment of household drinking water?

   Yes ☐ No ☐

5. Were you cautious about personal hygiene and cleanliness?

   Yes ☐ No ☐

6. If yes, how did you use to maintain it?

   Regular nail cutting ☐ Combing hair ☐ Tooth brushing ☐ Washing cloths ☐

7. Did you use to take bath in a timely manner?

   Yes ☐ No ☐

8. Did you use to safely dispose the solid and liquid waste in and out of home?

   Yes ☐ No ☐

B. {After Hygiene and sanitation interventions in Limithana VDC}

9. Where do you defecate?

   Toilet ☐ Open area ☐

10. If toilet, can you specify the type of toilet that you are using?

Direct Pit ☐ VIP ☐ Offset ☐ Water Seal ☐ Urine Diversion Dry Toilet ☐

11. Do you use it properly? Give reasons. (Observation)

Yes ☐ No ☐

……

……

12. When do you wash your hand?

Before meal ☐ After using toilet ☐ After cleaning children's buttom ☐ After touching dirty thing ☐

Specify if other: ……

……

13. Do you practice safe handling and treatment of Household Drinking Water?

Yes ☐ No ☐

14. If yes, how do you practice it?

Boiling ☐ Filtration ☐ Sodis ☐ Chlorination ☐ None ☐

15. Do you maintain personal hygiene and cleanliness?

Yes ☐ No ☐

16. If yes, how do you maintain it?

Regular nail cutting ☐ Combing ☐ Tooth brushing ☐ Washing cloths ☐ Bathing ☐

17. Do you/your children take bath regularly to ensure healthy and happy life?

Yes ☐ No ☐

If yes, how often? Daily ☐ Weakly ☐ monthly ☐ twice a week ☐

18. Do you safely dispose the liquid and solid waste in and out of home?

Yes ☐ No ☐

If Yes, how? Waste bin ☐ Garbage pit ☐ Use in kitchen garden ☐ Compost Pit ☐

19. Do you have any idea about making appropriate use of human excreta such as generating 'Bio-gas' or 'using them as manure in your crops for better yield'?

Yes ☐ No ☐

20. Are you really been able to change your sanitary behavior particularly after project interventions? Give reasons.

Yes ☐ No ☐

……

……

- **Structured/Open ended questions**

(Focused Group Discussion)

1. What impacts of disease were noticed in health of community before and after Project interventions in Limithana VDC?

2. What is the existing perception of VWASHCC and CHSAC formed under WASH project towards the efforts to prevent open defecation through Total Hygiene and Sanitation intervention in the VDC?

3. What kind of behavioral changes have you been noticing in community people regarding practicing five key hygiene behaviors such as 1) Hand washing at four critical times with Soap or Cleaning Agent, 2) Safe disposal of feces, 3) Safe handling and treatment of Household Drinking Water, 4) Regular nail cutting, bathing, cloth washing, daily combing, tooth brushing and 5) Proper waste management in and out of home?

4. How are the toilets being constructed? (self investment of individual household, in co-ordination with project, sole initiative of project or if any other please specify)

5. What kind of holistic impact has project intervention posed on hygiene and sanitary behavior change of people residing in Limithana VDC?

6. Has anybody caught practicing open defecation even after the VDC being already declared an open defecation free VDC?

7. What are the Post ODF activities carried out in the community to ensure sustainability of ODF, hygiene and sanitation intervention? /What types of expeditions are being carried out by Project/Community to ensure hygiene and cleanliness sustainability? (Regular monitoring, TBC Trigger's Training, Awareness campaign if any)

8. How will you rate the following as the top priority for changes in order to encourage Community-Led Total Behavioral Change in terms of Hygiene and Sanitation? Please number them according to priorities you place:

    i. Initiatives must be taken by local authorities, project, donors and community.
    ii. Social responsiveness
    iii. Post ODF activities
    iv. If any other, please specify

➢ Observation at Households

4. Situation observation of hygiene and sanitation at households:	**Good**	**Satisfactory**	**Needs an improvement**
➢ **Condition of toilet (What is being used to ensure cleanliness of toilet? (water, covering human shit with ash/straw if any)**			
➢ **Situation of surrounding area (Environment)**			
➢ **Situation of Personal hygiene maintenance**			
➢ **Situation of safe water storage (whether water jar/bottle is covered or not)**			
➢ **Situation of cloths after washing (left in sun to get dried/ or left haphazardly)**			
➢ **Situation of Menstrual Hygiene Management at household**			
➢ **Situation of utilization of reward money**			
➢ **Monitoring situation of sanitary behavior/use of toilet/maintenance of hygiene and cleanliness by community.**			
➢ **Situation of Dalits in terms of sanitary and hygiene practices.**			
➢ **Situation of Post ODF activities at households**			

➢ Observation at Health Post

5. Sanitation and Hygiene related observation at health post:	**Good**	**Satisfactory**	**Needs an improvement**
➢ **Situation of babies health**			
➢ **Situation of children's health (diarrhea, ARI, …)Record the illness mentioned by the respondent)**			
➢ **Situation of personal health of patient**			
➢ **Situation of family health at large (including males, elderly, female etc)**			
➢ **Situation of Post ODF activities at health post**			
➢ **Situation of hygiene and sanitation at health post**			

- **Observation at Government School**

6. Situation observation of hygiene and sanitation at government School:	**Good**	**Satisfactory**	**Needs an improvement**
➢ **Situation of toilet**			
➢ **Situation of food health habits**			
➢ **Situation of (GCD i.e. Gender/Child/Disable friendly)**			
➢ **Situation of availability of water**			
➢ **Situation of use of water for drinking purpose (filtering/boiling if any)**			
➢ **Situation of menstrual hygiene management (availability of Sanitary pad, disposing pad safely, burning it weekly if any)**			
➢ **Situation of ensuring disable right in terms of drinking clean water/ construction of disable friendly toilet)**			
➢ **Situation of Post ODF activities at government school**			

ANNEX 5:

Figure 1: Interviewing with Dalit women in Ward No. 6, Limithana VDC

Figure 2: Research Assistant showing condition of water-sealed toilet in Ward No. 8

Figure 3: Female members of CHSAC interacting during focused group discussion

Figure 4: Interviewing with respondent of Ward No. 2

Figure 5: Focused group discussion with members of VWASHCC

Figure 6: Situation of toilet in Limithana government school

Figure 7: Limithana Health Post

Figure 8: Interviewing respondents of Ward No. 5

Figure 9: Interviewing respondents at Limithana VDC

Figure 10: Condition of direct pit at Dalit household of Ward No.8

Figure 11. Tap construction in the VDC

Figure 12: Condition of permanent toilet of one of the respondent's household of Ward. 1