RESEARCH REPORT

WATER, SANITATION AND MENSTRUATION HYGIENE

An Assessment of Menstruation Hygiene of Women and Adolescent Girls and Their Access to the Services in Kharelthok and Jyamdi VDC, Kavrepalanchowk, Nepal

Submitted to:
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1) *Project representatives of KIRDARC Nepal*
2) *Participants of Focus Group Discussions and the Key informant*
3) *A total of 167 respondents of field survey from Kharelthok and Jyamdi*
4) *The 8 Enumerators who conducted the household surveys*

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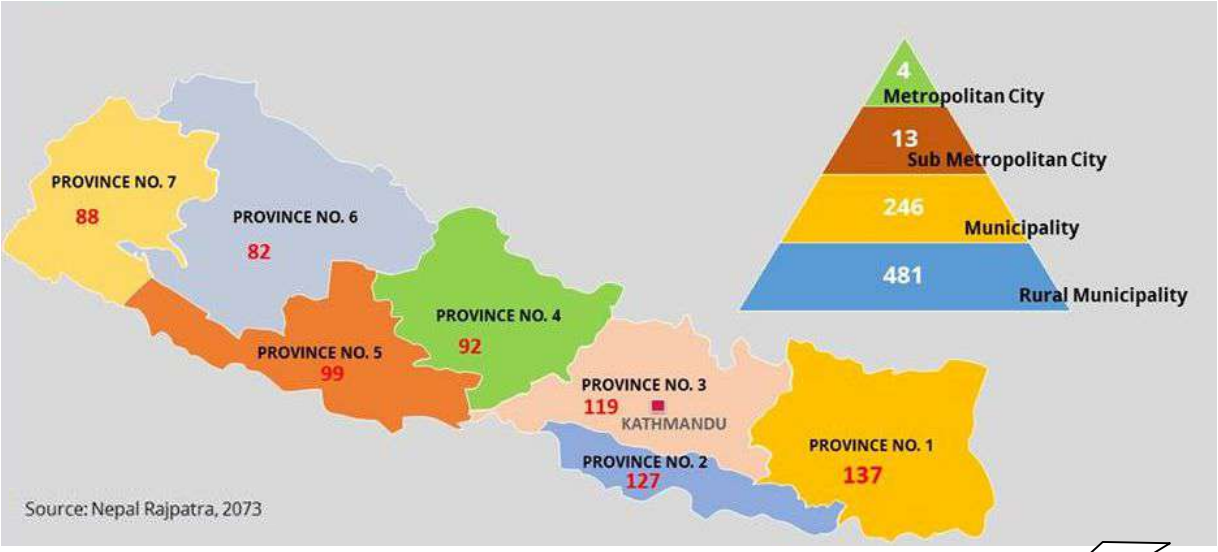
Maps of Research Area



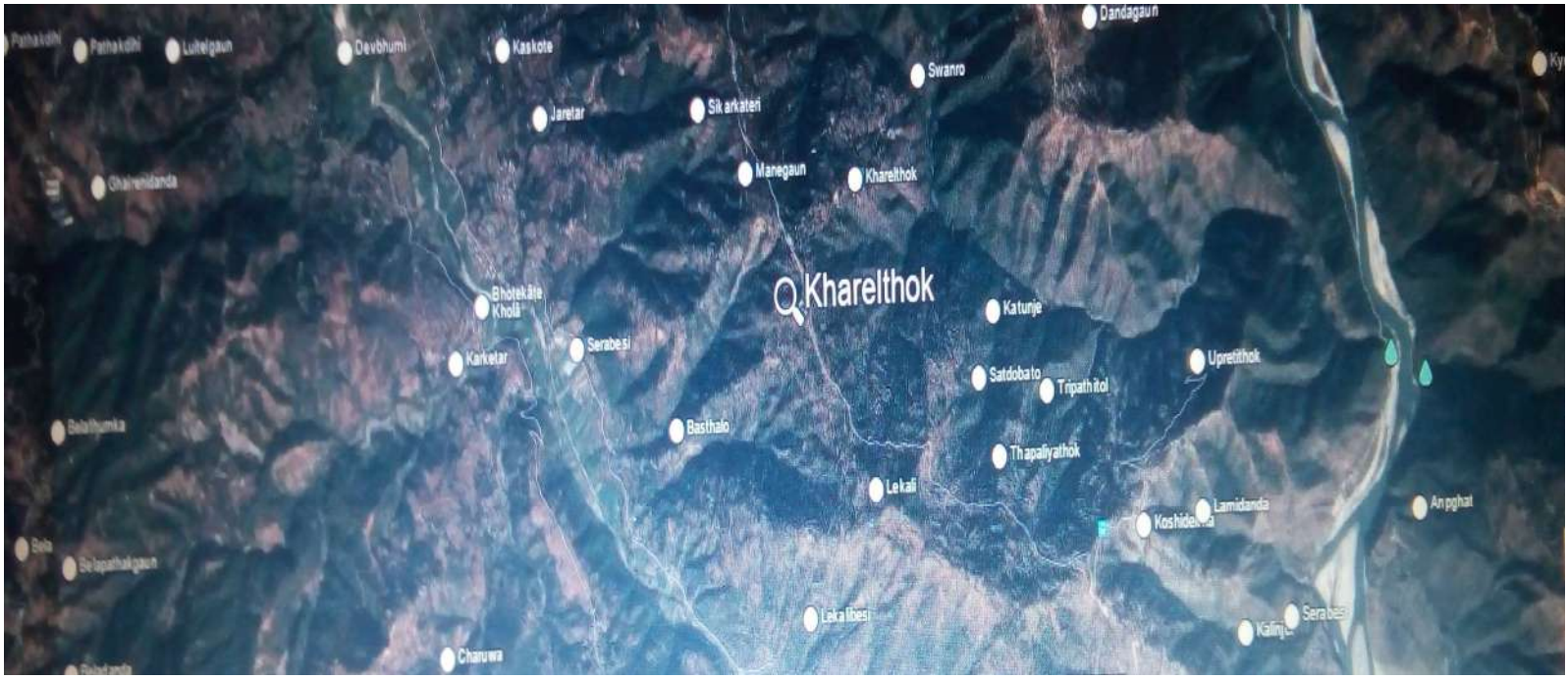
Earlier the research areas were independent VDC as given in the map left. Therefore, the study has based on earlier administrative mechanism.

Now, the research area is falls under the Province No. 3 and Kharelthok VDC is included into the Panchkhal Municipality as given in the map right and Jyamdi is converted into Rural Municipality with geographical extension.

Both the VDCs are hilly and have access to road. The satellite images of both the VDC taken from Google is presented in next page.

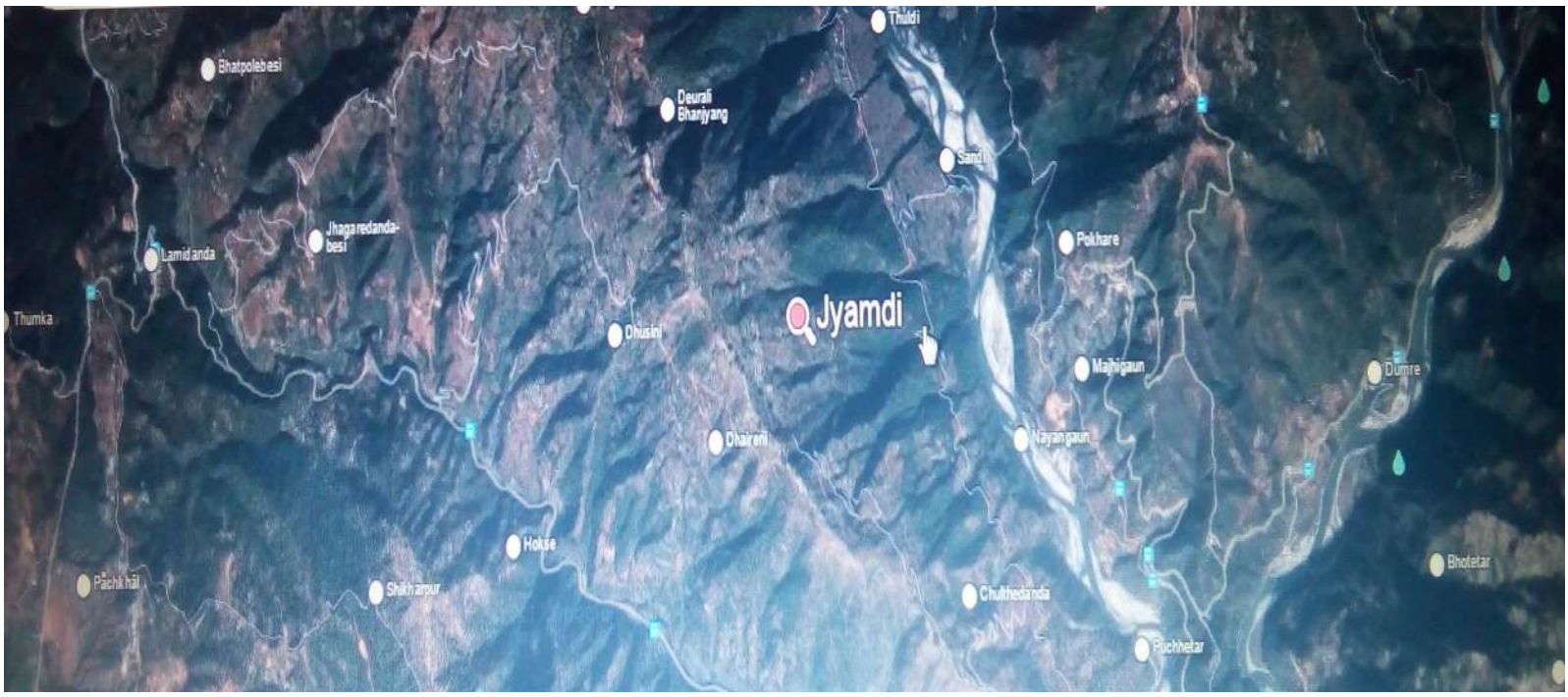
Kharelthok VDC of Kabhrepalanchowk

A satellite images of the VDC taken from Google.com



Jyamdi VDC of Kabhrepalanchowk

A satellite images of the VDC taken from Google.com



Abbreviations and Basic Terminologies

ADB	Asian Development Bank
CBO	Community Based Organization
CGD	Child, Gender and Disable Friendly
DDC	District Development Committee
DEO	District Education Office
DOE	Department of Education
DoHS	Department of Health Services
DPHO	District Public Health Office
DWASH-CC	District Water, Sanitation and Hygiene Coordination Committee
DWDO	District Women Development Office
DWSS	Department of Water Supply and Sewerage
DWSSCC	District Water Supply and Sanitation Coordination Committee
ESDMS	Environmental Sanitation and Disaster Management Section
FACOFUN	Federation of Community Forestry Users Association Nepal
FEDWASUN	Federation of Water and Sanitation Users Nepal
FGDs	Focus Group Discussions
HP	Health Post
I/NGO	International/ Non Government Organization
KII	Key Informants Interview
KIRDARC	Karnali Integrated Rural Development and Research Centre
MDG	Millennium Development Goal
MHM	Menstrual Hygiene Management
MLD	Ministry of Local Development
MWCSW	Ministry of Women, Children and Social Welfare
PTA	Parents Teachers Association
SMC	School management Committee
VDC	Village Development Committee
WASH	Water, Sanitation and Hygiene
WECS	Water and Energy Commission Secretariat

Basic Terminologies

The operational definition of the following terms will be as follows, unless otherwise stated.

1) **Improved Sanitation Facilities (Toilet)**

   An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. For this study purpose, sanitation facilities are not considered improved when shared with other households or open for public use.

2) **Total Sanitation**

   This is a range of facilities and hygiene behaviors that lead to achieve sanitized condition of the designated areas (VDC and municipality including settlements, Toles, school's catchments). Total Sanitation concentrates on Open Defecation and sustainable hygiene and sanitation behaviors.

3) **Open Defecation Free**

   ODF means no faeces are openly exposed to the air. The collection of faeces in a direct pit with a fly proof lid it qualifies for ODF.

4) **Child, Gender and Disable Friendly**

   It includes water taps, knobs and latches of toilet doors and windows at suitable heights and convenience for children at different ages and physical qualities.

5) **Gender Friendly Toilet**

   The location of the toilet should be appropriately selected in a safe and secure place and the door, windows and ventilation should safeguard privacy. In addition to water, in schools and other public institutions, the toilet should have facilities for maintaining menstrual hygiene management. For example, a bucket with cover/lid inside the toilet or an incinerator attached just outside the toilet makes gender friendly.

6) **Disable Friendly Toilet**

   It should include a ramp up to toilet, sufficient space for a wheelchair in the passage, hand railing in the passage and, within the toilet cubicles, appropriate types of seating arrangements and support on the toilet.

7) **Ultra Poor Households**

   It refers to those households having food sufficiency (security) for less than six months; having daily wages as the main source of income; female-headed households and/ or households without adult members and/ or households having physically disabled persons, and other relevant indicators agreed by the community.

8) **Universal Sanitation Coverage**

   This is a state of cent-percent sanitation (toilet) coverage in a given area.

9) **Universal Access to Sanitation**

   It is a state where all users have access to toilet in a given area.

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CHAPTER I: INTRODUCTION

1.1. Background

Menstruation is a natural process that starts from the age of 8-9 years and ends around the year of 50. Adolescence is a period of physical, mental, social and emotional change and a sign of maturity among the girls. In this period, a change, in which rapid growth and development takes place. According to WHO (2016), adolescence is the time of human growth and development, which befalls in between childhood to adulthood within the age of 10 to 19 years. Adolescence indicates the critical changeovers in the life span and is categorized by a wonderful step in growth and development that is additional only to that of infancy. Biological progression motivates many features of this growth and development, with the beginning of puberty marking the path from childhood to adolescence. Menstruation is the flow of blood among female in every month. It is a natural process. The menstruation at the first time is known as menarche. The age of menstruation depends on the climatic condition and intake of nutritional diet, which determine the process of growth and development. The medicinenet.com (2013) has defined menstruation as the periodic blood that expulsions from the uterus. It is also called menorrhea. The time period of menstruation is referred as menses. Menstruation is not taken as easy by females. It is as same as curse for them due to the religious and cultural beliefs and norms.

According to UN Women (2015), the menstruation is an unpleasant matter in the community, indicated by beliefs and traditions that influence on its management and in the everyday life of females and girls. It is taken as the period of contamination and disease. So, the menstrual blood is managed secretly. On the other hand, hygiene related to menstrual period is one of the most important matters to be safe from bad smelling, diseases and so on. The Water Aid (2009) described that the menstrual sanitation and its management is a subject that is inadequately approved and has not established sufficient consideration in the reproductive health and Water, Sanitation and Hygiene (WASH) divisions in developing countries containing Nepal and its relationship with and influence on attaining several Millennium Development Goals is hardly accepted.

In addition, Farage, Miranda, Miller and Davis (2011) stated that the menstruation has a major cleanliness challenge, but there is important social innovation in several cultures, enclosed by several cultural practices, which strongly change a girl's life. The capacity of managing menstruation practically may also influence a girl's life, reliant on the accessibility of suitable absorbent products and access to secret cleanliness facilities. Although the information that the menstruation is shared by more than 50 percent of the world's population, it is a subject that fundamentally all culture are uneasy to argue at some level, and maximum girls are informed negatively regarding menstruation.

The school is a public place, where the menstruating girls can't get secrete place for changing pads. So, the absenteeism is higher during menstrual periods. the lack of secrecy and place for changing, washing, drying or removing materials, as well as inadequate accessibility of water for individual cleanliness show up as significant areas where cleanliness systems often fail to provide to the requirements of menstruating girls and women (Sommer, Marni, Kjellén and Pensulo, 2013). Likewise, UNICEF (2013) stated that providing the sanitary pads and instructional materials to the girls is important and recruiting school nurses as mentors in menstrual sanitation practices might be beneficial for permitting girls to stay in school throughout menstrual period. Boys as well as parents also essential to involve exposing myths and diminishing the stigma associated with menstruation.

While discussing about menstruation, the age of adolescence girls is very crucial as they first experience menstruation at this stages. Adolescence is defined by the World Health Organization as the period of life spanning the ages between 10-19 years (Aryal & Adhikary, 2003) and has been recognized as a special period which signifies the transition from girlhood to womanhood (Juyal, Kandpal, Semwal, & Negi, 2012). At the beginning of this transition phase, girls experience menstruation which normally last till their late 40s or early 50s. Each month about 14 million Nepalese female aged 14 to 49 years have their menstruation.

From generation to generation, the women and girls are taught that having periods is shameful, and absorb the messages that menstrual blood is dirty, smelly, unhygienic and unclean; but the hard core truth is that menstruation is a natural physical process - a harmless by-product of a biological event. The natural and healthy process of menstruation presents obstacles for many females around the world, but women and girls in Nepal face the monthly reality whereby routine works like cooking, socializing, performing rituals and prayers, and schooling come to a halt for 3 to 7 days a month. Cultural traditions, view menstruation as polluting and harmful to others, so while menstruating, females must remain isolated and abstain from contact with other people (Bharadwaj & Patkar, 2004). These practices and beliefs have reinforced a negative attitude towards this phenomenon. Therefore, this research was conducted explore the latest status and access to the service demand and utilization to bring changes in women's health and social wellbeing of the person living with disabilities.

Of late, menstrual health and hygiene is an integral component to achieve six of the Sustainable Development Goals (SDGs): Goal 3 - ensure healthy lives and promote well-being for all at all ages; Goal 4 - ensure inclusive and equitable quality education and promote life-long learning opportunities for all; Goal 5 - achieve gender equality and empower all women and girls; Goal 6 - ensure availability and sustainability of water and sanitation by all; Goal 8 - promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; and Goal 12: ensure sustainable consumption and production patterns.

In this area, several studies show that young girls are generally told nothing about menstruation until their first experience. It also revealed that mothers, media, friends, teachers and relatives are the main sources of information on menstruation to the adolescent girls. Several traditional norms and beliefs, socio-economic conditions and physical infrastructure can and do influence the practices related to menstruation (Bharadwaj & Patkar, 2004). Thus, a key priority for women and girls is to have the necessary knowledge, facilities and the cultural environment to manage menstruation hygienically and with dignity (Mahon & Fernandes, 2010).

The Government of Nepal has taken an encouraging step to draft a policy on Menstrual Hygiene Management (MHM). This policy should be holistic and capture the voice of all. During the policy consultation workshop on MHM held on February 9-10, 2017 by the Ministry of Water Supply and Sanitation (MoWSS) in collaboration with the Water Supply and Sanitation Collaborative Council (WSSCC), several papers were presented that would definitely help to shape the policy provisions. The types and frequency of problems related to menstruation among adolescent girls and the effect of these problems on daily lives are different in different parts of Nepal and their implications may vary.

On the other side, the UN estimates that over a billion people live with some form of disability and they are disproportionately represented among the world's poorest and at greater risk of suffering from disasters because they face many barriers in daily life. They often denied access to services and it is further deteriorated in case of disaster and emergencies.

For example, menstruation is a normal biological process and a sign of being mature for reproductive functions but it is treated as shameful or dirty leading to restrict on mobility, limiting access home and in schools results gender discrimination. As WaterAid (2013) cited a study of UNICEF that revealed out of 3 girls 1 in South Asia don't know about menstruation prior they get it. In this case if a woman is disable and living in post emergency situation, Menstrual Hygiene Management (MHM) and disability becomes urgent need to address to prevent to bring the worse results.

So that the barriers can be unlocked and the access to adequate and clean water, improved sanitation facilities as well as maintaining the personal hygiene during menstruation cycle and come out from the vicious cycle of discrimination and treatment like inhuman form of untouchability and should not be deprived of being disabled or women or girl.

In this context, The Karnali Integrated Rural Development and Research Centre (KIRDARC Nepal), an NGO registered at the District Administration Office (DAO), Jumla in 1999 has extended its area of work to Kavrepalanchowk implement a project named "Ensuring Sustainable Access to WASH services in earthquake affected Kharelthok and Jyamdi VDC of Kavrepalanchowk district" since August 2015. From its inception, the project has been using several hygiene promotional tools to promote hand washing and Menstruation Hygiene Management, reinstate drinking water supply systems, with promotion of the Child, Gender and Disable (CGD) friendly structures.

1.2. Project Goal and Objectives

The project intends to provide sustainable access to WASH services through rehabilitation of water supply systems, ensuring improved environmental sanitation and hygiene education for the earthquake affected poor and excluded communities within Kharelthok and Jyamdi VDCs in Kavrepalanchowk district, with following specific objectives:

- to fulfill rights to sustained access to adequate quantity and safe quality and quantity of water
- to increase access to improved sanitation facilities especially latrines
- to encourage people including women and school girls to practice for an improved menstruation and personal hygiene behaviors
- to capacitate key service providers of Kavrepalanchowk district for effective WASH services.

In this context, this independent study was conducted under the contractual arrangement with KIRDARC Nepal within the following agreed scope of assignment.

1.3. Assignment

The scope of this research is to assess the socio-cultural practices of the women and adolescent girls they performs during the menstruation cycle and their access to existing WASH, MHM and other services in Jyamdi and Kharelthok VDC of the Kabrepalanchowk.

1.4. Objectives

1. To review the socio-cultural practices of women and adolescent girls during menstruation cycle and existing WASH, MHM and other services.
2. To assess the access and barriers for women, adolescent girls and women with disability towards the MHM and WASH and other services.
3. To evaluate the impact of the KIRDARC intervention on MHM and WASH management

This assignment requires a mixed methodology of both the quantitative and qualitative data from primary and secondary data sources. Hence, the following activities were conducted to achieve the above mentioned objectives:

- Desk review the current WASH, MHM and disability related policies and studies conducted in the recent days, review of project document and progress report from the respective Project VDCs, Village profile of respective VDC to acquire the necessary secondary data.
- Design conceptual framework of the research and methodology; develop questionnaire for field survey and Checklist for Focus Group Discussion (FGD) and Key Informant Interview (KII).
- Coordinate with local resource person to arrange meeting with local community representatives and local stakeholders to arrange visit in the proposed VDC and conduct field survey, FGDs, KII and multi stakeholder consultation.
- Separate FGDs conducted with women groups and adolescent girls to find out the specific issues and gather suggestion if any.
- Record the case studies to reflect the changes occurred in the life or livelihoods of people with disability; good practices, problems or any barriers for the women and adolescent girls and person with disability to access the services.
- Photographic and visual evidences will also be record to evident the changes occurred in the life or livelihoods of people with disability; good practices, problems or any barriers for the women and adolescent girls and person with disability to access the services.

Thus, this study has focused in the two VDCs of the district to make the issue visible to concerned policymakers to inform what types of practical actions is required. Hence this small study was carried out with the prime objective to reflect the MHM related scenario among women, adolescent girls in general and with the people who are living with disabilities in Jyamdi and Kharelthok VDC of the Kabrepalanchowk, Nepal.

1.5. Process of Research Conduction

The field survey and stakeholders consultation were conducted together with FGDs and KII in Kharelthok and Jyamdi VDC of Kavrepalanchowk whereas the desk review was completed in Kathmandu side by side while going through the research work. Once the methodology and tools were developed, a total of 8 temporarily hired enumerators were oriented in Dhulikhel and tools were tested by the enumerators under the supervision of lead researcher in Kharelthok.

The lead researcher has also conducted the KIIs and the FGDs during the field visits. Then, the enumerators were sent to the each ward of the two VDCs to conduct the field survey using the semi-structured questionnaire. After completion of the field survey, the information was compiled in the numerical form using SPSS and MS Excel followed by data tabulation, analysis and interpretation.

1.6. Target Audience of the study

The general target audience for this research will be the women, adolescent girls and people with disability, local institutions (VDC, School, HP) in Kharelthok and Jyamdi VDC of Kavrepalanchowk district.

Chapter II: Review of Literature

The literature related to water, sanitation and hygiene and menstruation hygiene management. This chapter presents a summary of literature review looking into the status and efforts in regards to bring positive changes worldwide and in Nepal.

2.1. Water, Sanitation and Hygiene

Hygiene promotion is fundamental for the successful impact of Water, Sanitation and Hygiene (WASH) interventions. To maximize the health benefits and produce evidence of the reduction of WASH associated diseases, an effective monitoring system & framework for the different stages is crucial. This paper reports operational experiences of monitoring various projects in the field, from January 2007 to March 2009. Rapid-assessment provides for a quick appraisal of expected project areas and is also instrumental for gathering & identifying high-risk behaviors & areas.

The Nepal government brought the Sanitation and Hygiene Master Plan in 2011, which has targeted to improve the status of sanitation in the country by 2017 and the main indicator set to judge this was to check whether the particular area was ODF or not and whether or not everybody has access to a toilet. Making communities open defecation free is not possible unless the needs of people with disability are not addressed. According to national census 2011, there are more than 500,000 people with disabilities in Nepal and of them more than 350,000 are vulnerable and don't have access to sanitation facilities. The prevalence of people with disabilities is in such way that they are distributed all over the country- more in rural areas than urban. These facts help us to conclude that there are certain numbers of persons with disability in every VDCs of Nepal.

Adolescence has been recognized as a special period which denotes the transition from childhood to adulthood. Age group 10-19 years [early-adolescence (10-13 years), mid-adolescence (14-16 years) and late-adolescence (17-19 years)] is considered as the period of adolescence during which sexual development happens along with psychological and cognitive changes. Attaining menarche is a very important milestone to mark this developmental process in girls. Majority of girls are unaware about menarche and menstrual bleeding before they experience it for the first time and are unprepared mentally and emotionally. Attitude towards menstruation, either positive or negative, depends on preparedness of pre-pubescent girls and influenced by socio-cultural environment (Morrison, Larkspur, Calibuso and Brown, 2010)[1]. It also depends upon awareness, age at menarche, cycle length, intensity and duration of menstrual flow[2]. Girls mostly receive various restrictions imposed on menstruating girls that affects them psychologically, lowering their self esteem and feeling of shame and disgust. Majority of girls impose self restrictions like going to school or play based on wrong belief that they are physically weak on those days.

Mothers, friends, teachers, relatives media like television are the sources providing information on menstruation. It has been found that girl's knowledge regarding the use of commercially available sanitary pad is positively related to maternal literacy. A key priority for women and girls is to have the necessary knowledge, facilities and the cultural environment to manage menstruation hygienically and with dignity. Many Indian females have some or the other menstrual problems and genital tract infection but they don't consult a health professional due to poor health seeking behavior (Bang, Baltule, Choudhury, Sarmikuddam and Tale, 1989).

An estimated 15% of the world's population is disabled and the female prevalence is nearly 60% higher than that for males. The WHO report puts safe water and sanitation at the centre of helping prevent disability and poverty7. Water and sanitation providers have a key role in reducing barriers for disabled people in the built environment. Disability is a recognized human right. The UN Convention on the Rights of Persons with Disabilities (CRPD) views support and assistance to disabled people as a means to maintain people's dignity, enable independence and social inclusion. Disability can increase the risk of poverty, as disabled people and their families are more prone to economic and social disadvantage than those who are not disabled. Conversely, poverty can also increase the risk of disability. A lack of safe water and sanitation can lead to an increased risk of illness, impairment and greater poverty. With a greater emphasis on issues such as improving nutrition and providing safe water and sanitation, incidences of health conditions that can lead to disability can be reduced.

2.2 Persons with Disabilities

A disabled is defined as 'a Nepali citizen who is physically or mentally unable or handicapped to perform normal work in daily life. For the purpose of the act, the term 'disabled person' also includes a blind, one-eyed, deaf, dumb, dull, crippled, lame, handicapped with one leg broken, handicapped with one hand broken or a feeble minded person.' This definition, which follows a rigid and exhaustive approach, is in stark contrast to the definition and the Convention on the Rights of Persons with Disabilities to which Nepal is a signatory. Persons with disabilities in Nepal have been and still are systematically excluded and marginalized from mainstream social, economic and political life. Disability limits one's movement and participation in a wide range of activities and affects life in a profound way. Without appropriate support, this can easily translate into weak human development, exclusion and violation of key human rights. The lack of accurate data makes it difficult to assess the precise status of marginalization and vulnerability.

In Nepal, an acute lack of trained and skilled professionals in the field of habilitation and rehabilitation is severely impacting medical, psychological, social and vocational support for the disabled community. There are currently about 400 physiotherapists and eight speech pathologists to serve the entire country. Instead, personal care workers with limited or no formal training are left to care for persons with disabilities. Persons with disabilities are not well integrated into the labour market. Most are either unemployed or discouraged from actively seeking work. Of those working, many are either underemployed or paid below minimum wage, or do work that is below their potential.

The Labour Act 1992 provides measures for safety and precautions in the workplace for persons with disabilities. The Social Welfare Act 1992 provides programs for the welfare of persons with disabilities. The Children's Act 1992 expanded care to children with disabilities in child welfare homes. The Special Education Policy 1996 incorporated a number of provisions to mainstream persons with disabilities within the education system through arrangements for special education. The Disabled Service National Policy 1996 ensures equal opportunities in all spheres of society by empowering persons with disabilities.

The Special Education Policy 2006 promotes inclusive education through the provision of educational materials, teacher training and integrated education for children with disabilities. The Nepal National Building Code 2003 has recognized the special needs of persons with disabilities and sets standards to ensure physical access to public buildings. Nepal ratified the Convention on the Rights of Persons with Disabilities and its Optional Protocol in 2010, showing its commitment to adhering to the rights of persons with disabilities. The most recent three-year plan identifies persons with disabilities as one of the excluded groups in need of special support.

Based on the nature of disability, persons with disabilities have different needs while going to the toilet. Studies have shown, physical infrastructure including house and toilets are not disabled friendly in Nepal. Some of them adapt the existing structures with local solutions for using common toilets but most of them have no alternative than to defecate. Even during ODF declaration of any village, this issue is never discussed. In 800 VDCs that are declared ODF, but less than 8 disabled friendly toilets reported. It is not that, these 800+ VDCs don't have any persons with disabilities. So then the big question is – where do the persons with disabilities of these places defecate, does not matter to anyone at local level (Prasai, 2013). In case of the study area, there is a total number of 110 disable person in both VDCs (CBS, 2011).

2.3. Bringing Persons with and Without Disabilities Together

The main reason for exclusion of persons with disabilities from any basic services including water and sanitation is the lack of proper awareness in general people about disability. Most of the non-disabled people don't know what the exact requirements of disabled people are. In many cases, they are even unaware that the toilets in their houses or business places are not suitable for disabled people. It is because they haven't got any chance to mix up with the people who have disabilities.

Our society has craved two different paths for disabled people and non-disabled people from the early childhood. Children who have some kind of disabilities are sent to a different school than their non-disabled counterparts. These "special" schools have accessible facilities required by the children having disabilities. Thus they can't go to common schools and can't grow up with non-disabled children and be friends with them. The only persons around them are like them. This segregation of disabled children prevents the development of an emotional relation between non-disable and disabled persons.

If this was not the case, the disabled and non-disabled children would grow up together and become friends. They would know the strengths and the weakness of each other. Non-disabled persons may know better what special needs their disabled friends have. They would help each other and this would become a habit, a culture and the future generation would then be seen different in terms of making accessible the services and infrastructure. Thus the most important step in developing an inclusive society is to make people understand about the different aspects of disability. We can use different example, case-studies, audios, videos and group activities in communities to do so. This awareness will bring people with disabilities and people without disabilities together in the process of development.

2.4. Enabling Policy Environment for WASH and MHM

Department of Education and UNICEF worked together to make the Child Friendly Education Framework more effective in Nepal. The Framework was endorsed by the Ministry of Education that includes critical indicators related to better WASH facilities in schools, including Menstrual Hygiene Management. CGD friendly framework also underscores the need for "no schools without toilets" and highlights the importance of school WASH facilities, especially highlights access to girl's toilets in schools. By 2013 Department of Education constructed 11,500 girls' toilets while UNICEF ensured capacity building of education officers in the DoE in central and districts levels to support development of 1,102 schools as model in Child, Gender and Disabled Friendly school environments.

In 2013, UNICEF brought together representatives from the Department of Education and the Department of Health for a two day workshop to build understanding about the "Three Star and Fit for School Approach" and reach consensus on how it should be promoted and taken forward by DoE and key WASH in schools partners. In 2013-2014 Nepal government fiscal year there has been constructed 3,000 girls' toilets and 2,000 general toilets in compliance with government annual quota under the Child Friendly Education Framework to ensure access to WASH facilities in all schools of Nepal.

Chapter III: Research Methodology

This chapter explains the research design, methodology and process of sampling the study population, tools and process of study.

3.1 Research Design

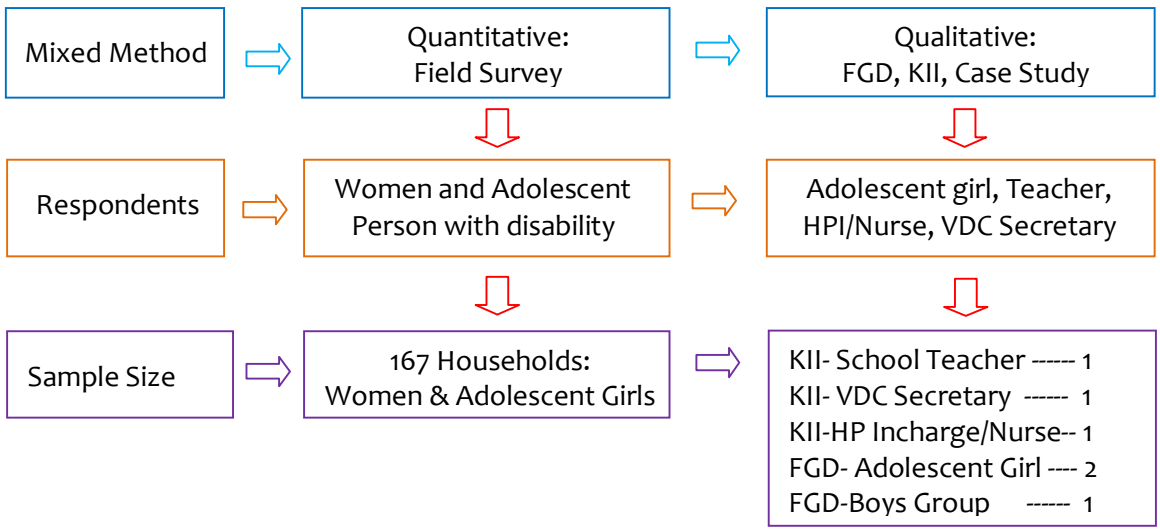
The research has adopted the exploratory and descriptive research design and conducted in 18 wards of two selected VDCs where the WASH and MHM related intervention is being implemented by KIRDARC.

3.2 Population and Sample Size

The population targeted for the research is the women, adolescent girls and persons living with disabilities in both the VDCs namely Kharelthok and Jyamdi. According to CBS (2011), the total number of household is 80,720 with total population of 381,937 including the number of male population 182,936 (47.90%) and female population was 199,001 (52.10%) in the district. The total population of Kharelthok and Jyamdi VDC was 7267 (Jyamdi 4878 + Kharelthok 2389) residing in total 1716 (Jyamdi 1090 + Kharelthok 626) households (CBS, 2011).

First of all, Jyamdi and Kharelthok were picked as study area because KIRDARK intervention on WASH and MHM has been implemented as these VDCs have high prevalence of disabilities and scarce of drinking water, poor sanitation and MHM facilities. After selecting VDCs, the demographic information was collected from CBS and other secondary sources. Then, a 10% of total households (1716 HH x 10% = 171.6 HH) are taken as research unit. Then, the total sampled HHs was divided by 18 for equal distribution in 18 wards of two VDCs (171.6 HH ÷ 18 = 9.5), which made a total number of 171 sample HHs (minimum 9 respondent per ward) for field survey to collect quantitative data focusing on women, adolescent girls and the person with disabilities. After this, a list of school and local institutions was prepared and selected 2 schools for FGDs, one health post, one school and one VDC for KII applying a cross-sectional method.

3.3 Methodologies



3.3.1. Tools

Semi structured questionnaire, check list for FGD and KII were the key tools used for this study. Before finalizing, the tools (questionnaire and check lists/guidelines), were translation English-Nepali-English, as well as taken expert opinion to check the validity of instruments.

The newly developed study design, methodology, tools - semi-structured questionnaire, FGD checklist, KII questionnaire was shared with the KIRDARC Nepal and finalized after incorporating suggestions.

Then, an orientation to enumerators was conducted in Dhulikhel, pilot test was done during orientation in Dhulikhel and Kharelthok and administered the tools to collect quantitative and qualitative data from women, men, adolescent girls and boys through HH interview, key informant interviews and FGDs.

4. Method of Administration

To administer the field survey a team composed of 7 women and a man were hired, oriented and given task to conduct field survey for a week. The test interviews and FGDs were conducted in Kharelthok with the involvement of the Lead Researcher, Policy Planning and Quality Assurance Coordinator and MEAL Officer of KIRDARC. Then, the enumerators have completed the field survey.

5. Data Analysis and Report Writing

Once the field survey was completed, the data was entered into the SPSS, analyzed as well as presented in frequency table and graphs and analytically discussed with secondary data to explore the relationship between variables in chapter IV.

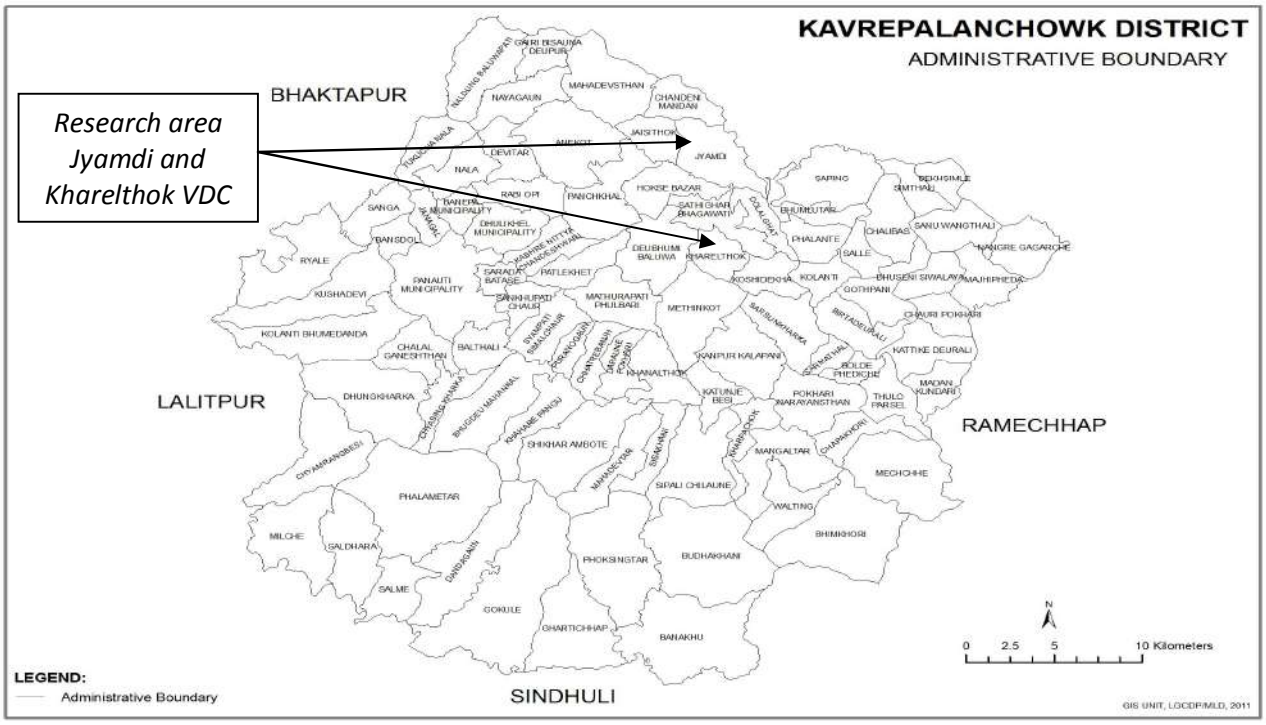
Chapter IV: Data Presentation and Interpretation

The data collected for any research that need to be tabled, analyzed and presented in the form of comparative table, graphs and other statistical formats to answer questions, test hypotheses or disprove theories (Charles and McCleland, 1989). Once data is cleaned, tabled and removed duplications, it can be analyzed and interpreted applying a variety of techniques referred to as exploratory data analysis. Analysis refers to breaking a whole into its separate components for individual examination. In other words, data analysis is aa process for obtaining raw data and converting it into user friendly useful information (Tukey, 1961; Charles and McCleland, 1989; O'Neil and Schutt, 2014).

Therefore, the aim of this chapter is to analyze the data collected for this research through field survey using semi-structured questionnaires, FGDs and KIIs. This chapter presents the data collected through several data collection tools as described in the earlier methodology chapter. The data first presented in the table, graphs and figures as appropriate and interpretation in the underneath of the every table and figures. These tables, figures and interpretations will be used to draw the findings in the next chapter followed by conclusion and recommendations.

4.1 The Research Area

Kavrepalanchok District (map below), a part of Province Number 3, is one of the 75 districts of Nepal, a landlocked country of South Asia. It is one of 75 districts of Nepal, situated in mid-hilly area majorly having the subtropical climate and elevation range of 280 meters to 3018 meters of the Bethanchok Narayandanda. It has the huge potentialities of local tourism with the various geographic nature and cultural heritages. According to CBS (2011), the total number of household is 80,720 with total population of 381,937 including the number of male 182,936 (47.90%) and female is 199,001 (52.10%) in the district.



The VDC and Municipalities are autonomous for deciding and implementing their development activities and get the central grants directly from MoFALD and Ministry of Urban development. Kharelthok and Jyamdi VDC of the Kabhrepalanchok District are the study area. The population targeted for the research is the women, adolescent girls and persons living with disabilities in both the VDCs namely Kharelthok and Jyamdi.

The total number of household is 80,720 with total population of 381,937 including the number of male population 182,936 (47.90%) and female population was 199,001 (52.10%) in the district. The total population of Kharelthok and Jyamdi VDC was 7267 (Jyamdi 4878 and Kharelthok 2389) residing in total 1716 (Jyamdi 1090 and Kharelthok 626) households (CBS, 2011).

4.2 Demographics and Socio-Economic Profile of Sample Population

Demography is the statistical study of populations, especially human beings, which encompasses the study of the size, structure, and distribution of population that analyses any kind of dynamic living population, i.e. one that changes over time or space. Demographic structure describes the age distribution of a population and thereby is also called population age structure.

The impact of any development interventions is measured in terms of changes occurred in the socio-economic condition of the population. Therefore, the socio-economic profile of the sample population becomes very important and analyzed in this section to review and analyze the socio-economic condition of the sampled population.

In this section, the socio-economic profile, demographic structure, population distribution, age composition, level of education and occupation, nature and size of family and WASH and MHM related aspects of the sample population has been analyzed to assess the overall socio-economic condition from the disability perspectives.

i) Demographic Characteristics

According to CBS (2011), the composition of Population, Households and Sex Ratio by VDCs is given in the table 1.1, which gives a picture of overall research area. The composition and distribution of the population, households and sex ration in Jyamdi is higher than the Kharelthok.

Table 1.1: Composition of Population, Households and Sex Ratio by VDC

VDC	Total HH	Population				
		Total	Male	Female	HH size	Sex Ratio
Jyamdi	1,090	4,878	2,309	2,569	4.48	89.88
Kharelthok	626	2,389	1,070	1,319	3.82	81.12

Source: CBS, 2011

The composition and distribution of the respondents from surveyed households is given in the table 1.2 that demonstrates the total numbers of respondent from sampled households, gender and total population in the households. A total of 167 household's respondents were interviewed, where a total of 955 populations were found resided.

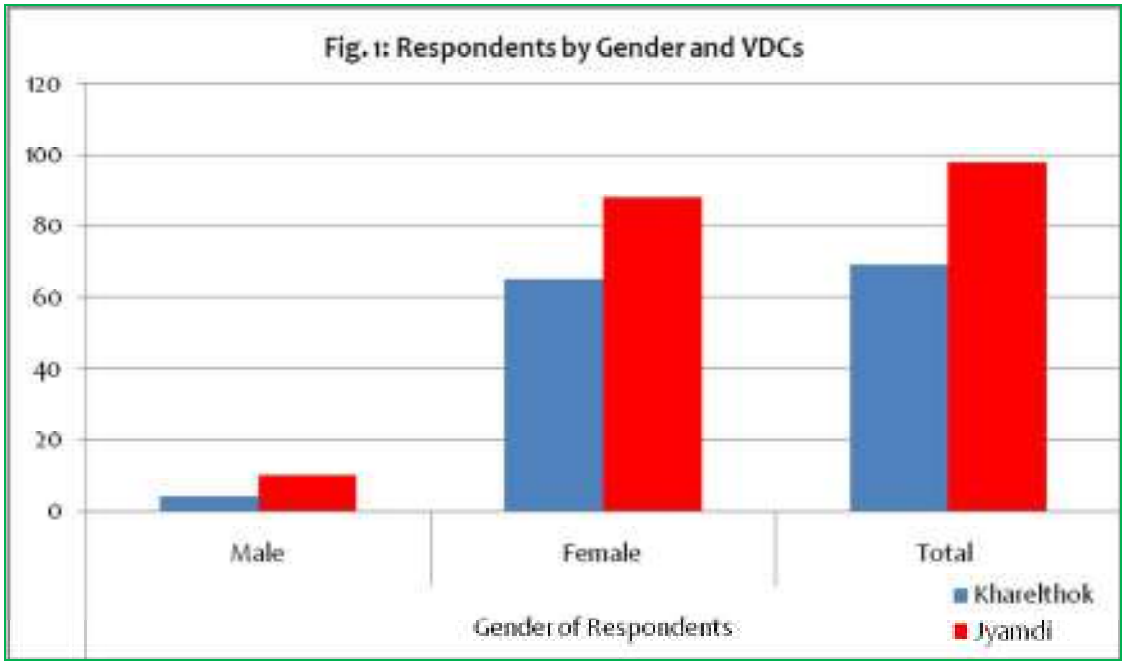
The table 1.2 also revealed that the distribution of sample population of female and male respondents 92% and 8% respectively. It is because the first priority to interview was to women headed and where disable person are living in the house. The total numbers of population of the sampled households and the ratio of women and men is almost equal that is 49.5% and 51.5% respectively.

Table 1.2. Total Respondents and Their Family Members by VDCs

SN	VDCs	Total Respondents			Total Population in HHs		
		Male	Female	Total	Male	Female	Total
1	Kharelthok	4	65	69	236	235	471
2	Jyamdi	10	88	98	246	238	484
Total		14	153	167	482	473	955
Total percent		8	92	100	50.5	49.5	100

Source: Filed Survey, 2017

The figure 1 also presents the gender composition of the respondents by VDC. According to figure 1, the total female respondents of the survey are higher (92%) in both VDCs compared to male respondents (8%).



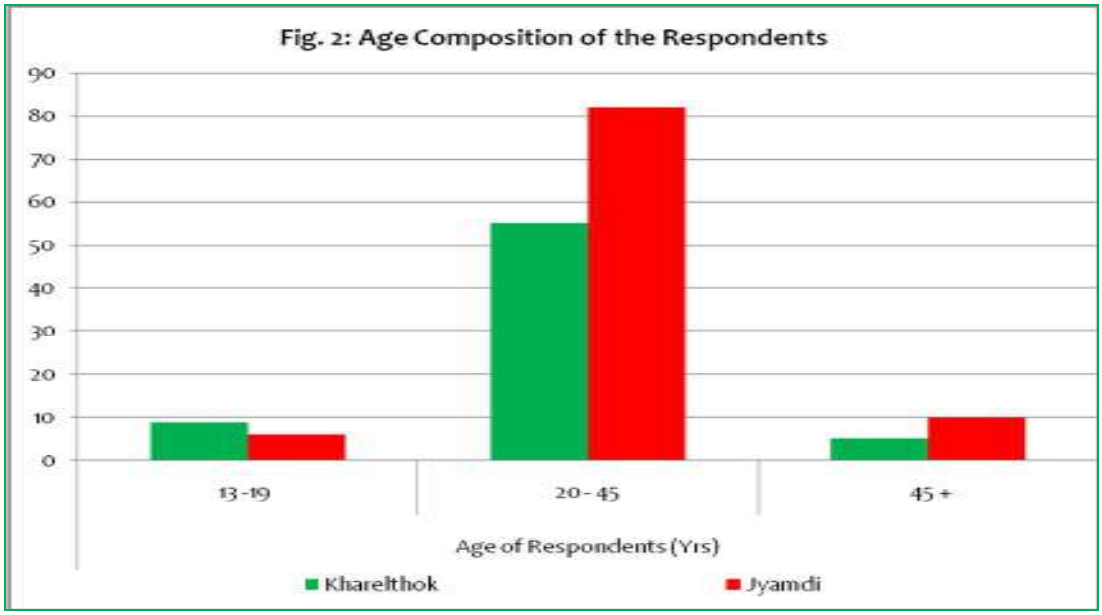
Similarly, Table 1.3 below presents the population distribution of sample population of the interviewed households that shows a big portion of the population (82%) is the young age of 20-45, followed by equal (9%) in both age groups between 13-19 years and over 45 years. Among The total respondents from Kharelthok are and Jyamdi, a total of 48% families are nuclear and 52% percent families are found joint.

Table 1.3: Age and Family Type of the Respondents

SN	VDCs	Age of Respondents (Yrs)				Family Type		
		13 -19	20 - 45	45 +	Total	Joint	Nuclear	Total
1	Kharelthok	9	55	5	69	34	35	69
2	Jyamdi	6	82	10	98	53	45	98
Total		15	137	15	167	87	80	167
Total %		9	82	9	100	52	48	100

Source: Filed Survey, 2017

The Figure 2 presents higher number of respondents (82%) from the age group of 20-45 years, which is considered as working force. Since the study was focused on adolescent girls, a total 9% of the respondents represented the teen-age group (13-19 years), followed by another 9% from above the 45 years of age.



Adolescents make up one fifth of the total world population (Sanyal and Ray, 2008), a statistic that only serves to amplify the dearth of information available on hygiene practices of adolescent girls, particularly with regard to genital health. Effective management of hygiene in adolescent girls, however, is an important public health issue. Hygiene practices depend on cultural norms, parental influence, personal preferences and socioeconomic pressures. Maintaining a girl's perineal hygiene, however, can be a challenge as parent supervision decreases, particularly as menstruation ensues at a time when girls become less willing to accept parental involvement (Farage and Bramante, 2006). In this respect education play an important role.

The level of education of the family members of the respondents is presented in the table 1.4 that demonstrates a gradual improvement in formal education intake. This is evident with illiteracy (10%), literacy (16%), school level (45%), college level (8%) and university level (1%) only. Overall, the level of education is increasing with positive implication in awareness and utilization of WASH & MHM services.

Table 1.4: Level of Education of the Family Members of the Respondents

SN	Level of Education	Kharelthok	Jyamdi	Total	Percent
1	Illiterate	35	60	95	10
2	Literate	80	70	150	16
3	School	227	207	434	45
4	College	19	53	72	8
5	University	12	2	14	1
6	Under Ages	80	110	190	20
Total		453	502	955	100

Source: Filed Survey, 2017

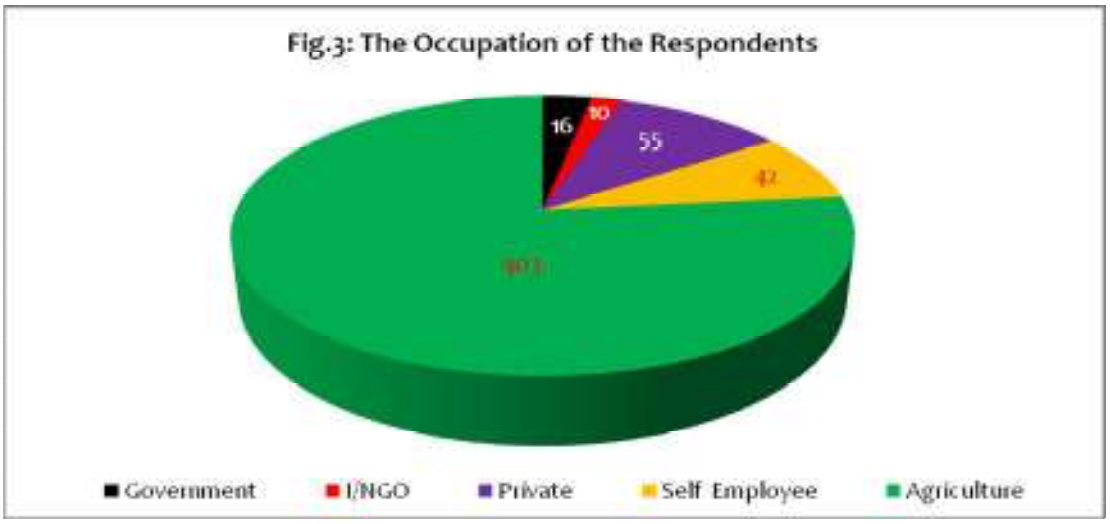
The occupation of the respondents was found diversified but more than two-third (77%) are depends on agriculture. Table 1.5 below revealed that a 10% household and their family members has good earning from private agencies (10%) followed by self-employment (8%), employment in government offices (3%)and INGO (2%). A private agency includes any private organization that provides employment in Nepal and foreign countries and self employment refers any business, trade or work with self investment that generates income. The occupation of the respondent has positive linkages with the increasing level of awareness and positively changing behavior on WASH and MHM practices because it gives purchasing power to buy available services.

Table 1.5. Occupation of the Respondents

SN	Occupation in	Kharelthok	Jyamdi	Total	
				Total	Percent
1	Government	14	2	16	3
2	I/NGO	9	1	10	2
3	Private	19	36	55	10
4	Self	17	25	42	8
5	Agriculture	181	222	403	77
Total		240	286	526	100

Source: Filed Survey, 2017

The agriculture is the highly dominating occupation in the study area which is clearly reflected in the Figure 3 below. Besides agriculture, follows downwards the work in the private sector, self-employment, the government sector and the INGO and NGO sector. Private agencies also include the foreign employment. It shows that there is really less options for employment in the study area.



ii) **Understanding Menstruation, Hygiene and Sanitation**

The menstruation is widely believed to be to rid the body of toxic old blood, with impedance of blood flow as well as excess blood flow considered unhealthy. These beliefs can create suspicion of any menstrual protection that appears to influence menstrual patterns (Snow, 1983).

According to field survey, it was evident that almost cent percent respondents had heard about menstruation before their menarche and the most important sources of the information are family members primarily mother and elder sister then siblings, friends at school and outside, TV commercials and teachers.

Table 2.1 reveals that the respondents have different level of understanding on menstruation cycle. A majority of the respondent (78%) termed menstruation as a natural blood flow from vagina for 4-5 days monthly, other 10% has still an understanding that menstruation is just a symbol of maturity that signals the girl is ready for marriage and reproductive function.

Similarly, a total of 5% respondents did not respond may be because of shyness or prefer to keep mum. Another 4% had mixed response as natural blood flow from vagina for 4-5 days monthly and symbol of maturity. Lastly, a negligible number of respondents (1%) still there who understand menstruation is a sign of impurity.

Table 2.1: Understanding Menstruation

SN	Variable	Kharelthok	Jyamdi	Total	
				Total	Percent
1	Natural blood flow from vagina for 4-5 days monthly	64	50	114	78
2	Natural blood flow from urethra for 4-5 days monthly	3	0	3	2
3	Symbol of maturity	7	7	14	10
4	Sign of impurity	2	0	2	1
5	Don't know	4	3	7	5
6	Both 1 and 3	6	0	6	4

Source: Filed Survey, 2017

Table 2.2 demonstrates that the majority of the respondents (64%) talk to their family members especially the mother, in-laws and sisters as main source of information flow about experience of menstruation, social norms and practices associated to menstruation cycle. The second sources are both friends (10%) and women teacher (10%), followed by Book, internet, FM, TV commercials (8%) and Health Post Nurse/Health worker (7%). Although they are depends primarily in these sources in many occasions, they uses multiple source of information and choose according to their preference.

Table 2.2: Source of information

SN	Variable	Kharelthok	Jyamdi	Total	
				Total	Percent
1	Mother, in-laws, sister	40	67	107	64
2	Friends	7	10	17	10
3	School, women teacher	8	9	17	10
4	Book, internet, FM, TV commercials	4	10	14	8
5	Health Post Nurse/Health worker	11	1	12	7

Source: Filed Survey, 2017

Responding the question on how they maintain hygiene during menstruation, the majority of the respondents (92%) mention that they use old cloths as sanitary pad "home-made pad" (Table 2.3).

The school girl student who can afford to purchase they prefer to use ready to go sanitary pad available at the school (in subsidized rate of NPR 5.00) or in nearby shops in variety of brand and prices. The number of sanitary pad users are also increasing drastically (31%) during past few years especially after the lunch of the project from KIRDARC. Similarly, almost half of them (46%) found very sensitive to maintain personal hygiene and wash genital organ after bleed during the menstruation and only 2% said they have nothing to do as it is natural and just follow they rituals what they are following for years.

Table 2.3: Take care of Bleeding and Hygiene During Menstruation

SN	Variable	Kharelthok	Jyamdi	Total	
				Total	Percent
1	Old clean cloths	75	78	153	92
2	Sanitary pad	35	17	52	31
3	Wash genital organ after each bleed	40	37	77	46
4	Nothing special	3	0	3	2

Source: Filed Survey

In the survey, among those who use sanitary pads, reported that they dispose the used sanitary pads with other waste, very few they burn, while only two mentioned they bury the used pads, and some of them even flush while they use toilet. Those who use cloth, majority of them dry the cloth in sunlight and reuse. They have got training from KIRDARK about how to prepare "home-made pad" and use appropriately. The existence of water supply, toilet facilities and waste management are pre-requisites to maintain personal hygiene, sanitation and pollution free environment.

Table 2.4 presents the percentage of the respondents who have WASH facilities at home. A total of 23% respondents have access to water tap. Mostly water tap are installed at center point of 8-10 households. Most of them used to connect their own loose pipeline to the main water tap on their turn instead of fetching on the pot. It save time and quantity of water they reserve at home. Access to toilet facilities has reached 96% and VDC is ready to declare ODF zone. Similarly, a total of 18% are using bathroom for personal hygiene and 51% are using waste disposal bins.

Table 2.4: Existence of Water Supply, Toilet Facilities and Waste Management at HH Level

SN	Service/Facilities	Kharelthok	Jyamdi	Total		Remarks
				Total	Percent	
1	Water tap*	22	17	39	23	*Among 167 HHs, only 2 toilets were found disable friendly in Jyamdi, where as other 69 HH in Kharelthok and 96 HH of Jyamdi has got no disable friendly facilities.*
2	Toilet	86	75	161	96	
3	Bathroom	22	8	30	18	
4	Waste Disposal	73	12	85	51	

Source: Filed Survey, 2017

iii) **Status of Menstruation Hygiene, Water and Sanitation**

a. Status of Water and Sanitation Facilities

According to the data available in CBS (2011), the existing status of WASH related facilities in the area may be determined by uses of facilities or ownership of house over the facilities. Table 3.1 gives a picture of the households and their access or dependency over the water source.

The table 3.1 presents the status of access or dependency of the respondents over the piped water tap was 81%, tube well or hand pump 0.17%, well or *kuwa* 8.86%, uncovered well or *kuwa* 8.33%, spout water 0.99%, river stream 0.35%, others 0.17% and not stated 0.12%.

Table 3.1: Status of Water and Sanitation Facilities and Ownership over the Facilities

VDC	Total HH	Pipe water Tap	Tubewell Handpump	Well kuwa	Uncovered well/kuwa	Spout water	River stream	Others	Not Stated
Jyamdi	1,090	907	0	65	98	17	0	2	1
Kharelthok	626	483	3	87	45	0	6	1	1
Total	1,716	1,390	3	152	143	17	6	3	2
Total Percent	100	81.00	0.17	8.86	8.33	0.99	0.35	0.17	0.12

Source: CBS, 2011

b. Status of Disabilities

For the study purpose, disabilities are divided into 8 different categories according to form and characteristics of particular disabilities. A total of 81 respondents who are either directly or indirectly associated with the disable persons only responded this question; others had refused to respond as they had no disable person living at home. Table 3.2 presents the numbers of person living with disabilities according to types of disabilities. Among the total responders, It was revealed that the physical disabilities has the highest prevalence with (22%) followed by multiple disabilities (21%), hearing problem (15%), dumb (14%), mental problems and slow minded (9%) each, blind and dumb (7%), and visionary problem (4%).

Table 3.2: Person with Disabilities and Their Types

SN	Types	Kharelthok	Jyamdi	Total	
				Total	Percent
1	Physical	5	13	18	22
2	Visionary problem	0	3	3	4
3	Hearing	5	7	12	15
4	Blind & Dumb	1	5	6	7
5	Dumb	5	6	11	14
6	Mental problem	1	6	7	9
7	Slow minded	1	6	7	9
8	Multiple	4	13	17	21
Total		22	59	81	100

Source: Filed Survey, 2017

A total of 97 respondents who are either directly or indirectly associated with the disable persons only responded this question; others had refused to respond as they have no disable person living at home. Among the total responders, more than half (55%) had no special facilities added in their toilet to suit disables (table 3.3). Another 31% said the family members provide help for their disable members while using toilet, water tap, bathroom or any other services according to need. This option is found not really convincing and disable friendly because the family members may not always available while the disable person willing to use the water tap, toilet or any other facilities.

Another 10% has improvised the toilet pane adding chair-like pane to comfortable to the disable person. This option is adoptable for others as well because if such facilities are made then the disable person can use the facilities whenever they need.

Table 3.3: Making WASH Facilities Disability Friendly at Home

SN	Variable	Kharelthok	Jyamdi	Total	Percent
1	Plane surface in water tap	1	2	3	3
2	Chair pane in Toilet	4	6	10	10
3	Help from Family Members	3	27	30	31
4	No Special Facility	9	44	53	55
5	Others	1	0	1	1
Total		18	79	97	100

Source: Filed Survey, 2017

c. Adolescents *and Menstruation Hygiene Practices*

The onset of menstruation is an important biological milestone. It also presents a significant challenge in hygiene for adolescent girls. The timing of an adolescent girl's first menstruation, known as menarche, varies around the world (Bagga and Kulkarni, 2000). However, across well-nourished populations in developed countries, age at menarche is fairly consistent, usually between 12 and 13 years of age (Diaz, Laufer and Breech, 2006). More recently all over the world, an average age at menarche in China, for example, has decreased from 16.5 to 13.7 over the last 40 years (Graham, Larsen and Xu, 1999).

A 'normal' menstrual cycle in American females begins at 12 years of age and lasts a maximum of 7 days (Diaz, Laufer and Breech, 2006). Depending on age at onset, today's adolescent girls will be required to manage up to 3000 days of menstruation over their lifetimes (Ahmed and Yesmin, 2008). Similarly, the women who do not regularly cleanse their perineal region during menstruation have increased risk of reproductive tract infection that again increases the risk for adverse reproductive health outcomes such as infertility, abortions and ectopic pregnancies (Buchan, Villard-Mackintosh, Vessey, Yeates and McPherson, 1990). It has been observed that as many as 60% of girls at least occasionally miss school because of the inability to manage basic menstruation hygiene in the schools (Fetohy, 2007).

c.1. Genital hygiene & adolescent girls

The topic of genital hygiene practices in adolescent girls is under-represented in the literature, despite the fact that poor genital hygiene has a significant potential to negatively impact adolescent health. Moreover, douching (a hygiene practice relatively common among adolescent girls) is linked to numerous serious gynecological problems. Menstruation brings a significant hygiene challenge, but the ability to practically manage menstruation may also impact a girl's life, depending on the availability and access of appropriate absorbent products at local level. Despite the fact that menstruation is shared by more than half the world's population, it is a topic that virtually all cultures are uncomfortable discussing at some level, and most girls are ill-informed with regard to menstruation and are unprepared for menarche. Better preparation for menstruation, however, has been consistently associated with a better outlook on menstruation and a competence in managing menstrual hygiene (Farage, Miller& Davis, 2011).

c.2. Menstrual Hygiene Practices Among Western Women and Adolescents

Most American women have adequate access to the sanitation facilities required for menstrual hygiene, yet regional or racial variations have been observed. Today, American girls adopt tampons at an earlier age than their mothers did (Adams, 2002).

Disposable sanitary pads have been available commercially in North America since 1921; commercially available disposable tampons with applicators were introduced in 1936. Across the Western industrialized world (Europe, Australia and the USA) most adult women use tampons, disposable sanitary pads and panty liners. Although initially controversial owing to concerns about sexual purity and the potential to negatively impact genital health, tampons are now the choice of most women in industrialized countries for menstrual protection (Farage, Bramante, 2006).

c.3. Menstrual Hygiene Practices Among Women and Adolescents in developing world

In the developing world, commercial menstrual products are less likely to be available, and cloth and other absorbent materials such as cotton or wool are often used for menstrual protection, particularly among rural or economically disadvantaged populations. Rural women, therefore, often choose easily accessible, inexpensive and reusable materials. Other materials reported as menstrual absorbents used by the rural poor in developing countries include banana leaves, newspaper, sponges, jute sacks, papyrus, tissue paper, toilet paper, sand and ashes (Tjon and Ten, 2007).

Many women in developing countries do use commercial sanitary napkins, especially in urban areas. For example, an estimated one-third of women in urban areas of India use pad (Baridalyne and Reddaiah, 2004), while only 5.1% of 225 women used sanitary napkins in a rural Haryana (Acharya, Yadav, Baridalyne, 2006). Use of cloth predominates among both urban and rural schoolgirls, and one survey of urban girls cited lack of confidence as the main reason for not choosing commercial pads.

c.4. Adolescents and Women's *Menstruation Hygiene Practices in the field*

To know the social status of a woman, several social indicators can be used; one of them could be the discriminative family behavior towards the women family members especially during the menstruation cycle. Table 3.4 reveals some discouraging data that there is still inhuman practices are going on in the study area where a huge number of women (66%) experiencing some inhuman discrimination by forcefully keeping them separate behaving like untouchable for 4 days every month during their menstruation cycle.

This is mainly with the Brahmin and Chhetry communities as they follow very hard rituals. Another 32% do their business as usual during the menstruation and other 2% did not respond. In a same community, why the 32% do their business as usual is the crucial question. Basically, the majority of this 32% are belongs from Tamang community and some of them of school, college going girls from the Brahmin communities.

Table 3.4: Practices During the Menstruation Cycle

SN	Practice during the menstruation cycle	Kharelthok	Jyamdi	Total	Percent
1	Stay separate from family like untouchable	50	60	110	66
2	As Usual	39	14	53	32
3	Don't know	2	2	4	2
Total		91	76	167	100

Source: Field Survey, 2017

iv) **Access to Services Menstruation Hygiene, Water and Sanitation Services**

Table 4.1 below present encouraging data that 11% of the respondents have owned private water tap, followed by public water tap 78%, private well 4% and rain water harvesting 6%. This is an indication of increasing access to water source. Interestingly people are getting more sensitive towards the water supply and installing rain water harvesting to meet their need.

Table 4.1: Access and Types of Water Source

SN	Variable	Kharelthok	Jyamdi	Total	Percent
1	Private tap	12	7	19	11
2	Public tap	65	66	131	78
3	Private well	2	5	7	4
4	Rain water harvesting	5	5	10	6
Total		84	83	167	100

Source: Field Survey, 2017

As there is an increased access to the water sources, table 4.2 presents the status of access to the toilet facilities. It is encouraging to note that 65% of the respondents have permanent toilet with pane in their house whereas 7% has got temporary type pit toilet, another 26% have improved modern toilet with water supply and only 1% has improved toilet with flush.

Table 4.2: Access and Types of Toilet

SN	Variable	Kharelthok	Jyamdi	Total	Percent
1	Temporary Pit (Khaldo)	1	10	11	7
2	Permanent Toilet with Pane	37	72	109	65
3	Improved Permanent toilet	41	2	43	26
4	Improved toilet with flush	1	0	1	1
5	No toilet	1	2	3	2
Total		81	86	167	100

Source: Field Survey, 2017

It is interesting to note that once people are habitual to use toilet at home they search and prefer to use toilet when they are away from home. This happens when they go to local institution for different reasons. While they are visiting other institution, as far as possible they use toilet. Table 4.3 demonstrates that the majority of visitor (98%) at the VDC office use toilet over there. In school toilet user's percentage is 89% and in Health Post, it is only 20% because the toilet in Jyamdi Health Post is not maintained well, hence non-usable.

Table 4.3: Uses of Toilet* Facilities Outside Home

SN	Uses of toilet	Kharelthok	Jyamdi	Total	
				Total	Percent
1	in VDC	77	86	163	98
2	in School	65	84	149	89
3	in Health Post	34	0	34	20

* a total of 21 (17 in Kharelthok and 4 in Jyamdi were found disable friendly

v) **Practice of Menstruation Hygiene, Water and Sanitation**

Practicing traditional ritual is mostly depends on the level of awareness and exposure to the particular issue and its impacts. Therefore, there are certain practices of restrictions are imposed to women without scientific reasons. In this respect, preparing adolescents for menarche is crucial. In fact, menstruation is a basic physiologic function common to all healthy adult women and therefore shared by more than half the population. Onset of menstruation is an important point in development with implications for overall health.

Most research on female adolescence focuses on gynecological problems but ignores the psychosocial and cultural context. Management of menstruation, however, varies significantly across cultures dependent on the availability of commercial products, religious beliefs, folk cultures and other societal norms. Indigenous practices in rural areas (folk practices handed down from generation to generation) reflect traditional beliefs (Deo and Ghattargi, 2005).

CASE 1: *Talking Menstruation Hygiene*

Suniti (pseudo-name) is an 11th grade student in local Higher Secondary School in Kharelthok, who represents Newar ethnic group. She has heard lot of stories from her grandmother and mother about 'to do' and 'not-to-do during first and rest menstruation cycles. She did not care much about it but when she first experienced the menstruation while she was in grade 6, she experienced the same as she was hearing. The only one thing different was she was at the public place and there was no option except to run away and escape from the scene.

"As soon as I noticed bleeding, I run away from school even I had heavy abdominal pain", she recalls. She missed many classed for a week. On those days, if a girl is absent in class without information for few days, it was automatically known that she must have menstruation, she recalls with shy face.

Gradually, the situation has been changed and the girls don't go away rather take a sanitary pad from school (available at the subsidized rate of NPR 5) and continue their business. Responding a question, how this change is possible, she confidentially said, "It is a combined result of education, exposure, mobility, change role that the girls engaged in outside work and project activities like KIRDARC's menstruation and sanitation program.

Today, the girls and boys can talk about menstruation freely and even make a joke or play game "chhoi heram ta" meaning lets touch and see. This is how the open talk and awareness can break the cultural taboos and help for change.

The women and adolescent in the study area normally comes from two socio-ethnical background i) Mongol and Non-Mongol. Mongolian widely does not have such restricted practices during menstruation as compared to Non-Mongols. So how long they practice some of the restriction mainly in untouchable condition is the primary concern.

Table 5.1 presents how many days a menstruated women and girl stay separate from family with certain restriction in an untouchable state during their menstruation cycle. Among the respondents, the majority (89%) are still practicing to stay separate and untouchable for 4 days every month during their menstruation. Other 7% follow this ritual for 7 days.

Table 5.1: Days to Stay Untouchable During Menstruation

SN	Days to stay untouchable	Kharelthok	Jyamdi	Total	Percent
1	3 Days	2	0	2	1
2	4 Days	59	60	119	89
3	5 Days	6	3	9	7
4	6 Days	2	0	2	1
5	7 Days	2	0	2	1

Source: Field Survey, 2017

Table 5.2 presents what are the areas where the women and girls are restricted to involve in certain personal and family affairs. About 90% of the survey respondents faced at least one or more type of restrictions. Majority of them are abstained from entering prayer room and temple for worship (90%).

Similarly, more than half of them (57%) are not allowed to enter kitchen and cook food followed by fetching water (31%).

Table 5.2: Restrictions during menstruation

SN	Restriction during menstruation	Kharelthok	Jyamdi	Total	Percent
1	to enter inside home	1	2	3	2
2	to enter kitchen and cooking	46	49	95	57
3	to enter prayer room	80	71	151	90
4	to touch anyone	22	11	33	20
5	to have milk products	3	2	5	3
6	to study books	3	4	7	4
7	go to office	1	2	3	2
8	work in the field/farm	2	2	4	2
9	fetch water	24	27	51	31
10	take part in physical activity (Sports/games)	1	2	3	2
11	visit friends or relatives place	3	1	4	2

Source: Field Survey, 2017

Furthermore, celebrating festivities and attending auspicious functions, not allowed to touch male family members, enter inside home, have milk products, study religious books, work in the field/farm, take part in physical activity (sports/games) and visit friends or relatives has a share from minimum 1% to 4%. But the majority of surveyed respondents mentioned that they are never being absent due to menstruation except some physiological pain/discomfort.

Table 5.3 presents how women and girls maintain their personal hygiene during menstruation cycle under restricted environment. Among the surveyed respondents, more than half (55%) take bath every day, followed by 33% takes bath in first, fourth and fifth day. Similarly, 10% takes bath in every alternate day during 5 days of menstruation cycle and only 2% take bath twice a day.

Table 5.3: : Maintaining Personal Hygiene During Menstruation Cycle

SN	Bathing during menstruation	Kharelthok	Jyamdi	Total	Percent
1	Everyday	35	55	90	55
2	Twice a day	1	3	4	2
3	Alternate Days	13	3	16	10
4	First, fourth and fifth day	39	14	53	33
Total		88	75	163	100

Source: Field Survey, 2017

vi) **Participation in Planning and Decision Making**

The social participation of any adolescent girls and women is mostly affected by their shrouded secrecy during the menstruation cycle created by the mal practices of different cultural taboos and prohibition cultures. Despite being a pivotal event shared by more than half of the population, menstruation is in much of the world still shrouded in secrecy and cultural taboos, and even in the Western world, not freely discussed (James, 1997). The deep-seated cultural prohibitions regarding the discussion of menstruation and other topics of a sexual nature, even between parents and their adolescent daughters, particularly with regard to the physiological basis of menstruation and the practical aspects of managing menstruation in a hygienic manner.

Prohibitions tend to be stronger in more rural and more uneducated communities. Even in Australia, where information regarding menstruation is readily available, 80% of young urban girls (residents of Sydney, aged 14–19 years) surveyed felt that menstruation was an unacceptable topic of conversation (Abraham, Fraser, Gebski V *et al.* 1985).

So to come over these prohibitions, the respondents were also asked what according to them should be allowed during menstruation. One respondent, who is restricted to enter temple said that the restrictions should prevail. The rest of them said one or many restrictions they face should be removed.

Majority, of them said they should be allowed to enter the kitchen, participate in festivities, should be allowed to cook food. It should be noted that the girls expressed the need to change those restrictions that are imposed of them. The respondents felt most restricted person to follow all these practices are mothers; mother, grandmothers, mother-in-laws followed by father and relatives.

Table 6.1 presents the most restricted person to follow traditional rituals during menstruation period as mother (41%), grandmother (17%), mother-in-laws (11%), father (7%), husband (3%), and nominal influence comes from elder sister, relatives and neighbors that counts 1% each. Most importantly 15% claim that it is none of them but it comes from within which is predominantly influence to follow such restriction in the name of culture, religion and to prove as "good girl" or "good woman".

Table 6.1: Strict to Follow Traditional Rituals During Menstruation Period

SN	Strict Behavior on Menstruation period	Kharelthok	Jyamdi	Total	Percent
1	Grand Mother	4	22	26	17
2	Grand Father	0	3	3	2
3	Mother	22	39	61	41
4	Father	4	6	10	7
5	Elder sister	1	0	1	1
6	Relatives	1	0	1	1
7	Neighbors	0	2	2	1
8	Mother in laws	17	0	17	11
9	Husband	5	0	5	3
10	None	22	1	23	15
	Total	76	73	149	100

Source: Field Survey, 2017

The changes observed after the KIRDARC intervention is that the girls and women are comfortable talking openly about menstruation. The respondents of survey, participant of FGDs and KII said that they are fine discussing with everyone, but most comfortable to discuss with female teachers and Health Post Nurses. There are some exception also observed that some of the respondents have discussed about menstruation even with a stranger men.

Thus, a cross analysis of the restrictions being imposed reveals that the restriction to enter kitchen, cook food, touch to male family members should be lifted and celebration of festivities and attend auspicious functions should be allowed. It is interesting to know what a person normally does when he or she live in certain restricted situation.

Table 6.2 present the personal view of the respondents about their response against the restrictions. When the respondents asked what they normally do to respond restrictions, majority of women (80%) just keep quiet and follow the practices whereas majority of girls (17%) follow the practices inside home but not outside. Further, some girls (1%) even lie every time when they have menstruation so that they do not have to follow such restriction, another 1% go to friend's place and share frustration and another 1% upload their frustration in social media i.e. Facebook.

Table 6.2: Response Against Restriction

SN	Response during restriction	Kharelthok	Jyamdi	Total	Percent
1	Keep quiet and just follow the practices	52	71	123	80
2	Follow practice only inside home not outside	25	1	26	17
3	Lie every time, don't say I have period	1	0	1	1
4	Go to friend's place and share	0	1	1	1
5	Upload frustration in social media	2	0	2	1
Total		80	73	153	100

Source: Field Survey, 2017

vii) **Barriers in Accessing Services**

The women and girls in urbanizing central region though do not have to go through severe types on "Chaupadi" practices as practiced in the mid and far western parts of the country, but as there are many social restrictions are being practiced (table 5.2) that results barrier for their overall development. Such restrictions, in most cases are related to the "impurity" of the females during menstruation (Ten, 2007). The gender unfriendly schools and infrastructure, and lack of adequate menstrual protection alternatives and clean, safe and private sanitation facilities undermine the right of privacy, which results in a fundamental infringement of the human rights of adolescent girls (WaterAid, 2009).

In Kharelthok and Jyamdi, where communities are fast urbanizing, sanitary pads is a popular choice as its accessible but the affordability still could be a barrier to use it. Table 7.1 highlights some of the key barriers that the women and adolescent girls have been experiencing in accessing services particularly related to MHM and WASH in Kharelthok and Jyamdi VDC of Kabhrepalanchowk.

The main barrier to access and use the facilities is the absence of facilities, even in some case facilities are existed but they are not gender and disable friendly. For example, in some school, the common toilets for boys and girls are exited but have no water supply, no toiletries and even no locking system which makes the service gender unfriendly. In such case, no one can expect those facilities disable friendly. So, in this case, awareness, availability, affordability and disability itself were taken as barrier to access and use water and sanitation facilities.

Overall, the respondents responded that all the restrictions associated with the menstruation are the barrier in accessing the services. Among total, a highest proportion of the respondents (69%) said the low level of awareness on MHM and WASH and no provision of sanitary pad and hygiene material at School are the primary barriers, followed by non-affordability of the sanitary pad in terms of price (36%), habit of open defecation (11%), non-service friendly School and local service providers (11%), non-disable friendly available facilities (34%), belief of menstruated female can't touch water point and menstruation is symbol of impurity (29%), and disabilities itself as barrier (18%).

Table 7.1: Barriers of Accessing Services

SN	Barriers	Kharelthok	Jyamdi	Total	Percent
1	Level of awareness on MHM and WASH	32	83	115	69
2	Habit of open defecation	4	15	19	11
3	No MHM and WASH related classes at school	12	8	20	12
4	School/institution are not MHM/WASH service friendly	26	30	56	34
5	Even available facilities are not disability friendly	8	24	32	19
6	Non-availability of soap and disinfectants in toilet	34	34	68	41
7	Belief of menstruated female can't touch water point	17	32	49	29
8	Belief that menstruation is symbol of impurity	20	28	48	29
9	Disabilities	9	21	30	18
10	No sex and reproductive education at school	1	16	17	10
11	No provision-sanitary pad/hygiene material at home	1	8	9	5
12	No provision- sanitary pad/hygiene material at School	34	82	116	69
13	Non-availability of sanitary pads in school	32	75	107	64
14	Non-availability of sanitary pads in the community	20	8	28	17
15	Non-affordability of the sanitary pad in terms of price	25	35	60	36

Source: Field Survey, 22017

In this study, amidst all these, it is encouraging to note that the changing attitude of the adolescent girls in terms of challenging the restrictions that limit their daily lives and routines as more than half of the surveyed girls experiencing multiple restrictions. Evident from the survey shows that the topic "menstruation" is still not an easily taken topic for discussion among the family members.

To the contrary, girls felt most comfortable talking openly about menstruation primarily with their mothers, then sisters and friends/peers and the married girls with their husbands. So, the mothers of today and tomorrow including other family members and friends circle should be empowered to have "menstruation" as a meal time or casual discussion. The girls of today will play a major role regarding MHM, after she becomes a mother as she will be the one to produce the message to her female offspring.

Not to forget, schools are playing a major role in raising awareness on menstruation among the girls and boys as they are their counterpart as friend, boyfriend, colleagues at work and one day a spouse. Hence, engagement of boys and men in MHM is very crucial to bring positive changes on women's life which is a major part of a family.

viii) **Excerpts of Focus Group Discussion (FGD) with Adolescent Girls and Boys**

To acquire qualitative information, a total of three Focus Group Discussions (FGDs) were held. Among them, two FGDs were conducted with adolescent school girl, one in Kharelthok and another in Jyamdi VDC and one separate FGD with adolescent boys in Jyamdi VDC. The FGD revealed that the adolescent girls and boys are talking about the WASH and MHM freely as they consider menstruation is an important part of physical development of body. They highlighted the present condition of WASH services and even suggested for the improvements. The excerpts of those 3 FGDs are presented in the table 8.1.

Table 8.1: Excerpts of Focus Group Discussion (FGD) with Adolescent Girls and Boys

Details	Excerpts of Discussion		
	Kharelthok	Jyamdi	
FGD Number, Place and participants	FGD 1: 11 girl students of grade 6-11 in Bhagawati HSS	FGD 2: 12 girl student of grade 6-10 in Bagadebi High School	FGD 3: 12 boys student of grade 6-10 in Bagadebi High School
Importance of WASH	▪ Healthy and wealthy life ▪ Personality development	▪ To be healthy, less diseases, good for body & personal development	▪ no diseases, good for body & clean environment, personal development
Area of hygiene and sanitation	▪ Body, food, drink, house, surrounding etc.	▪ Body, cloth, trimming nail, water, home, toilet	▪ body, cloth, trimming nails, water, home, toilet
Main factors for sanitation	▪ Water tap, toilet sanitary pad, waste bin	▪ Water tap, soap, broom, toilet, sani-pad, waste bin	▪ Water tap, soap, broom, toilet, sanitary pad, waste bin
Knowledge & experience on MHM	▪ Monthly bleed through vagina, Information flow from elders: mother, sisters, in-laws	▪ Monthly bleed through vagina, information flow from elders: mother, sisters, in-laws	▪ Monthly bleeding through vagina, heard from sister, read on book and internet
What WASH and MHM related services are available at home, school & other institution	▪ Public tap, toilet, dust bins at home. Water tap, toilets and subsidized sanitary pad at school and toilet in other institution mostly unusable because of dirt	▪ Public tap, toilet, dust bins at home. Tap, common toilet, subsidized sanitary pad at school and toilet in other institution mostly unusable because of dirt	▪ Public tap, toilet, dust bins at home. Tap, common toilet, subsidized sanitary pad at school. But toilet in other institution very dirty
Are existing service disable friendly	▪ Mostly none. ▪ No disable student at school	▪ Mostly none but in school disable friendly toilet is under construction	▪ Mostly none but in school disable friendly toilet is under construction. corruption Control
Consequences of poor WASH & MHM service	▪ Physical, psychological, study/learning & drop-out ▪ Uterus prolapsed, Infertility, UTI etc.	▪ Physical, psychological, study/learning & drop-out ▪ Uterus prolapsed, Infertility, UTI etc.	▪ Physical, psychological, study/learning & drop-out ▪ Uterus prolapsed, Infertility, Urinary Tract Infection etc.
Personal and environmental hygiene	▪ Regular bath, wash, use of toilet, waste management	▪ Regular bath, wash, use of toilet, waste management	▪ Regular bath, wash, use of toilet, waste management
Social practice during menstruation	▪ Restriction on cooking, touching water, praying, live in isolation for 4 day	▪ Restriction on cooking, touching water, praying, force to live in isolation	▪ Restriction on cooking, touch water, praying, force to live in isolation. Can't touch men

Suggestion for improvements	▪ Maintenance of school toilet with water ▪ Arrange a changing room with a bed, water, soap, sanitary pad & medical kit ▪ Women teacher should have counseling and first aid skills. ▪ Involve student in management of WASH, MHM service at school	▪ Maintenance of school toilet with water ▪ Arrange changing room with a bed, water, soap, sanitary pad & medical kit ▪ Women teacher should have counseling and first aid skills ▪ Involve student in management of WASH, MHM service at school	▪ Maintenance of school toilet with water ▪ Arrange a changing room with a bed, water, soap, sanitary pad, and medical kit ▪ Women teacher should have counseling and first aid skills ▪ Control corruption ▪ Involve student in management of WASH and MHM service at school

ix) **Excerpts of Key Informants Interview**

The Key Informants Interview (KII) was adopted and used as a tool to collect qualitative information. The VDC Secretary, Health Post In-Charge or Nurse and Teacher, preferably Head Teacher or Women Teacher were selected and administered KII. Among them, VDC Secretary of Kharelthok VDC, Assistant Nurse Midwife from Kharelthok Health Post and Head Teacher of Bagadevi High School, Jyamdi were interviewed. The excerpt of KII is presented in the table 9.1 below.

Table 9.1 Excerpts of KII with Rewati Raman Sharma, VDC Secretary, Kharelthok

Content	Response
Understanding on WASH and MHM	▪ WASH is a basic necessity for human related to food intake and excreta disposal ▪ Water is pre-requisites, which is a problem here. ▪ Menstruation is natural but becomes health hazards if not taken care of well
Access to WASH and MHM Services	▪ River is only source. The existing water service is not sufficient. New water tap is being installing by KIRDARC. ▪ Menstruation is natural but becomes health hazards if not taken care of well ▪ Improvement in MHM service/behavior with availability of subsidized sanitary pad in School at NPR 5.00 and local dispensaries according to their choices.
Disable friendly WASH services	▪ This one is challenging to have disabled friendly WASH facilities. The toilets built in different institution are asked to be disabled friendly
Participation in VDC planning	▪ Local CBOs, representatives of women, janjati, dalit, disables etc ▪ 33% of women is mandatory in committees as well
Source of water	▪ River
Improvement of WASH and MHM service	▪ Built toilet to every households and ready to declare ODF zone ▪ Many improvements but still long way to go ▪ Separate toilet for men and women in VDC with water facilities.
Suggestions	▪ The total sanitation is only possible when the water is available according to need, so need a big project for a water lift project from the riverside as existing water supply is only for 1-2 hours in alternate days ▪ Monitoring and technical help need to be provided to the household regularly. ▪ The orientation and follow-up need be jointly to sustain WASH/MHM facilities

Table 9.2: Excerpts of KII with Meera Joshi, ANM, Kharelthok Health Post

Content	Response
Understanding on WASH and MHM	▪ WASH is necessity for daily human activities, food intake and excreta disposal ▪ MHM is related to women and girl's health and reproductive function ▪ Water is pre-requisites, which is a problem here. ▪ Menstruation is natural but becomes health hazards if not taken care of well
Access to WASH and MHM Services	▪ The existing water service is not sufficient. ▪ A new disabled friendly separate toilet for men and women in side HP but problem to manage water. New water tap is being installing by KIRDARK soon. ▪ Menstruation is natural but become health hazards if not taken care, so education is must to aware about MHM service and change behavior to use subsidized sanitary pad in School at NPR 5.00 or purchase in local dispensaries according to their choices.
Disable friendly WASH services	▪ Disabled friendly toilet facilities built. Pan and water has to arrange yet. ▪ Waste management at home and community collecting in a big sac (Bora).
Participation in VDC planning	▪ Not participating in planning as such but receiving budget for small improvement of HP services
Source of water	▪ Public water tap brought from river source.
Improvement of WASH and MHM	▪ Built toilet to every households and ready to declare ODF zone, women know how to make sanitary pad at home or purchase in school and shops.
Suggestions	▪ The construction of HP building has to be completed, tap need to installed, toilet should be clean with proper water supply and HP waste management system ▪ Monitoring and technical help need to be provided to the household regularly. ▪ The orientation and follow-up need to go on jointly to sustain WASH/MHM facilities.

Table 9.3: Excerpts of KII with Genesh P Parajuli, Head Teacher, Bagadevi High School, Jyamdi

Content	Response
Basics	Student: Boys 243, Girls 237. Record of menstruated girls : No, Not reported
Understanding on WASH/MHM	▪ Water & sanitation is basic need. Water is needed for food and excreta disposal. ▪ MHM is related to women and girl's health and reproductive function ▪ Menstruation is natural but becomes health hazards if not taken care of well
Access to WASH and MHM Service	▪ Disable friendly separate toilet with water supply. Sanitary pad in subsidized price and pain killer free of cost. Waste management pit and sacs. Changing room available with hand wash facility. Orientation on WASH and MHM.
Consequences	▪ Absent in classes that causes poor study results/performances. ▪ Psychological effect. Susceptible to Urinary Tract Infection.
Participation in VDC planning	▪ Not participating in planning as such but receiving budget for improvement of school performance and facilities.
Improvement of WASH and MHM service	▪ Built toilet to majority of households and ready to declare ODF zone, women know how to make sanitary pad at home or purchase in school and shops. Girls know behavioral knowledge about personal hygiene and use of sanitary pad. ▪ No class dropout as a result of non-availability of WASH/MHM services at school.
Suggestions	▪ Running a fund through collection of cash from students on the occasion of their birthday. So far 50,000 collected and put in the saving group. The fund will be utilized to improve WASH/MHM facilities in the school and surroundings in future. School will invite external agencies to work in partnership. ▪ Monitoring and technical help need to be provided regularly. The orientation and follow-up need to go on jointly to sustain WASH and MHM facilities and practices. ▪ A Psychological Clinic has to be established in school for the needy students.

x) **Consequences**

The respondents have experience of negative consequences of unmanaged or poor water supply, waste management, sanitation and pollution in the past. When a woman is restricted to have access to hygiene, sanitation, nutritious food and behave like untouchable and keep in isolation during menstruation, they suffered from physical as well as psycho-social impacts. This leads to urinary tract infection, down of confidentiality, girls may be absent in classes that causes poor study results, would not able participate in social activities.

In absence of sufficient water supply the toilets cannot be maintained clean. Today, the residents of the same community have experience of positive consequences as a result of people's participation in the project activities implemented by the KIRDARC. These positive changes are briefly highlighted under the observed changes in the following sub section as the respondents mentioned the comparative changes between last 5 years and now.

xi) **Observed Changes**

The observed changes in the research between 5 years ago and now are as follows:

- The level of awareness particularly on the WASH and MHM has been increased. It is because, the project which is implemented by KIRDARC.
- Participation of community people especially of women in VDC level planning has been increased.
- Environment is comparatively clean as waste management campaign at household and community level is going on. Every household has a waste bin and a waste collection sacks at the center point of the community and roadside so that people collect waste separating degradable, non-degradable and papers.
- Observed changes can be seen in the quantity and quality of water supply, numbers of water taps and duration of water supply.
- Performance of girl students is drastically changed after having education sessions on WASH, MHM, waste management, pollution control in school and communities, and making arrangement of distribution of sanitary pad at school in subsidized price in assistance of KIRDARC.
- Built toilet in majority of households and ready to declare ODF zone.
- Women and girls know how to make sanitary pad at home, "Home-Made Pad". Girls know behavioral knowledge about personal hygiene and use of sanitary pad.
- No class dropout reported as a result of non-availability of WASH in both VDCs.
- Running a fund through collection of cash from students on the occasion of their auspicious birthday in the high school in Jyamdi. So far 50,000 has been collected and put it in the community saving group. The fund will be utilized to improve WASH/MHM facilities in the school and surroundings in future.

Chapter V: Findings

This chapter presents the major findings that are drawn from the data analysis and interpretation in the previous chapter.

1.1. The Research Area

- Kavrepalanchok District, a part of Province Number 3, is one of the 75 districts of Nepal, a landlocked country of South Asia. According to CBS (2011), the total number of household is 80,720 with total population of 381,937 including the number of male 182,936 (47.90%) and female is 199,001 (52.10%).
- The study areas are Kharelthok and Jyamdi VDC
- The study has applied the mixed methodology of quantitative and qualitative method

1.2. Demographics and Socio-Economic Profile of Sample Population

- According to CBS (2011), total household of Kharelthok and Jyamdi was 1716 with male population 3379 and female population 3878 making total population of 7257. Among these total households, a total of 167 household's respondents were interviewed, where a total of 955 populations were found resided.
- The distribution of sample population of female and male respondents 92% and 8% respectively. It is because the first priority to interview was to women headed and where disable person are living in the house. The total numbers of population of the sampled households and the ratio of women and men is almost equal that is 49.5% and 51.5% respectively.
- the population distribution of the sample population of the interviewed households has a big portion of the population (82%) is the young age of 20-45, followed by equal (9%) in both age groups between 13-19 years and over 45 years.
- Among The total respondents, a total of 48% families are nuclear and 52% percent families are found joint.
- A gradual improvement in formal education intake with an evident with illiteracy (10%), literacy (16%), school level (45%), college level (8%) and university level (1%). Overall, the level of education is increasing which has positive implication on the level of awareness and utilization of WASH and MHM services.
- more than two third (77%) respondents found dependents on agriculture followed by a 10% household reported that their family members has good earning from private agencies followed by self-employment (8%), employment in government offices (3%)and INGO (2%).

1.3. Understanding Menstruation, Hygiene and Sanitation

- It was evident that almost cent percent respondents had heard about menstruation before their menarche and the most important sources of the information are family members primarily mother and elder sister then siblings, friends at school and outside, TV commercials and teachers.

- A majority of the respondent (78%) termed menstruation as a natural blood flow from vagina for 4-5 days monthly, other 10% has still an understanding that menstruation is just a symbol of maturity that signals the girl is ready for marriage and reproductive function. A negligible number of respondents (1%) still there who understand menstruation is a sign of impurity.
- The majority of the respondents (64%) talk to their family members especially the mother, in-laws and sisters as main source of information flow about experience of menstruation, social norms and practices associated to menstruation cycle.
- The majority of the respondents (92%) found they use old but clean cloths as substitution of sanitary pad, which they said "home-made pad".
- The school student and girls of new generation who can afford to purchase they prefer to use ready to go sanitary pad available at the school (in subsidized rate of NPR 5.00) or in nearby shops in variety of brand and prices.
- The number of sanitary pad users are also increasing drastically (31%) during past few years especially after the lunch of the project from KIRDARK.
- Almost half of them (46%) found very sensitive to maintain personal hygiene and wash genital organ after bleed during the menstruation and only 2% said they have nothing to do as it is natural and just follow they rituals what they are following for years.
- The existence of water supply, toilet facilities and waste management are pre-requisites to maintain personal hygiene, sanitation and pollution free environment.
- A total of 23% respondents have access to water tap. Mostly water tap are installed at center point of 8-10 households. Most of them used to connect their own loose pipeline to the main water tap on their turn instead of fetching on the pot. It save time and quantity of water they reserve at home.
- Access to toilet facilities has reached 96% and VDC is ready to declare ODF zone.
- A total of 18% are using bathroom for personal hygiene and 51% are using waste disposal bins.

1.4. Status of Menstruation Hygiene, Water and Sanitation

- The status of access or dependency of the respondents over the piped water tap is 81%, tube well or hand pump 0.17%, well or kuwa 8.86%, uncovered well or kuwa 8.33%, spout water 0.99%, river stream 0.35%, others 0.17% and not stated 0.12%
- Among the total responders, the physical disabilities has the highest prevalence with (22%) followed by multiple disabilities (21%), hearing problem (15%), dumb (14%), mental problems and slow minded (9%) each, blind and dumb (7%), and visionary problem (4%).
- Among the total responders, more than half (55%) had no special facilities added in their toilet to suit disables. Another 31% said the family members provide help for their disable members while using toilet, water tap, bathroom or any other services according to need. This option is found not really convincing and disable friendly because the family members may not always available while the disable person willing to use the water tap, toilet or any other facilities. Another 10% has improvised the toilet pane adding chair-like pane to comfortable to the disable person. This option is adoptable for others as well because if such facilities are made then the disable person can use the facilities whenever they need.

- Revealed some discouraging data that there is still inhuman practices are going on where a huge number of women (66%) experiencing some inhuman discrimination by forcefully keeping them separate behaving like untouchable for 4 days every month during their menstruation cycle. Another 32% are doing business as usual during their menstruation cycle and other 2% does not like to respond the question.

1.5. Access to Services Menstruation Hygiene, Water and Sanitation Services

- A very few (11%) respondents have owned private tap, followed by public tap 78%, private well 4% and rain water harvesting 6%. Interestingly people are getting more sensitive towards the water supply and installing rain water harvesting to meet their need.
- As there is an increased access to water sources, 65% respondents have permanent toilet with pane in their house whereas 7% has got temporary type pit toilet, another 26% have improved modern toilet with water supply and only 1% has improved toilet with flush.
- It is interesting to note that once people are habitual to use toilet at home they search and prefer to use toilet when they are away from home. The majority of respondents (98%), who visit VDC office they use toilet. In school toilet user's percentage is 89% and in Health Post, it is only 20% because the toilet in Jyamdi Health Post is not maintained well, hence non-usable.

1.6. Practice of Menstruation Hygiene, Water and Sanitation

- The majority (89%) of the respondents are still practicing to stay separate and untouchable for 4 days every month during their menstruation. Other 7% follow this ritual for 7 days.
- About 90% of the survey respondents faced at least one or more type of restrictions. Majority of them are abstained from entering prayer room/temple for worship (90%). Similarly, more than half of them (57%) are not allowed to enter kitchen and cook food followed by fetching water (31%).
- Major changes have observed that the majority of respondents mentioned that they are never being absent in school due to menstruation except some physiological pain/discomfort.
- Among the surveyed respondents, more than half (55%) take bath every day, followed by 33% takes bath in first, fourth and fifth day. Similarly, 10% takes bath in every alternate day during 5 days of menstruation cycle and only 2% take bath twice a day in course of maintaining personal hygiene during menstruation cycle under restricted environment.

1.7. Restriction and Response

- The most restricted person to follow traditional rituals during menstruation period as mother (41%), grandmother (17%), mother-in-law (11%), father (7%), husband (3%), and little influence comes from sister, relatives and neighbors that counts 1% each. Most importantly 15% claim that it is none of them but it comes from within which is predominantly influence to follow such restriction in the name of culture, religion and to prove as "good girl" or "good woman".
- Majority of them suggested that they should be allowed to enter the kitchen, participate in festivities, should be allowed to cook food. It should be noted that the girls expressed the need to change those restrictions that are imposed of them.
- There are some exception observed that some of the respondents freely discussed about menstruation issue even with us as stranger men. So, a cross check on the restrictions was possible, which revealed that the restriction to enter kitchen, cook food, touch to male members should be lifted and celebration of festivities and attend auspicious functions should be allowed.

- Under the restricted condition during menstruation, majority of women (80%) just keep quiet and follow the practices whereas majority of girls (17%) follow the practices inside home but not outside. Further, some girls (1%) even lie every time when they have menstruation so that they do not have to follow such restriction, another 1% go to friend's place and share frustration and another 1% upload their frustration in social media i.e. Facebook.

1.8. Barriers in Accessing Services

- Among the barriers associated with the menstruation, low level of awareness, no provision of sanitary pad and hygiene material at School have highest prevalence (69%) followed by non-affordability of the pad in terms of price (36%), habit of open defecation (11%), non-service friendly School and service providers (11%), non-disable friendly facilities (34%), belief of menstruated female can't touch water as menstruation is symbol of impurity (29%), and disabilities itself (18%).
- To note, the changing attitude of the adolescent girls to challenge the restrictions that limit their daily lives and routines as more than half of the surveyed girls experiencing multiple restrictions. Evident from the survey shows that the topic "menstruation" is still not an easily taken topic for discussion among the family members. To the contrary, girls felt most comfortable talking openly about menstruation primarily with their mothers, then sisters and friends/peers and the married girls with their husbands.
- Not to forget, schools are playing a major role in raising awareness on menstruation among the girls and boys as they are their counterpart as friend, boyfriend, colleagues at work and one day a spouse. Hence, engagement of boys and men in MHM is very crucial to bring positive changes on women's life which is a major part of a family.

1.9. Observed Changes

- The residents of the community have experience of positive consequences as a result of people's participation in the project activities implemented by the KIRDARC.
- The level of awareness particularly on the WASH and MHM has been increased. It is because, the project which is implemented by KIRDARC.
- Community Participation especially of women in VDC level planning has been increased.
- Environment is comparatively clean as waste management campaign is going on. Every household has a waste bin and a collection sack at the center point of the community and roadside so that people collect waste separating degradable, non-degradable and papers.
- Observed changes can be seen in the quantity and quality of water supply, numbers of water taps and duration of water supply.
- Performance of girl students is drastically changed after having education sessions on WASH, MHM, waste management and pollution control in school and communities, with arrangement of distribution of sanitary pad at school in subsidized price in assistance of KIRDARC.
- Built toilet in majority of households and ready to declare ODF zone.
- Women and girls know how to make sanitary pad at home, "Home-Made Pad". Girls know behavioral knowledge about personal hygiene and use of sanitary pad.
- No class dropout reported as a result of non-availability of WASH in both VDCs.
- The high school in Jyamdi has been collecting a total of 50,000 from student on the occasion of their auspicious birthday and kept in the saving group. The fund will be utilized to improve WASH/MHM facilities in the school and surroundings in future.

Chapter VI: Conclusions and Recommendations

This chapter presents the conclusion of the study highlighting the level of awareness, knowledge, status of adolescent girls regarding menstruation hygiene management, WASH and disability and their aspirations to change the ongoing beliefs, rituals and practices and increase the access to the better WASH and MHM facilities. On the basis of findings drawn from this study, this chapter will also provide recommendations for bringing positive changes in the level of awareness, knowledge of the adolescent girls regarding menstruation hygiene management, WASH and disability and their aspirations to change the ongoing beliefs, rituals and practices and improve the access to WASH and MHM facilities to all.

6.1. Conclusions

Menstruation is a natural process that starts and ends around the year of 50. Adolescence is a period of physical, mental, social and emotional change and a sign of maturity among the girls. In this period, a change, in which rapid growth and development takes place. The age of menstruation depends on the climatic condition and intake of nutritional diet, which determine the process of growth and development. Genital hygiene in adolescent girls is a subject deserving of more serious research. Studies have largely focused on issues of teen sexuality, ignoring basic genital hygiene and its influence on adolescent gynecological health.

Girls need to be groomed in such a way that they feel proud of the fact that they menstruate – as the blood that comes out during that time is the purest form of blood, the life-giving blood. Formal as well as informal channels of communication such as mothers, sisters and friends, need to be emphasized for the delivery of such positive information. In view of the vital role of the mothers, it is very important that the mothers be armed with the correct and appropriate information on MHM, so that she can give this knowledge to her growing girl child.

Menstrual hygiene is a substantial public issue. So the girls require gender-specific, bathrooms with running water and the means of appropriate disposal of cloths or sanitary napkins, as well as the accessibility and affordability of acceptable absorbent products. But in many instance, many of the adolescent girls and women through the world have no access to physicians, hence do not receive adequate and reliable information in one hand and often seek information from unreliable sources on the other. Moreover, lack of effective education regarding menstruation allows superstition and groundless restrictions for menstruating girls to be perpetuated. Therefore, building awareness in parents of the medical aspects of menstruation and proper menstrual hygiene as well as the importance of talking to their daughters before menarche is critically important.

Management of menstrual hygiene is an issue throughout the world. Both in industrialized or developing countries, the question of how to better prepare adolescents for better management of menstruation cycle is exits. The adolescent girls primarily look to their mothers for information and guidance, but mothers, particularly from poorer or uneducated background, often feel themselves inadequate or uncomfortable in discussing menstruation. Although sanitary pads are readily available, problems of adolescent girls with menstrual hygiene are still under-recognized and not optimally managed. In this respect, this research revealed that the most important things for a young women to know that menstruation is a normal part of physical as well as psychological development and know what is considered normal in terms of menstrual flow.

If it is not done, some girls may seek medical care even for normal cycle which is waste of time and money. In another case, some may not seek healthcare even in the abnormal bleeding patterns because of restricted accessibility and affordability and low level of awareness about the consequences of excessive bleeding. Similarly, it is also important for young girls and women to understand their options for genital hygiene, including menstrual hygiene, to understand what constitutes healthful hygiene practices, and to be competent and confident in their ability to manage genital hygiene throughout all stages of their reproductive lives.

Overall, there is still a strong need to do more efforts to curb the mis-belief and taboos among the adolescent girls to address the issues like the restrictions which are imposed on or practiced by the adolescent girls. Not to forget, as a result of many initiatives, male family members are increasingly becoming lenient and they should also be engaged in the MHM process. Further, a healthy approach to genital hygiene must include medical, psychosocial and practical aspects. To initiate something towards better management of menstruation hygiene, the parents, schools, medical providers, public-health program operators and media outlets must understand the point stated below and also can all play a part.

- Genital hygiene is an important health issue in adolescent girls and women.
- Poor hygiene and counterproductive hygiene practices could negatively impact reproductive health.
- Menstrual management is a particular issue for adolescent girls and women.
- Menstrual management practices vary across the communities and cultures and are influenced by the types of absorbent products or facilities available. It is highly influenced by the socio-cultural practices, traditional taboos, media messages and religious beliefs.
- Despite the variability in social norms, girls across cultures and societies are ill-prepared for menarche and nearly universally view menstruation as a shameful and embarrassing situation, which is not the reality.
- Adolescent girls need to be taught that menstruation is a normal and important function of a healthy body for reproductive function.
- Different interventions in different countries and communities have demonstrated that a program that prepares girls for better management of menstruation hygiene by communicating the physiological role of menstruation in female health and by teaching menstrual hygiene have improved girl's attitudes and practices.
- Families, schools and medical professionals can better prepare girls for menarche and rest of the menstruation cycle throughout their life.
- Positive cultural and educational approaches can help girls embrace their femininity and all it entails.

This study has highlighted the knowledge and practice of adolescent girls regarding menstruation hygiene management, WASH and disability and their aspirations to change the ongoing beliefs and rituals. in this regard, effective tools to raise positive awareness, knowledge to curb the misbeliefs among girls, safe disposal of the pads, pain management, provision of low-cost napkins, private space to wash-dry-store cloths, engaging men in the process, and strong monitoring of policy implementation among others should be focused. Menstrual hygiene is an issue that needs to be addressed at all levels. Thus, a holistic and evidence based policy provision should be designed so that the girls and women can feel pride in the fact that they menstruate.

6.2. Recommendations

The recommendations given below have been drawn from the data analysis, findings and conclusion.

- To built in the changes happening in VDCs, a WASH and MHM initiative need to be extended at the ward level in partnership with local school and local governance bodies. In which engagement of men and boys in MHM should be included.
- School education need to run at school involving the local teacher and student clubs, so that they know about reproductive health issues including the MHM and their possible role in conducting session at school and communities.
- As the majority of the respondents (92%) are using "home-made pad" made by them, it should be promoted.
- School should arrange a special rest room with first aid box and sanitary pad to have rest for those students who fall ill or fall in an emergency situation or have menstruation. A mechanism should be established to ensure it work throughput the school days.
- The existence of water supply, toilet facilities and waste management are pre-requisites to maintain personal hygiene, sanitation and pollution free environment. Therefore, a need assessment need to be conducted and new water supply scheme need to be developed in a PPP model.
- As the VDC is close to declare ODF zone with 96% coverage of toilet construction but there is an issue of use, cleanliness and disable friendly structure. Hence, an improvisation of toilet pane is needed to make them disable friendly structure with close monitoring is needed at local level. Finally, toilets need to be modified to comprise waste containers, soap, proper lighting and secrete hand-washing places.
- A massive education initiative seems very urgent to address the issue of inhuman practices towards the women (66% of respondents), who are experiencing inhuman discrimination by forcefully keeping them separate behaving like untouchable for 4 days every month during their menstruation cycle
- The local level organization always gives demonstration effects as many people visits there for different purposes but majority of respondents (98%), who visit VDC office are not satisfied with the available toilet facilities. Here, one thing to be noted that if the toilet, water supply system and waste management are exemplary in the VDC, School and Health Post, Police Station, CFUG and other clubs, people will imitate and keep their own facilities up-to-date at home. Therefore, these institutions need to be equipped with all these facilities.
- Among all the barriers associated with the menstruation, low level of awareness on MHM and WASH and no provision of sanitary pad and hygiene material at School have highest prevalence (69%). Hence, the new initiative should include the awareness and training component.
- All the schools should be encourage to organize inter school and inter classes debate, essay competition, drawing competition at local level with prize to create awareness among the adolescent student both girls and boys, so that they realize why it is important to make it a discussion in public domain.
- Women and girls know how to make sanitary pad at home, "Home-Made Pad". Girls know behavioral knowledge about personal hygiene and use of sanitary pad.

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ANNEXURE

Annex 1: Some Photographs

THE FINAL PREPARATION:

Orientation to the Enumerators and Pilot testing of research tools in Dhulikhel.

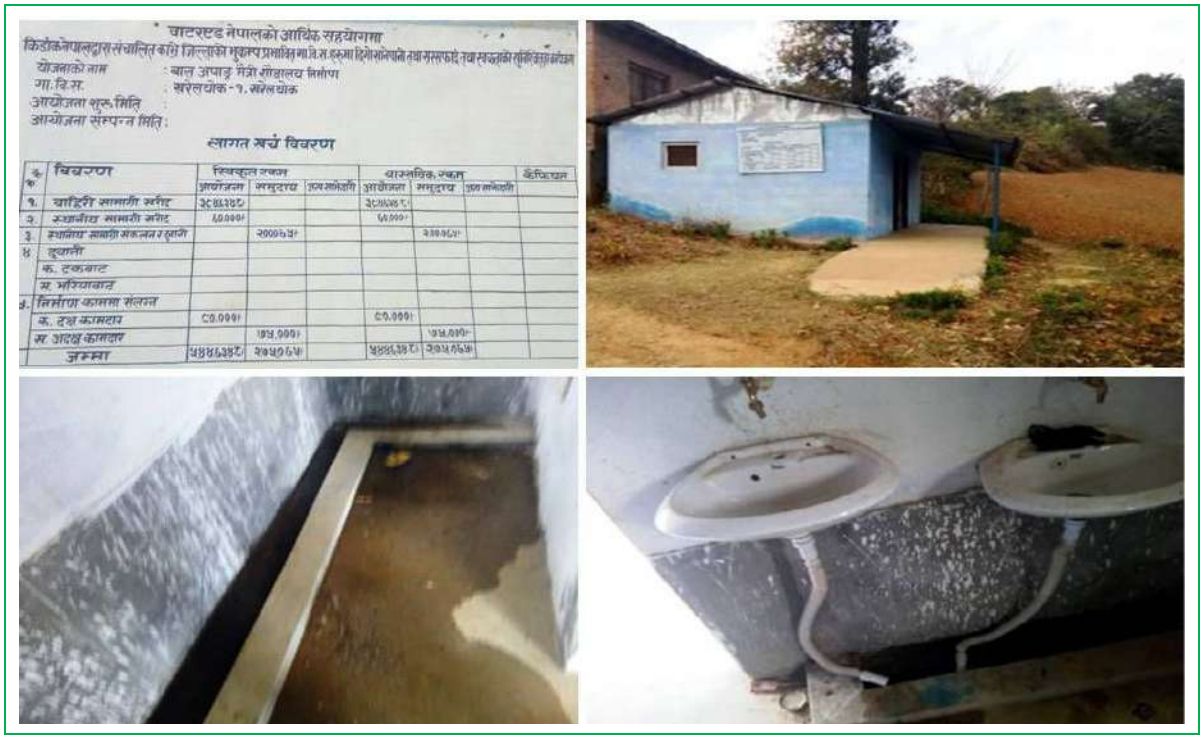
The enumerators are practicing HH interview and the KIRDARC representatives observing the activities.

MOVING ON:

The enumerators, Lead Researcher and the Head of the PPQAD of KIRDARC moving towards the Kharelthok, in front, in the scene is the under construction and existing Kharelthok HP building damaged by EQ.

IN THE FIELD:

KIRDARC Hording Board are on the scene in Kharelthok, below the Health Post Building and KII inside.



REALITY CHECK:

The disable friendly Toilet built in HP need to revisit for its sanitary management

Annex 2:
Excerpts of Focus Group Discussion (FGD) with Adolescent Girls and Boys

Details	Excerpts of Discussion		
	Kharelthok	Jyamdi	
FGD Number, Place and participants	FGD 1: 11 girl students of grade 6-11 in Bhagawati HSS	FGD 2: 12 girl student of grade 6-10 in Bagadebi High School	FGD 3: 12 boys student of grade 6-10 in Bagadebi High School
Importance of WASH	▪ Healthy and wealthy life ▪ Personality development	▪ To be healthy, less diseases, good for body & personal development	▪ no diseases, good for body & clean environment, personal development
Area of hygiene and sanitation	▪ Body, food, drink, house, surrounding etc.	▪ Clean body, cloth, bath, trim nails, clean water, clean home, clean toilet	▪ Clean body, cloth, bath, trim nails, clean water, clean home, clean toilet
Main factors for sanitation	▪ Water tap, toilet sanitary pad, waste bin	▪ Water tap, soap, broom, toilet, sani-pad, waste bin	▪ Water tap, soap, broom, toilet, sanitary pad, waste bin
Knowledge and experience on MHM	▪ Monthly bleed through vagina, Information flow from mother, sisters, in-law	▪ Monthly bleed through vagina, information flow from mother, sister, in-law	▪ Monthly bleed through vagina, heard from sister, read on book and internet
What WASH and MHM related services are available at home, school & other institution	▪ Public tap, toilet, dust bins at home. Water tap, toilets and subsidized sanitary pad at school and toilet in other institution mostly unusable because of dirt	▪ Public tap, toilet, dust bins at home. Tap, common toilet, subsidized sanitary pad at school and toilet in other institution mostly unusable because of dirt	▪ Public tap, toilet, dust bins at home. Tap, common toilet, subsidized sanitary pad at school. But toilet in other institution very dirty
Are existing service disable friendly	▪ Mostly none. ▪ No disable student at school	▪ Mostly none but in school disable friendly toilet is under construction	▪ Mostly none but in school disable friendly toilet is under construction. Control corruption is needed
Consequences of poor WASH & MHM services	▪ Physical, psychological, study/learning & drop-out ▪ Uterus prolapsed, Infertility, Urinary T. Infection	▪ Physical, psychological, study/learning & drop-out ▪ Uterus prolapsed, Infertility, Urinary T. Infection	▪ Physical, psychological, study/learning & drop-out ▪ Uterus prolapsed, Infertility, Urinary Tract Infection
Personal and environmental hygiene	▪ Regular bath, wash, use of toilet, waste management	▪ Regular bath, wash, use of toilet, waste management	▪ Regular bath, wash, use of toilet, waste management
Social practices during menstruation	▪ Restriction on cooking, touching water, praying, live in isolation for 4 days	▪ Restriction on cooking, touching water, praying, force to live in isolation	▪ Restriction on cooking, touch water, praying, force to live in isolation. Cannot touch men
Suggestion for improvements	▪ Maintenance of school toilet with water ▪ Arrange a changing room with a bed, water, soap, sanitary pad, medical kit ▪ Women teacher should have counseling and first aid skills. ▪ Involve student in management of WASH and MHM service at school	▪ Maintenance of school toilet with water ▪ Arrange a changing room with a bed, water, soap, sanitary pad, medical kit ▪ Women teacher should have counseling and first aid skills ▪ Involve student in management of WASH/ MHM service at school	▪ Maintenance of school toilet with water ▪ Arrange a changing room with a bed, water, soap, sanitary pad, and medical kit ▪ Women teacher should have counseling and first aid skills ▪ Control corruption ▪ Involve student in management of WASH and MHM service at school

Annex 3: Excerpts of KII

Rewati Raman Sharma, VDC Secretary, Kharelthok

Content	Response
Understanding on WASH and MHM	▪ WASH is a basic necessity for human related to food intake and excreta disposal ▪ Water is pre-requisites, which is a problem here. ▪ Menstruation is natural but becomes health hazards if not taken care of well
Access to WASH and MHM Services	▪ River is only source. The existing water service is not sufficient. New water tap is being installing by KIRDARK. ▪ Menstruation is natural but becomes health hazards if not taken care of well ▪ Improvement in MHM service and behavior with education and availability of subsidized sanitary pad in School at NPR 5.00 and local dispensaries according to their choices.
Disable friendly WASH services	▪ This one is challenging to have disabled friendly WASH facilities. The toilets built in different institution are asked to be disabled friendly
Participation in VDC planning	▪ Local CBOs, representatives of women, janjati, dalit, disables etc ▪ 33% of women is mandatory in committees as well
Source of water	▪ River
Improvement of WASH and MHM service	▪ Built toilet to every households and ready to declare ODF zone ▪ Many improvements but still long way to go ▪ Separate toilet for men and women in VDC with water facilities.
Suggestions	▪ The total sanitation is only possible when the water is available according to need, so, need a big project for a water lift project from the riverside as existing water supply is only for 1-2 hours in alternate days ▪ Monitoring and technical help need to be provided to the household regularly. ▪ The orientation and follow-up need to go on jointly to sustain WASH/MHM facilities.

2. Meera Joshi, ANM, Kharelthok Health Post

Content	Response
Understanding on WASH and MHM	▪ WASH is necessity for daily human activities, food intake and excreta disposal ▪ MHM is related to women and girl's health and reproductive function ▪ Water is pre-requisites, which is a problem here. ▪ Menstruation is natural but becomes health hazards if not taken care of well
Access to WASH and MHM Services	▪ The existing water service is not sufficient. ▪ A new disabled friendly separate toilet for men and women in side HP but problem to manage water. New water tap is being installing by KIRDARK soon. ▪ Menstruation is natural but becomes health hazards if not taken care of well, so education is being provided to aware about MHM service and change behavior to use subsidized sanitary pad in School at NPR 5.00 or purchase in local dispensaries according to their choices.
Disable friendly WASH services	▪ Disabled friendly toilet facilities built. Pan and water has to arrange yet. ▪ Waste management at home and community collecting in a big sac (Bora).
Participation in VDC planning	▪ Not participating in planning as such but receiving budget for small improvement of HP services
Source of water	▪ Public water tap brought from river source.
Improvement of WASH and MHM	▪ Built toilet to every households and ready to declare ODF zone, women know how to make sanitary pad at home or purchase in school and shops.
Suggestions	▪ The construction of HP building has to be completed, tap need to installed, toilet should be clean with proper water supply and HP waste management system ▪ Monitoring and technical help need to be provided to the household regularly. ▪ The orientation and follow-up need to go on jointly to sustain WASH/MHM facilities.

3. Genesh P Parajuli, Head Teacher, Bagadevi High School, Jyamdi

Content	Response
Basics	Student: Boys 243, Girls 237. Record of menstruated girls : No, Not reported
Understanding on WASH/MHM	▪ Water and sanitation is basic need of human. Water is needed for food and excreta disposal. ▪ MHM is related to women and girl's health and reproductive function ▪ Menstruation is natural but becomes health hazards if not taken care of well
Access to WASH and MHM Service	▪ Disable friendly separate toilet with water supply. Sanitary pad in subsidized price and pain killer free of cost. Waste management pit and sacs. Changing room available with hand wash facility. Orientation on WASH and MHM.
Consequences	▪ Absent in classes that causes poor study results/performances. ▪ Psychological effect. Susceptible to Urinary Tract Infection.
Participation in VDC planning	▪ Not participating in planning as such but receiving budget for improvement of school performance and facilities.
Improvement of WASH and MHM service	▪ Built toilet to every households and institution and ready to declare ODF zone, women know how to make sanitary pad at home or purchase in school and shops. Girls know behavioral knowledge about personal hygiene and use of sanitary pad. ▪ No class withdrawal as a result of non-availability of WASH and MHM services at school.
Suggestions	▪ Running a fund created through collection of cash contribution from students on the occasion of their auspicious birthday. So far 50,000.00 collected and put in the community saving group. The fund will be utilized to improve WASH and MHM facilities in the school and surroundings in future. School will invite external agencies to work in partnership. ▪ Monitoring and technical help need to be provided regularly. The orientation and follow-up need to go on jointly to sustain WASH and MHM facilities and practices. ▪ A Psychological Clinic has to be established in school for counseling of the needy students.

Annex 4: Questionnaire for HH Survey

Questionnaire for Field Survey

Dear Responders!
This survey is to assess the Disabilities, Menstruation Hygiene and Access to WASH, MHM and Other Services and evaluate the impact of KIRDARC interventions in Kharelthok and Jyamdi VDC Kavrepalanchowk, Nepal. We have selected you randomly to take part in a few minute interviews. We assure you that the information will be instrumental to assess present status and develop future intervention maintaining your full confidentiality. If you give your full consent, we can now start. If you change your mood and decide not to continue, you are free to stop at any point of time during our conversation. Thank you.

1. Demographic Information

Location (VDC,*Ward,Tole*) ☐

Presence of disability at Home Yes ☐ No ☐

Name of Respondent *(optional)*: …… *Family: Joint* ☐ *Nuclear* ☐

Age group	M	F	Education					Occupation					Types of disabilities							
			Illit	Lit	Sch'l	Col'z	Uvst'y	GO	NGO	Pvt	Self	Agri	1	2	3	4	5	6	7	8
<5 Year																				
5-15																				
15-30																				
30-45																				
45-60																				
60 >																				
Total																				

1. physical 2. low vision 3. hard to hear 4. deaf-blind 5. speech disability 6. mental disorder 7. intellectual disorder 8. multiple disability

2. Status of Disabilities, Menstruation Hygiene and Existing WASH and MHM Services

2.1 Knowledge on WASH

1. In your understanding, what is WASH ?

   ……

   ……

2. What are the main components of WASH that you have at your home?

   drinking water tap ☐ *toilet facility* ☐ *bathroom* ☐ *waste disposal* ☐ *sewerage* ☐

   Any other (specify) ……

3. If yes, does your water tap, toilet and bathroom disability friendly? Yes ☐ No ☐ *(Observe before writing)*

   If not (specify) ……

4. Do you have separate toilet with water facilities for male and female in the following service centers?

   ☐ VDC ☐ School ☐ Health Post ☐ WUG ☐ CFUG ☐ Cooperative

   Any other public places (specify) ……

   And are they disability friendly? *Yes:* ☐ *No:* ☐

2.2 Knowledge on menstruation and Hygiene

1. In your understanding, what is menstruation?

- ☐ A natural vaginal blood flow for 4-5 days every month
- ☐ A natural urethral blood flow
- ☐ *A symbol of maturity*
- ☐ *Symbol of impurity*
- ☐ A dirty thing should not talk
- ☐ Do not know

Any other (specify) ……

2. What do you mean by menstruation hygiene?

……

……

3. How you take care of bleeding and hygiene during menstruation?

- ☐ Clean using pieces of cloths
- ☐ Use sanitary pad
- ☐ Wash private parts after bleeding
- ☐ Nothing special

Any other (specify) ……

4. What is your source of information about menstruation and hygiene management ?

- ☐ Mother/inlaws/elder sister
- ☐ Friends
- ☐ School/Women Teacher
- ☐ Books/Internet/FM Radio/TV
- ☐ Health Post/Nurse/Health Worker

Any other (specify) ……

3. Practices of Using WASH Facilities

1. What types of drinking water schemes do you have?

- ☐ tap water at home
- ☐ public tap water at tole
- ☐ private well
- ☐ nerby river
- ☐ rainwaater harvesting

Any other source (specify) ……

2. What types of toilet do you have?

- ☐ pit (temporary)
- ☐ permanent with pan
- ☐ permanent with flush
- ☐ no toilet exits

Any other type (specify) ……

3. What arrangement of WASH facilities (water tap and toilet) do you have for the person with disabilities?
   - ☐ Flat floor at the water tap
   - ☐ special chair like pan installed in toilet for person with physically inability
   - ☐ permanent with flush
   - ☐ Nothing special

Any other (specify) ……

4. Practices During Menstruation Period

1. What is normal practice you and your family members do while menstruation period?
   - ☐ Live in isolation
   - ☐ Live in Chhaugoth
   - ☐ Live in animal shed
   - ☐ Live in restricted area at home like an untouchable
   - ☐ Permanent with flush
   - ☐ Live as normal

Any other (specify) ……

2. How many days do you follow such practices? 4 days ☐ 5 days ☐ 6 days ☐ 7 days ☐

3. Do you attend following social activities during menstruation period (Tick as appropriate) ?
   - ☐ Religious prayers at home/temple/public
   - ☐ Social events like marriage etc.
   - ☐ Community meetings/training
   - ☐ School
   - ☐ Office

Any other (specify) ……

4. What types of restriction do you face during menstruation period at home?
   - ☐ to enter kitchen and cook
   - ☐ to enter prayer room
   - ☐ to enter inside home
   - ☐ to touch anyone, if does they purifies with pure gold water
   - ☐ to have milk products
   - ☐ to study books
   - ☐ to have meat product
   - ☐ go to school
   - ☐ go to office
   - ☐ work in the field/farm
   - ☐ fetch water
   - ☐ take part in physical activity (Sports/games)
   - ☐ attend religious or community meeting
   - ☐ visit friends or relatives place

Any other (specify) ……

5. Mention who is the most strongest to make sure those restrictions are practiced and followed?
   - ☐ Grandmother
   - ☐ Grandfather
   - ☐ Mother
   - ☐ Father
   - ☐ Sister
   - ☐ Brother
   - ☐ Relatives
   - ☐ Sister-in-law
   - ☐ Cousin
   - ☐ Neighbors

Any other (specify) ……

6. In above situation, what you have explained earlier, what do you do when you are being restricted to do many social activities inside and outside home during periods?
   - ☐ Keep quite and just follow the practices
   - ☐ Follow the practice only inside home not outside
   - ☐ Lie everytime, don't say I have period
   - ☐ Call police
   - ☐ Go to friend's place and share
   - ☐ Upload frustration in social media
   - ☐ Report to newspapers

Any other (specify) ……

7. How frequently do you take bath during menstruation period?

- ☐ Once, everyday till 5 days/6days/7days
- ☐ Twice, everyday till 5 days/6days/7days
- ☐ Once every alternate day for 5 days/6days/7days
- ☐ Every odd days during 7 days
- ☐ day one, day four, day five and then go normal

Any other (specify) .....

5. Availability of Facilities and Services for WASH and MHM

1. Have you ever used the following services/facilities in the institutions listed in below table? (If yes, mark √)

Facilities Available	Home	School	Health Post	VDC	Cooperative	Police Station	Other (name)
Common Toilet							
Separate toilet for boys and girls							
Water supply in toilet							
Water tap							
Sanitary pad							
Changing room							
Waste/Sanitary pad disposal							
Hand Wash facilities							
Orientation on MHM							

Note: *blank space will be considered as no facilities, hence the barrier in accessing WASH and MHM services*

Do you need to pay for these services? *Yes* ☐ *No* ☐

6. Barriers in WASH and MHM Services

1. What other barriers have you experienced in accessing WASH and MHM services? (If yes, mark √)

Barriers	Yes
Level of awareness on the need of WASH and MHM	
Habit of open defecation	
No WASH and MHM related classes at school	
School and other institutions are not WASH and MHM service friendly	
Even some facilities are available they are not disability friendly	
Non-availability of soap and disinfectants in toilet	
Belief that women and girls should not touch the water point during menstruation	
Belief that menstruation is symbol of impurity, hence behave like untouchable	
Disabilities	
No sex and reproductive education at school	
No provision of sanitary pads and other hygiene materials at home	
No provision of sanitary pads and other hygiene materials at School	
Non-availability of sanitary pads in school	
Non-availability of sanitary pads in the community	
Non-affordability of the sanitary pad in terms of price	
Any other (specify) :	

7. Impact on Women, adolescent girls and person with disabilities

1. How does mensuration affects women in their public life and adolescnt girls while at school ?

- ☐ Feel harrasment
- ☐ Cannot concentrate at work/study
- ☐ Feel psychologically weak
- ☐ keeps out of public sphere and me out of school

3. How many days a girl student miss school classes every months ?

- ☐ Half a day on the day of menstruation
- ☐ 2 days
- ☐ 3 days
- ☐ 4 days

4. What are the reasons behind for absence in school during mensuration ?

- ☐ Absence of sepearte toilet at school
- ☐ Absence of seperate changing room at school
- ☐ Unavailability of sanitary pads at school
- ☐ Family restriction to study book and go to school
- ☐ Unfriendly school environment: *Teasing, bulling, non-responsive teacher on urgent care*

Any other specify: ……

8. Observed Changes

1. Have you observed any changes in the practices of WASH and MHM services during the periods? Yes ☐ No ☐

If yes, (specify them):

Changes in the practice of WASH Services		*Changes in the practice of MHM Services*	
Before Intervention	After (Now)	Before Intervention	After (Now)

2. In which local committees, you are a member?

- ☐ School Management Committee
- ☐ Parent Teacher Association
- ☐ Mothers Group
- ☐ Community Forest User Group
- ☐ Village WASH Committee
- ☐ HealthPost Management Committee
- ☐ Tole development committee

Name any other ……

3. In which committee do you have executive role? ……

4. List the activities *done by the local committees to respond the need of WASH and MHM services?*

Name of the Committee/Group	*Activities*

9. Suggestions

1. Would you like to suggest any intervention to make your living more comfortable in relation to WASH and MHM ?

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Thank you for your time, information and thoughts you have shared with us !