BMZ/VCA/WHH/SABAL Nepal, Saptari

STUDY REPORT
of Baseline survey on

Strengthening Municipal Wide WASH Governance for Social Change (SMWGSC) in

3 Municipalities of Siraha District, Nepal

For

Prepared by

Centre for Sustainable Development Studies Pvt. Ltd.

Satdobato, Lalitpur
Website: www.csds.com.np
Email: info.csds2018@gmail.com
Contact: 9852046561, 9851189225

Document	**Study Report of Baseline survey on Strengthening Municipal Wide WASH Governance for Social Change (SMWGSC) in 3 Municipalities of Siraha District, Nepal**
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Date	**December 2019**

Acknowledgements

Strengthening Municipal wide WASH Governance for Social Change in Siraha District is a 3 years project (2019-2021, being implemented by SABAL Nepal under the support of BMZ/VCA/WHH. It is designed to support the three municipalities (Siraha, Kalyanpur and Karjhana) of Siraha district to achieve safe drinking water, total sanitation, nutrition and livelihood by strengthening WASH governance at municipal level. The **Overall objective (impact)** of this project is to improve the health and nutritional status through strengthened WASH governance and the provision of basic water, sanitation and hygiene (WASH) services; gender equality and empowerment of disadvantaged groups in Siraha. This project has 4 Outcomes with 19 indicators to measure the achievements over the project period.

This baseline survey has been carried out for context analysis and feed the baseline information to measure the achievements of the project. WHH and SABAL Nepal entrusted CSDS Pvt. Ltd. and got an opportunity to carry out this census level HHs survey with more than 100 questions covering 34,896 households with 192,412 population.

Only because of cumulative effort of multi-party involvement, it was possible to accomplish this big assignment. In this achievements, we would like to acknowledge WHH and team member Giriraj Khatri, WASH/DRRR Expert; Padam Lamsal, Project Coordinator and Maheshwor Rijal, MEAL Officer; and SABAL Nepal including Team member, Deepak Jha, Executive Director; Bibhushan Karki, Project Coordinator and his team for their trust and support. We share special thanks to Mr. Will Tillett for his constructive feedback on survey tools.

We would like thanks to the Mayor and Deputy Mayor of Siraha, Kalyanpur, and Karjanaha Municipality for their coordination and support. Thank you for all participants of FGD and KII.

We also would like to acknowledge to the study team member: Sangita Khadka, WASH Governanc and Menstrual Hygiene Expert; Dwarika Prasad Ghimire, WASH Expert; Dik Narayan Chaudary, Field Coordinator, Bhupesh Kumar Sah, Prakash Subedi, and Suman Chaudhary, field Supervisor of the study for Siraha, Kalyanpur and Karjanaha respectively for their tireless support. Thank you for all enumerators, the study was not possible without their tireless support.

We hope, time will generate such an opportunity again to work together.

Thank you

……

Prakash Rai
Team Leader and Chairperson
Centre for Sustainable Development Studies (CSDS) Pvt. Ltd.

Acronyms

BMZ	Federal Ministry for Economic Cooperation and Development
CSDS	Centre for Sustainable Development Studies
FCHVs	Female Community Health Volunteers
FGD	Focused Group Discussion
ICS	Improved Cooking Stove
KAP	Knowledge, Attitude, and Practice
KII	Key Informant Interview
TOR	Terms of Reference
VCA	Vulnerability and Capacity Assessment
WASH	Water, Sanitation, and Hygiene
WHH	Welt Hunger Hilfe

Study Team

Team Leader/Data Analyst/GIS Expert	Prakash Rai
WASH Governance and Menstrual Hygiene Expert	Sangita Khadka
WASH Expert	Dwarika Ghimire
IT Manager	Shashi Gharti
Field Coordinator	Dik Narayan Chaudhary

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CHAPTER: I
INTRODUCTION

1.1 Background

For the decade-long political transition, Nepali development in multiple aspects including WASH has been legged-behind. Political Restructuring process of Nepal has established a federal system with three tire of governments e.g. Federal, Provincial, and Local. International commitments including SDG and WASH is in high priority of the government of Nepal. Now the federal and the provincial governments of Nepal are in the role of policy formulation for WASH sector development e.g. Nepal Water Supply, Sanitation and Hygiene Sector Development Plan (2016 – 2030). This is the document which leads to implement the WASH under SDG in Nepal. The jurisdiction defined by the Constitution of Nepal has included the WASH in the portfolio of local government. WASH Sector Development Plan is introduced as the guideline, however, local governments has lacking capacity and resource to run the WASH activities at local level.

"Strengthening Municipal wide WASH governance for social change in Siraha district" is a 3 years project (2019-2021, supported by BMZ/VCA/WHH and implemented by SABAL Nepal, which support the three municipalities (Siraha, Kalyanpur and Karjhana) of Siraha district to achieve safe drinking water, total sanitation, nutrition and livelihood by strengthening WASH governance at municipal level. This baseline survey is carried out to feed the baseline information to measure the achievements of the project. In this study, a census level HHs survey with more than 100 indicators is carried in 34,896 households with 192,412 population. Along with the HH Survey, FGD and KII are also used as the information collection tools to develop this study report.

1.2 Objectives of the study

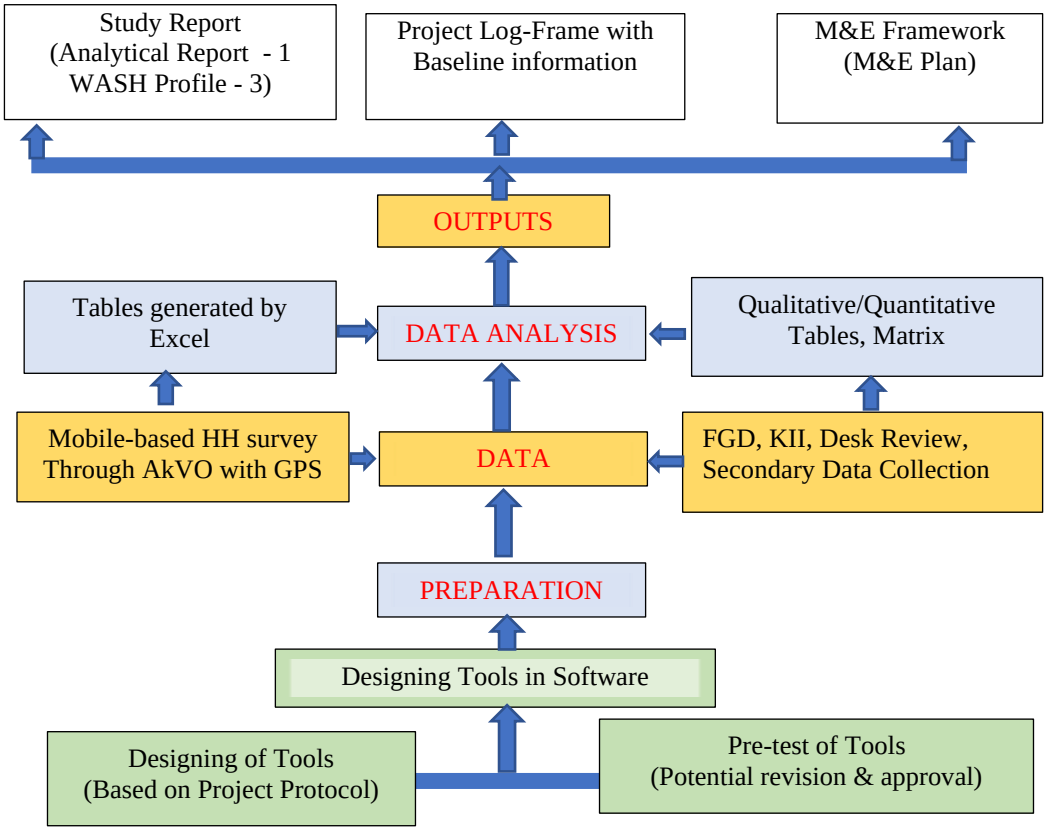
The overall objective of this baseline study was to undertake the baseline survey (HHs survey) including the assessment of process, progress, monitoring and reporting tools and methods for output, outcome and impact monitoring.
Specific activities carried out under this assignment were as follows:

- Design a *data collection tools and analysis framework for baseline survey compatible* to the project log frame (project indicator protocol) developed by WHH/SABAL Nepal including tools and systems used for the study including Knowledge, Attitude, and Practice (KAP).
- Orient *SABAL Nepal staffs and enumerators on baseline and field monitoring tools developed*
- Compile baseline in the project level data analysis framework developed in the project document.
- Undertake baseline HHs survey (Census) with scientific back up by GPS tracking and digital survey mechanism.
- Develop process, progress monitoring and reporting tools and methods for impact, outcome and output monitoring based on indicator protocol, log-frame and M&E plan for the project
- Develop report covering survey, findings, result-based log-frame, and M&E plan.

1.3 Methodology

This study has been conducted through multiple techniques and tools which was comprised as the methodology. Desk review; consultations with partner and WHH staff; household survey at Census level, key informant interviews (KII) with the Mayor and Deputy Mayor; and focused group discussions with Ward Committee Authorities and WASH stakeholders were the key tools used to collect information. During the study Knowledge, and Practice (AKAP) survey. Overall methodology of the study is summarized in Fig. 1 below.

Fig 1: Overall Framework of Baseline Study



1.4 Questionnaire for HH Survey Designed

During the inception phase, team has developed questionnaire for household level survey with the instant feedback of SABAL team. The draft developed by study team was forwarded to WHH via SABAL for creative feedback. Regarding the mail, Mr. Will Tillett and Padam Lamsal have provided their constructive feedback. Based on this suggestion, study team and SABAL jointly sat on and finalized the questionnaire for Household Level Survey (Annex 2.a). Questionnaire was arranged into 15 section and designed into both English and Nepali language so that enumerator could understand the exact meaning and objective of the questions to be asked. It had maintained the balance in questions related to WASH and KAP.

The finalized questionnaire was designed in app-based software https://welthungerhilfe.akvoflow.org/admin/ to run into mobile so that enumerator can collect data through mobile.

In the same time, checklist for Focused Group Discussion (FGD) and Key Informant Interview (KII) also designed and finalized consulting with SABAL Nepal and WHH (Annex 2.b).

1.5 Enumerator and Data Collection

There are 45 wards all together in three municipality where the HH survey was conducted. Before starting enumeration, study team and SABAL Nepal defined qualifications for the enumerator and requested the Ward Chairperson to recommend at least 3 enumerators based on area and ward population at least. The selected enumerators were oriented about the significance of survey and questionnaire, techniques for using tablet based questionnaire and sending the data on the system on 27th June 2019 at Mirchaiya and pre-testing was ensured before they are deployed in the field.. Based on their testing survey, enumerators were reoriented at Siraha, Karjanaha (29th June 2019), and Kalyanpur (30th 2019) and provided necessary feedback to ensure the data quality.

Enumerator were mobilized to collect HHs data with tablet based (AKVO Flow) Questionnaire and collected data from 34,896 households with 192,412 population. It was a census survey with 116 WASH related questions including family roster.

As the verification tools, study team carried out 15 FGDs with the Ward Committee authorities (Please see Annex 2.c: for Criteria for ward selection), WASH stakeholders at ward level and 8 KII with the Mayor, Deputy Mayor, and WASH Focal Persons. This was very helpful to validate the HHs Survey data.

1.6 Data Management

Data collected from HHs survey is managed in excel. During the data management, tables were calculated using Pivot Table and diagrams were also designed in excel. To calculate some indicators used in the report were calculated based Joint Monitoring Programme (JMP) Ladder e.g. the houses having private tap were categorized as Safely Managed (improved); HHs getting water from were categorized as Basic (improved) and HHs with public tap and Protected spring were categorized as limited (improved).

1.7 Limitations

With continuous and rigorous effort, survey was carried out and report was generated. It was a census survey in 34,896 houses with family roster. It was a larger size of survey from the private sector. While survey was started on 30th June 2019, Monsoon season was started in Nepal and Tarai region was engulfed into the heavy rain and flood. As the consequences, survey was abrupted for three weeks. After the flood recovery, enumerators were unable to conduct survey efficiently because of disrupted roads/mobile connection and continuous rainfall. Furthermore, frequent drop out of enumerator was another reason that delayed the survey. On the other hand, there are no established norms and systems like JMP in Nepal to manage WASH survey related to monitoring which can support to manage survey and arrange data.

CHAPTER: II

INTRODUCTION TO STUDY AREA

2.1 Geographical Location

Ecologically, Nepal is divided into three regions e.g. Mountain region with high altitude and steep landforms; hilly regions with medium types of hill, and Tarai Region with plain and flat landforms. Siraha district where the study area, Siraha, Kalyanpur, and Karjanaha municipalities are located, is a district of Tarai region. Geographically, Siraha district is referenced from 26º32'59" North to 26º56'7" Northern Latitude and from 86º7'51" East to 86º16'17" Eastern Longitude. In the middle of the district, the East-West Highway passes through which was the key line to divide the development process. We can observe that urbanization process is rapid along the highway in compare to the southern part.

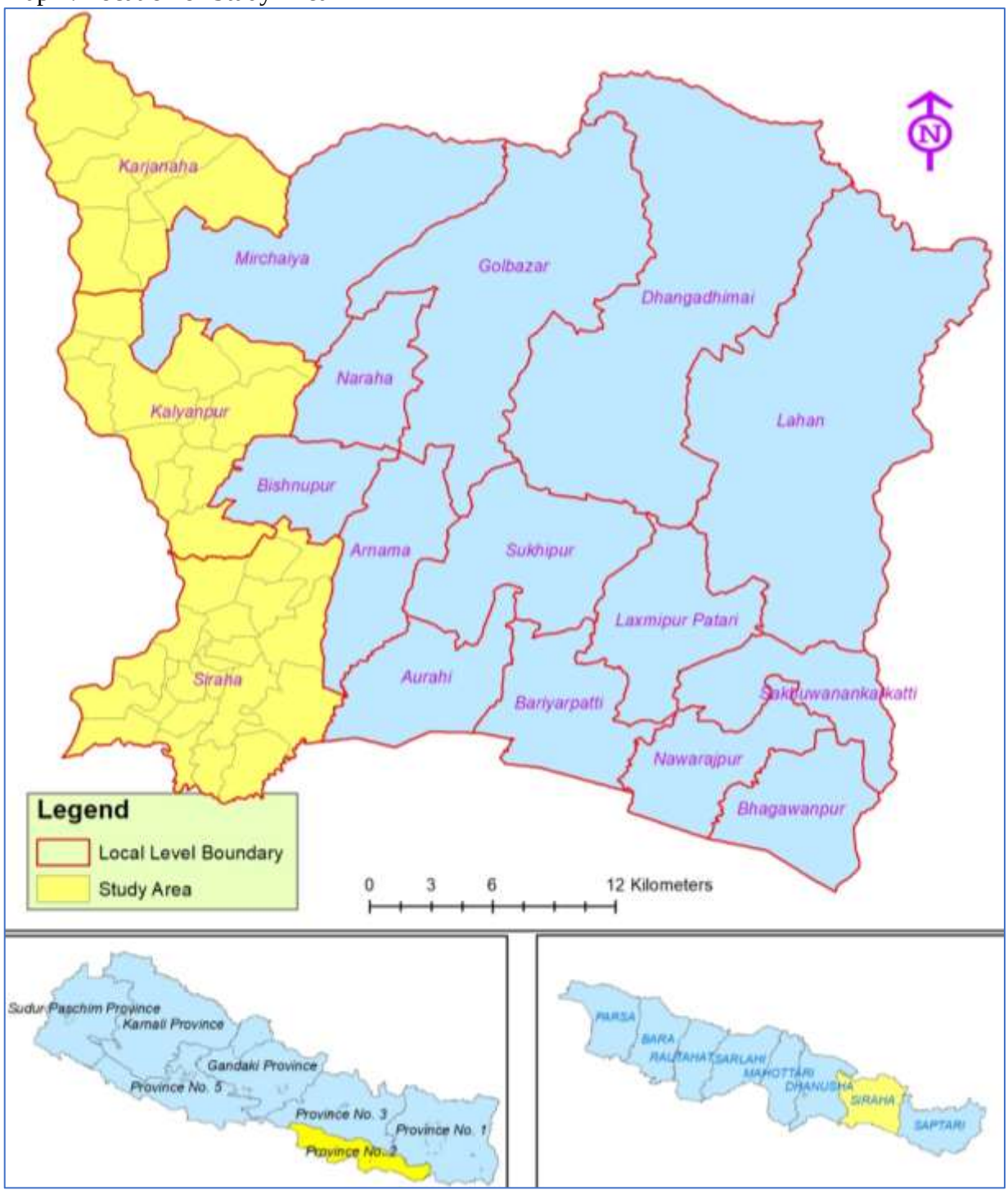
2.2 Political Location

There are 17 local levels in total. Out of 17, eight are municipalities and nine are rural municipalities. For this study, Kalyanpur, Karjanaha, and Siraha municipalities were selected. Among these three, Siraha municipality, the headquarter city of the district, is locate in the south-west part of the district. Nepal-India border is in the southern part of the municipality. Aurahi and Arnama rural municipalities in the east, Bishnupur rural municipality and Kalyanpur municipality in the north are the adjoining local levels of the Siraha municipality. Kamala river and Dhanusha district are in west of this municipality.

Similarly, Kalyanpur, the other study area, is in the mid-western part of the district. Siraha municipality in the south, Naraha and Bishnupur rural municipalities in the east and Mirchaiya and Karjanaha municipalities in the north are neighbor local levels of Kalyanpur Municipality. Kamala reiver and Dhanusha district are the western boarder of Kalyanpur municipality.

Karjanaha, the other study area, is in the North-Western part of Siraha district. North part of this municipality has stretched up to Churiya range, the range of small hills also know as younger mountain in Nepal which lies between Tarai and Inner Tarai. Comparatively, it has more forest area than the other municipalities. This municipality is divided into two part in the mid-point by the East-West highway. Migrated people from the hill mostly are dwelling along the highway and a mixed type of community can be observed this area. Kalyapur municipality in the south, Mirchaiya municipality in the east is the adjoining local levels of Karjanaha municipality. There is Udaypur district in the north of Karjanaha and Kamala river and Dhanusha district in west.

Map 1: Location of Study Area



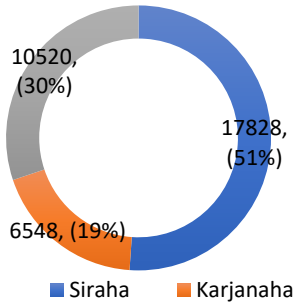
Source: Report of Commission for Local Level Restructuring 2017

2.3 Demographic Status

2.1.1 Households of the Study Area

The survey has covered 34,896 households which was 30,956 according to CBS 2011. Out of three municipalities, Sirah is highly populated with 17,828 HHs, which cover 51% of the covered HHs. Karjanaha has lowest HHs 6,548 (19%)

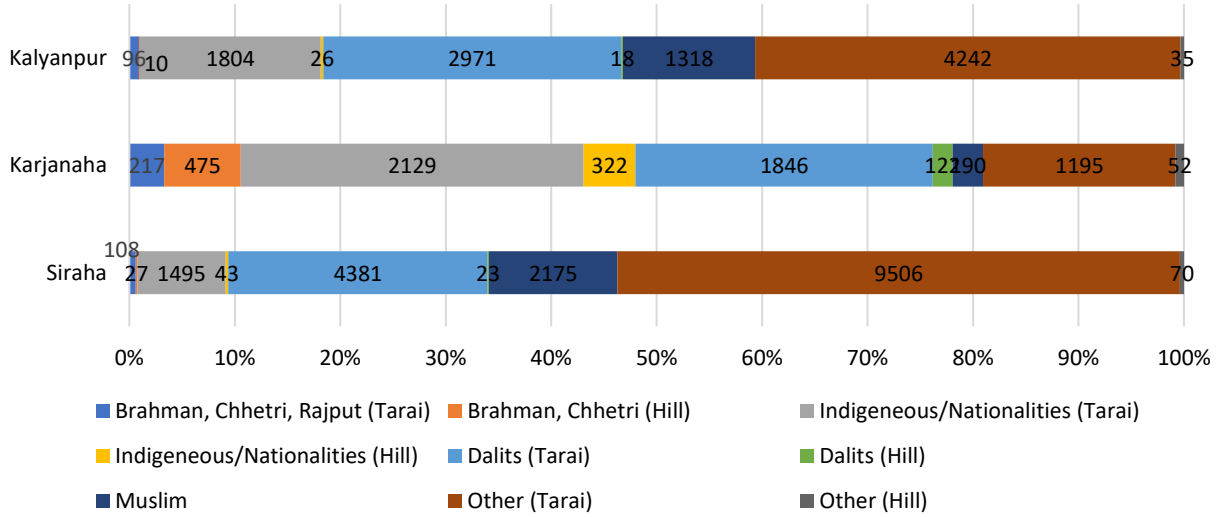
Fig 2.1: Households of the Study Area



2.1.2 HHs by Caste Ethnicity

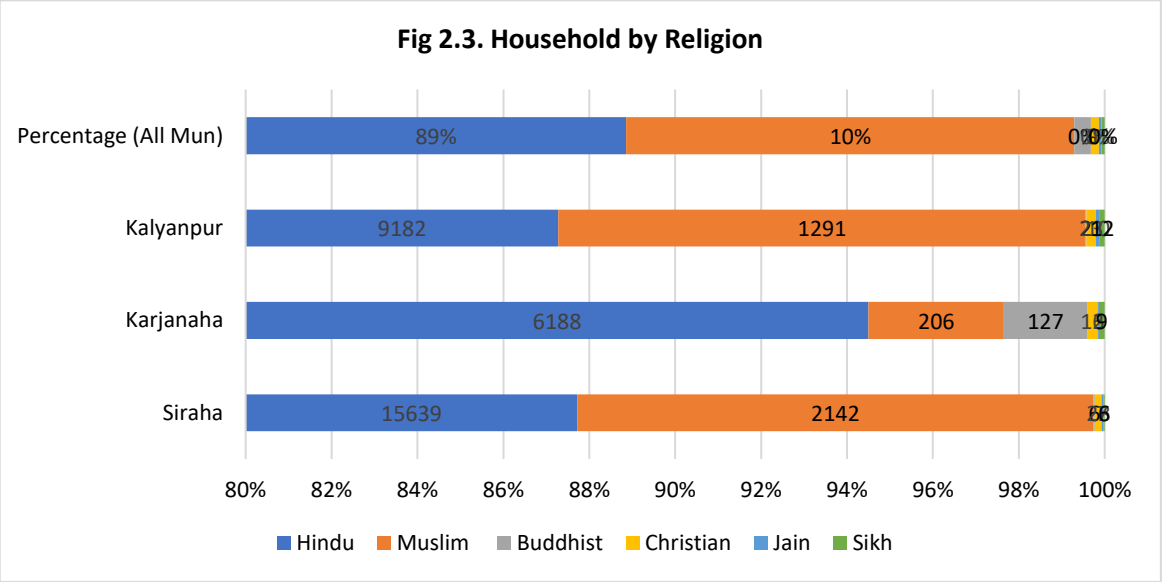
Caste/ethnic composition of the study area is another significant factor that can affect the findings of study. Based on government policy, respondents and family member were categorized into 9 groups which are the basic groups to implement the policy of social inclusion in Nepal. Based on these groups, Tarai Other Castes which includes Yadav, Teli, Kalwar, Sudhi, Kurmi, Kusbaha etc. has covered 53.3% in Siraha, 40.3% in Kalyanpur and 18.2% in Karjanaha. Similarly, Indigenous Nationalities (Tharu, Dhanuk, Jhagad, Kisan etc.) has shared 8.4% in Siraha, 32.5% in Karjanaha, and 17.1% in Kalyanpur Municipality. Out of three municipalities, Karjanaha Municipality is in the northern part of the district and migration from the hill has been notice high in compare to other (Please see in Fig 2.2, for more details please see annex 3.a Table 2).

Fig. 2.2: Households by Caste Ethnicity



2.1.3 HHs by Religion

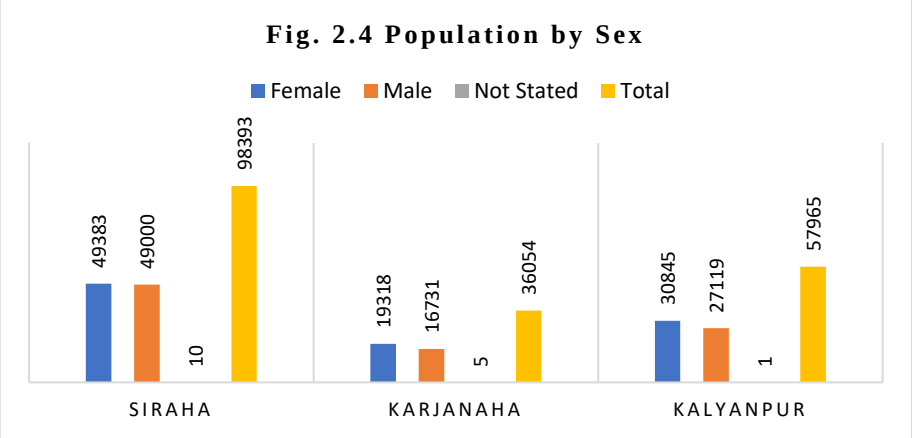
WASH is a part of social progress and development and such progress in the study area context directly depends on religious social norms and values. For this instance, religious composition of the study area is presented here. Households with Hindu comprise 89% in total where as Muslim 10% of total households.



There are very small number of households who practices religion other than Hindu and Muslim. Of which, the noticeable number (127 HHs) of Buddhist found in Karjanaha Municipality.

2.1.4 Population by Sex

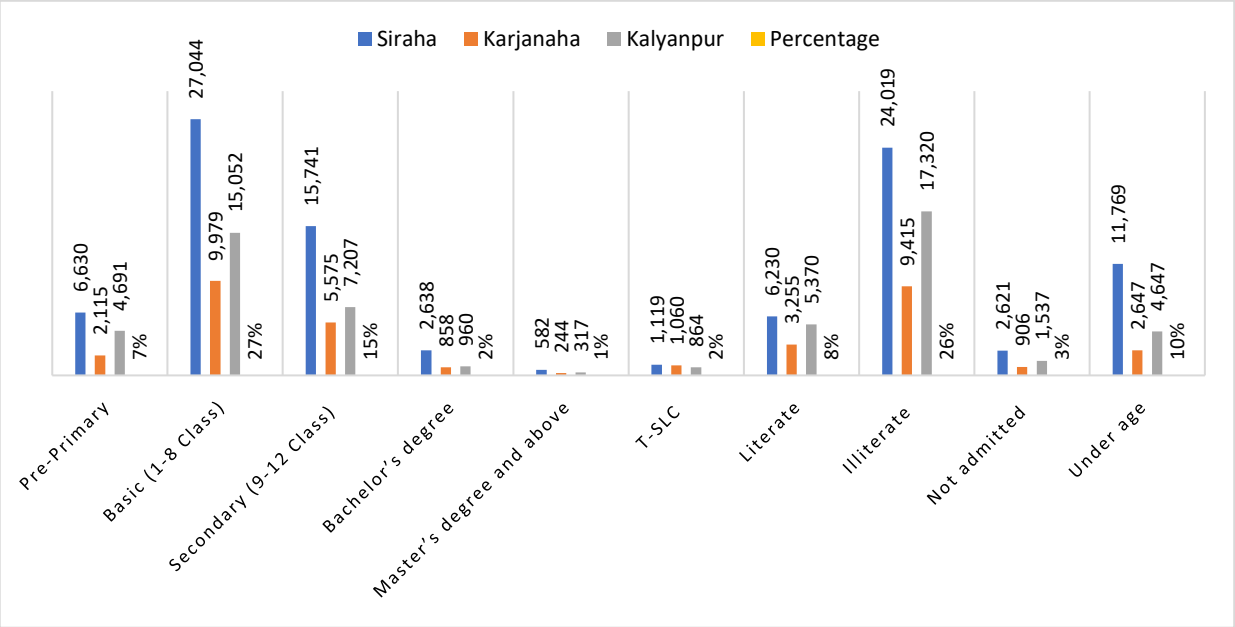
During the survey, 192,412 populations are counted in three municipalities. 51% percent of total population is recorded in Siraha Municipality. Out of total, 52% of population is shared by female and 48% is by male (Please see Fig 2.4).



2.1.5 Population by Education

Education is a significant indicator of development. Academic qualification of family member was a question during the HH Survey. Based on the answer of respondent, a huge share of population was found with low level of academic qualification e.g. Under age – 10%; Not admitted to schools 3%; Illiterate 26%; and literate 8% (47% in total) which needs immediate attention on WASH related activities and should be design and develop considering the understanding level of beneficiaries (see Fig. 2.5).

Fig. 2.5 Population by Education



2.2 Human Development Status

Human Development Index (HDI) is an indicator which illustrates the level of development. Nepal is a developing country with low Human Development Index (0.458) ranking 145th (Human Development Report, 2014) out of 187 countries in the world. Within the country, level of development is spread unequally across all ecological and development regions as well as districts. Among the ecological regions, the Tarai (0.521) has lower HDI in compare to the Central Hills, including the Kathmandu Valley, (0.612) (NHDR 2014). Among, Central Tarai districts Siraha has lower HDI (0.408) in compare adjoining districts Saptari (0.437) and Dhanusha (0.431). Similarly, Human Poverty Index of Siraha (42.6) is found higher than Saptari (38.3) and Dhanusha (41.7) districts (NHDR 2014).

CHAPTER: III
NATIONAL CONTEXT OF WASH

The Government of Nepal has made its considerable efforts to improve the water supply and expand coverage area. Similarly, The Ministry of Water Supply and Sanitation has prepared a long-term sectoral development plan (SDP) by identifying priorities areas for future interventions and number of thematic approaches with an aim to achieving WASH sector goal by 2030 align to SDG targets. Nepal has made rapid progress in sanitation coverage, heading toward ensuring basic sanitation for all and eliminating open defecation from the country to achieve Sustainable Development Goals. SDP is a guiding framework for planning, implementing, coordinating and monitoring all activities in the sector. The government has set target to provide basic WASH services to all population by 2020 and then improve services level (medium 50% and high 50%) by the end 2030. In addition, Nepal has set specific targets in Sustainable Development Goal (SDG) 6 for the year 2030 that includes basic water supply coverage to 99 percent households, piped water supply and improved sanitation to 90 percent of households along with elimination of open defecation (NPC, 2018). Analysis of existing WASH situation reveals the actual gap that needs to be gradually fulfilled by the government to achieve the desired goal.

According to Division of Water Supply and Sanitation (DWSS) Nepal, Coverage of basic sanitation facility is above 95 percent in all the provinces except in province 2. In this context, this base line report analyses the status of progress and existing situation of WASH in working clusters of WHH and SABAL Nepal in the Palika's of Siraha District of Province -2, of Nepal.

5.1 Legal Provisions

The Constitution of Nepal recognizes access to safe water and sanitation as a fundamental right (Article 35 (4), where citizen have been granted the right of access to safe water and sanitation; right to live in a healthy and clean environment; and provision of compensation for the victim of environmental pollution and degradation (Article 30). Constitution of Nepal has provisioned WASH activities as the jurisdiction of local government (Schedule 8). Local Governments Operation Act (LGOA) 2017 has mentioned the WASH as the roles and responsibilities of Local Government (Rules 11, (S)). As the international commitment, the Federal Government of Nepal has agreed to implement the Sustainable Development Goals (SDG) in which Water and Sanitation is defined as the goal 6 with 6 Target. As the implementing framework of SDG, Government of Nepal has formulated Nepal Water Supply, Sanitation and Hygiene Sector Development Plan (2016 – 2030) through Ministry of Water Supply and Sanitation. This sectoral development plan (SDP) is introduced as guiding framework for planning, implementing, coordinating and monitoring all activities in the WASH sector. Now, the local government can promulgate Acts and Policies as requirement for WASH sector development. Local Government can manage facilities to regulate the WASH service and can determine the tariff and tax against the services.

5.2 WASH in Sustainable Development Goals

The UN has formulated Sustainable Development Goals (SDGs), as a follow up to MDGs, with a proposed set of 17 goals and 169 targets relating to future development, which demonstrates

the scale and ambition of new international development agenda. Out of 17, Goal No. 6 aims a situation of Clean Water and Sanitation. This goal has 6 targets and 2 sub target as follows:

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity
6.5 By 2030, implement Integrated Water Resources Management (IWRM) at all levels, including through transboundary cooperation as appropriate
6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
6.b Support and strengthen the participation of local communities in improving Water and Sanitation management

These targets have expected a universal and equitable access to water and sanitation to the people who dwell any part of glob and community. As commitment of the Government of Nepal, each level of governments have responsibility to achieve the target. Partnering in the responsibility of local level, developing partners are working in WASH sector. This study is carried out to measure the targets stablished by the local levels.

5.3 WASH in National Plans

The government of Nepal has committed to the goals of SDG and has developed formulated Nepal Water Supply, Sanitation and Hygiene Sector Development Plan (2016 – 2030) through Ministry of Water Supply and Sanitation as an implementing framework of SDG. This sectoral development plan (SDP) is introduced as guiding framework for planning, implementing, coordinating and monitoring all activities in the WASH sector. WASH is one of the significant functions and responsibility of local government and now, the Local Government can manage facilities to regulate the WASH service. Federal system is new to Nepal and local government authorities are busy in establishing institutional setup. As the consequences, institutional setup for WASH is still to be in functional.

In the facilitation of development partners, Community-Led Total Sanitation (CLTS) approach has been introduced to implement the WASH activities effectively at community level. CLTS is focused on igniting a change in sanitation behavior rather than constructing toilets. This is done

by a process of social awakening that is stimulated by facilitators from within or outside the community. This approach concentrates on the entire community rather than on individual behaviors. The first significant step of CLTS is to end open defecation as an entry point while changing sanitation behavior. It starts by enabling people to do their own sanitation profile through appraisal, observation and analysis of their practices of open defecation and the effects these have.

5.4 Total Sanitation Guidelines 2016

Ministry of Water Supply and Sanitation has enacted a guidelines for total sanitation 'Total Sanitation Guidelines 2016' with the aim of orient to achieve total sanitation for all and forever. It has provisioned 27 activities in seven sub-sectors to achieve total sanitation. It has provisioned 27 indicators in seven sub-sectors to measure the achievements of the development. It has also established criteria to declare area that achieved total sanitation. It has also proposed tools to measure the achievements with monitoring and evaluation mechanism. The study has been defined also considering the approach and provisions of Total Sanitation Guidelines 2016.

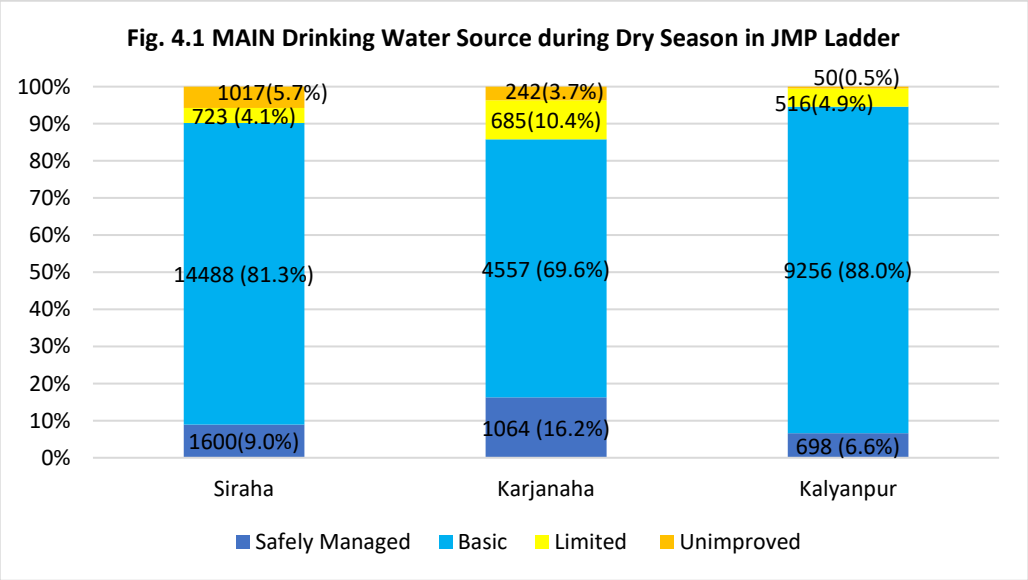
CHAPTER: IV
FINDINGS OF THE SURVEY

4.1 Access to Safe Water

Access to safe water has been inherent rights of the people but unfortunately the sources of water are drying out because of climate change, human negligence and natural disasters.. This study has been carried out from the tarai region of Nepal where the ground water is the major source of water. To measure the quality and accessibility of water, Join Monitoring Program (JMP), a universal monitoring system introduced and led by UNICEF and WHO, has developed 5 steps ladder. According to JMP ladder, there are five categories as follow:

A. **Safely Managed**: Drinking water from an improved water source which is located on premises, available when needed and free from faecal and priority chemical contamination
B. **Basic**: Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing
C. **Limited**: Drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip including queuing
D. **Unimproved:** Drinking water from an unprotected dug well or unprotected spring
E. **Surface Water:** Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal

The data collected through survey has arranged based on the JMP ladder. This study has categorized the households having Private tap at the house (improved) as Safely Managed; Handpump (improved) as Basic; and Public tap (improved) and Protected spring (improved) as Limited. There is no house found using Surface Water.
The households categorized under Safely Manage, Basic and Limited were put into Improved domain and Open dug well (not improved), Other (not improved), Pond, stream, river, swamp (not improved) were in unimproved domain.
Based on the JMP Ladder, status of access to drinking water during the dry seasons found as follows:

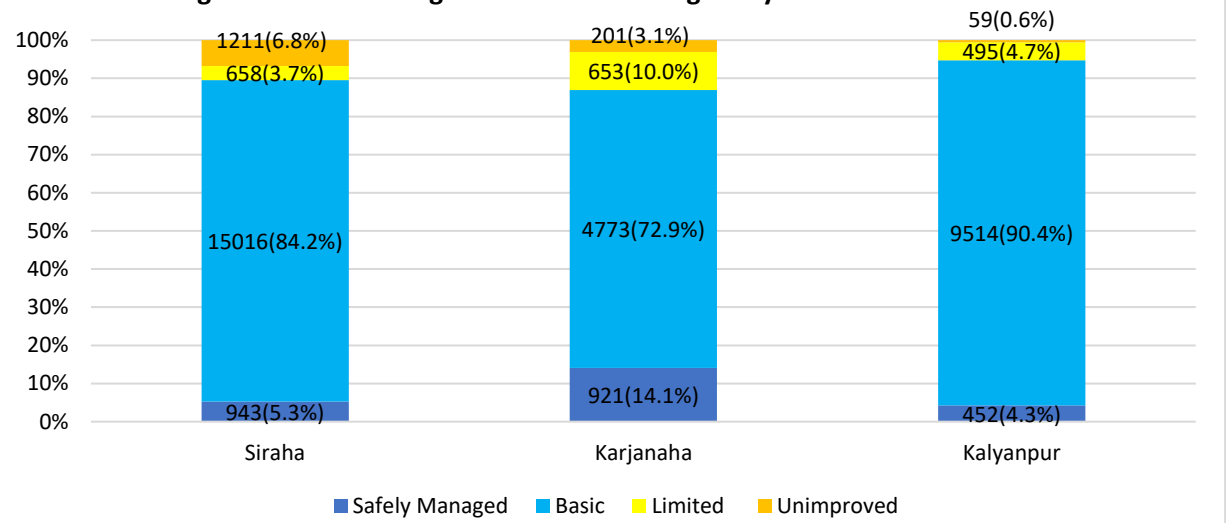


During the dry season, 96.2 % of Households found using water from **Improved** source which includes **Safely Managed** (9.6%), Basic Source of water (81.1%), and Limited source of water (5.5%). Similarly, 3.7% of households are found using water from **Unimproved** source.

Ward no. 1 of Karjanaha Municipality is located at foothill of Chure Range, very dry area in Tarai. During the FGD it was reported that around 400 households do not have access of drinking water for 4 months in dry season.

Practice of using drinking water during the Rainy season in study area was found similar to the dry season. Data collected for the rainy season have been arranged in JMP Ladder with same process as for dry season(See Fig. 4.2).

Fig 4.2: Main Drinking Water Source during Rainy Season in JMP Ladder



Survey showed that 95.8 % of households are using water form **Improved** Source in the rainy season which included **Safely Managed** (6.6%), Basic (88.8 %), and Limited (0.4%) source of water. Only 4.3% of households were reported as having drinking water from Unimproved source during rainy season. Whereas the Total Sanitation Guidelines 2016 assumes that 100% of households will be using Basic level of drinking water in both season. In the southern part from East-West highway, data showed that there was no more difference in access of water between dry and winter seasons.

Water Fetching Time and Needs of Water

It was found that there is no more difference in the practice of having water during both dry and rainy seasons. It is mainly because of practice of using ground water in the Tarai region. Tubewell is widely practiced water system in the Tarai. Most of the people in Tarai use to install tubewell at their home premises. For this reason, water fetching time is recorded lesser in the Tarai than hill in Nepal. Consequently, 66% of households have reported having waterpoints within less than 10 minutes, 16.7 % households within 11-20 minutes, and 13.2% within 21-30 minute. Only 4.4% of households have to spent more than 30 minutes for fetching water (for more details please see table in Annex 3.2c).

> *Households from marginal community do not have private tube wells. They have to collect water form neighbor and take longer time.*
>
> - *FGD*

More than 86% of households expressed their needs 100 and more liters of water per day. There were only 13.7% of households who reported their needs of water below 50 liters per day (For Details please see Annex 3.2.d).

Functionality of Water Point and Alternative Source of Water

Although the households in Tarai use tubewell as their major source of drinking water, functionality of the water points is significant elements in managing drinking water. Households were asked about the functionality of water points and 93.7% of households reported that their water points were functional (Table e. of Annex 3.2). in the case of nonfunctional, 94.8% of households reported that they collect water from their neighbor (Table f. of Annex 3.2).

Water Management Mechanism and Readiness to Pay Tariff

Water management mechanism is one of the significant elements of drinking water system. During the survey, respondent were asked about the water management system available and functional at local level. 93.0% of households reported that there is no any water management mechanism at their locality. 7% (2447 Hhs) has reported there are some mechanism which is functional for management of drinking water. Out of 2447 households, 44.7% of households reported that municipality is working for managing water problems at their community where 38.0% reported Water User's Committee as the Water Management Mechanism.

During the survey, households were asked whether they were ready to pay tariff against the water service from any agencies. Most of the houses in Tarai uses tubewell as main source of drinking water and they do not prefer to pay. Only 53.1% of households reported that they are ready to pay tariff for water service. The households, who were ready to pay tariff, were also asked about the amount they wanted to pay. 76% of households replied that they are ready to pay less than NPR 50 per month; 21% of households are ready to pay NPR 51-100 per month (for Detail see Annex table g. and h. of Annex 3.2).

Water Quality Test and Water Treatment

Arsenic and iron are renown problems in ground water. The study collected the knowledge of households about testing water quality. As the result, 79.7% of households reported that they do not have knowledge of testing water quality. Only 20% of households found having knowledge about testing of water quality.

Among the households (7092) with knowledge of testing water quality, only 23.2% of households found having idea about the agency which support in testing of water quality (for Detail see Annex table i. and j. of Annex 3.2).

Out of total households, 74.6% of households have reported that they have no practice of testing water quality. Among the households with practice of testing quality, 6.6% have tested Arsenic, 21.6% have tested Iron and less than 3% of households have tested hardness, total coliforms, E-coli, turbidity, FRC and other (for Detail see Annex table k. of Annex 3.2). It shows a poor level of knowledge and practice of testing water quality.

Local practice of treating water is other important factor in water management. The study tried to know about the practice of treating water and asked households about their practice. 80.6% of households reported that they do not have practice of water treatment. Those households who used to treat water have practice of boiling by 13.8%, 2.6 % of households have using candle

filter and 2.4% are using bio-sand filter. Boiling water is common practice in rural Nepal to treat water (for Detail see Annex table l. & m. of Annex 3.2) whereas awareness is needed for using other techniques of treating water. In the case of using water from unimproved source, Total Sanitation Guidelines 2016 assumes as indicator that any kinds of technology for treating water will be used by all households.

The households, who do not treat the water, were asked the reason for not treating the water. As their responses, 63.1% households assume that water being used at home is already clean and no need to treat. For the same question, 27.5% of households reported that they have no idea to clean or treat the water. Similarly, 8.6% of households reported that they do not have capacity to afford the cost of treating water. It shows that the last two categories are not aware about the water treatment. The last category of households who are assuming water treatment is very expensive also are wrong.

Practice of Cleaning Vessel and Storing Water

To understand the practice of cleaning vessel, households were asked about their habit. 53.8% of households reported that they have practice of cleaning vessel every time while they collect water. 42.2% of households reported that they clean vessel every day and 2.9% households were found never Cleaning their vessel (for Detail see Annex table n. of Annex 3.2).

Observation of Container and Utensils

Observation of drinking water container is one of the key activities of Total Sanitation as provisioned in Total Sanitation Guideline 2016. During the survey, enumerator were requested to observe the practice of drinking water management system at home. 75.6% of households were found keeping their water container separately (for Detail see Annex table o. & p. of Annex 3.2). Household heads were also asked about the materials used for cleaning vessel with multiple choice and 73.5% of households replied that they are using Soap and detergent powder as their first choice to cleaning vessel, 60.9% of households are also using Ash as cleaning materials.

During the observation, it was noticed that 70.4% of households have practice of keeping drinking water container above floor level and away from contamination (for Detail see Annex table q., r., s., & t. of Annex 3.2). It was also observed that 64.6% of households have water container with narrow mouth and in 64.1% of households, containers have been observed with lid. Whereas, 59.3% of container have been observed with lid in place at time of visit.

Similarly, it was also observed that 75.5% of households were using utensil to draw water from container. Out of user, the observer reported that 75.6% of households have practice of keeping utensil cleaned and stored in a hygienic place. In the same time, 80.0% of container were noticed clean inside and 78.2% outside too (for Detail see Annex table u., v., w., & x. of Annex 3.2).

Dirty Water Management

Construction of improved sewerage system in urban area is one of the indicator of Total Sanitation Guidelines 2916. During the FGD and KII, it was said that there were no any improved sewerage system in study area. Households were asked, how they were managing the dirty water generated from their homes. Only 4.0% of households reported that they sent the dirty water to the sewerage. 65.1% of households dump water at open hole and 18.8 let the dirty water in open space. Only 10.9% of households have a practice of using dirty water at kitchen garden (for Detail see Annex table y. of Annex 3.2).

Water Management during Disaster

Because of low land, Tarai is most vulnerable for flood. Respondent were asked to share their experience of managing water during the flood. It was recorded that only 6.2% of households (2,147) have experience of inundating their water points during disaster. Out of these households, only 17.4% of households have experience of using water from own storage during the disaster. Borrowing from neighbor not affected from flood (43.8%) and wait until flood level is down (38.8%) was their coping strategy during the disaster. These show the low level of preparedness for drinking during floods (for Detail see Annex table z. and aa. of Annex 3.2).

Maintenance of Waterpoints

This study has tried to make query about the gender based involvement in the maintenance of water points. Most of the study's findings and belief at development activist level is female member of the family is made key responsible for domestic work like fetching water and cooking. In the case of maintenance, study showed that male members (26.7%) are more responsible than the female member (2.0%). In 6.0% of households, water points were maintained by both of family member. Whereas, a lager portion of the households (65.7%) have reported that they maintained their waterpoints by mechanics. Households were also asked about the satisfaction against the service of mechanics. 92.5% of households reported that they were satisfied with the service of mechanics (for Detail see Annex table ab. and ac. of Annex 3.2).

4.2 Access to Improved Sanitation Facilities

Access to improved sanitation has been key development sector in Nepal since it is established key challenge for community development. This study has been carried out from the tarai region of Nepal where the practice of using toilet is poorer in compare to other region. Most of the then Village Development Committees (VDCs) declared Open Defecation Free (ODF) for their territory but still to be noticeable open defecation in Tarai. For this reason, access to sanitation has been a key section of this study. To measure the quality and accessibility of sanitation, Join Monitoring Program (JMP), a universal monitoring system introduced and led by UNICEF and WHO, has developed 5 steps ladder. According to JMP ladder, there are five categories as follow:

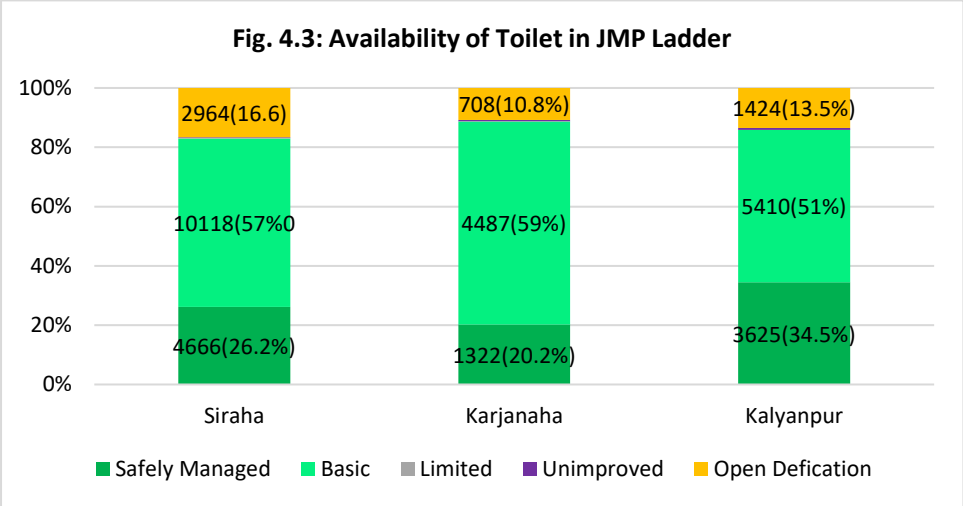
A. **Safely Managed:** Use of improved facilities which are not shared with other households and where excreta are safely disposed in situ or transported and treated off-site
B. **Basic:** Use of improved facilities which are not shared with other households
C. **Limited:** Use of improved facilities shared between two or more households
D. **Unimproved:** Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
E. **Open Defecation:** Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste

Improved: Improved sanitation facilities are those designed to hygienically separate excreta from human contact, and include: flush/pour flush to piped sewer system, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs. Safely Managed, Basic, and Limited are categorized into improved and Unimproved and Open Defecation into Unimproved.

There was no sewerage system found in the study area (Siraha, Kalyanpur, and Karjanaha) and toilet types Flush to Septic Tank were categorized into **Safely Managed.** Similarly, toilets Flush to Double Ring Pit (Ring with Lid), Flush to Single Ring Pit (Ring with Lid) were into **Basic**;

connected to composting toilet/biogas as **Limited;** Pit latrine without slab/Open Pit as **Unimproved; and** households without toilet into **Open Defecation.**

As the survey findings, 27.5% of households have reported having **Safely Managed** sanitation system. Majority of the surveyed households (57.4%) were found to have a Basic type of sanitation facility in their home, consisting of either a single (39.5%) or double (17.9%) ring pit toilet. While limited (0.1%) and unimproved (0.4%) toilets were found in less than 1% of all homes. Nearly one out of seven households still admitted to open defecation (14.6%), households without toilet. During the survey, the surveyor observed that 15.7% of households had no toilets which is slightly more than the survey findings (for details see table b. of Annex 3.3).



This proportion is even higher in Siraha municipality where about 16.6% or nearly 3,000 households practice open defecation (Table 4.1).

Table 4.1: Households by Availability of Toilet

Municipality	Safely Managed	Basic	Limited	Unimproved	Open Defecation	Total
Siraha	4666	10118	43	37	2964	17828
Siraha	26.2%	57%	0.2%	0.2%	16.6%	100.0%
Karjanaha	1322	4487	4	27	708	6548
Karjanaha	20.2%	69%	0.1%	0.4%	10.8%	100.0%
Kalyanpur	3625	5410	2	59	1424	10520
Kalyanpur	34.5%	51%	0.0%	0.6%	13.5%	100.0%
Total	9613	20015	49	123	5096	34896
Total	27.5%	57%	0.1%	0.4%	14.6%	100.0%

Use of public and community toilets by those without a toilet at home is very low, possible due to the unavailability of such facilities everywhere. While 11.1% of the households said they use their neighbor's toilet, a vast majority (85.6%) out of 5096 households without a toilet admitted using open space for defecation.

During the survey, 76.8% of visited toilets were found clean during observation and 96.6% of toilets found covering pit with lid. Similarly, the enumerator observed that 67.7% of toilets found open with sufficient light (for details please see table b., c., d., e., & f. in Annex 3.3).

Plan to Construct Toilet

What is even more puzzling is that a third of the households (34.2%) without any toilet said they do not plan to construct a toilet any time soon. Among those who want to construct a toilet, only 29.6% plan to do it by themselves, while the rest said they would construct if they received a full (32.1%) or a partial (38.3%) grant for the toilet. In contrast, 97.6% of all households with a toilet said they made it with their own investment (For details please see Tables in Annex 3.3).

Practice of Constructing Toilets and Practice of Maintenance

Survey showed that 85% of households have toilet and a curiosity was raised that how the households constructed their toilet. Out households (29,800) with toilet, 97.6% of households reported that they built their toilets in their own investment while the percentage is higher in Siraha (99.6%) and Karjaha (99.4%) than in Kalyanpur (93.2%). 16.0% of households reported they have experience of filling toilet in last three years while 12.2% of toilets were found full during observation.

Out of filled toilets, 59.5% of households reported that they made their toilets free using private safety tanker. 11.2% of households used labor and 3.3% dug out themselves (for details see tables j., k., l. in Annex 3.3). 92.8% of service taker were found satisfied against the service of private safety tanker whereas the service was reported quite expensive (NPR 500 per ring) during the FGD.

Use of Toilet

Among the households with toilet, 4.5% were reported that senior citizen and children are not using the toilet. Very small number of male and female member of the family also reported as not using the toilet. Out of households (1,335) not using the toilet, 61.0% reported that they do not use the toilet because they do not have long practice of using toilet and 41.7% of households reported that toilet was not being used because of too younger age. The indicator provisioned in the Guidelines of Total Sanitation requires all family member to use the toilet. Among the surveyed households, 70.0% of households were found with children at home and 36.9% of households reported they were using potties and disposing inside toilet while 21.7% of households reported that they have practice of defecating their children at open place and disposing near garbage (for details please see table n., o., p., & q. of Annex 3.3).

Defecation in Flood

6.8% of households were found having experience of destroying their toilet in flood. 3.9% reported that their toile had been damaged totally and 2.95 partially during flood. Out of flood affected households (1,987), 77.6% reported that they defecated at open place during the flood, only 11.2% used temporary toilet, 9.7% reported they used neighbor's toilet which was not inundated.

4.3 Hand Washing and Personal Hygiene

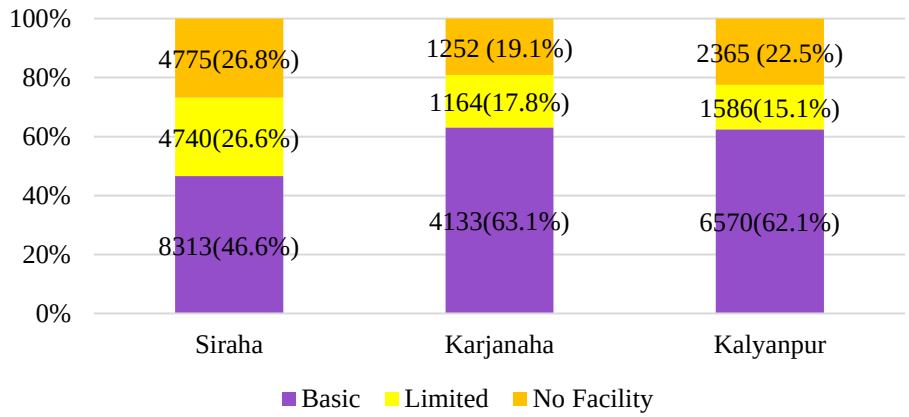
Practice and conditions that help to maintain health and prevent spread of disease is known as hygiene. It includes practice of handwashing, menstrual hygiene management and food hygiene (JMP). Hygiene has long-established links with public health and it is included in SDG target 6.2 represents increasing recognition of the importance of hygiene and its close links with sanitation. To monitor and establish standard for measuring the development in hygiene sector, JMP has

develop three layers New JMP ladder for hygiene. Based on this ladder, hygiene facilities is categorized into three layer as below:

A. **Basic:** Availability of a handwashing facility[1] on premises with soap and water
B. **Limited**: Availability of a handwashing facility on premises without soap and water
C. **No Facility:** No handwashing facility on premises

To feet the data into JMP ladder, households with handwashing station at water point with soap were put under Basic, households with handwashing station outside bathroom and toilet without soap were put into Limited and households without both facility were kept into No Facility. Through this calculation, 54.5% of households were found using Basic level of handwashing facilities, 18.4% were found using Limited level of handwashing facilities, and 27.1% of households were found No Facility. It means, more than one fourth portion of households do not have handwashing facility (for details see fig 4.1 and table 1&2 of Annex 3.4).

Fig. 4.1: Handwassing Ladder



Handwashing Practice

Level of awareness in Tarai can be observed increasing. 97.3% of households reported that they wash their hands in critical situation. Only 2.7% reported washing hands occasionally. The portion is comparatively higher in Karjahana (5.6%) and Siraha (2.7%) than in Kalyanpur (0.7%) (for details please see table 3, 4, 5, & 6 in Annex 3.4).

Data showed that 77.3% of households are using soap to wash hands. Unfortunately, a larger portion of population is still using Ash (7.5%) and Mud/Sand (7.0%) to wash hands which was declared unhygienic by JMP and Guidelines for Total Sanitation 2016. During the survey, only 93.1% of handwashing stations were observed functional with water (90.8%).

Bathing Facilities

Bathing facility is significant indicator to measure the level of hygiene in the community. Data showed that 72.3% of households have no separate bathroom and getting bath at private

[1] Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents (JMP 2019).

tap/tubewell stand. Ony 14.3% of households have separate bathroom while the percentage is higher in Siraha (23.6%) and Kalyanpur 7.4% (for details please see table 7 & 8 of Annex 3.4). 96.8% of households reported that they use soap and detergent powder to wash cloths while 3.2% use water only.

4.4 Household Sanitation

Cooking Practice

In this section, sanitation inside home is covered which is one of the significant part of the total sanitation. What people use in inside activities e.g. cooking, eating, and practice of managing utensils. 77.9% of households were found using firewood as main cooking fuel at home while the percentage was reported higher in Karjana (87.6%) and Kalyanpur (84.1%) than Siraha (70.7%). Straw, beck dung, rice-cover are local fuel in Tarai region and 37.2% of households reported to use as main fuel. Liquid Pressured Gas (LPG) is new fuel to cook in rural area. 21.2% of households reported they were using LPG (for details please see table 1, 2, & 3 in Annex 3.5). Similarly, it was reported that 77.8% of households have separate cooking station while 18.9% have adjoining with common room which was not supportive for house environment.

Practice of Washing Utensils

For keeping home hygienic, cleaning of utensils is good practice. While the survey found that 75.0% of households were using soap or detergent powder as the washing materials as their first choice. Similarly, 60.9% of households choose Ash in second as the washing materials. 3.6% of households are still using mud as washing materials which was declared unhygienic by the Guidelines of Total Sanitation 2016. The percentage was found higher in Siraha (4.7%) than Kalyanpur (2.7%) and Karjanaha (2.2%) (for details please see table 4, 5 & 6 in Annex 3.5). A significant findings was 70.6% of households did not have a practice of drying utensils after washing which can lead contamination. 25.1% have practice of drying the utensil in sunlight and 4.0% used to place the utensil in rack.

4.5 Food Hygiene and Nutrition

Practice of Keeping Edibles

Nutrition is another key elements of WASH. How people eat and how people work with edible things concern significantly with the individual health and hygiene. During the survey, it was found that only 17.8% of households have practice of storing foods segregating edible and non-edible items. 18.1% of households have bad practice of storing foods items at one place. A larger portion of households (41.4%) used to store foods inside the kitchen (for details please see table 1 & 2 of Annex 4.6). As a good practice, 97.6% of households used to wash good and vegetable with clean water before eating while 1.8% rubbed with cloths or hand and 0.5% have bad habit of eating edibles without washing.

Practice of Kitchen Garden

Kitchen garden supplies fresh edibles e.g. fruits and vegetables. In the commercializing society, kitchen garden can support people to be healthy and hygienic. During the survey, some questions regarding the practice of kitchen garden were forwarded. A significant percentage (73.3%) of

households was found with not practice of kitchen garden. 23.4% of households were found practicing kitchen garden for family consumption and only 0.8% of households have practice of kitchen garden for selling purpose. Out of gardening family, 73.3% of households found not using pesticides whereas 7.0% households use organic pesticides which sounds good practice. 8.8% of households were found using chemical pesticides but the quantity of pesticides was not covered by the questionnaire (for details please see table 3 & 4 of Annex 4.6).

Food Habit

Food habit is key element to determine individual's health which is interlinked with WASH. Survey has included questions to cover the food habit. Household head expressed their response with multiple choice that 91.4% of households said they were consuming seasonable fruit and vegetables. As the second choice, 83.1% of households reported they eat animal product (Fish, Meat, Egg) (for details please see table 5 of Annex 3.6).

Similarly, 32.6% of households eat Seasonable Fruit and Vegetable on daily basis (Table 4.5.1). 30.4% of households for Animal Product (fish, meat, egg); 29.6% for Fat, Oil, Sugar; and 30.4% for Rice and Alternative on daily basis (for details please see table 6 of Annex 3.6).

Table 4.5.1 Food Schedule

Food Types	Daily	Weekly	In 15 Days	>15 days	Total
Seasonable fruits and vegetables	10379	8308	6084	7113	31884
%	32.6%	26.1%	19.1%	22.3%	100.0%
Animal product (Fish, Meat, Egg)	8653	7724	5876	6229	28482
%	30.4%	27.1%	20.6%	21.9%	100.0%
Fat/Oil/Sugar/Salt	8581	7701	5991	6730	29003
%	29.6%	26.6%	20.7%	23.2%	100.0%
Rice and alternative	8109	7232	5518	5823	26682
%	30.4%	27.1%	20.7%	21.8%	100.0%

Around 22% of households used to consume these foods in the interval of more than 15 days which might be potentially malnourished.

4.6 Solid Waste Management

Production and Management

Solid Waste Management is one of the key component of WASH promotion. During the survey, households were asked about the types of waste generated from house and strategy adopting to manage of 14 waste e.g. Medicine cover/packaging/Bandage; Remnants of fruits and vegetables; Plastic; Battery; Clothes; Jut; Metallic (Tin, Iron, copper, wire); Broken glass and bottles; Remnant of food; Dust; Rubber; Carton; Paper; and Packaging materials. It was found that 60.0% of households are producing remnants of fruits and vegetables; 55.0% produces dust, 50.2% produce paper garbage, 50.0% produce plastic garbage and 49.0% produces garbage of medicine cover/packaging/bandage (for details see table 1 & 2 of Annex 3.7).

During the survey, household heads were asked with multiple choice about their practice of solid waste management. Responses were compared on cross-action basis e.g. how an individual manages remnants of fruits and vegetables for example. Survey asked to the respondents about

the management practice of 14 waste e.g. Medicine cover/packaging/Bandage; Remnants of fruits and vegetables; Plastic; Battery; Clothes; Jut; Metallic (Tin, Iron, copper, wire); Broken glass and bottles; Remnant of food; Dust; Rubber; Carton; Paper; and Packaging materials.

Responses for each item of waste was treated as whole and calculated percentage. From findings, 37.4% of households expressed their practice that they throw the Remnants of Fruits and Vegetables anywhere and only 22.5% have practice segregating into degradable and nondegradable. Similarly, 28.6% of households throw Plastic anywhere and 36.2% have practice of burning after gather at a place. In overall, 48.9% of households have a practice to burn wastages after collecting at a place, whereas, 35.6% have practice of throwing anywhere. Both practice are accepted as bad practice. Only 15.7% of households have practice of segregating into degradable and nondegradable to sell or handover to the municipal garbage collector (Table 4.6.1). This is the practice that the Guidelines of Total Sanitation 2016 provisioned as an indicator to be promoted.

Table 4.6.1: Practice of Waste Management at Home (Multiple Response 34,896 HHs)

Types of Waste	Burn after gathering at a place	Handover to the Municipal garbageman	Segregating into degradable and nondegradable	Sell to recycling vendors	Throw away anywhere	Not Stated	Total
Medicine cover/packaging/Bandage	4477	1231	1917	222	3645	32	11524
%	38.8	10.7	16.6	1.9	31.6	0.3	100.0
Remnants of fruits and vegetables	4366	1361	3380	221	5611	79	15018
%	29.1	9.1	22.5	1.5	37.4	0.5	100.0
Plastic	4537	688	1638	2038	3578	40	12519
%	36.2	5.5	13.1	16.3	28.6	0.3	100.0
Battery	976	543	697	957	1838	12	5023
%	19.4	10.8	13.9	19.1	36.6	0.2	100.0
Clothes	3049	605	1273	369	2745	32	8073
%	37.8	7.5	15.8	4.6	34.0	0.4	100.0
Jut	2204	538	858	106	1977	20	5703
%	38.6	9.4	15.0	1.9	34.7	0.4	100.0
Metallic (Tin, Iron, copper, wire)	856	588	910	1026	1051	10	4441
%	19.3	13.2	20.5	23.1	23.7	0.2	100.0
Broken glass and bottles	1424	521	931	813	1866	12	5567
%	25.6	9.4	16.7	14.6	33.5	0.2	100.0
Remnant of food	2655	510	2351	116	4734	42	10408
%	25.5	4.9	22.6	1.1	45.5	0.4	100.0
Dust	5028	596	1530	231	6535	64	13984
%	36.0	4.3	10.9	1.7	46.7	0.5	100.0
Rubber	2859	291	1030	170	2444	15	6809
%	42.0	4.3	15.1	2.5	35.9	0.2	100.0
Carton	4201	322	1347	437	2583	28	8918
%	47.1	3.6	15.1	4.9	29.0	0.3	100.0
Paper	5660	559	1484	874	4364	40	12981
%	43.6	4.3	11.4	6.7	33.6	0.3	100.0
Packaging materials	3051	76	623	114	2370	10	6244

Types of Waste		Burn after gathering at a place	Handover to the Municipal garbageman	Segregating into degradable and nondegradable	Sell to recycling vendors	Throw away anywhere	Not Stated	Total
	%	48.9	1.2	10.0	1.8	38.0	0.2	100.0
	Total	45343	8429	19969	7694	45341	436	127212
	%	35.6	6.6	15.7	6.0	35.6	0.3	100.0

Impact of Poor Waste Management

Awareness creation is one of the objectives of community development programs. In resepect to solid waste management, level of awareness in study area seemed to be higher. Only 7.4% of households have found not aware about impact of poor waste management. In multiple response, 63.7% of respondents expressed their knowledge that spread of bad smell if waste is not managed properly. 52.8% of households as their second choice accepted that epidemic can be emerged because of poor waste management. Similarly, respondent replied as next answer were produced (29.4%), loose the beauty of settlement/city (29.6%) and polluted the historical and natural resource (25.4%) (for details please see table 2 & 3 of Annex 3.7). But 99.0% of households reported that the local government (municipality) do not have any mechanism to collect the solid waste and don't send vehicle. It was also accepted during the FGD with ward committees and KII with the Mayor and Deputy Mayor that there is no mechanism to collect solid waste whereas Karjanaha Municipality has purchased 2 tractors for garbage collection but not in operation (KII, CAO, Karjanaha).

Willingness to Pay

Respondent were asked whether they were interested to pay service charge if municipality or any private party will provide vehicle service to collect waste. 43.6% of households were found not ready to pay. Including not ready, 45.6% of households reported that they are ready to up to NPR 20 per month whereas 10.8% are ready to pay up to NPR 50 per months. The percent is higher in Kalyanpur (20.8%) and Karjanaha (14.3%) than in Sirha (8.1%) (for details see table 4 in Annex 3.7).

Practice of Keeping Cattle and Dung Management

One of the major source of solid waste is domestic cattle and management of waste from cattle is another challenges in community. 48.9% of households in the study area have been found with cattle farming. The percentage is assumed higher during FGD. 31.4% of households reported that they are keeping their cattle at separate cowshed, 14.5% said they kept cowshed attached with house. Only 3.1% of households accepted that they kept their cattle at road side. During the field visit, most of the households along the roadside were observed keeping cattle at roadside and the percentage might be higher (for details see table 5 of Annex 3.7).

Cow dong is accepted as holly things in Hindu culture. On the other hand, it is also major source of cooking fuel in Tarai region where no forest is exist. Households were asked how they were managing the cow dung and 53.0% of households shared their experience that they Prepare charcoal of dung for cooking. Similarly, 41.5% of households composite dung as fertilizer (for details see table 6 of Annex 3.7).

Household were asked about the divided role in managing dung at home. Out of cattle owner, 52.2% of households responded as female is responsible to manage dung. Interestingly, 1.9% of HHs reported that male use to manage dung. 45.9% of HHs responded they have practice of involving both male and female in management of dung at home. While role is slightly varied in managing other solid waste e.g. 65.2% for female, 4.1% for male, and 30.7% for both (for details please see table 7 & 8 of Annex 3.7). Findings are not stranger while domestic and dirty management works are assigned to women socially in Tarai community. These findings have approved this values once.

4.7 Waterborne Diseases

The study has tried to map the idea and status of waterborne diseases which is accepted as the results of malpractice of WASH. Households were asked about the impact of poor WASH practice with multiple choice to options. 26.6% of households were found reluctant about the impact of poor WASH practice. 71.0% of HHs performed their awareness that Diarrheal, Cholera, dysentery, typhoid, hookworm, polio etc. can be produced because of poor WASH practice (for details, please see table 1 of Annex 3.8).

To scope out the status of waterborne diseases, households were asked the incident of diarrhea as they remember within last two weeks. Only 7.1% of households reported that any of their family member was infected by diarrhea within last 15 days. It might be higher during flood in July. Survey also asked about their knowledge about managing diarrhea at home. 51.2% of households shared their experience that they used allopathic medicine to control the diarrhea. Similarly, 35.9% of HHs reported that they used Oral Rehydration Solution to control the diarrhea which is accepted as awareness based solution. As their recall, they got the idea to control the diarrhea and skin diseases at home through FCHVs (60.7%), Municipality (15.5%), Social Media and Newspaper (14.2%), TV/Radio (12.6%), and NGO/INGO (9.6%) (for details, please see table 2, 3, and 4 of Annex 3.8).

4.8 Menstrual Hygiene

Menstruation is a natural phenomenon occurs with female. Unfortunately, Nepalese society is still rigorous to accept as natural process. The norms and values developed years ago in the society are still ruling society generating violence against women. People in Nepalese community are still prohibiting female to participate in certain public places and ceremony e.g. temple, and public function. In last November, a women died in a Chao Goth[2] because of cold while she was prohibited to stay in home during her menstrual period in Karnali province. To scope the sensitivity of menstruation, this survey also included questions in the household survey.

Prohibition During Period

79.3% of households were found with female of menstrual age. The households with female of menstrual age were asked about their practice. 2.9% of respondents shared their practice of sending outside of house at separate cowshed and other place during the period. In the FGD, participants claimed there is no such practice in Tarai community. These type of practice can be observed in Hill Brahman community (FGD). 58.6% of households claimed that there is no any type of prohibition in the community while 38.8% claimed that female is prohibited to enter the temple during her period. Negligible percentage were report for other prohibition e.g. Prohibited to cook and touching water (6.6%); prohibited to participate in party and festival (5.9%); and

[2] A shed, specially built for women to stay during menstruation in Western Hill of Nepal.

Prohibition to stay with brother, Father and male relative (4.0%). Similarly, 13.1% of households reported that they do not send their girl to school during her period (for details , please table 1, 2 & 3 of Annex 3.9).

Perception towards reason for not sending school was found quite mixed responses. 50.5% of households reported that they do not send girl to school during her period for inadequate facilities at school while 18.0% said they do not send girl to school because of severe pain and high bleeding. Similarly, the other reasons said were bulling or shame (16.2%), Fear (7.9%), and superstition e.g. touching books is sin (7.4%). These responses indicate that public places like schools are not girlfriendly during period (for details , please table 4 of Annex 3.9).

Maintenance of Hygiene

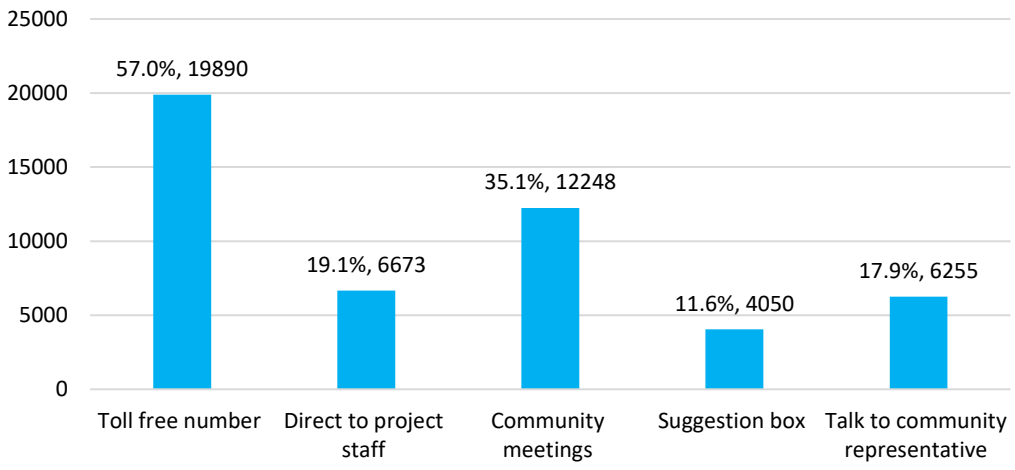
Maintaining hygiene during menstruation is very crucial task during the menstruation. Survey asked the respondent with female of menstruation age about the source of water for bathing and cleaning during period. A mixed type of responses was expressed. 80.0% of households said private tap/hand pump is the main source of water. Similarly, 3.5% for public tap but the FGD and KII validated that there are very limited public tap in the study area. 2.4% of HHs shared their practice of using water from pond during period which is not accepted as hygienic practice (for details, please table 5 & 6 of Annex 3.9).

Regarding the idea on sanitary pad, 37.6% of respondents were found not familiar with the sanitary pad. 28.4% of respondent replied they were using disposable pad and 14.8% were using reusable while 19.2% replied they were using both types of pad.

4.9 Accountability

WHH/SABAL Nepal is in Siraha district with responsibility of supporting development in WASH sector. Since it has public and social responsibility, to be accountable towards community is its other responsibility. For improving its accountability strength, the has asked some questions to the household representatives. Only 7.0% of (2437) HHs were found aware about Toll Free number WHH/SABAL Nepal to provide feedback and complain. Among aware HHs 62.3% of households got information about the Toll Free from project staff but very limited households have been using the Toll Free number for providing feedback and complain but they preferred Toll Free number as first choice. In the second choice, they choose community meeting (35.1%) as way to provide feedback (see Fig. 4.9.1).

Fig. 4.9.1: Prefered mechanism to provide feedback and complaint (Multiple Response - HHs 34,896)



WHH and its partners are adopting the Prevention of Sexual Abuse Guideline (PSEA) and Policy for Prevention of Corruption. Survey scoped out the awareness level of community about these policies. Very few (17.2%) households replied they were aware about the policies being adopted by WHH and its partners (for details, please see table 1, 2, 3, & 4 of Annex 3.10).

CHAPTER: V
BASELINE INDICATORS FOR THE PROJECT

5.1 Introduction

Strengthening Municipal wide WASH Governance for Social Change in Siraha District is a 3 years project (2019-2021, supported by BMZ/VCA/WHH and implemented by SABAL Nepal, which support the three municipalities (Siraha, Kalyanpur and Karjhana) of Siraha district to achieve safe drinking water, total sanitation, nutrition and livelihood by strengthening WASH governance at municipal level. The **Overall objective (impact)** of this project is**:** Improving the health and nutritional status of the Siraha District population through strengthened WASH governance and the provision of basic water, sanitation and hygiene (WASH) services; gender equality and empowerment of disadvantaged groups in Siraha. This project has 4 specific objectives (Outcomes):

Outcome 1: Improved, sustainable access to water, sanitation and hygiene and improved nutritional status of disadvantaged communities through self-help initiatives (micro level)
Outcome 2: Disadvantaged groups and women are economically strengthened through income- generating measures and partnership projects (micro level).
Outcome 3: Capacities of local governments, state service providers and municipalities are strengthened to provide high quality, sustainable and accountable WASH services (meso level).
Outcome 4: The Provincial and Provincial Governments take up proven activities from the project in order to institutionalise and scale them (macro level).

There are 19 indicator in total e.g. 4 for outcome 1; 3 for outcome 2; 2 for outcome 3; and 10 for outcome 4. One of the main objective of this baseline survey is to carry out comprehensive survey including situation and context analysis to feed the baseline information to measure the achievements of the project. Now, the household survey has been carried out and numeric data of some baseline indicators have been calculated. This survey covered only household level information. Policy study and institutional survey is another aspect of the comprehensive study. Based on the household data the baseline milestone has been set in the log-frame in 5.2.

5.2 Baseline Indicator Log-Frame Framework

Based on household survey, baseline indicators are fitted in the project log-frame which was provided in project document. In overall, indicators are not equally distributed e.g. 2 indicators for outcome 3 and 10 indicators for outcome 4. This imbalance can produce an unscientific judgement of project achievements of the projects. Some of the indicators are seemed more vague which need more composite data to measure indicator. Before launching it, a slight revision is needed. Available baseline status are arranged in following log-Frame:

Matrix 1: Log-Frame of Project

Overall objective (impact): Improving the health and nutritional status of the Siraha District population through strengthened WASH governance and the provision of basic water, sanitation and hygiene (WASH) services; gender equality and empowerment of disadvantaged groups in Siraha

Indicator Statement	Unit	Baseline Survey 2019	Target by the end of the project	Remarks
Outcome 1: Improved, sustainable access to water, sanitation and hygiene and improved nutritional status of disadvantaged communities through self-help initiatives (micro level)				

Indicator Statement	Unit	Baseline Survey 2019	Target by the end of the project	Remarks
Target households use sustainably managed and secure sanitary services	Percentage	27.5 (Safely Managed)	85	
Percentage of target households use sustainably managed and safe drinking water supply services (standard indicator Welthungerhilfe and indicator SDG 6.1)	Percentage	9.6 (Safely Managed in Winter Season)	90	
Percentage of girls and women of reproductive age in the target population use appropriate sanitary items during the period	Percentage	43.2 (Disposable & Reusable)	60	
Percentage of 5000 target households implement improved nutrition and hygiene practices.	Percentage	50.7 (IINH, Annex 4)	50	Target to be revised
Outcome 2: Disadvantaged groups and women are economically strengthened through income-generating measures and partnership projects (micro level).				
Groups at municipal level are in a position to set up WASH micro-enterprises.	Number	0	9	
WASH economic plans are supported by a financing mechanism.	Number	0	6	
Percentage of the entrepreneurs have doubled their income by the end of the project.	Percentage		50	After finalization of potential entrep(Mini Baseline)
Outcome 3: Capacities of local governments, state service providers and municipalities are strengthened to provide high quality, sustainable and accountable WASH services (meso level).				
Evidence-based, fully calculated and realistic community-wide WASH plans be developed and implemented by the relevant local authorities to enable and maintain universal WASH access in each community (SSI principles).	Number of WASH Plan	0	3	
Databases and monitoring systems (inventory and monitoring; WSUC database and performance monitoring; water resource inventory and monitoring, including water quality) will be established in each municipality by the end of the project	Status	Not established	Monitoring System will be established	

Indicator Statement	Unit	Baseline Survey 2019	Target by the end of the project	Remarks
Outcome 4: The Provincial and Provincial Governments take up proven activities from the project in order to institutionalise and scale them (macro level).				
The local government adopts the strengthening of the system and acts as a resource for other municipalities.	Status	Not adopted	Be adopted	
Percentage of WASH networks have increased their capacity for learning, knowledge sharing and management	Percentage	6.25	75	45 WWASHCC+ 3 MWASHCC
Information on the innovative and effective activities of the project and learning processes will be disseminated through sectoral learning and exchange events	Number of Events	0	5	
Knowledge products are produced and distributed to stakeholders in the WASH sector at the federal and provincial levels	Number of Knowledge products	0	3	
The digitised WASH information management system is operational in all three municipalities to enable systematic data collection, evaluation and use.	Number of digitised WASH information management system	0	3	
In all 3 municipalities, percentage of the WASH coordination bodies are sustainable.	Percentage	8.16	100	+DWASHCC
Number of WUSCs are institutionalised (with statutes), registered with the relevant Nepalese government authority and operational - Best Practice/Pilot Model	Number of WUSCs		45	To be revised
Monitoring and accountability processes for WASH service providers for all municipal water supply systems are in place and operational.	Status	Not in place and operational	In place and operational	To be revised

Indicator Statement	Unit	Baseline Survey 2019	Target by the end of the project	Remarks
The share of the municipal budget used to directly promote WASH services has increased by	Increment rate (Percentage)		10	Can be fed from Municipal budget
Annual WASH reviews take place in each municipality in 2019, 2020 and 2021.	Number of Annual WASH reviews	0	9	

CHAPTER: VI
CONCLUSION

6.1 Introduction

Strengthening Municipal wide WASH Governance for Social Change in Siraha District, a 3 years project (2019-2021) needed a context and situation analysis to feed baseline indicators. For this purpose, this household survey has been carried out. Along with household survey, KII and FGD also were conducted to verify the household data. This survey has achieved number of findings in various sub-sectors. Very limited key findings are presented in this chapter. This chapter gives only the highlights of the findings.

6.2 Key Findings

WASH sector is vast itself. Coverage of the study may not reach that extent which is rooted at micro stages. Here are highlights of the study covering some sub-sector.

Access to Safe Water

- Most of the water sources of the study area are private hand/pumps.
- The area north from the highway are known as dry land and with scarcity of water source.
- During the dry season, 96.2 % of Households found using water from improved source e.g. **Safely Managed** (9.6%), Basic Source of water (81.1%), and Limited source of water (5.5%).
- 3.7% of households are found using water from **Unimproved** source.
- In the rainy season 95.8 % of households are using water form **Improved** Source which included **Safely Managed** (6.6%), Basic (88.8 %), and Limited (0.4%) source of water.
- Only 4.3% of households were reported as having drinking water from Unimproved source during rainy season.
- There is no any water management mechanism in three municipality except Water User's Committee in very limited community.
- 79.7% of households reported that they do not have knowledge of testing water quality.
- 74.6% of households reported that they have no practice of testing water quality.
- 80.6% of households reported that they do not have practice of water treatment.

Access to Improved Sanitation Facilities

- 27.5% of households have reported having **Safely Managed** sanitation system.
- 57.4% of households were found to have a Basic type of sanitation facility.
- 14.6% of households found without toilet, which was similar to findings of observation (15%).
- Among the HHs without toilets, 34.2% said they do not plan to construct a toilet any time soon.
- Among the HHs with toilet, 4.5% were reported some of family members are not using the toilet.
- 6.8% of households reported flood destroyed their toilet.

Hand Washing and Personal Hygiene

- 54.5% of households were found using Basic level of handwashing facilities, 18.4% were Limited, and 27.1% of households were found No Facility.
- 77.3% of households are using soap to wash hands while 7.5% using Ash and 7.0% using Mud/Sand.

Household Sanitation

- 77.9% of households were found using firewood as main cooking fuel at home.
- 60.9% of households are still using Ash as washing materials.

Food Hygiene and Nutrition

- 17.8% of households have practice of storing foods segregating edible and non-edible items.
- 18.1% of households have bad practice of storing foods items at one place.
- 73.3% of households do not practice of kitchen garden.
- Out of gardening family, 73.3% of households found not using pesticides.

Solid Waste Management

- 60.0% of households are producing remnants of fruits and vegetables at lager quantity; 50.2% produce paper garbage, 50.0% produce plastic garbage and 49.0% produces garbage of medicine cover/packaging/bandage.
- 37.4% of households throw the Remnants of Fruits and Vegetables anywhere and only 22.5% have practice segregating into degradable and nondegradable.
- 28.6% of households throw Plastic anywhere and 36.2% have practice of burning after gather at a place.
- 7.4% of households have found not aware about impact of poor waste management.
- No vehicle from municipality is mobilized to collect garbage whereas Karjanaha Municipality has purchased 2 tractors for garbage collection but not in operation.
- 43.6% of households were found not ready to pay charge for garbage collection service while 45.6% of households are found ready to up to NPR 20 per month
- 48.9% of households found farming cattle and 3.1% of households out of cattle farmer accepted that they kept cattle at road side.
- 53.0% of households preparing charcoal of dung for cooking.
- Out of cattle owner, 52.2% of households responded as female is responsible to manage dung.

Waterborne Diseases

- 7.1% of households reported that any of their family member was infected by diarrhea within last 15 days.

Menstrual Hygiene

- 79.3% of households were found with female of menstrual age.
- 58.6% of households claimed that there is no any type of prohibition in the community while 38.8% claimed that female is prohibited to enter the temple during her period.
- 13.1% of households reported that they do not send their girl to school during her period because inadequate facilities at school (50.5%) and sever pain (18.0%)
- 80.0% of households use water from private tap/hand pump to take bath during menstrual period.
- 37.6% of respondents were found not familiar with the sanitary pad. 28.4% of respondents replied they were using disposable pad, 14.8% reusable and 19.2% both types of pad.

6.3 Recommendation

In this section, study has listed out some points that can bring out some results at community level if it is addressed by either of parties. There are many lapses at both government and public level which is not leading the development to the right track. Following are some bullets which are suggested FGD, KII and the survey.

- WASH sector is found neglected at local government level. Very small chunk of budget is allocating for drinking water, unfortunately, sanitation is still to be the major needs of local government.
- Municipalities as the local government are still to enact policies and laws for WASH sufficiently. Sensitizing and promoting to enact Acts and Policies could be opportunity for the project.
- During the KII and FGD, it is found that municipalities and its Ward Office do not have WASH plan and appropriate budget and better to facilitate to develop it.
- Most of the sources of water in the study area are private tubewell and very few participants reported about the practice of water quality test. Initiation of campaign for testing water quality can bring good result.
- Study showed that deprived and marginalized community are lacking private tubewell. On the other hand, tubewell is not accepted as the system of centralized controlling mechanism. FGD participants suggested to promote overhead tank with controlling distribution system for all beneficiaries.
- Enhancing technical knowledge and skills for water treatment will be the opportunity to promote safe water user community.
- Municipalities have declared ODF in its territory but the survey shows around 15% of open defecation. During KII, authorities requested interventions for Post ODF support. It will be an opportunity for the projects.
- Community itself needed to be mobilized for awareness raising on HHs waste management practices

- Studies showed that there is no any system for waste management and it will be big opportunity to promote establishing solid waste management system.
- Although municipalities are allocating budget for land-fill site they have no plan and budget for promoting sanitation
- Local governments are found seeking partnership to management sewerage/drainage system.
- Initiation for ensuring menstrual health management (MHM) friendly public toilet in school, health posts and other public places is requested.
- A large number of households is using traditional stove to cook and a larger space is noticed to promote improve cooking stove (ICS).
- Data showed a weaker practice of kitchen gardening, which is one of the major means of hygienic live, can be promoted effectively.
- An integrated awareness session on personal hygiene and community WASH is suggested to project by FGD participants.
- Mosquitos in Tarai in summer season is one of the major problems. During the FGD, it was reported local government was not taking any action to control the mosquitos. Project can coordinate to establish a system to control mosquitos every year.

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ANNEXES

Annex I: Terms of Reference for Baseline Survey

Title

Baseline survey for the "Strengthening municipal wide WASH governance for social change in Siraha district" NPL1060 project in 3 Municipalities of Siraha district, Nepal

1. Project Background

"Strengthening Municipal wide WASH governance for social change in Siraha district" contributes to achieving safe drinking water, total sanitation, nutrition and livelihood by strengthening WASH governance at municipal level. The project is a 3 years project (2019-2021, supported by BMZ/VCA/WHH and implemented by SABAL Nepal in Siraha, Kalyanpur and Karjhana Municipality.

This ToR is developed to solicit consultancy services from a qualified consultant(s) or organization to undertake Baseline Survey for "Strengthening Municipal wide WASH governance for social change in Siraha district "The project pursues three main interventions; Sustainable Services Initiatives (SSI), Greater integration of the WASH and food sectors, Business models (economic empowerment for women and poor families) and Capacity building (municipalities, entrepreneurs, government representatives, service providers

Project Objective (Impact) Improved health and nutritional status of the Siraha District population through strengthened WASH governance and the provision of basic water, sanitation and hygiene (WASH) services; gender equality and empowerment of disadvantaged groups in Siraha

Project Outcomes

Output 1 Improved, sustained access to water, sanitation and hygiene and improved nutritional status of disadvantaged communities through self-help initiatives[1] (micro level)

Output 2 Disadvantaged groups and women are economically strengthened through income-generating measures and partnership projects/cooperative initiatives (micro level)

Output3 Capacity of local government, service providers and communities strengthened to deliver quality, sustainable and accountable WASH services (meso-level).

Output4 The state and provincial governments take up proven activities from the project in order to institutionalize and scale them (macro level)

2. Baseline study objectives

The overall objective incorporates the responsibilities to undertake the assignment of conducting baseline survey (HHs survey) including the assessment of process, progress, monitoring and reporting tools and methods for output, outcome and impact monitoring. The Table 1 below is number of targeted municipalities and communities at project district.

S.N	District	Municipalities	No. of Wards	Population	Area	HHs	Remarks
1	Siraha	Siraha Municipalities	22	82531	94.2sq.km	15477	

2	Siraha	Karjhana Municipalities	11	30967	76.84 sq.km	6088	
3	Siraha	Kalyanpur Municipalities	10	49290	76.81sq. km	9391	

Source: CBS Nov 2017

Scope of work

- Design a project level data analysis framework for baseline survey compatible to the project log frame including tools and systems used for the study. (KAP mandatory)
- Compile baseline in the project level data analysis framework developed
- The consultant shall undertake baseline HHs survey (full coverage). Refer to Table 1 above for targeted wards and communities for this project. The selection of HHs should be scientific backed up by GPS tracking and digital survey mechanism.
- The budget shall be prepared on the basis of sample size proposed based on Table 1. The tools and methods for baseline survey shall be as per the project indicator protocol developed by WHH/SABAL Nepal monitoring tool mentioned in Annex 2
- Design and finalize tools with pre- testing for further information needed to produce project baseline report.
- Orient SABAL Nepal staffs and enumerators on baseline and field monitoring tools developed
- Implement baseline survey and produce baseline report.
- Develop process, progress monitoring and reporting tools and methods for impact, outcome and output monitoring based on indicator protocol, log frame and M and E plan for the project
- Participate and facilitate during project workshops with partners, as requested by Sabal Nepal/WHH.

3. Methodology

This study will be based on desk review, consultations with partner and WHH staff, household survey, key informant interviews, focus group discussions with community members, municipalities and stakeholders and KAP survey.

4. Target groups

As per Table 1

5. Survey Locations

Siraha, Kalyanpur, Karjhana Municipalities in Siraha district respectively

6. Reporting and Deliverables

An inception report and presentation (1 week after contract) that explains; understanding of the assignment, detail methodology and timeline for commencing the assignment.
Finalize detailed work plan, sampling methods based on agreed sampling approach and method of analysis
Develop detail survey questionnaire and finalize together with SABAL Nepal and WHH
Tools for undertaking process, progress monitoring tools and methods for impact, outcome and output monitoring along with reporting templates.
Guideline explaining the use of the tools and methods
A draft baseline report is expected by 4th week of May 2019
A well-written final baseline report along with monitoring guideline in a week after receiving feedback from Sabal Nepal/WHH

7. Time Frame

Activities	**Working days**
Review of all the documents	2
Develop questionnaire and agree with SABAL/WHH	7
Orientation to enumerators and field testing	4
Conducting HHs survey	21
Data compilation, cleaning and analysis	10
Draft report	5
Feedback incorporation and finalization	4
Final report	2
Total working days	**55**

Annex II: Questionnaire and Checklist for Data Collection

Annex 2.a: HH Survey Questionnaire

Group 1

Introduction

1.1 Province (प्रदेशकाे नाम):

- Province 1 (प्रदेश नं. १)
- Province 2 (प्रदेश नं. २)
- Province 3 ((प्रदेश नं. ३)
- Gandaki Province (गण्डकी प्रदेश)
- Province 5 (प्रदेश नं. ५)
- Karnali Province (कर्णाली प्रदेश)
- Sudur Paschim Province (सुदुपश्चिम प्रदेश)

21.2 Districts of Province 2 (प्रदेश नं. २ का जिल्लाहरू)

- Saptari (सप्तरी)
- (•) Siraha (सिरहा)
- Dhanusha (धनुषा)
- Mahottari (महाेत्तरी)
- Sarlahi (सर्लाही)
- Rautahat (राैटहट)
- Bara (बारा)
- Parsa (पर्सा)

3Local Levels of Siraha district (सिरहा जिल्लाका स्थानीय तहकाे नाम)

- Siraha (सिरहा)
- Karjanaha (कर्जन्हा)
- Kalyanpur (कल्याणपुर)
- Lahan (लहान)
- Dhangadhimai (धनगढीमाई)
- Golbazar (गोलबजार)
- Mirchaiya (मिर्चैयाँ)
- Sukhipur (सुखीपुर)
- Bhagawanpur (भगवानपुर)
- Aurahi (औरही)
- Bishnupur (विष्णुपुर)
- Bariyarpatti (बरियारपट्टी)
- Laxmipur Patari (लक्ष्मीपुर पतारी)
- Naraha (नरहा)
- Sakhuwanankarkatti (सखुवानान्कारकट्टी)

- Arnama (अर्नमा)
- Nawarajpur (नवराजपुर)

4Ward No. (वडा नं)

5Settlement (टाेलकाे नाम)

6Name of Surveyor (गणककाे नाम)

7Name of Respondent (उत्तरदाताकाे नाम)

8Caste/Ethnicity of Respondent (उत्तरदाताको जात, थर)

- तराइ ब्राम्हण, क्षेत्री, राजपुत
- पहाडी ब्राम्हण, क्षेत्री, सन्यासी, ठकुरी
- तराइ आदिबासी, जनजाति
- पहाडी आदिबासी, जनजाति
- तराइ दलित
- पहाडी दलित
- मुस्लिम
- तराइ अन्य
- पहाडी अन्य
- लाेपाेन्मुख

9Sex of Respondent (उत्तरदाताको लिंग)

- Male (पुरूष)
- Female (महिला)
- Other (अन्य)

10Religion of Respondent (उत्तरदाताको धर्म)

- Hindu (हिन्दु)
- Buddhist (बाैद्द)
- Muslim (इस्लाम)
- Christian (इसाई)
- Kirat (किरात)
- Jain (जैन)
- Sikh (सिख)
- Other (अन्य)

11Contact Number of Respondent (उत्तरदाताकाे माेबाइल नंम्बर)

12Date of Interview (अन्तरवार्ता लिएकाे मिति)

Group 2

Family Roster (पारिवारिक विवरण)

1Full name of family member (परिवार सदस्यकाे पुरा नाम)

2Age of Family member in age (उमेर वर्षमा)

3Education (शिक्षा)

- Pre-Primary (पूर्वप्राथमिक)
- Basic (1-8 Class) (आधारभूतः कक्षा १ देखि ८ सम्म)
- Secondary (9-12 Class) (माध्यमिकः कक्षा ९ देखि १२ सम्म)
- Bachelor's degree (स्नातक तह)
- Master's degree and above (स्नातकोत्तर तह वा सो भन्दा माथि)
- T-SLC (प्राविधिक एसएलसी)
- Literate (साक्षर)
- Illiterate (निरक्षर)
- Not admitted (भर्ना नभएकाे)
- Underage (उमेर कम)

4Occupation (पेशा)

- Agriculture & Livestock (कृषि तथा पशुपालन)
- Business (उद्योग, व्यापार)
- Employed (नोकरी, जागिर)
- Unskilled worker (Wage-based) (ज्याला मजदुरी)
- Skilled Worker (Carpenter, Mesons etc.) (सिपमुलक कामः सिकर्मी, राजमिस्त्री)
- Housewife (गृहिणी)
- Foreign employment (बैदेशिक रोजगार)
- Pensioner (पेन्सिनियर)
- Student (बिद्यार्थी)
- Unemployed (बेरोजगार)
- Underage (उमेर कम)
- Senior Citizen (बृद्द, बृद्दा)
- Other (अन्य)

Group 3

Access to Safe Water (सुरक्षित पानीको पहुँच)

1What is your MAIN drinking water source during DRY season? (सुख्खा (हिउद) याममा तपाइको खानेपानीको मुख्य श्रोत के

- Public tap (improved) (सुधारिएकाे सार्वजनिक धाराको)

- Private tap at the house (improved) (सुधारिएकाे निजि धाराको)
- Borehole with handpump (improved) (सुधारिएकाे ट्युवेल, हेन्डपम्प)
- Protected spring (improved) (सुरक्षित मुहानकाे पानी)
- Open dug well (not improved) (खुल्ला इनार)
- Protected dug well (improved) (सुधारिएकाे इनार)
- Protected rainwater storage systems (improved) (सुरक्षित तरिकाले वर्षाकाे पानी संकलन गरेकाे)
- Pond, stream, river, swamp (not improved) (खोला वा नदीको पानी)
- Other (not improved) (अन्य)
- Don't know/ No answer (थाहा छैन)

2What is your MAIN drinking water source during RAINY season? (वर्षा याममा तपाइको खानेपानीको मुख्य श्रोत के हो?)

- Public tap (improved) (सुधारिएकाे सार्वजनिक धाराको)
- Private tap at the house (improved) (सुधारिएकाे सार्वजनिक धाराको)
- Borehole with handpump (improved) (सुधारिएकाे ट्युवेल, हेन्डपम्प)
- Protected spring (improved) (सुरक्षित मुहानकाे पानी)
- Open dug well (not improved) (खुल्ला इनार)
- Protected dug well (improved) (सुधारिएकाे इनार)
- Protected rainwater storage systems (improved) (सुरक्षित तरिकाले वर्षाकाे पानी संकलन गरेकाे)
- Pond, stream, river, swamp (not improved) (खोला वा नदीको पानी)
- Other (not improved) (अन्य)
- Don't know/ No answer (थाहा छैन)

3In the case of community and public water source, what is the average time spent for fetching water per day including queuing? (सामुदायिक वा सार्वजनिक धाराबाट पानी ल्याउनु हुन्छ भने दिनमा कति समय लाग्छ ?)

- Less than 10 minutes (१० मिनेट भन्दा कम)
- 11-20 minutes (११ देखि २० मिनेट)
- 21-30 minutes (२१ मिनेट देखि ३० मिनेट)
- Above 30 minutes (३० मिनेट भन्दा बढि)

4On an average, how many liters of water do your family need per day for drinking, cleaning, bathing, toilet use, cooking? (खान, पकाउन, नुहाउन, कपडा धुन, गाइवस्तुलाइ खुवाउनको लागि तपाइको परिवारले दिनमा अनुमानित कति लिटर पानी प्रयाेग गर्नु हुन्छ ?)

- Less than 20 liters (२० लिटर भन्दा कम)
- Up to 50 liters (५० लिटर भन्दा सम्म)
- Up to 100 liters (१०० लिटर सम्म)
- More than 100 liters (१०० लिटर भन्दा बढि)

5Is the source of water point serve you water round the year? (तपाईले पिउने पानीको श्रोतमा वर्षैभरी पानी चालु अवस्थामा छ ?)

- Yes (छ)
- No (छैन)

6If no, what are the alternative sources (यदि आउदैन भने कसरी व्यवस्था मिलाउनु हुन्छ?)

- Collect from Neighbor (छिमेकीको देखि ल्याउछु)
- Private Suppliers/Tanker/Purchasing (किन्छु)
- Open source (Pond, streams) (खुल्ला पोखरी, खोलाको)
- Supplied by Municipality (नगरपालिकाले दिन्छ)

7Please tell us the time for availability of water per day in the tap (धारा भए दिनमा कत्ति समय पानी आउछ?)

- Less than 30 Minutes (आधा घण्टा सम्म)
- One Hour (एक घण्टा)
- Two Hours (दुइ घण्टा)
- Always (सधै)
- Never (पानी नै आउदैन)

8Is there any mechanism for management of water sources? - Knowledge (खानेपानी व्यवस्थापन गर्ने कुनै संयन्त्र छ?)

- No (छैन)
- Yes, Water User's Committee (खानेपानी उपभोक्ता समिति छ)
- Yes, Water Supply & Sanitation Division Office (खानेपानी तथा सरसफाइ डिभिजन कार्यालय छ)
- Yes, Tole Improvement Committee (टोल सुधार समिति छ)
- Yes, Municipality (नगरपालिका छ)

9Are you ready to pay water tariff if piped tap will be installed in your compound? (Attitude) (नयाँ धारा जडान भए मासिक महशुल तिर्न तयार हुनुहुन्छ?)

- No, I am not ready (छैन)
- Ready to pay less than NPR 50 per month (५० रूपैया सम्म तिर्न तयार छु)
- Ready to pay NPR 51 - 100 per month (५१ देखि १०० रूपैया सम्म तिर्न तयार छु)
- Ready to pay above NPR 100 per month (१०० भन्दा बढि पनि तिर्न तयार छु)

10Are you aware about the test of water quality? (Knowledge) (तपाइलाइ पानी जाँच गर्नु पर्छ भन्ने थाहा छ?)

- Yes (छ)
- No (छैन)

119.1 If yes, do you know the agency (office) and location that tests the water quality? (तपाईलाई पानी परीक्षण गर्ने अफिस र स्थानबारे जानकारी छ?)

- Yes (छ)
- No (छैन)

12Do you have a practice of testing water quality of your water source? (Practice) (तपाइको घरमा पानी जाँच गर्ने गरेको छ कि छैन?)

- Never Tested (गरीएको छैन)

- Arsenic test (आर्सेनिक)
- Iron Test (आइरन)
- Hardness Test (कडापन)
- Total Coliforms Test (कोलीफर्म)
- E-coli Test (इकोली)
- Turbidity धमिलोपना
- Free Residual Chlorine (FRC) – Chlorinated water only (पानीमा क्लाेरिनकमात्र)
- Other (अन्य)

13Do you have any practice of drinking water treatment at your home? (तपाइकाे घरमा खानेपानीको शुद्धिकरण गर्ने चलन छ कि छैन ?)

- Boiling (उमाल्ने चलन)
- Use of Biosand Filter (बायोस्याण्ड फिल्टरको प्रयोग)
- Candle Filter (क्याण्डल फिल्टरको प्रयोग)
- Chlorination (क्लोरीनेसन विधिको प्रयोग)
- SODIS (सोडिस बिधि)
- Use of tablets/chlorine (ट्याबलेट/क्लोरिन)
- No Practice (कुनै चलन छैन)

14If no, why don't you treat drinking water? (Perception) (यदि सुद्दीकरण गर्नु हुन्न भने किन ?)

- It is already clean (त्यतिकै सफा छ)
- Do not know how to (कसरी गर्ने, थाहा छैन)
- Can't afford to buy treatment items (सुद्दीकरण गर्ने सामान महंगो छ)

15Please tell me the interval that you cleaned the water containing vessel. (पानी राख्ने भाडा कत्ति समयमा फा गर्नु हुन्छ?)

- Never clean (कहिल्यै धुन्न)
- Every time while collecting water (पानी राख्दा हरेक पटक)
- Every day (प्रत्येक दिन)
- Every week (प्रत्येक हप्ता)
- Every month (महिनामा एक पटक)

16What materials do you use while cleaning vessel containing water? (खानेपानीको भाडा सफा गर्दा के प्रयोग गर्नु हुन्छ?)

- Ash (खरानी)
- Soap and detergent powder (साबुन वा सरफ)
- Clay or Cow dung (माटो वा गोबर)
- Water only (पानीले मात्र)

17How do you manage the dirty water from your tap or tube-well? (तपाईको घरको कल वा धाराबाट निस्कने फोहर पानी कहाँ जान्छ?)

- At Sewerage (ढल (ड्रेन) मा)

- In open hole (खाल्डोमा)
- Let in open (खुल्ला)
- In Kitchen Garden (करेसा बारीमा)
- To the stream/river (खोलमा)

18Do you have any experience of flood that inundated your water system for 24 hours in the last 3 years? (विगत ३ वर्षमा बर्षाको समयमा २४ घण्टा सम्म कल डुब्ने गरी पानी जम्ने वा डुवान हुने भयाे कि भएन ?)

- Yes (भयाे)
- No (भएन)

19If yes, how did you manage drinking water during the flood? (यदि कल डुबानमा परेको भए त्यतिबेला तपाई कहाँको पानी पिउनु हुन्छ?)

- Waited until flood level was down (डुबानको पानी घटे पछि)
- Use storage water at home (घरमा (भण्डारण) राखेको पानी)
- Borrowed from Neighbor not affected from flood (डुबानमा नपरेको छिमेकीको कलको)

20Who maintains the drinking water supply system in case of mal functioning it at home? (तपाइकाे घरको खानेपानीको श्रोत बिग्रेको बेला कस्ले मर्मत गर्छ?)

- Female Member (महिला सदस्य)
- Male Member (पुरुष सदस्य)
- Both (दुवै)
- Mechanics (मिस्त्रिले)

21If repaired by mechanics are you satisfy with their services? (यदि मिस्त्रिले मर्मत गरेकाे हाे भने उनकाे सेवाबाट तपाइलाइ चित्त बुझ्याे ?)

- Yes (बुझ्याे)
- No (बुझेन)

Group 4

Access to Improved Sanitation Facilities (सुधारीएको सरसफाइमा पहुँच)

1Do you have toilet at home? (तपाइको घरमा चर्पी छ कि छैन?)

- Do not have toilet, (चर्पी छैन)
- Flush to Piped sewer system (फ्लस भएर ढलमा जाने)
- Flush to septic Tank (फ्लस भएर सेफ्टी टैंकमा जाने)
- Flush to Single Ring Pit (Ring with Lid) (ढकन सहितकाे रिङमा जडान गरिएकाे एक खाल्डे)
- Flush to Dauble Ring Pit (Ring with Lid) (ढकन सहितकाे रिङमा जडान गरिएकाे दुइ खाल्डे)
- Ventilated Improved Pit toilet (VIP) (सुधारिएको चर्पी)
- Pit latrine without slab/Open Pit (खुल्ला खाल्डे चर्पी)
- Connected to composting toilet/biogas (बायोग्यासमा जोडिएको)

2If Not, where do you go to defecate? (यदि छैन भने दिशा गर्न कहाँ जानु हुन्छ?)

- At neighbor's toilet (छिमेकीकोमा)
- At community toilet (सामुहिक चर्पी)

- At public toilet (सार्वजनिक शौचालय)
- At open space (खुल्ला ठाँउ) बाधमा)

3If not, do you have any plan to construct toilet? (तपाइसँग हाल चर्पी छैन भने अब बनाउने योजना छ कि छैन?)

- Yes (छ)
- No (छैन)

4If yes, How will you construct toilet? (यदि योजना छ भने कसरी बनाउनु हुन्छ?)

- I construct myself (आफै बनाउछु)
- I construct if got grant partially (कसैले आधा सहयोग गरेमा बनाउछु)
- I construct if got full grant (कसैले पुरै सहयोग गरेमा बनाउछु)

5If you have toilet, how did you build your toilet? (तपाईको घरको चर्पी कसरी बनाउनु भएको हो?)

- In my own investment (आफ्नै लगानीबाट)
- Partial Subsidy by Government (सरकारको आंशिक अनुदानबाट)
- Full Subsidy by Government (सरकारको पुरै अनुदानबाट)
- Partial Subsidy by I/NGOs (बिकास साझेदारको आंशिक अनुदानबाट)
- Full Subsidy by I/NGOS (बिकास साझेदारको पुरै अनुदानबाट)

6Over the last 3 years did your toilet get full? (विगत ३ वर्षमा तपाइकाे चर्पी भरीएको छ कि छैन?)

- Yes (छ)
- No (छैन)

7If yes, did you empty it? (यदि चर्पी भरिएको भए बिचमा सफा गर्नु भयो कि छैन?)

- No (छैन)
- Yes, by Private safety tanker (निजि ट्यांकर प्रयोग गरेर)
- Yes, manually by digging pit via labor (कामदारबाट खाडल खनाएर)
- Yes, manually by digging pit by own (आफै खाडल खनेर)

8If made empty by private safety tanker, are you satisfy with its services? (निजि ट्यांकर प्रयोग गरेको भए, उस्को कामबाट चित्त बुझ्यो ?)

- Yes (बुझ्यो)
- No (बुझेन)

9Do all the family members use the toilet? (तपाईको परिवारका सबै सदस्यले चर्पिको प्रयोग गर्छन कि गर्दैनन्?)

- Yes (गर्छन्)
- No (गर्दैनन्)

10If no, who does not use? (यदि चर्पी प्रयाेग नगर्ने पनि भए को कस्ले प्रयोग गर्दैनन ?)

- Male member (पुरूषले)
- Female member(महिलाले)
- Children (बालबालिकाले)
- Person with disability (अपांगता भएका ब्यक्तिले)
- Senior citizen (जेष्ठ नागरीकले)

11What are the reasons for not using toilet? (चर्पी प्रयोग नगर्नुको कारण)

- Too young to use toilet (उमेरले सानै भएर)
- No practice of using toilet (बानी नभएर)
- Because of unfriendly toilets for all (बालमैत्री, अपांगमैत्री नभएको)
- Because of social values & superstitions (सामाजिक मान्यता (ससुरा र बुहारी)

12How/Where do you dispose feces of your child at your home? (केटाकेटीको दिशा कसरी व्यवस्थापन गर्नु हुन्छ?)

- Use of potties and dispose inside toilet (प्यानमा दिशा गराएर चर्पीमा फाल्ने)
- Dispose on dirty clothes and wash at water points (थाङनामा दिशा गराएर धारामा धुने)
- Defecate at open place and dispose near garbage (खुला ठाउँमा दिशा गराएर फोहरसँगै फाल्ने)
- Defecate at open place and left unmanaged (खुल्ला ठाउँमा दिशा गराएर छाड्ने)
- No Children at home (घरमा केटा केटी नभएका ेे)

13Is your toilet damaged by flood in the last 3 year? (विगत ३ बर्ष भित्रमा बाढिको कारणले चर्पिमा क्षति भएको छ कि छैन?)

- Yes, totally damaged (पुर्ण रुपमा क्षति भएको)
- Yes, Partially damaged (आशिंक रूपमा क्षति भएको)
- No, damage (कुनै क्षति नभएको)

14If damaged, where did you defecate? (यदि क्षती भएको भए, त्यो बेला कहा दिशा गर्नु भयो?)

- At open space (खुल्ला ठाँउमा)
- Temporary toilet (अस्थायी चर्पीमा)
- Neighbors toilet (छिमेकीकोमा)
- Community toilet (समुदायको चर्पीमा)
- Public toilet (सार्वजनिक चर्पीमा)

Group 5

Hand Washing and Personal Hygiene (हातधुने अभ्यास तथा व्यक्तिगत सरसफाइ)

1When do you wash your hands? (Multiple Choice) (तपाई कत्तिबेला हात धुने गर्नु हुन्छ?

- Before eating (खाना खानु अघि)
- Before cooking (खाना पकाउन अघि)
- Before feeding (खाना खुवाउनु अघि)
- After working at the field/outside (खेतबारीमा काम गरेपछि)
- After cleaning baby's bottom (बच्चाको दिशा धोए पछि)
- After using toilet (दिशा गरेपछि)
- Occasionally (कहिलेकाही)

2What do you and your family members use while washing your hand? (हात धुनु हुन्छ भने के प्रयोग गर्नु हुन्छ?)

- Water only (पानीले मात्र)
- With soap (सावुन पानीले)

- With ash (खरानी पानीले)
- With sand or mud (वालुवा, माटोले)

3Where do you have hand washing station (हातधुने ठाउँ कहाँ छ?)

- Inside toilet/bathroom (चर्पी भित्रै)
- Outside toilet/bathroom near to 10 feet steps (चर्पी बाहिर १० कदम/पाइला भित्र)
- Inside the kitchen (भान्छाकाेठा भित्र
- At a water point (tap/tubewell) (धारा वा ट्यूववेल भएकाे ठाँउमा
- All of above (माथिकाे सवै)

4What types of facilities do you have for bathing at home? (परीवारका सदस्यहरु नुहाउने सुविधाको अवस्था कस्तो छ?)

- Close and separate bathroom (घेरावेरा सहितको अलग्गै स्नान गृह)
- Public Tap and tube-well (सार्वजनिक धारा वा ट्युवेलमा
- Private Tap and tube-well (निजि धारा वा ट्युवेलमा
- Ponds and stream (पोखरी वा खोलामा नुहाउने)

5What type of water do you use to wash the clothes at home (तपाईको घरमा कपडा धुन कस्तो पानी प्रयोग गर्नु हुन्छ?)

- Water from stream and ponds (खोला वा पोखरीको)
- Water from private tap or tube-well (निजि कल वा धाराको)
- Water from public tap or tube-well (सार्बजनिक कल वा धाराको)
- Water from well (इनारको पानीमा)

6What do you use to wash clothes? (कपडा धुनको लागि के प्रयोग गर्नु हुन्छ?)

- Soap and detergent powder (साबुन वा सरफ)
- Ash with boil water (खरानी र तातो पानी)
- Water only (पानीले मात्रै)

Group 6

Household Sanitation (घरायसी सरसफाइ)

1What is your major fuel to cook? (१. खाना पकाउन मुख्य इन्धनकाे रूपमा के प्रयोग गर्नु हुन्छ?)

- Firewood (दाउरा)
- Straw, beck dung, rice-cover (गुईठा, भुस, झिक्रा)
- Biogas (बायो ग्यास)
- LP Gas (एलपी ग्यास)
- Kerosene (मट्टीतेल)
- Electricity (बिजुली)
- Other (अन्य)

2What type of stove do you use at your home? घरमा कस्तो प्रकारको चुल्हो प्रयोग गर्नु हुन्छ ?)

- Gas Stove (ग्यास चुल्हो)
- Bio-gas Stove (गोवरग्यास चुल्हो)

- Improved Cooking Stove (सुधारिएको चुल्हो)
- Traditional Stove (परमपरागत चुल्हो)

3Where is your cooking station (Dinning)? (तपाइका ेघरमा खाना पकाउने ठाउँ कहाँ छ ?

- Separate (छुट्टै भान्छाकोठा भएको)
- Adjoining with common room (बस्ने कोठासँगै)
- Open (Outside of room), घर बाहिर खुल्ला ठाउँमा)

4What do you use to clean utensils at your home? (भाडाबर्तन कसरी सफा गर्नु हुन्छ?)

- Ash (खरानीले)
- Soap or detergent powder (साबुन वा सरफ)
- Mud (माटो पानी)
- Water only (पानीले मात्र)

5Do you dry utensils after washing? (भाडाकुँडा धा ेए पछि सुकाउने गर्नु भा छ कि छैन ?)

- No (त्यतिकै राख्ने)
- Yes, under the sunlight (घाममा सुकाएर)
- Rubbing with cloth (कपडाले पुछेर)
- Placing in rack (भाडा राख्ने चाङमा सुकाएर)

6How do you segregate the waste generated from your kitchen? (भान्छाबाट निस्कने फोहरलाइ कसरी व्यवस्थित गर्नुहुन्छ?)

- Segregating at source (degradable and nondegradable) (कुहिने र नकुहिने भाडोमा छुट्याइ राख्ने)
- Directly handover to the garbage collection personal (जम्मा गरी फोहर संकलकलाइ दिने)
- Burn after gathering at a place (एक ठाउ थुपारेर जलाउने गर्छु)
- Use as manure at kitchen garden (मल बनाएर करेसाबारीमा प्रयोग गर्छु
- Use to sell (बेचने गर्छु)
- Throw away anywhere (त्यत्तिकै फाल्ने)

Group 7

Food Hygiene and Nutrition स्वच्छ खाना तथा पोषण

1What do you do to protect your edibles from agents like rat, cockroach etc ? (मुसा, साङला जस्ता किराबाट जोगाउन घरमा खाने कुरालाई कसरी राख्ने गर्नु हुन्छ ?)

- Segregating edible and non-edible items (खाद्य र अखाद्य छुट्याएर)
- Store all at one place (सँगसँगै)
- Inside kitchen (भान्छा भित्र)
- Separate store (छुट्टै भण्डारण बनाएर)

2How do you wash the food and vegetable before cooking? (खाना, साग, सब्जी, तथा फलफुललाई खान अघि कसरी सफा गर्नुहुन्छ?)

- Wash with clean Water (सफा पानीले धोएर)
- Rubbing with clothes or Hand (कपडा वा हातले पुछेर)
- Without washing (नपखालिकन)

3Do you cultivate vegetable and fruits in surrounding of residence or kitchen garden? (घर वरपरको खाली जमिन वा करेसामा तरकारी रोप्ने गर्नु भएको छ कि छैन?)

- No, never (रोप्ने गरेको छैन)
- Yes for family consumption only (घरमा खानको लागि)
- Yes for selling (बिक्रिवितरणको लागि)
- Yes for both of above (दुवै प्रयोजनको लागि)

4Do you use pesticides in your kitchen garden? (करेसाबारीमा किटनासक औषधिको प्रयोग गर्नु हुन्छ?)

- No (गर्दिन)
- Yes, organic (domestic) (जैविक विषादीको प्रयोग गर्छु)
- Yes, inorganic (chemicals) (रसायनिक विषादीको प्रयोग गर्छु)
- Mechanical (Trap) (जाल र धराप प्रयोग गर्छु)

5Please tell us, do the following items use to take in your family (तल दिइएका चिजहरू तपाइकाे परिवारमा खाने गरिन्छ कि हाेइन छान्नुहाेस) ?

- Seasonable fruits and vegetables (सिजनको फलफुल)
- Animal product (Fish, Meat, Egg) (पशुजन्य उत्पादन, माछा, मासु)
- Fat/Oil/Sugar/Salt (घिउ, तेल)
- Rice and alternative (अन्नजन्य)

Group 8

Meal Schedule खाना तालिका

1Food Groups (खाना समूह)

- Seasonable fruits and vegetables (सिजनको फलफुल)
- Animal product (Fish, Meat, Egg) (पशुजन्य उत्पादन, माछा, मासु)
- Fat/Oil/Sugar/Salt (घिउ, तेल)
- Rice and alternative (अन्नजन्य)

2Meal Schedule (Please tick) खाना तालिका (ठिक लगाउनुहोस)

- Daily दैनिक
- Weekly
- 15 Days १५ दिनमा
- >15 days १५ दिन भन्दा बढि समयमा

Group 9

A. Solid Waste Management फाेहर व्यवस्थापन

1What kinds of waste generated in your house in general? (सामान्यतया तपाइकाे घरबाट कस्ताे प्रकारकाे फाेहर निस्कने गरेकाे छ ?)

- Medicine cover/packaging/Bandage (औषधिका खोलहरु, घाउमा प्रयोग भएका वस्तुहरू)
- Remnants of fruits and vegetables (साग सब्जी तथा फलफुलका बोक्राहरू)
- Plastic (प्लष्टिक)
- Battery (ब्याट्री)

- Clothes (कपडाजन्य)
- Jut (जुट)
- Metallic (Tin, Iron, copper, wire) (धातुजन्य (टिन, फला, तार)
- Broken glass and bottles (काँच सिसा तथा बोतल)
- Remnant of food (बाँकी खानेकुरा)
- Dust (धुलो कसिंगार)
- Rubber (रबर)
- Carton (कार्टुन)
- Paper (कागज)
- Packaging materials (प्याकिङका सामानहरू)

2How do you manage the waste stated on question 1 at your home? (प्रश्न १ मा उल्लेख गर्नु भएका फोहरको व्यवस्थापन कसरी गर्ने गर्नु भएको छ?)

- Segregating into degradable and nondegradable (कुहिने र नकुहिने भाडोमा छुट्याइ राख्ने)
- Handover to the Municipal garbageman (जम्मा गरी फोहर संकलकलाइ दिने)
- Burn after gathering at a place (एक ठाउँ थुपारेर जलाउने गर्छु)
- Sell to recycling vendors (बेचने गर्छु)
- Throw away anywhere (त्यत्तिकै फाल्ने)

Group 10

B. Solid Waste Management (फोहर ब्यवस्थापन)

1Are you aware, what kind of effect will occur if the waste is not managed scientifically? (फाेहरलाइ राम्ररी व्यवस्थित गरिएन भने के कस्ताे प्रभाव पर्छ भन्ने तपाइलाइ थाहा छ?)

- Produce injury (चोटपटक लाग्ने)
- Emerge epidemic (माहामारी फैलिने)
- Lose the beauty of settlement/city (शहर र बस्तीको सुन्दरतामा कमी आउने)
- Spread of bad smell (दुर्गन्ध फैलिने)
- Polluted to the Historical natural resources (धार्मिक, साँस्कृतिक र प्राकृतिक श्रोतहरूलाई दुसित बनाउने)
- No Idea (थाहा छैन)

2Does the vehicle from your municipality/private company come to collect waste at your home? (तपाईको घरमा नगरपालिका/निजि क्षेत्रबाट फोहर संकलन गर्ने गाडि आउछ कि आउदैन?)

- No (आउदैन)
- Yes, daily (दैनिक आउछ)
- Once in a week (हप्तामा एक पटक आउछ)
- In every 10 days (प्रत्येक १० दिनमा आउछ)
- In every 15 days (१५ दिनमा एक पटक आउछ)

3If yes, are you paying tariff to municipality/private company for waste management? (नगरपालिका/निजि क्षेत्रले फोहर संकलन गरेबापत महसुल तिर्न भएकाे छ कि छैन?)

- No (छैन)

- Yes, NPR 20 per month (छ, प्रतिमहिना रू २० सम्म)
- Yes, NPR 21 to 50 per month (छ, प्रतिमहिना रू २१ देखि ५०)
- Yes, NPR 51 to 100 per month (छ, प्रतिमहिना रू ५१ देखि १००)
- Yes, more than NPR 100 per month (छ, प्रतिमहिना रू १०० भन्दा बढि)

4If no, are you ready to pay tariff if municipality/private company for waste management in future? नगरपालिकाले फोहर ब्यवस्थापन गरेबापतको दस्तुर तपाइ तिर्न तयार हुनु हुन्छ ?

- No, I won't (छैन)
- Yes, I am ready to pay up to NPR 20 per month (रू २० सम्म तिर्न तयार छु)
- Yes, I am ready to pay up to NPR 50 per month (रू ५० सम्म तिर्न तयार छु)
- Yes, I am ready to pay up to NPR 100 per month (रू १०० सम्म तिर्न तयार छु)
- Yes, I am ready to more than NPR 100 per month (रू १०० भन्दा बढि पनि तिर्न तयार छु)

5How do you keep your cattle? (घरमा गाई बस्तु पाल्नु भएका ी कसरी राख्नु भएको छ?)

- Don't have cattle (गाईवस्तु पालेको छैन)
- At cowshed attached with house (घरसँगै गोठ (गोहाली) छ)
- At separate cowshed (छुट्टै गोठ (गोहाली) छ)
- Kept at roadside (बाटो छेउमा बाँधेको छ)

6How do you manage cattle dung and slurry? (गाइवस्तुको गोवर तथा सोत्तर (सश्री) को ब्यवस्थापन कसरी गर्नु हुन्छ?)

- Composting as fertilizer (करेसा बारीमा थुपार्ने र मलको रुपमा प्रयोग गर्ने)
- Collect nearby roadside (सडक वा बाटो किनारामा जम्मा गरेर राख्ने)
- Prepare charcoal of dung for cooking (गुईठा बनाएर दाउराको रुपमा प्रयोग गर्ने)
- Use for biogas (बायोग्यासको लागि प्रयोग गर्ने)

7Who is responsible often to manage dung in your family? (तपाईको परिवारमा गाई वस्तुको गोबरको व्यवस्थापन कस्ले गर्ने गरेको छ?)

- Male Member (पुरूष)
- Female Member (महिला)
- Both (दुबै मिलेर)

8Who often manages other waste in your family? (तपाईको परिवारमा अन्य फोहर मैलाको व्यवस्थापन कस्ले गर्ने गरेको छ?

- Male Member (पुरूष)
- Female Member (महिला)
- Both member (दुबै मिलेर)

Group 11

Waterborne Diseases (पानीजन्य रोगहरू)

1Do you know the impact of poor WASH practices in health? (घरमा राम्रो सरसफाइ भएन भने के हुन्छ तपाइलाइ थाहा छ?)

- No Idea (थाहा छैन))

- Disease (Diarrheal, Cholera, dysentery, typhoid, hookworm, polio etc.) बिरामी हुन्छ (झाडापखाला, आँउ, हैजा, टाइफाइड, छालाको रोग आदि)
- Decline of social dignity (सामाजिक प्रतिष्ठामा कमि आउछ)
- Economic losses (आर्थिक क्षति हुन्छ)
- Threats of animal attack and snake bite (during open defecation) (बिषालु जिव जन्तुको आक्रमणमा बृद्दि)
- Challenge to pregnant women, female, senior citizen and people with special needs (महिला, गर्भवती, ज्येष्ठ नागरिक, अपांगता भएकाहरूलाई कठिनाई

2Do you remember if any member of your family member was infected by diarrhea in last two weeks? (गएको २ हप्तामा परीवारमा कसैलाई झाडा पखाला भएको थियो?)

- Yes (थियो)
- No (थिएन)

3If yes, how did you manage it? (भएको भए झाडा पखाला कसरी निको भयो ?)

- Local herbs and self (घरायसी औषधिले वा आफै)
- Use of oral rehydration solution (जीवन जल पानी खाएर)
- Use of medicine (औषधि खाएर)
- Went to religious priest (धामीबाट झारफुक गरेर)

4How do you get information about treatment of diarrhea and skin diseases at home? (झाडापखाला र लुतोलाइ घरमै निको पार्ने तरिका कसरी थाहा पाउनु भयो?)

- TV, Radio (टिभि, रेडियाे)
- Social Media (Facebook), Newspaper (सामाजिक सञ्जाल, पत्रपत्रिका)
- Health institution and Health worker (FCHVs) (स्वास्थ्य संस्था तथा स्वस्थ्यकर्मी)
- Municipality (नगरपालिका)
- NGO/INGOs (अ/गैसस)

Group 12

Menstrual Hygiene Management (महिनावारी स्वच्छता व्यवस्थापन (महिलालाइ सोध्ने)

1Are any female members at your home of menstrual age? (तपाईको घरमा महिनावारी हुने उमेरका महिलाहरू छन् कि छैन?) महिलालाइ मात्र साेध्ने

- Yes (छन्)
- No (छैन् (सर्वेक्षण समाप्त)

2Is there any prohibition at your home during the menstruation period? (महिनावरीको बेला के के मा बन्देज छ)

- घरबाट बाहिर गोठ वा अलगै तयार गरिएको बस्नेठाउँ
- छिमेकीकोमा जानु पर्ने
- पानी तथा खाने कुरा छुन वा पकाउन नमिल्ने
- मठमन्दिरमा पस्न तथा पुजा गर्न नमिल्ने
- दाजु भाइ तथा बुवा काकाहरूको नजिक वा सामुन्नेमा देखिन नहुने
- बिबाह, भोजभतेर तथा सार्वजनिक ठाउँमा सामेल हुन नमिल्ने
- कुनै बन्देज छैन

3Do you send your girl to school during menstruation period? (महिनावारी भएको समयमा पनि किशोरीहरुलाई बिद्यालय पठाउनु हुन्छ कि हुन्न?)

- Yes (पठाइन्छ)
- No (पठाइन्न)

4If no, what are the reasons? (यदि पठउनु हुन्न भने किन?)

- There are no adequate facilities at school (विद्यालयमा आवश्यक सुविधा छैन)
- Bulling, shame (लाज लागेर)
- Because of severe pain and high bleeding (ज्यादै पिडा भएर)
- Superstition e.g. touching books is sin (किताव छुन पाप हुन्छ भन्ने अन्ध विश्वास)
- Fear (डरले)

5During the menstruation period, where do girls and women go to bath and cleaning clothe (महिनावारी भएको समयमा महिलाहरू कस्तो पानीले नुहाउने गर्छन?)

- Private tap/hand pump (निजी धारा, ट्युवेलको पानी)
- Public tap (धाराको पानी)
- Well (ईनारको पानी)
- Pond (पोखरीको पानी)
- River (खोलाको पानी

6Are you aware about the pad used during menstruation period? (महिनावारीको समयमा प्रयोग गरीने प्याडबारेमा तपाईलाई थाहा छ कि छैन?)

- No idea (थाहा छैन)
- Yes, reusable (पुन प्रयोग गर्न सकिने)
- Disposable (पुन प्रयोग गर्न नमिल्ने)
- Both (दुवै)

Group 13

Measuring Success_ (Observation) निरिक्षण गर्ने

1OBSERVATION: Is drinking water kept in separate container? (खानेपानी छुट्टै ठाउँमा राखेकाे छ कि छैन हेर्नुहाेस)

- Yes छ
- No छैन

2OBSERVATION: Is the drinking water container kept above floor level and away from contamination? खाने पानीकाे भाडा भूइ भन्दा माथि वा फाेहर नहुने ठाँमा राखेकाे छ कि छैन हेर्नुहाेस)

- Yes छ
- No छैन

3OBSERVATION: Do water containers used for water collection and water storage have a narrow mouth/opening? (पानी ल्याउने र राख्ने भाडाँकाे मुख सागुराे छाेप्न मिल्ने छ कि छैन हेर्नुहाेस)

- Yes छ
- No छैन

4OBSERVATION: Do containers used for drinking water storage have a lid/cover? (पानी भण्डारण गर्ने भाडाेमा ढकन राख्ने गरेकाे छ कि छैन हेर्नुहाेस)

- Yes (छ)
- No (छैन)

5OBSERVATION: Is the lid/cover in place at time of visit? (तपाइले हेर्दा ढकन लगाएकाे छ कि छैन हेर्नुहाेस)

- Yes छ
- No छैन

6OBSERVATION: Is the utensil used to draw water from the container? (पानी राख्ने भाडाेबाट पानी निकाल्न अरू साना भाडाकुडा प्रयाेग गर्ने गरेकाे छ कि छैन हेर्नुहाेस)

- Yes छ
- No छेन

7OBSERVATION: Is the utensil used to draw water from the container clean and stored in a hygienic manner? (पानी निकाल्न प्रयाेग हुनेअरू साना भाडाकुडा सफा छ कि छैन हेर्नुहाेस)

- Yes (छ)
- No (छैन)

8OBSERVATION: Is the inside of the drinking water container clean? (खानेपानी भाँडाकाे भित्रपट्टी सफा राखेकाे छ कि छैन हेर्नुहाेस)

- Yes (छ)
- No (छैन)

9OBSERVATION: Is the outside of the drinking water container clean? (खानेपानी भाँडाकाे बाहिर पट्टी सफा राखेकाे छ कि छैन हेर्नुहाेस)

- Yes (छ)
- No (छैन)

10Do household members have access to a latrine? (गणना गर्दै गरेकाे घरमा चर्पी छ कि छैन हेर्नुहाेस)

- Yes (छ)
- No (छैन)

11OBSERVATION: Is the facility cleaned properly? चर्पी सफा छ कि छैन हेर्नुहाेस

- Yes (no faeces on floor and superstructure, only little flies in and around the latrine) छ
- No (any faeces and considerable amount of flies in and around the latrine) छैन

12OBSERVATION: Is the pit of toilet full? (चर्पी भए खाडल भरिएकाे छ कि छैन हेर्नुहाेस)

- Yes छ
- No छैन
- Dont Know थाहा भएन (देखिएन)

13OBSERVATION: Is there a cover over the pit? (ट्वाइलेटमा ढकन छ कि छैन हेर्नुहाेस)

- Yes
- No

14OBSERVATION: Does the latrine have enough light and space? (चर्पीमा प्रसस्त उज्यालाे र ठाउँ छ कि छैन हेर्नुहाेस)

- Yes (छ)
- No (छैन)

15OBSERVATION: Is a functioning hand-washing facility nearby? (चर्पी सञ्चालनमा छ कि छैन हेर्नुहाेस)

- Yes छ
- No छैन

16OBSERVATION: Does the facility contain water at time of visit? (चर्पीमा पानी राखिएकाे छ कि छैन हेर्नुहाेस)

- Yes छ
- No छैन

17OBSERVATION: Does the handwashing facility have water and soap at the time of visit? (तपाइ गएकाे बेला हात धुने ठाउँमा पानी र सबुन छ कि छैन हेर्नुहाेस ।)

- Water only (पानी मात्र छ)
- Water and soap/soap substitute (पानी र साबुन दुवै छ)
- Neither water nor soap साबुन पानी केही छैन

Group 14

Accountability

1Do you know about the toll free number of WHH/SABAL Nepal to provide feedback and complain? (तपाईलाई WHH/SABAL Nepal ले राखेको निशुल्क फोन नम्बरबारे जानकारी छ)

- Yes (छ)
- No (छैन)

2If yes, how did you get this information (तपाईले कुन माध्यम बाट थाहा पाउनु भयो)

- Visiting card (कार्ड)
- Project staff (परियोजनाको कर्मचारी)
- Neighbor (छिमेकी)
- Community meeting (सामुदायिक बैठक)
- Project's training, meetings, campaigns, etc. (परियोजनाका विभिन्न क्रियाकलापहरु: तालिम, मिटिङ्ग, अभियानहरु, आदि)
- Other (अन्य)

3Have you raised any complaint or feedback? (के तपाईले कुनै गुनासो/पृष्ठपोषण राख्नु भएको थियो)

- Yes (थिए)
- No (थिएन)

4Are you satisfied with the response provided by WHH/SABAL Nepal ? (तपाई WHH/SABAL Nepal ले दिएको प्रतिक्रियाबाट सन्तुष्ट हुनुहुन्छ)

- Yes छु
- No छैन

5If no, why didn’t you satisfied response provided by WHH/SABAL Nepal (यदि तपाँईको गुनासोमा WHH/SABAL Nepal ले दिईएको प्रतिक्रिया प्रर्ति सन्तुष्ट हुनुभएन भने किन?)

- Not responded in time (समयमै प्रतिक्रिया प्राप्त भएन)

- Not got appropriate solution (उपयुक्त प्रतिक्रिया प्राप्त भएन)

6Which mechanism you prefer most to provide feedback and complaint? (तपाईलाई गुनासो राख्ने कुन प्रक्रिया सब भन्दा राम्रो लाग्छ)

- Toll free number (निशुल्क फोन नम्बर)
- Direct to project staff (सिधै परियोजना कर्मचारी)
- Community meetings (सामुदायिक बैठक)
- Suggestion box (सुझाब पेटिका)
- Talk to community representative (समुदायको प्रतिनिधिहरु सम्क्ष कुरा राख्न)

7Are you aware about the Prevention of Sexual Abuse Guideline (PSEA) and prevention of corruption of WHH/partners? (के WHH र उस्काे सहयाेगी संस्थाले पालना गर्ने यौन दुर्व्यबहार तथा भ्रष्टाचार बिरुद्धको निर्देशिकाबारे तपाईलाइ थाहा छ)

- Yes (छु)
- No (छैन)

Group 15

Others

1Take photo (pls take consent -उत्तरदाता र घर देखिने गरी प्रष्ट फोटो खिच्नुहोस्))

The camera of the device is used here

2take GPS (सर्वेक्षण गरेकाे घरकाे जि पि एस लिनुहाेस

The gps of the device is used here

Latitude:

Longitude:

Annex 2.b: Checklist for FGD and KII

Checklist of FGD with the Ward Committee Members about the WASH Facilities and Practice within the Ward

Name of Municipality:
Ward No. Location :
Date of FGD : Allocated Time :
Facilitator Name :
Reporter Name :
List of Participants :

SN	Name	Designation	Sex	Age	Signature
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					

Total : Female : Male :

Framework for FGD

Scopes of WASH	**Present Situation**	**Issues/Problems**	**Needs/Measures to solve the problems**
Access to Safe Water	•	•	•
(Access to Improved Sanitation)	•	•	•
Hand Washing and Personal Hygiene	•	•	•
Household Sanitation			
Food Hygiene and Nutrition	•	•	•
Solid Waste Management	•	•	•
Waterborne Diseases	•	•	•
Menstrual Hygiene Management	•	•	•
Accountability	•	•	•

Checklist for FGD

Access to Safe Water (सुरक्षित पानीको पहुँच)

1. **Status of Safe Drinking Water in the Village**
    a. Public vs Private source of drinking water in both dry and rainy season

b. Availability of drinking water sources
c. Access to all or not
d. Water distribution system (Public VS Private)
e. Maintenance system (Public VS Private)
f. Local practices
g. Policies of ward committee to improve access to safe water

2. Issues/Problems in Safe Drinking Water in the Village

a. Availability of drinking water sources
b. Access to all or not
c. Water distribution system (Public VS Private)
d. Maintenance system (Public VS Private)
e. Policies of ward committee to improve access to safe water

3. Needs/Measures to solve the problems

a. Availability of drinking water sources
b. Access to all
c. Water distribution system (Public VS Private)
d. Maintenance system (Public VS Private), water tariff
e. Local practices
f. Policies of ward committee to improve access to safe water

ग्रामिण सरसफाईमा पहुँच (Access to Improved Sanitation)

1. Status of Improved Sanitation in the Village

a. Availability of Toilet (Public vs Private)
b. Declaration of ODF or not
c. Availability of Toilet Construction Supports
d. Toilet Maintenance System including emptying the pit
e. Management of Water at Toilet
f. Idea of re-use of fecal sludge
g. Policies of ward committee to improve sanitation

2. Issues/Problems in Improved Sanitation in the Village

a. Practice of using toilet
b. Access to all or not
c. Maintenance system (Public VS Private)
d. Water at toilet
e. Policies of ward committee to improve sanitation

3. Needs/Measures to solve the problems

a. Access to all
b. Water distribution system (Public VS Private)
c. Maintenance system (Public VS Private), water tariff
d. Local practices
e. Policies of ward committee to improve sanitation

हातधुने अभ्यास तथा व्यक्तिगत सरसफाइ Hand Washing and Personal Hygiene

1. Status of Hand Washing and Personal Hygiene

a. Hand and utensils washing practice in the community
b. Programmes to promote hand washing and personal hygiene
c. Policies of ward committee to improve sanitation

2. Issues/Problems in Hand Washing and Personal Hygiene

a. Hand and utensils washing practice in the community
b. Programmes to promote hand washing and personal hygiene

c. Policies of ward committee to improve personal hygiene

3. **Needs/Measures to solve the problems**
    a. Hand washing practice in the community
    b. Programmes to promote hand washing and personal hygiene
    c. Policies of ward committee to improve personal hygiene

Household Sanitation (घरायसी सरसफाइ)

1. **Status of Household Sanitation**
    a. Practice of keeping Households neat and clean
    b. Policies of ward committee to improve settlement level sanitation including Households
2. **Issues/Problems in Household Sanitation**
    a. Settlement level sanitation including Households
    b. Policies of ward committee to improve settlement level sanitation
3. **Needs/Measures to solve the problems**
    a. Settlement level sanitation including Households
    b. Policies of ward committee to improve settlement level sanitation

Food Hygiene and Nutrition स्वच्छ खाना तथा पोषण

1. **Status of Food Hygiene and Nutrition**
    a. Practice of maintaining food hygiene at HH Levels
    b. Use of remnant of food
    c. Food habit of people in the community
    d. Access to market centres for nutritious food
    e. Policies of ward committee to improve Food Hygiene and Nutrition
2. **Issues/Problems in Food Hygiene and Nutrition**
    a. Practice of maintaining food hygiene at HH Levels
    b. Food habit of people in the community
    c. Access to market centres for nutritious food
    d. Malnourished children in the community
    e. Policies of ward committee to improve Food Hygiene and Nutrition
3. **Needs/Measures to solve the problems**
    a. Practice of maintaining food hygiene at HH Levels
    b. Food habit of people in the community
    c. Access to market centres for nutritious food
    d. Malnourished children in the community
    e. Policies of ward committee to improve Food Hygiene and Nutrition

Solid Waste Management (फोहर व्यवस्थापन)

1. **Status of Solid Waste Management**
    a. Practice of Solid waste management at community level
    b. Cattle keeping system at community
    c. Vehicle from Municipality and Tax
    d. Policies of ward committee to improve Solid waste management
2. **Issues/Problems in Solid Waste Management**
    a. Practice of Solid waste management at community level
    b. Cattle keeping system at community e.g. road side
    c. Vehicle from Municipality and Tax
    d. Policies of ward committee to improve Solid waste management

3. **Needs/Measures to solve the problems**
    a. Cattle keeping system at community e.g. road side
    b. Willingness to pay Tax for waste management
    c. Policies of ward committee to improve Solid waste management

Waterborne Diseases (पानीजन्य रोगहरू)

1. **Status of Waterborne Diseases**
    a. Experience of waterborne diseases in the community
    b. Cattle keeping system at community
    c. Vehicle from Municipality and Tax
    d. Policies of ward committee to control waterborne diseases
2. **Issues/Problems in Waterborne Diseases**
    a. Practice of Solid waste management at community level
    b. Cattle keeping system at community e.g. road side
    c. Vehicle from Municipality and Tax
    d. Policies of ward committee to control waterborne diseases
3. **Needs/Measures to solve the problems**
    a. Cattle keeping system at community e.g. road side
    b. Willingness to pay Tax for waste management
    c. Policies of ward committee to control waterborne diseases

Menstrual Hygiene Management (महिनावारी स्वच्छता व्यवस्थापन (महिलालाई सोध्ने)

1. **Status of Menstrual Hygiene**
    a. Perception towards the menstrual cycle in the community
    b. Practice of management for menstrual hygiene at public places
    c. Use of tap and toilet during menstrual cycle
    d. Policies of ward committee to improve female health
2. **Issues/Problems in Menstrual Hygiene**
    a. Perception towards the menstrual cycle in the community
    b. Restriction during menstrual cycle
    c. Use of tap and toilet during menstrual cycle
    d. Policies of ward committee to improve female health
3. **Needs/Measures to solve the problems**
    a. Restriction during menstrual cycle
    b. Use of tap and toilet during menstrual cycle
    c. Policies of ward committee to improve female health

Accountability

1. Check level of awareness about the WHH and its feedback mechanism
2. Check level of awareness about Sexual Abuse Guideline (PSEA) and prevention of corruption adopted by WHH and its partners

Annex 2.c: Criteria of Ward Selection for Conducting Focus Group Discussion (FGD)

Based on following criteria, 15 Wares were selected for FGD

1. One among the wards leaning with Highway where urbanization rate is high
2. One among the wards nearby Chure range (supposed to draught area)
3. One out of wards with mixed community e.g. Hill and Tarai people
4. One out of wards with the majority of Tarai Dalit People (comparatively supposed to backward community)
5. One out of wards with the majority of Muslim Community (Supposed to the community with different social system)
6. One out of wards joining with the Indian border (Supposed to development impact transferred from cross border area)

Annex 2.D: Checklist for KII with the Municipal Authorities

Key Informant Interview (KII)

A. Key persons: Mayor, Deputy Mayor, Chief Administrative Officer, WASH Focal Person

B. Time: 45 minutes

C. Area of Key Queries :

1. Current Status of WASH within municipality
2. Status of access to Safe Drinking Water
3. Status of access to Improved Sanitation (Toilet)
4. Status of Solid Waste Management System in Municipality e.g. garbage collection and management system
5. Status of WASH mechanism e.g. WUSCs, WASH Committees and Coordination Committee
6. Availability of WASH database
7. Availability of WASH Plan
8. WASH service provider and development partners
9. Budget for WASH improvement in the municipality
10. Municipal policies for WASH collaboration
11. Practice of WASH Review in the Municipality

Annex 3: Tables used in the Study

Annex 3.1 Demography

a. Household by Municipality

SN	Municipality	HHs Covered in the Study
1	Siraha	17828
2	Karjanaha	6548
3	Kalyanpur	10520
	Total	

b. Caste/Ethnicity by Municipality

Caste/Ethnicity	Siraha	Percent	Karjanaha	Percent	Kalyanpur	Percent	Total	Percent
Brahman, Chhetri, Rajput (Tarai)	108	0.6%	217	3.3%	96	0.9%	421	1.2%
Brahman, Chhetri (Hill)	27	0.2%	475	7.3%	10	0.1%	512	1.5%
Indigenous/Nationalities (Tarai)	1495	8.4%	2129	32.5%	1804	17.1%	5428	15.6%
Indigenous/Nationalities (Hill)	43	0.2%	322	4.9%	26	0.2%	391	1.1%
Dalits (Tarai)	4381	24.6%	1846	28.2%	2971	28.2%	9198	26.4%
Dalits (Hill)	23	0.1%	122	1.9%	18	0.2%	163	0.5%
Muslim	2175	12.2%	190	2.9%	1318	12.5%	3683	10.6%
Other (Tarai)	9506	53.3%	1195	18.2%	4242	40.3%	14943	42.8%
Other (Hill)	70	0.4%	52	0.8%	35	0.3%	157	0.4%
Total	17828	100.0%	6548	100.0%	10520	100.0%	34896	100.0%

Annex 3.2: Safe Drinking Water

A. MAIN drinking water source during DRY season

Municipalities	Improved				Unimproved			Total
	Private tap at the house (improved)*	Handpump (improved)**	Public tap (improved)***	Protected spring (improved) ***	Open dug well (not improved)	Other (not improved)	Pond, stream, river, swamp (not improved)	
Siraha	1600	14488	723	0	34	559	424	17828
Percentage	9.0	81.3	4.1	-	0.2	3.1	2.4	100.0
Karjanaha	1064	4557	586	99	148	89	5	6,548
Percentage	16.2	69.6	8.9	1.5	2.3	1.4	0.1	100.0
Kalyanpur	698	9256	504	12	6	42	2	10520
Percentage	6.6	88.0	4.8	0.1	0.1	0.4	0.0	100.0
Total	3362	28301	1813	111	188	690	431	34896
Percentage	9.6	81.1	5.2	0.3	0.5	2.0	1.2	100.0

* Safely Managed; ** Basic; *** Limited

b. Household by MAIN drinking water source during RAINY season

Municipalities	Improved				Unimproved			Total
	Private tap at the house (improved)*	Handpump (improved)**	Public tap (improved)***	Protected spring (improved) ***	Open dug well (not improved)	Other (not improved)	Pond, stream, river, swamp (not improved)	
Siraha	943	15016	658		30	751	430	17828
Percentage	5.3	84.2	3.7	-	0.2	4.2	2.4	100.0
Karjanaha	921	4773	546	107	126	73	2	6548
Percentage	14.1	72.9	8.3	1.6	1.9	1.1	0.0	100.0
Kalyanpur	452	9514	472	23	5	41	13	10520
Percentage	4.3	90.4	4.5	0.2	0.0	0.4	0.1	100.0
Total	2316	29303	1676	130	161	865	445	34896
Percentage	6.6	84.0	4.8	0.4	0.5	2.5	1.3	100.0

c. Households by water Fetching time, who collect water from Public tap (723 in dray and 658 in Rainy)

Municipalities	**Less than 10 minutes**	**11-20 minutes**	**21-30 minutes**	**Above 30 minutes**	**Total**
Siraha	416	162	89	0	667
Percentage	63.2	24.6	13.5	-	101.4
Karjanaha	282	111	118	70	581
Percentage	48.5	19.1	20.3	12.0	100.0
Kalyanpur	433	14	19	6	466
Percentage	91.7	3.0	4.0	1.3	98.7
Total	1131	287	226	76	1714
Percentage	66.0	16.7	13.2	4.4	100.0

d. Households by Daily Needs of Water

Municipalities	**Less than 20 liters**	**Up to 50 liters**	**Up to 100 liters**	**More than 100 liters**	**Total**
Siraha	464	1203	4074	12087	17828
Percentage	2.6	6.7	22.9	67.8	100.0
Karjanaha	739	907	2127	2775	6548
Percentage	11.3	13.9	32.5	42.4	100.0
Kalyanpur	180	1289	3239	5812	10520
Percentage	1.7	12.3	30.8	55.2	100.0
Total	1383	3399	9440	20674	34896
Percentage	4.0	9.7	27.1	59.2	100.0

e. Households by Functionality of Water Point Round the year (data only for HH with own waterpoint)

Municipalities	*No*	*Yes*	*Total*
Siraha	1014	16374	17388
Percentage	5.83	94.17	100.00
Karjanaha	1642	4906	6548
Percentage	25.1	74.9	100.0

Municipalities	*No*	*Yes*	*Total*
Kalyanpur	663	9857	10520
Percentage	6.3	93.7	100.0
Total	3319	31137	34456
Percentage	9.6	90.4	100.0

f. Households using alternative source of water while problem in own water point

Municipalities	*Collect from Neighbor*	*Private Suppliers/ Tanker/ Purchasing*	*Open source (Pond, streams)*	*Supplied by Municipalities*	*Total*
Siraha	968	10	20	16	1014
Percentage	95.46	0.99	1.97	1.58	100.00
Karjanaha	1551	37	20	18	1626
Percentage	95.4	2.3	1.2	1.1	100.0
Kalyanpur	613	29	13	8	663
Percentage	92.5	4.4	2.0	1.2	100.0
Total	3132	76	53	42	3303
Percentage	94.8	2.3	1.6	1.3	100.0

g. Responses about the Water Management Mechanism

Municipalities	**No Mechanism**	**Yes**	**Total**	**If yes**				
				Water User's Committee	**Water Supply & Sanitation Division Office**	**Tole Development Committee**	**Municipalities**	**Total**
Siraha	17070	758	17828	177	132	191	258	758
Percentage	95.7	4.3	100.0	23.4	17.4	25.2	34.0	100.0
Karjanaha	5802	746	6548	686	19	25	16	746
Percentage	88.6	11.4	100.0	92.0	2.5	3.4	2.1	100.0
Kalyanpur	9577	943	10520	66	41	16	820	943
Percentage	91.0	9.0	100.0	7.0	4.3	1.7	87.0	100.0
Total	32449	2447	34896	929	192	232	1094	2447
Percentage	93.0	7.0	100.0	38.0	7.8	9.5	44.7	100.0

h. Response against Readiness to Pay Water Tariff

Municipalities	**Not ready**	**Ready**	**Total**	**Ready to pay up to**			
				less than NPR 50 per month	**NPR 51 - 100 per month**	**Above NPR 100 per month**	**Total**
Siraha	7710	10118	17828	7386	2435	296	10117
Percentage	43.2	56.8	100.0	73.0	24.1	2.9	100.0
Karjanaha	3026	3,522.0	6,548.0	2676	718	128	3,522.0
Percentage	46.2	53.8	100.0	76.0	20.4	3.6	100.0
Kalyanpur	5636	4884	10520	4009	736	139	4884
Percentage	53.6	46.4	100.0	82.1	15.1	2.8	100.0
Total	16372	18524	34896	14071	3889	563	18523
Percentage	46.9	53.1	100.0	76.0	21.0	3.0	100.0

i. Response about the Knowledge on Water Quality Test

Municipalities	No	Yes	Total
Siraha	13977	3851	17828
Percentage	78.40	21.60	100.00
Karjanaha	5350	1198	6548
Percentage	81.7	18.3	100.0
Kalyanpur	8477	2043	10520
Percentage	80.6	19.4	100.0
Total	27804	7092	34896
Percentage	79.7	20.3	100.0

j. Knowledge on water test agency (only those, who know about Water test)

Municipalities	No	Yes	Total
Siraha	2746	1105	3851
Percentage	77.3	31.1	108.4
Karjanaha	939	259	1198
Percentage	78.4	21.6	100.0
Kalyanpur	1765	278	2043
Percentage	86.4	13.6	100.0
Total	5450	1642	7092
Percentage	76.8	23.2	100.0

k. Water Quality Test (Multiple Response)

Municipalities	Never Tested	Tested							
		Arsenic test	Iron Test	Hardness Test	Total Coliforms Test	E-coli Test	Turbidity	Free Residual Chlorine (FRC) – Chlorinated water only	Other
Siraha	12906	425	1324	240	212	178	154	136	270
Percentage	73.2	8.6	26.9	4.9	4.3	3.6	3.1	2.8	5.5
Karjanaha	4027	60	539	12	7	3	62	5	37
Percentage	61.5	0.9	8.2	0.2	0.1	0.0	0.9	0.1	0.6
Kalyanpur	9084	99	59	36	23	16	22	12	79
Percentage	86.3	0.9	0.6	0.3	0.2	0.2	0.2	0.1	0.8
Total	26017	584	1922	288	242	197	238	153	386
Percentage	74.6	6.6	21.6	3.2	2.7	2.2	2.7	1.7	4.3

l. Practice of Water Treatment

Municipalities	Boiling	Use of Bio-sand Filter	Candle Filter	Chlorination	SODIS	Use of tablets/ chlorine	No Practice	Total
Siraha	3361	772	822	55	10	33	12775	17828
Percentage	66.51	15.28	16.27	1.09	0.20	0.65	71.7	100.0
Karjanaha	748	25	48	6	44	9	5668	6548

Municipalities	Boiling	Use of Bio-sand Filter	Candle Filter	Chlorination	SODIS	Use of tablets/ chlorine	No Practice	Total
Percentage	11.42	0.38	0.73	0.09	0.67	0.14	86.56	100.00
Kalyanpur	715	39	54	13	11	22	9666	10520
Percentage	6.8	0.4	0.5	0.1	0.1	0.2	91.9	100.0
Total	4824	836	924	74	65	64	28109	34896
Percentage	13.8	2.4	2.6	0.2	0.2	0.2	80.6	100.0

m. Reason for not treating water

Municipalities	It is already clean	Do not know how to	Can't afford to buy treatment items	Not Stated	Total
Siraha	6885	4294	1036	0	12215
Percentage	56.4	35.2	8.5	0	100.0
Karjanaha	4318	1304	46	0	5668
Percentage	76.18	23.01	0.81	0	100.00
Kalyanpur	6180	1973	1295	218	9666
Percentage	63.9	20.4	13.4	2.3	100.0
Total	17383	7571	2377	218	27549
Percentage	63.1	27.5	8.6	0.8	100.0

n. Time Schedule for cleaning vessel

Row Labels	Every day	Every month	Every time while collecting water	Every week	Never clean	Total
Siraha	7222	18	9709	197	682	17828
Percentage	40.51	0.10	54.46	1.11	3.83	100.00
Karjanaha	3192	13	3105	110	128	6548
Percentage	48.7	0.2	47.4	1.7	2.0	100.0
Kalyanpur	4297	7	5977	39	200	10520
Percentage	40.8	0.1	56.8	0.4	1.9	100.0
Total	14711	38	18791	346	1010	34896
Percentage	42.2	0.1	53.8	1.0	2.9	100.0

o. (OBSERVATION) Drinking water kept in separate container

Municipality	**No**	**Yes**	**Total**
Siraha	3213	14615	17828
%	18.0%	82.0%	100.0%
Karjanaha	1164	5384	6548
%	17.8%	82.2%	100.0%
Kalyanpur	4149	6371	10520
%	39.4%	60.6%	100.0%
Total	8526	26370	34896
%	24.4%	75.6%	100.0%

p. Vessel Cleaning Materials (Multiple Response)

Municipalities	Ash	Soap and detergent powder	Clay or Cow dung	Water only
Siraha	9929	13725	730	1689
Percentage	5791%	8005%	426%	985%
Karjanaha	3411	5370	34	219
Percentage	52.1	82.0	0.5	3.3
Kalyanpur	7899	6552	223	841
Percentage	75.1	62.3	2.1	8.0
Total	21239	25647	987	2749
Percentage	60.9	73.5	2.8	7.9

q. (OBSERVATION): Drinking water container kept above floor level and away from contamination

Municipality	No	Yes	Total
Siraha	3874	13953	17827
%	21.7%	78.3%	100.0%
Karjanaha	1692	4856	6548
%	25.8%	74.2%	100.0%
Kalyanpur	4773	5747	10520
%	45.4%	54.6%	100.0%
Total	10339	24556	34895
%	29.6%	70.4%	100.0%

r. (OBSERVATION): Containers used for water collection and water storage have a narrow mouth/opening

Municipality	No	Yes	Total
Siraha	4657	13171	17828
%	26.1%	73.9%	100.0%
Karjanaha	1712	4836	6548
%	26.1%	73.9%	100.0%
Kalyanpur	5995	4525	10520
%	57.0%	43.0%	100.0%
Total	12364	22532	34896
%	35.4%	64.6%	100.0%

s. (OBSERVATION): Containers used for drinking water storage have a lid/cover

Municipality	No	Yes	Total
Siraha	4787	13041	17828
%	26.9%	73.1%	100.0%
Karjanaha	1782	4766	6548
%	27.2%	72.8%	100.0%
Kalyanpur	5953	4567	10520
%	56.6%	43.4%	100.0%
Total	12522	22374	34896
%	35.9%	64.1%	100.0%

t. (OBSERVATION): Lid/cover in place at time of visit

Municipality	No	Yes	Total
Siraha	5408	12420	17828
%	30.3%	69.7%	100.0%
Karjanaha	2005	4543	6548
%	30.6%	69.4%	100.0%
Kalyanpur	6774	3746	10520
%	64.4%	35.6%	100.0%
Total	14187	20709	34896
%	40.7%	59.3%	100.0%

u. (OBSERVATION): Utensil used to draw water from the container?

Municipality	No	Yes	Total
Siraha	3537	14291	17828
%	19.8%	80.2%	100.0%
Karjanaha	900	5648	6548
%	13.7%	86.3%	100.0%
Kalyanpur	4125	6395	10520
%	39.2%	60.8%	100.0%
Total	8562	26334	34896
%	24.5%	75.5%	100.0%

v. (OBSERVATION): Utensil used to draw water from the container clean and stored in a hygienic manner?

Municipality	No	Yes	Total
Siraha	3465	14363	17828
%	19.4%	80.6%	100.0%
Karjanaha	1175	5373	6548
%	17.9%	82.1%	100.0%
Kalyanpur	3884	6636	10520
%	36.9%	63.1%	100.0%
Total	8524	26372	34896
%	24.4%	75.6%	100.0%

w. (OBSERVATION): Inside of the drinking water container clean?

Municipality	No	Yes	Total
Siraha	3193	14635	17828
%	17.9%	82.1%	100.0%
Karjanaha	996	5552	6548
%	15.2%	84.8%	100.0%
Kalyanpur	2776	7744	10520
%	26.4%	73.6%	100.0%
Total	6965	27931	34896
%	20.0%	80.0%	100.0%

x. (OBSERVATION): Outside of the drinking water container clean?

Municipality	No	Yes	Total
Siraha	3333	14495	17828
%	18.7%	81.3%	100.0%
Karjanaha	1135	5413	6548
%	17.3%	82.7%	100.0%
Kalyanpur	3156	7363	10519
%	30.0%	70.0%	100.0%
Total	7624	27271	34895
%	21.8%	78.2%	100.0%

y. Management of Dirty Water

Municipalities	At Sewerage	In open hole	Let in open	In Kitchen Garden	To the stream/ river	Total
Siraha	707	11,989	3,561	1,452	119	17,828
Percentage	4.0	67.2	20.0	8.1	0.7	100.0
Karjanaha	172	3428	1435	1383	130	6548
Percentage	2.6	52.4	21.9	21.1	2.0	100.0
Kalyanpur	514	7297	1572	971	166	10520
Percentage	4.9	69.4	14.9	9.2	1.6	100.0
Total	1393	22714	6568	3806	415	34896
Percentage	4.0	65.1	18.8	10.9	1.2	100.0

z. Experience of inundated water points during disaster

Municipalities	No	Yes	Total
Siraha	16545	1283	17828
Percentage	92.8	7.2	100.0
Karjanaha	6311	237	6548
Percentage	96.4	3.6	100.0
Kalyanpur	9892	628	10520
Percentage	94.0	6.0	100.0
Total	32748	2148	34896
Percentage	93.8	6.2	100.0

aa. Experience of Fetching Water during Disaster

Municipalities	Borrowed from Neighbor not affected from flood	Use storage water at home	Waited until flood level was down	Total
Siraha	574	267	442	1283
Percentage	44.7	20.8	34.5	100.0
Karjanaha	71	35	131	237
Percentage	30.0	14.8	55.3	100.0
Kalyanpur	296	71	261	628
Percentage	2.8	0.7	2.5	6.0
Total	941	373	834	2148
Percentage	43.8	17.4	38.8	100.0

ab. Participation at maintenance the waterpoints

Municipalities	Both (Male & Female)	Female Member	Male Member	Mechanics	Total
Siraha	1537	442	3328	12521	17828
Percentage	8.62	2.48	18.67	70.23	100.00
Karjanaha	292	82	1295	4879	6548
Percentage	4.5	1.3	19.8	74.5	100.0
Kalyanpur	254	166	4588	5512	10520
Percentage	2.4	1.6	43.6	52.4	100.0
Total	2083	690	9211	22912	34896
Percentage	6.0	2.0	26.4	65.7	100.0

ac. Level of Satisfaction against the Maintenance services to the water point by mechanics

Municipalities	Not Satisfied	Satisfied	Total
Siraha	1022	10409	11431
Percentage	8.94	91.06	100.00
Karjanaha	389	4483	4872
Percentage	8.0	92.0	100.0
Kalyanpur	231	5281	5512
Percentage	2.2	50.2	52.4
Total	1642	20173	21815
Percentage	7.5	92.5	100.0

Annex 3.3: Access to Safe Sanitation

a. HHs by availability of toilet at home

Municipality	Do not have toilet	Flush to septic Tank	Pit latrine without slab/ Open Pit	Connected to composting toilet/ biogas	Flush to Single Ring Pit (Ring with Lid)	Flush to Dauble Ring Pit (Ring with Lid)	Total
Siraha	2964	4666	37	43	7330	2788	17828
Siraha	16.6%	26.2%	0.2%	0.2%	41.1%	15.6%	100.0%
Karjanaha	708	1322	27	4	2932	1555	6548
Karjanaha	10.8%	20.2%	0.4%	0.1%	44.8%	23.7%	100.0%
Kalyanpur	1424	3625	59	2	3523	1887	10520
Kalyanpur	13.5%	34.5%	0.6%	0.0%	33.5%	17.9%	100.0%
Total	5096	9613	123	49	13785	6230	34896
Total	14.6%	27.5%	0.4%	0.1%	39.5%	17.9%	100.0%

b. (Observation 10): Household members have access to a latrine

Municipality	No	Yes	Total
Siraha	3138	14690	17828
%	17.6%	82.4%	100.0%
Karjanaha	697	5851	6548
%	10.6%	89.4%	100.0%
Kalyanpur	1641	8879	10520
%	15.6%	84.4%	100.0%
Total	5476	29420	34896
%	15.7%	84.3%	100.0%

c. (OBSERVATION 11): Facility cleaned properly?

Municipality	No	Yes	Total
Siraha	6308	11517	17825
%	35.4%	64.6%	100.0%
Karjanaha	1285	5263	6548
%	19.6%	80.4%	100.0%
Kalyanpur	3628	6890	10518
%	34.5%	65.5%	100.0%
Total	11221	23670	34891
%	32.2%	67.8%	100.0%

d. (OBSERVATION 12): Pit of toilet full

Municipality	Don't Know	No	Yes	Total
Siraha	2710	12817	2297	17824
%	15.2%	71.9%	12.9%	100.0%
Karjanaha	2248	4145	1269	6548
%	34.3%	63.3%	19.4%	100.0%
Kalyanpur	1134	7588	682	10518
%	10.8%	72.1%	6.5%	100.0%
Total	6092	24550	4248	34890
%	17.5%	70.4%	12.2%	100.0%

e. (OBSERVATION 13): Cover over the pit

Municipality	No	Yes	Total
Siraha	1	13	14
%	7.1%	92.9%	100.0%
Karjanaha	1	66	67
%	1.5%	98.5%	100.0%
Kalyanpur	1	5	6
%	16.7%	83.3%	100.0%
Total	3	84	87
%	3.4%	96.6%	100.0%

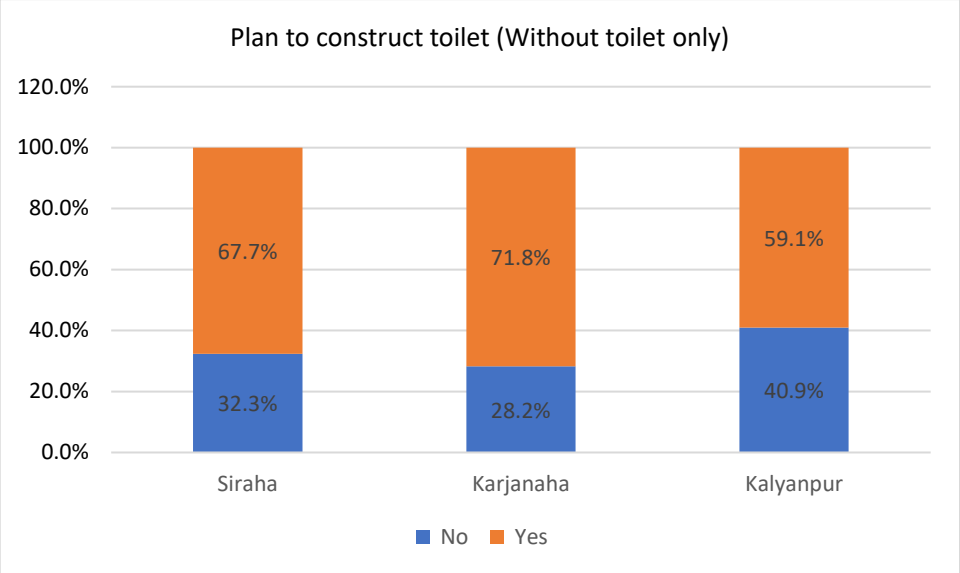
f. (OBSERVATION 14): Latrine have enough light and space?

Municipality	No	Yes	Total
Siraha	5454	12371	17825
%	30.6%	69.4%	100.0%
Karjanaha	1835	4713	6548
%	28.0%	72.0%	100.0%
Kalyanpur	4019	6499	10518
%	38.2%	61.8%	100.0%
Total	11308	23583	34891
%	32.4%	67.6%	100.0%

g. If no toilet, strategy to defecate

Municipality	At neighbor's toilet	At community toilet	At public toilet	At open space	Total
Siraha	312	40	59	2553	2964
Siraha	10.5%	1.3%	2.0%	86.1%	100.0%
Karjanaha	108	8	7	585	708
Karjanaha	15.3%	1.1%	1.0%	82.6%	100.0%
Kalyanpur	145	26	27	1226	1424
Kalyanpur	10.2%	1.8%	1.9%	86.1%	100.0%
Total	565	74	93	4364	5096
Total	11.1%	1.5%	1.8%	85.6%	100.0%

h. Plan to construct toilet (Without toilet only)



i. Toilet construction Strategy (only those who want to construct toilet)

Municipality	construct myself	construct if got grant partially	Construct if got full grant	Grand Total
Siraha	519	758	729	2006
Siraha	25.9%	37.8%	36.3%	100.0%
Karjanaha	155	175	178	508
Karjanaha	30.5%	34.4%	35.0%	100.0%
Kalyanpur	319	353	169	841
Kalyanpur	37.9%	42.0%	20.1%	100.0%
Total	993	1286	1076	3355
Total	29.6%	38.3%	32.1%	100.0%

j. If the HHs have toilet, how did they build their toilet?

Municipality	Full Subsidy by Government	Full Subsidy by I/NGOS	In my own investment	Partial Subsidy by Government	Partial Subsidy by I/NGOs	Total
Siraha	15	1	14807	39	2	14864
Siraha	0.1%	0.0%	99.6%	0.3%	0.0%	100.0%
Karjanaha	7		5719	27		5753
Karjanaha	0.1%	0.0%	99.4%	0.5%	0.0%	100.0%
Kalyanpur	264	3	8474	340	15	9096
Kalyanpur	2.9%	0.0%	93.2%	3.7%	0.2%	100.0%
Total	286	4	29000	406	17	29713
Total	1.0%	0.0%	97.6%	1.4%	0.1%	100.0%

k. Filled toilet in last 3 years

Municipality	Yes	No	Not Stated	Total
Siraha	1,645	12,894	326	14,865
Siraha	11%	87%	2%	100%
Karjanaha	1912	3851	0	5,763

Municipality	Yes	No	Not Stated	Total
Karjanaha	33%	67%	0%	100%
Kalyanpur	1186	7911	0	9,097
Kalyanpur	13%	87%	0%	100%
Total	4743	24656	326	29725
Total	16.0%	82.9%	1.1%	100.0%

l. Ways of Making empty of filled toilet

Municipality	Not empty	Yes, by Private safety tanker	Yes, manually by digging pit via labor	Yes, manually by digging pit by own	Not Stated	Total
Siraha	632	703	221	78	11	1645
Siraha	38.4%	42.7%	13.4%	4.7%	0.7%	100.0%
Karjanaha	365	1319	184	42		1910
Karjanaha	19.1%	69.1%	9.6%	2.2%	0.0%	100.0%
Kalyanpur	227	798	125	36		1186
Kalyanpur	19.1%	67.3%	10.5%	3.0%	0.0%	100.0%
Total	1224	2820	530	156	11	4741
Total	25.8%	59.5%	11.2%	3.3%	0.2%	100.0%

m. Satisfaction against the service of private safety tanker

Municipality	No	Yes	Total
Siraha	87	616	703
Siraha	12.4%	87.6%	100.0%
Karjanaha	55	1264	1319
Karjanaha	4.2%	95.8%	100.0%
Kalyanpur	61	737	798
Kalyanpur	7.6%	92.4%	100.0%
Total	203	2617	2820
Total	7.2%	92.8%	100.0%

n. Whether all family members using toilet

Municipality	Yes	No	Not Stated	Total
Siraha	14199	357	309	14865
Siraha	95.5%	2.4%	2.1%	100.0%
Karjanaha	5584	256		5840
Karjanaha	95.6%	4.4%	0.0%	100.0%
Kalyanpur	8375	722		9097
Kalyanpur	92.1%	7.9%	0.0%	100.0%
Total	28158	1335	309	29802
Total	94.5%	4.5%	1.0%	100.0%

o. Persons not using the toilet (Multiple Response)

Municipality	Male member	Female member	Children	Person with disability	Senior citizen	Total
Siraha	180	47	172	11	104	357
Siraha %	50.4%	13.2%	48.2%	3.1%	29.1%	1

Municipality	Male member	Female member	Children	Person with disability	Senior citizen	Total
Karjanaha	66	24	180	7	277	256
Karjanaha%	25.8%	9.4%	70.3%	2.7%	108.2%	100.0%
Kalyanpur	311	145	415	115	986	722
Kalyanpur%	43.1%	20.1%	57.5%	15.9%	136.6%	100.0%
Total	557	216	767	133	1367	1335
Total%	41.7%	16.2%	57.5%	10.0%	102.4%	100.0%

p. Reason for not using toilet (Multiple Responses 722 HHs)

Municipality	Too young to use toilet	practice of using toilet	Because of unfriendly toilets for all	Because of social values & superstitions	Total
Siraha	106	262	11	24	357
Siraha	29.7%	73.4%	3.1%	6.7%	100.0%
Karjanaha	174	145	4	13	256
Karjanaha	68.0%	56.6%	1.6%	5.1%	100.0%
Kalyanpur	264	407	28	102	722
Kalyanpur	36.6%	56.4%	3.9%	14.1%	100.0%
Total	544	814	43	139	1335
Total	40.7%	61.0%	3.2%	10.4%	100.0%

q. Practice of disposing feces of children at your home (Multiple response 10520 HHs)

Municipality	Use of potties and dispose inside toilet	Dispose on dirty clothes and wash at water points	Defecate at open place and dispose near garbage	Defecate at open place and left unmanaged	No Children at home	Total
Siraha	8,433	2,631	3,484	3,474	3,917	17828
Siraha	47.3%	14.8%	19.5%	19.5%	22.0%	100.0%
Karjanaha	2650	964	1460	1084	1538	6548
Karjanaha	40.5%	14.7%	22.3%	16.6%	23.5%	100.0%
Kalyanpur	1796	1329	2615	944	5002	10520
Kalyanpur	17.1%	12.6%	24.9%	9.0%	47.5%	100.0%
Total	12879	4924	7559	5502	10457	34896
Total	36.9%	14.1%	21.7%	15.8%	30.0%	100.0%

Annex 3.4: Hand Washing and Personal Hygiene

1. (OBSERVATION 17): Handwashing facility have water and soap at the time of visit?

Municipality	Neither water nor soap	Water and soap/soap substitute	Water only	Total
Siraha	1579	8807	7439	17825
%	8.9%	49.4%	41.7%	100.0%
Karjanaha	351	4060	2137	6548
%	5.4%	62.0%	32.6%	100.0%
Kalyanpur	1812	4357	4348	10518
%	17.2%	41.4%	41.3%	100.0%
Total	3742	17224	13924	34891
%	10.7%	49.4%	39.9%	100.0%

2. Location of Hand-washing station at home

Municipality	At a water point (tap/tubewell)	Outside toilet/ bathroom near to 10 feet steps	Inside the kitchen	Inside toilet /bathroom	All of above	Total
Siraha	7819	7901	1054	871	183	17828
%	43.9%	44.3%	5.9%	4.9%	1.0%	100.0%
Karjanaha	4206	1976	188	130	48	6548
%	64.2%	30.2%	2.9%	2.0%	0.7%	100.0%
Kalyanpur	8782	1360	217	134	19	10520
%	83.5%	12.9%	2.1%	1.3%	0.2%	100.0%
Total	20807	11237	1459	1135	250	34896
%	59.6%	32.2%	4.2%	3.3%	0.7%	100.0%

3. Practice of hand washing (multiple response)

Municipality	Before eating	Before cooking	Before feeding	After working at the field/ outside	After cleaning baby's bottom	After using toilet	Occasionally	Total
Siraha	16647	13368	11995	11446	12289	14923	489	17828
%	93.4%	75.0%	67.3%	64.2%	68.9%	83.7%	2.7%	100.0%
Karjanaha	6360	5551	5188	5372	4643	5971	367	6548
%	97.1%	84.8%	79.2%	82.0%	70.9%	91.2%	5.6%	100.0%
Kalyanpur	9610	5644	4082	4860	3671	9118	76	10520
%	91.3%	53.7%	38.8%	46.2%	34.9%	86.7%	0.7%	100.0%
Total	32617	24563	21265	21678	20603	30012	932	34896
%	93.5%	70.4%	60.9%	62.1%	59.0%	86.0%	2.7%	100.0%

4. Practice of using Hand Washing Materials (Multiple Responses 34896 HHs)

Municipality	Water only	With soap	With ash	With sand or mud	Total
Siraha	7860	13409	1781	1636	17828
%	44.1%	75.2%	10.0%	9.2%	100.0%
Karjanaha	1904	5942	312	83	6548
%	29.1%	90.7%	4.8%	1.3%	100.0%

Kalyanpur	5495	7636	522	708	10520
%	52.2%	72.6%	5.0%	6.7%	100.0%
Total	15259	26987	2615	2427	34896
%	43.7%	77.3%	7.5%	7.0%	100.0%

5 (OBSERVATION 15):Functioning hand-washing facility nearby?

Municipality	No	Yes	Total
Siraha	3	11	14
%	21.4%	78.6%	100.0%
Karjanaha	2	65	67
%	3.0%	97.0%	100.0%
Kalyanpur	1	5	6
%	16.7%	83.3%	100.0%
Total	6	81	87
%	6.9%	93.1%	100.0%

6 (OBSERVATION 16): Facility contain water at time of visit?

Municipality	No	Yes	Total
Siraha	3	11	14
%	21.4%	78.6%	100.0%
Karjanaha	4	63	67
%	6.0%	94.0%	100.0%
Kalyanpur	1	5	6
%	16.7%	83.3%	100.0%
Total	8	79	87
%	9.2%	90.8%	100.0%

3. Location of Hand-washing station at home

Municipality	At a water point (tap/tube-well)	Outside toilet/bathroom near to 10 feet steps	Inside the kitchen	Inside toilet/bathroom	All of above	Total
Siraha	7819	7901	1054	871	183	17828
%	43.9%	44.3%	5.9%	4.9%	1.0%	100.0%
Karjanaha	4206	1976	188	130	48	6548
%	64.2%	30.2%	2.9%	2.0%	0.7%	100.0%
Kalyanpur	8782	1360	217	134	19	10520
%	83.5%	12.9%	2.1%	1.3%	0.2%	100.0%
Total	20807	11237	1459	1135	250	34896
%	59.6%	32.2%	4.2%	3.3%	0.7%	100.0%

4. Bathing facilities

Municipality	Close and separate bathroom	Public Tap and tube-well	Ponds and stream	Private Tap and tube-well	Total
Siraha	4215	1489	1047	11077	17828
%	23.6%	8.4%	5.9%	62.1%	100.0%

Karjanaha	0	710	113	5725	6548
%	0.0%	10.8%	1.7%	87.4%	100.0%
Kalyanpur	774	1130	197	8419	10520
%	7.4%	10.7%	1.9%	80.0%	100.0%
Total	4989	3329	1357	25221	34896
%	14.3%	9.5%	3.9%	72.3%	100.0%

5. Source of water to wash things

Municipality	Water from private tap or tube-well	Water from public tap or tube-well	Water from stream and ponds	Water from well	Total
Siraha	15363	1076	1368	21	17828
%	86.2%	6.0%	7.7%	0.1%	100.0%
Karjanaha	5584	710	113	141	6548
%	85.3%	10.8%	1.7%	2.2%	100.0%
Kalyanpur	9121	1005	386	8	10520
%	86.7%	9.6%	3.7%	0.1%	100.0%
Total	30068	2791	1867	170	34896
%	86.2%	8.0%	5.4%	0.5%	100.0%

6. Materials used for washing clothes at home

Municipality	Ash with boil water	Soap and detergent powder	Water only	Total
Siraha	267	17147	414	17828
%	1.5%	96.2%	2.3%	100.0%
Karjanaha	30	6443	75	6548
%	0.5%	98.4%	1.1%	100.0%
Kalyanpur	100	10175	245	10520
%	1.0%	96.7%	2.3%	100.0%
Total	397	33765	734	34896
%	1.1%	96.8%	2.1%	100.0%

7. Bathing facilities

Municipality	Close and separate bathroom	Public Tap and tube-well	Ponds and stream	Private Tap and tube-well	Total
Siraha	4215	1489	1047	11077	17828
%	23.6%	8.4%	5.9%	62.1%	100.0%
Karjanaha	0	710	113	5725	6548
%	0.0%	10.8%	1.7%	87.4%	100.0%
Kalyanpur	774	1130	197	8419	10520
%	7.4%	10.7%	1.9%	80.0%	100.0%
Total	4989	3329	1357	25221	34896
%	14.3%	9.5%	3.9%	72.3%	100.0%

8. Source of water to wash things

Municipality	Water from private tap or tube-well	Water from public tap or tube-well	Water from stream and ponds	Water from well	Total
Siraha	15363	1076	1368	21	17828
%	86.2%	6.0%	7.7%	0.1%	100.0%
Karjanaha	5584	710	113	141	6548
%	85.3%	10.8%	1.7%	2.2%	100.0%
Kalyanpur	9121	1005	386	8	10520
%	86.7%	9.6%	3.7%	0.1%	100.0%
Total	30068	2791	1867	170	34896
%	86.2%	8.0%	5.4%	0.5%	100.0%

9. Materials used for washing clothes at home

Municipality	Ash with boil water	Soap and detergent powder	Water only	Total
Siraha	267	17147	414	17828
%	1.5%	96.2%	2.3%	100.0%
Karjanaha	30	6443	75	6548
%	0.5%	98.4%	1.1%	100.0%
Kalyanpur	100	10175	245	10520
%	1.0%	96.7%	2.3%	100.0%
Total	397	33765	734	34896
%	1.1%	96.8%	2.1%	100.0%

Annex 3.5: Household Sanitation

1. Main fuel to cook at home (Multiple Response, 34,896 HHs)

Municipality	Firewood	Straw, beck dung, rice-cover	Biogas	LP Gas	Kerosene	Electricity	Other	Total
Siraha	12606	8093	526	3731	189	158	136	17828
Karjanaha	5736	644	228	1532	21	24	4	6548
Kalyanpur	8850	4239	344	2152	104	60	18	10520
Total	27192	12976	1098	7415	314	242	158	34896
%	77.9%	37.2%	3.1%	21.2%	0.9%	0.7%	0.5%	100.0%

2. Stove types used at Home

Municipality	Bio-gas Stove	Gas Stove	Improved Cooking Stove	Traditional Stove	Total
Siraha	231	3215	1025	13357	17828
Karjanaha	61	1324	312	4851	6548
Kalyanpur	65	1001	1682	7772	10520
Total	357	5540	3019	25980	34896
%	1.0%	15.9%	8.7%	74.4%	100.0%

3. Cooking station at home

Municipality	Adjoining with common room	Open (Outside of room)	Separate	Total
Siraha	2617	561	14650	17828
Karjanaha	1288	285	4975	6548
Kalyanpur	2702	282	7536	10520
Total	6607	1128	27161	34896
%	18.9%	3.2%	77.8%	100.0%

4. Practice of using materials for washing utensils (Multiple Response, 34896 HHs)

Municipality	Ash	Soap or detergent powder	Mud	Water only	Total
Siraha	9717	13824	837	1589	17828
%	54.5%	77.5%	4.7%	8.9%	100.0%
Karjanaha	3562	5417	141	48	6548
%	54.4%	82.7%	2.2%	0.7%	100.0%
Kalyanpur	7978	6928	281	735	10520
%	75.8%	65.9%	2.7%	7.0%	100.0%
Total	21257	26169	1259	2372	34896
%	60.9%	75.0%	3.6%	6.8%	100.0%

5. Practice of drying utensils after washing

Municipality	No	Placing in rack	Rubbing with cloth	Yes, under the sunlight	Total
Siraha	12404	363	75	4986	17828
%	69.6%	2.0%	0.4%	28.0%	100.0%
Karjanaha	4049	572	18	1909	6548
%	61.8%	8.7%	0.3%	29.2%	100.0%
Kalyanpur	8187	450	28	1855	10520
%	77.8%	4.3%	0.3%	17.6%	100.0%

Municipality	No	Placing in rack	Rubbing with cloth	Yes, under the sunlight	Total
Total	24640	1385	121	8750	34896
%	70.6%	4.0%	0.3%	25.1%	100.0%

6. Practice of waste management generated from kitchen

Municipality	Burn after gathering at a place	Directly handover to the garbage collection personal	Segregating at source (degradable and nondegradable)	Throw away anywhere	Use as manure at kitchen garden (	Use to sell	Total
Siraha	4750	1305	1326	6756	3547	144	17828
%	26.6%	7.3%	7.4%	37.9%	19.9%	0.8%	100.0%
Karjanaha	2837	90	1025	1485	1101	10	6548
%	43.3%	1.4%	15.7%	22.7%	16.8%	0.2%	100.0%
Kalyanpur	2387	246	1094	3127	3641	25	10520
%	22.7%	2.3%	10.4%	29.7%	34.6%	0.2%	100.0%
Total	9974	1641	3445	11368	8289	179	34896
%	28.6%	4.7%	9.9%	32.6%	23.8%	0.5%	100.0%

Annex 3.6 Food Hygiene and Nutrition

1. Practice of storing edibles at home

Municipality	Inside kitchen	Segregating edible and non-edible items	Separate store	Store all at one place	Total
Siraha	7081	3678	4587	2482	17828
%	39.7%	20.6%	25.7%	13.9%	100.0%
Karjanaha	2467	1312	1852	917	6548
%	37.7%	20.0%	28.3%	14.0%	100.0%
Kalyanpur	4885	1205	1504	2926	10520
%	46.4%	11.5%	14.3%	27.8%	100.0%
Total	14433	6195	7943	6325	34896
%	41.4%	17.8%	22.8%	18.1%	100.0%

2. Practice of washing food and vegetable before eating

Municipality	Rubbing with clothes or Hand	Wash with clean Water	Without washing	Total
Siraha	311	17420	97	17828
%	1.7%	97.7%	0.5%	100.0%
Karjanaha	72	6448	28	6548
%	1.1%	98.5%	0.4%	100.0%
Kalyanpur	257	10198	65	10520
%	2.4%	96.9%	0.6%	100.0%
Total	640	34066	190	34896
%	1.8%	97.6%	0.5%	100.0%

3. Practice of cultivating vegetable and fruits at kitchen garden

Municipality	No, never	Yes for both of above	Yes for family consumption only	Yes for selling	Total
Siraha	13505	249	3976	98	17828
%	75.8%	1.4%	22.3%	0.5%	100.0%
Karjanaha	4169	254	2055	70	6548
%	63.7%	3.9%	31.4%	1.1%	100.0%
Kalyanpur	7908	381	2129	102	10520
%	75.2%	3.6%	20.2%	1.0%	100.0%
Total	25582	884	8160	270	34896
%	73.3%	2.5%	23.4%	0.8%	100.0%

4. Practice of using pesticides in kitchen garden

Municipality	Mechanical	No	Yes, inorganic (chemicals)	Yes, organic (domestic)	Total
Siraha	86	14704	1864	1174	17828
%	0.5%	82.5%	10.5%	6.6%	100.0%
Karjanaha	43	5265	514	726	6548
%	0.7%	80.4%	7.8%	11.1%	100.0%
Kalyanpur	21	9268	686	545	10520
%	0.2%	88.1%	6.5%	5.2%	100.0%
Total	150	29237	3064	2445	34896

Municipality	Mechanical	No	Yes, inorganic (chemicals)	Yes, organic (domestic)	Total
%	0.4%	83.8%	8.8%	7.0%	100.0%

5. Practice of eating foods (Multiple Response, HHs 34896)

Municipality	Seasonable fruits and vegetables	Animal product (Fish, Meat, Egg)	Fat/Oil/Sugar/Salt	Rice and alternative	Total
Siraha	16069	13799	13458	12985	17828
%	90.1%	77.4%	75.5%	72.8%	100.0%
Karjanaha	6142	5628	5546	4798	6548
%	93.8%	85.9%	84.7%	73.3%	100.0%
Kalyanpur	9673	9055	9999	8899	10520
%	91.9%	86.1%	95.0%	84.6%	100.0%
Total	31884	28482	29003	26682	34896
%	91.4%	81.6%	83.1%	76.5%	100.0%

6. Meal Schedule

6.1 Seasonable fruits and vegetables

Municipality	>15 days	In 15 Days	Daily	Weekly	Total
Kalyanpur	2340	2427	2663	2243	9673
Karjanaha	2184	1097	737	2124	6142
Siraha	2589	2560	6979	3941	16069
Total	7113	6084	10379	8308	31884
%	22.3%	19.1%	32.6%	26.1%	100.0%

6.2 Animal product (Fish, Meat, Egg)

Municipality	>15 days	In 15 Days	Daily	Weekly	Total
Kalyanpur	2026	2473	2591	1965	9055
Karjanaha	1726	1099	670	2133	5628
Siraha	2477	2304	5392	3626	13799
Total	6229	5876	8653	7724	28482
%	21.9%	20.6%	30.4%	27.1%	100.0%

6.3 Fat/Oil/Sugar/Salt

Municipality	>15 days	In 15 Days	Daily	Weekly	Total
Kalyanpur	2384	2673	2764	2178	9999
Karjanaha	1805	1029	734	1978	5546
Siraha	2541	2289	5083	3545	13458
Total	6730	5991	8581	7701	29003
%	23.2%	20.7%	29.6%	26.6%	100.0%

6.4 Rice and alternative

Row Labels	>15 days	In 15 Days	Daily	Weekly	Total
Kalyanpur	2229	2287	2485	1898	8899
Karjanaha	1430	962	648	1758	4798
Siraha	2164	2269	4976	3576	12985
Total	5823	5518	8109	7232	26682
%	21.8%	20.7%	30.4%	27.1%	100.0%

Annex 3.7: Solid Waste Management

1. Types of Waste generated from house

Municipality	Medicine cover/ packaging/ Bandage	Remnants of fruits and vegetables	Plastic	Battery	Clothes	Jut	Metallic (Tin, Iron, copper, wire)	Remnant of food	Broken glass and bottles	Dust	Rubber	Carton	Paper	Packaging materials
Siraha	9608	9801	9685	4132	6459	3506	3420	4516	4550	7794	4438	5947	8350	2615
%	53.9%	55.0%	54.3%	23.2%	36.2%	19.7%	19.2%	25.3%	25.5%	43.7%	24.9%	33.4%	46.8%	14.7%
Karjanaha	3926	4461	4567	1395	3121	2244	1109	1355	3012	5202	3108	4071	4979	2708
%	60.0%	68.1%	69.7%	21.3%	47.7%	34.3%	16.9%	20.7%	46.0%	79.4%	47.5%	62.2%	76.0%	41.4%
Kalyanpur	3556	6662	3188	726	2141	1720	653	1136	4842	6210	1217	1771	4188	921
%	33.8%	63.3%	30.3%	6.9%	20.4%	16.3%	6.2%	10.8%	46.0%	59.0%	11.6%	16.8%	39.8%	8.8%
Total	17090	20924	17440	6253	11721	7470	5182	7007	12404	19206	8763	11789	17517	6244
%	49.0%	60.0%	50.0%	17.9%	33.6%	21.4%	14.8%	20.1%	35.5%	55.0%	25.1%	33.8%	50.2%	17.9%

2. Awareness about the impact of poor management of Waste (Multiple Response - HHs 10520)

Municipality	Produce injury	Emerge epidemic	Lose the beauty of settlement/city	Spread of bad smell	Polluted to the Historical natural resources	No Idea	Total
Siraha	5285	10249	5923	10586	5298		17828
%	29.6%	57.5%	33.2%	59.4%	29.7%	0.0%	100.0%
Karjanaha	1870	3712	2694	5203	2507	534	6548
%	28.6%	56.7%	41.1%	79.5%	38.3%	8.2%	100.0%
Kalyanpur	3089	4478	1705	6457	1059	2061	10520
%	29.4%	42.6%	16.2%	61.4%	10.1%	19.6%	100.0%
Total	10244	18439	10322	22246	8864	2595	34896
%	29.4%	52.8%	29.6%	63.7%	25.4%	7.4%	100.0%

3. Vehicle from municipality or private sector to collect waste

Municipality	In every 10 days	In every 15 days	No	Once in a week	Yes, daily	Total
Siraha	28	32	17578	93	97	17828
%	0.2%	0.2%	98.6%	0.5%	0.5%	100.0%
Karjanaha	10	2	6513	9	14	6548
%	0.2%	0.0%	99.5%	0.1%	0.2%	100.0%
Kalyanpur	6	12	10444	19	39	10520
%	0.1%	0.1%	99.3%	0.2%	0.4%	100.0%
Total	44	46	34535	121	150	34896
%	0.1%	0.1%	99.0%	0.3%	0.4%	100.0%

4. Willingness to pay charge of waste

Municipality	No, I won't	Yes, I am ready to pay up to NPR 100 per month	Yes, I am ready to pay up to NPR 20 per month	Yes, I am ready to pay up to NPR 50	Total
Siraha	50		75	11	136

Municipality	No, I won't	Yes, I am ready to pay up to NPR 100 per month	Yes, I am ready to pay up to NPR 20 per month	Yes, I am ready to pay up to NPR 50	Total
%	36.8%	0.0%	55.1%	8.1%	100.0%
Karjanaha	22	1	9	5	35
%	62.9%	2.9%	25.7%	14.3%	100.0%
Kalyanpur	13	1	5	5	24
%	54.2%	4.2%	20.8%	20.8%	100.0%
Total	85	2	89	21	195
%	43.6%	1.0%	45.6%	10.8%	100.0%

5. Practice of keeping cattle

Municipality	At cowshed attached with house	At separate cowshed	Kept at roadside	Don't have cattle	Total
Siraha	2895	5697	277	8959	17828
%	16.2%	32.0%	1.6%	50.3%	100.0%
Karjanaha	773	2312	94	3369	6548
%	11.8%	35.3%	1.4%	51.5%	100.0%
Kalyanpur	1379	2944	695	5502	10520
%	13.1%	28.0%	6.6%	52.3%	100.0%
Total	5047	10953	1066	17830	34896
%	14.5%	31.4%	3.1%	51.1%	100.0%

6. Practice of managing cattle dung (Cattle having families only)

Municipality	Collect nearby roadside	Composting as fertilizer	Prepare charcoal of dung for cooking	Use for biogas	Total
Siraha	438	3139	5278	14	8869
%	4.9%	35.4%	59.5%	0.2%	100.0%
Karjanaha	171	2438	561	9	3179
%	5.4%	76.7%	17.6%	0.3%	100.0%
Kalyanpur	308	1499	3204	7	5018
%	6.1%	29.9%	63.9%	0.1%	100.0%
Total	917	7076	9043	30	17066
%	5.4%	41.5%	53.0%	0.2%	100.0%

7. Responsibility of managing dung in the family (3179 HHs)

Municipality	Both	Female Member	Male Member	Total
Siraha	5,694	3,033	142	8,869
%	64.2%	34.2%	1.6%	100.0%
Karjanaha	1267	1842	70	3179
%	39.9%	57.9%	2.2%	100.0%
Kalyanpur	873	4041	104	5018
%	17.4%	80.5%	2.1%	100.0%

Municipality	Both	Female Member	Male Member	Total
Total	7833.898	8916.198	315.904	17066
%	45.9%	52.2%	1.9%	100.0%

8. Responsible for managing other waste

Municipality	Male Member	Female Member	Both	Total
Siraha	465	5225	3269	8959
%	5.2%			
Karjanaha	131	1740	1498	3369
%	3.9%			
Kalyanpur	134	4658	710	5502
%	2.4%			
Total	730	11623	5477	17830
%	4.1%	65.2%	30.7%	100.0%

Annex 3.7: Waterborne Diseases

1. Awareness on impact of poor WASH practices in health (Multiple responses - HHs 10520)

Municipality	No Idea	Disease (Diarrheal, Cholera, dysentery, typhoid, hookworm, polio etc.)	Decline of social dignity	Economic losses	Threats of animal attack and snake bite (during open defecation)	Challenge to pregnant women, female, senior citizen and people with special needs	Total
Siraha	5441	12182	4361	4729	5568	3815	17828
%	30.5%	68.3%	24.5%	26.5%	31.2%	21.4%	100.0%
Karjanaha	831	5548	2458	2258	2356	1864	6548
%	12.7%	84.7%	37.5%	34.5%	36.0%	28.5%	100.0%
Kalyanpur	2994	7049	1527	1942	2590	834	10520
%	28.5%	67.0%	14.5%	18.5%	24.6%	7.9%	100.0%
Total	9266	24779	8346	8929	10514	6513	34896
%	26.6%	71.0%	23.9%	25.6%	30.1%	18.7%	100.0%

2. Family Member Infected by Diarrhea in Last two weeks

Municipality	No	Yes	Total
Siraha	16361	1467	17828
%	91.8%	8.2%	100.0%
Karjanaha	6135	413	6548
%	93.7%	6.3%	100.0%
Kalyanpur	9912	608	10520
%	94.2%	5.8%	100.0%
Total	32408	2488	34896
%	92.9%	7.1%	100.0%

2. If Infected, Practice of Managing Diarrhea

Municipality	Local herbs and self	Use of medicine	Use of oral rehydration solution	Went to religious priest	Total
Siraha	190	747	514	16	1467
%	13.0%	50.9%	35.0%	1.1%	100.0%
Karjanaha	57	213	138	5	413
%	13.8%	51.6%	33.4%	1.2%	100.0%
Kalyanpur	49	313	241	5	608
%	8.1%	51.5%	39.6%	0.8%	100.0%
Total	296	1273	893	26	2488
%	11.9%	51.2%	35.9%	1.0%	100.0%

3. Means of Information about Treatment of Diarrhea and Skin Diseases at Home

Municipality	TV, Radio	Social Media (Facebook), Newspaper	Health institution and Health worker (FCHVs)	Municipality	NGO/INGOs	Total
Siraha	224	285	833	368	199	1467
%	15.3%	19.4%	56.8%	25.1%	13.6%	100.0%

Municipality	TV, Radio	Social Media (Facebook), Newspaper	Health institution and Health worker (FCHVs)	Municipality	NGO/INGOs	Total
Karjanaha	45	19	282	2	6	413
%	10.9%	4.6%	68.3%	0.5%	1.5%	100.0%
Kalyanpur	44	50	394	16	34	608
%	7.2%	8.2%	64.8%	2.6%	5.6%	100.0%
Total	313	354	1509	386	239	2488
%	12.6%	14.2%	60.7%	15.5%	9.6%	100.0%

Annex 3.9: Menstrual Hygiene

1. Female member of menstrual age at home

Municipality	No	Yes	Total
Siraha	3552	14276	17828
%	19.9%	80.1%	100.0%
Karjanaha	1357	5191	6548
%	20.7%	79.3%	100.0%
Kalyanpur	2316	8204	10520
%	22.0%	78.0%	100.0%
Total	7225	27671	34896
%	20.7%	79.3%	100.0%

2. Prohibition at home during the menstruation period

Municipality	Outside of house at separate cowshed and other	At Neighbor's house	Prohibited to cook and touching water	Prohibited at temple	Prohibition to gather with brother, Father and male relative	Not to participate in party and festival	No prohibition	Total
Siraha	567	318	530	5239	380	589	8289	14276
%	4.0%	2.2%	3.7%	36.7%	2.7%	4.1%	58.1%	100.0%
Karjanaha	128	180	848	3139	561	327	2018	5191
%	2.5%	3.5%	16.3%	60.5%	10.8%	6.3%	38.9%	100.0%
Kalyanpur	95	83	460	2368	172	710	5898	8204
%	1.2%	1.0%	5.6%	28.9%	2.1%	8.7%	71.9%	100.0%
Total	790	581	1838	10746	1113	1626	16205	27671
%	2.9%	2.1%	6.6%	38.8%	4.0%	5.9%	58.6%	100.0%

3. Practice of sending of girl to school during menstruation

Municipality	No	Yes	Total
Siraha	1050	12507	13557
%	7.7%	92.3%	100.0%
Karjanaha	1077	4001	5078
%	21.2%	78.8%	100.0%
Kalyanpur	1306	6229	7535
%	17.3%	82.7%	100.0%
Total	3433	22737	26170
%	13.1%	86.9%	100.0%

4. Reasons for not sending school

Municipality	Because of severe pain and high bleeding	Bulling, shame	Fear	Superstition e.g. touching books is sin	There are no adequate facilities at school	Total
Siraha	316	108	203	36	387	1050
%	30.1%	10.3%	19.3%	3.4%	36.9%	100.0%
Karjanaha	185	153	36	80	619	1073
%	17.2%	14.3%	3.4%	7.5%	57.7%	100.0%
Kalyanpur	115	292	31	138	718	1294
%	8.9%	22.6%	2.4%	10.7%	55.5%	100.0%

Municipality	Because of severe pain and high bleeding	Bulling, shame	Fear	Superstition e.g. touching books is sin	There are no adequate facilities at school	Total
Total	616	553	270	254	1724	3417
%	18.0%	16.2%	7.9%	7.4%	50.5%	100.0%

5. Source of water for bathing and cleaning during menstruation

Municipality	Pond	Private tap/hand pump	Public tap	River	Well	Not Stated	Total
Siraha	471	12614	528	22	28	4165	17828
%	2.6%	70.8%	3.0%	0.1%	0.2%	23.4%	100.0%
Karjanaha	9	4587	436	11	120	0	5163
%	0.2%	88.8%	8.4%	0.2%	2.3%	0.0%	100.0%
Kalyanpur	271	7693	111	48	8	0	8131
%	3.3%	94.6%	1.4%	0.6%	0.1%	0.0%	100.0%
Total	751	24894	1075	81	156	4165	31122
%	2.4%	80.0%	3.5%	0.3%	0.5%	13.4%	100.0%

6. Aware about sanitary pad

Municipality	Both	Disposable	No idea	Yes, reusable	Total
Siraha	3232	3211	5061	2187	13691
%	23.6%	23.5%	37.0%	16.0%	100.0%
Karjanaha	1028	1290	1784	1072	5174
%	19.9%	24.9%	34.5%	20.7%	100.0%
Kalyanpur	936	3165	3323	751	8175
%	11.4%	38.7%	40.6%	9.2%	100.0%
Total	5196	7666	10168	4010	27040
%	19.2%	28.4%	37.6%	14.8%	100.0%

Annex 3.10: Accountability

1. Awareness about the toll free number of WHH/SABAL Nepal to provide feedback and complain

Municipality	No	Yes	Total
Siraha	16114	1714	17828
%	90.4%	9.6%	100.0%
Karjanaha	6124	424	6548
%	93.5%	6.5%	100.0%
Kalyanpur	10221	299	10520
%	97.2%	2.8%	100.0%
Total	32457	2437	34896
%	93.0%	7.0%	100.0%

2. Means to get information about the toll free number (Multiple Response)

Municipality	Community meeting	Neighbor	Other	Project staff	Project's training, meetings, campaigns, etc.	Visiting card	Total
Siraha	537	1375	657	1475	98	207	1714
Karjanaha	64	374	4	15	11	34	424
Kalyanpur	46	88	12	28	72	52	299
Total	647	1837	673	1518	181	293	2437
%	26.5%	75.4%	27.6%	62.3%	7.4%	12.0%	100.0%

3. Mechanism you prefer most to provide feedback and complaint (Multiple Response - HHs 34,896)

Municipality	Toll free number	Direct to project staff	Community meetings	Suggestion box	Talk to community representative	Total
Siraha	10127	3964	5251	2179	3122	17828
%	56.8%	22.2%	29.5%	12.2%	17.5%	100.0%
Karjanaha	4789	1083	2479	942	907	6548
%	73.1%	16.5%	37.9%	14.4%	13.9%	100.0%
Kalyanpur	4974	1626	4518	929	2226	10520
%	47.3%	15.5%	42.9%	8.8%	21.2%	100.0%
Total	19890	6673	12248	4050	6255	34896
%	57.0%	19.1%	35.1%	11.6%	17.9%	100.0%

4. Awareness about the Prevention of Sexual Abuse Guideline (PSEA) and prevention of corruption of WHH/partners

Municipality	No	Yes	Total
Siraha	14200	3628	17828
%	79.6%	20.4%	100.0%
Karjanaha	5774	774	6548
%	88.2%	11.8%	100.0%
Kalyanpur	8915	1605	10520
%	84.7%	15.3%	100.0%
Total	28889	6007	34896
%	82.8%	17.2%	100.0%

Annex 4: Calculation of practice of improved nutrition and hygiene

Since JMP and other monitoring tools do not define about the calculation of rate for practice of improved nutrition and hygiene, this study has calculated the percentage of practice of Implementing Improved Nutrition and Hygiene (IINH). IINH is an average percent of 11 indicators related to nutrition and hygiene which were included in the baseline survey.

SN	Composite Indicators	Sub-Indicator	Individual % **(Source individual tables of Annex 3)**	Total Percent
1	Improved cooking fuel using	Bio-gas, LP Gas, Electricity	3.1+21.2+0.7	25.0
2	Type of Stove using	Bio-gas, Gas Stove, ICS	1.0+15.9+8.7	24.7
3	Improve Cooking Station	Open (outside of room), separate	3.2+77.8	81.0
4	Washing Materials	Soap or detergent powder	75.0	75.0
5	Storage of Edibles	Segregating edibles and non-edibles and Separate storage	17.8+22.8	40.6
6	Practice of Washing food & vegetables	Wash with clean water	97.6	97.6
7	Practice of using pesticides in kitchen garden	Not, Organic pesticides	83.8+7.0	90.8
8	Use of seasonable fruits in food	Daily	32.6	32.6
9	Animal product (Fish, Meat, Egg) in food	Daily	30.4	30.4
10	Fat/Oil/Sugar/Salt	Daily	29.6	29.6
11	Alternatives of Rice	Daily	30.4	30.4
	Total of 1-11			557.7
	Average percentage (IINH)	Total percentage/11		50.7

Now the percent of Implementation of Improved Nutrition and Hygiene (IINH) is 50.7.

Annex 5: FGD Records

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	Karjanaha 11		
Access to Safe Water	– All the HH's drinking water source is tube-well water – There are four set of deep installed pump in 50 ft ro 270 ft – Many tube-wells in low lands are use to sink in rainy season – In FY 2065/66 (BS), ward office was allocated budget of NPR. 1 lakhs for installation of 8 new tube-well, has been completed. – All the tube wells are installed in layer of 30-40 ft deep.	– – No platform on tubewell – Marginal communities HHs does not have private tube wells. That has indirectly discourage them to maintain personal hygiene. – Local technicians are known as expert on defining water quality without use of any test kit. – People are not sure of drinking quality either it is pure or not. – Deep tube wells are set with distribution pipe. . – No provision of operation and maintenance in community water points. i.e public tube wells and deep tube wells.	– Communities which are nort from the highway are known as dry land and with scarcity of water source. – Requirement of drinking water quality testing camp once in a year. – Provision of water quality test of new tube wells are mandatory – Better to set reserve tank and connect with distribution pipe to the benefeciries of deep layer tubewells – Ward Office does not have plan and budget for water sector. – Communnity is positive to make sockpit in all HHs to manage gray water when NGOs provided proper information –
Access to Improved Sanitation)	– The ward has declared ODF – Most of the toilets are made with double pit ring – There is not proper boundary in people houses	– Though the community has declared ODF, there are many HHs still goes to out side for defecation – Some HH's toilets became old and needed to repaired themselves – There are no availability of public toilets	– Need of continuous monitoring and awareness raising supports – WASH plan priority of Ward Office – Mobile Monitoring team of Ward Committee – Ward should introduce positive motivation for toilet use
Hand Washing and Personal Hygiene	– People returned from overseas work are adapted Hand Washing behavior – Most of people practices hand washing	– People in marginal communities still do not have proper hand washing – –	– Needed joint effort on awareness raising at all level
Household Sanitation	– – Most of the HHs are made by local materials – Female members are responsible to manage HHs	– Animal excreta throwas at road side – No provision of waste segregation system at HHs or in Public places – People use to decomposes HHs garbage and waste at road sides	– There is no provision of waste management system i.e. reward, punishment – Community it self needed to be mobilized for awareness raising on HHs waste management practices – –

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	chores and sanitation work – Kitchen wastage provided to animals – No provision of municipality garbage collection vehicle in all wards – HHs garbage decomposes at road sides	–	
Food Hygiene and Nutrition	– Female members are responsible to HHs chores – There will ne be varieties of food all the year. – Most of the familie's income source is farming – It is assumed that 50% HH's infant, pregnant women and lactating women having access in balanced food – All the children have access of Vitamin A, Polio drop through local healthpost and FCHVs – Local people collects fish, Ghungi and Gagata from streams as source of nutrition . – Most of HHs have live stocks are cow for milk and goats and chickens for meat purpose.	– People are clearly aware on importance of Hand washing but proper adaptaion of handwashing with soap not satesfactory – Most of the HHs in marginal community practice of using BASIVAT – Rare knowledge on consumption of balance diet and food safety – Marginal community has challenge to manage food for family but they succeed very easily to manage alcohol – Marginal community have high consumption of alhocal – Children from marginal communities have high prevalence rate of malnutrition – Similarly pregnant and lactating women do not have access to nutritious food	– – Awareness session on balance food – Sensitization event on importance of nutrition and balance food related challenges and opportunities
Solid Waste Management	– Municipality has decided to purchase two tractor for garbage collection – Garbage collector comes at HHs and get purchase solid	– Lack of sensitization on importance of proper disposal of waste management – Municipality does not have policies on solid waste management	– Municipality has allocated budget to establish waste management system – Waste decomposing land as dumping site has been identified

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	wastes i.e. iron piece, metals etc – People dumps their HHs waste on the road –	– Absence of technical expert to develop waste management plan and operation modalities in Municipality level	
Waterborne Diseases	– – High prevalence of skin disease – Children and Adults both age groups are experience of diarrhea – When there is any disease, people go to local health post or after referral of health post they will consult on specialized doctor – To cure the skin disease, they are using normal cream available in local medical store	– Most of people have skin infections – Access of mosquito and UDUS – Participant assumes that still 25% people goes to river and ponds for bathing and washing cloths – Absence of medicine in government health post	– People thinks that it will minimize skin disease when they use chemical of purifier in the water they use to bath – Promotion of awareness on harm of bathing and wahing cloths in river/pond water – Organize series of water resource sanitation campaign – Management of sewerage/drainage system out of river and
Menstrual Hygiene Management	– Terrain community does not believe on discrimination during menstruation but community originated from hill are very discrimination due to their custom – People hesitate to discuss and share ideas on menstruation health management either in home or public places	– There is no provision on availability of menstruation pad in school or public offices – There is not practices of women friendly toilet with MHM facilities – Girls from senior classes are unable to continue school during menstruation period as there is not sufficient facilities for particular cases in school. – Lack of sustain practice of revolving use of sanitary pad for school girls and female teachers in school	– Awareness on harmfulness impact of using old and rough cloths as sanitary pad – Insure MHM friendly public toilet in school, health posts and other public places – Hand Washing facilities in public toilets and institutional toilets – Menstruation pad disposals in all public toilets – Insure incinator room with proper lighting and privacy in all public toilets – Menstruation health management awareness session with specific target to community women – Mobilization of local health volunteers for community level awareness events on Menstruation Health Management – Marketing of varities of sanitary pad in local markets and supports
	Kalyanpur – 8		
Access to Safe Water	– Main source of drinking water in HHs level is tube-well	– last year 9 hundred thousand rupees has been underspent in WASH sector – Water quality has not been tested since last 10 years	– Ward office has plan to install five deep tube wells – Water quality test of all public and private tube wells

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	– Most of tube- well depth set in 50-62 ft – Some of the tube-wells are installed in depth up to 150 ft. – Water quality test has not been done since last 10 years – There is a water supply stem construction work in progress since last three years and it is assumed to be completed by 2021. This support was provided by RWSSFDB. – Ward Office has allocated 16 hundred thousand Nepali rupees for the water supply scheme – There is 4 deep installed tube-well with depth of 200-400 ft	– Tube well water contains smell, yellow color and there is black spots on water pot – People are not happy with the performance of water supply system management committee – There was not any social audit event organized by water supply stem organized – many tube well are sinks in rainy season and flood	– Water safety orientation in rainy season – Tube- well maintenance training to women – Training on practical knowledge and skills on water treatment options in HHs level – Explore technical expert support to develop ward level WASH plan – Elevated tube-wells in low land for flood season
Access to Improved Sanitation	– People dumps domestic garbage in roadside – Though the community has declared ODF but open defecation practice is growing badly – ODF campaign has promoted use of toilets among 60% HHs	– 20% HH do not have toilets – Due to heavy rain 40% toilet's ring are filled of water – 20% Hhs do not defecate in toilet though they have own toilet – Participants assume that mostly female and senior citizens	– Motivational orientation and rules on toilet use is required – Subsidy support to empty of filled toilet ring – Social rules for those who avoid using toilets
Hand Washing and Personal Hygiene	– People are well aware of importance of Hand washing but proper use of soap is lacking – Easy access of water in community	– Many of the senior citizen washes hands with soil, sand and ashes – No provision of hand washing platform in HHs – Participants assume that 50% population will uses soap during hand washing	– Target age focused orientation events on hand washing behavior – School WASH program

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
Household Sanitation	– Many of the HHs livelihhod depends on agriculture and live stock – Daily practice of cleaning yards and animal shed – Kitchen produced waste given to the livestock	– No practice of waste segregation at source – There is no specific place to manage brocken glass and metals at HHs level – High appearance of fly due to joint cow shade with kitchen	– HHs level waste management training and materials required
Food Hygiene and Nutrition	– People uses same kinf of in lunch, dinner and breakfast – Many Hhs have their own kitchen guardening – Some of the HH business lies on vegitable production – Participants assumed that 90% HHs provides proper diet during pregnancy care	– Access consumption of junk food among children as tiffin – Access use of pesticides in vegetable farm – No use of refrigerator to store food for more than 24 hour – As many HHs have **guitha** (fuel to cook made of drying Animal dung) potentially disseminate bacterial infection in kitchen and food	– Provision of smokeless oven with series of awareness session and subsidy service required – Organic farming skills and training required – House worker female cetered food safety and nutrition training
Solid Waste Management	– No provision of waste management system in community level –	– Unmanaged disposal of animal dung in surround of House – People use to burn plastics on fire – No provision of public place cleaning schedule or any related system –	– Ward is planning to set waste collection system – Ward Office requires financial support to manage waste collection vehicle – Municipality should have to set policies and laws for waste management
Waterborne Diseases	– Common diseases in children between 3-10, are pneumonia, diarrhea	– High expansion of mosquito – All the people have knowledge on how to use dehydration – Lack of mosquito net for all HHs members – Skin diseases	– People suggested to spread mosquito prevention pesticide required in all places – Community sensitization orientation on child related diseases
Menstrual Hygiene Management	– No discrimination for menstruation period in terrain community – People do not discuss and interact regarding menstruation health in family	– Mostly old clothes pieces used as sanitary pad during menstruation – There has not been any formal training regarding MHM in community level – Mostly adult women health report has been found high rate of prolapse	– School level MHM sensitization training required – Advocacy and fund arrangement for MHM friendly toilets in schools, health post and public places required – Awareness raising events to minimize related discrimination

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
		– Lack of enabling environment of sharing issues and challenges during menstruation period in schools – Male members are reluctant to realize the need of MHM friendly environment in public places	
		Karjanaha – 1	
Access to Safe Water	– Most of the HHs have private tube-wells – Many of the HHs using dug wells water for use of animal – There are visible insects in well water – There are 14 dug well available in function in community – People collect rs. 200 – 500 annual for dug well cleaning –	– 50% of tube-well dries in summer for 5 months (Dada tole and Bayarbani village) – Most of private tube-well depth is installed in 30-50 ft – Water quality has not been tested since last 10 year – Drinking water is not pure as it contains iron, smells like fish and appears color –	– Ward office has installed 6 water tank with capacity of 500 ltr and have connected to deep tubewells. This serves as reliable drinking water source for 125 HHs in summer – Ward office needed technical and financial support for providing drinking water facilities for people in dry season – Water quality test required – Last year the ward office has allocated 26 hundred thousand npr for drinking water
Access to Improved Sanitation	– ODF declared – Number of HHs using toilet has been increased after ODF – Ward office had provided toilet support in subsidy for 5% HHs those who are identified as most vulnerable.	– Local people have lack of commitment towards improved sanitation – Most of the toilets are made with single pit – Toilets are being filled and there is lack of proper solutions as it takes equal cost of new toilet to empty the pit	– Drainage line required – Active youths are working for keeping local temples neat and clean. – People required alternative knowledge on how to empty filled toilet ring with cheaper cost. – It requires rigorous joint monitoring system in wards to sustain ODF –
Hand Washing and Personal Hygiene	– People are well aware on importance of Hand washing – FCHVs are continuously taking sessions on importance of Hand washing in monthly outreach service	– Though people are aware on importance of hand washing, it assumed that only 40% people have practice of proper hand washing – Most of the people do not follow proper hand washing practices with soap after out door work – Many senior citizen uses soil, sands for hand washing	– Conduct hand washing campaign – Assign community ambassadors for hand washing promotion – Integrated awareness sessions on personal hygiene and community WASH with hand washing messages – Provision of hand washing platform with soap as mandatory by ward office at all level –

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
Household Sanitation	– Varieties of knowledge on household sanitation based on education level – Rare HHs have practice of segregation of waste at source – Solid waste i.e. metal and glasses sold to garbage collector	– People do not store water in house but they uses directly from the source – Practice of joined kitchen and animal shade in most of HHs – People burns all the plastics and paper – People have culture of	– Support to generate awareness at household sanitation – Total sanitation interventions in community – Distribution of garbage collection/waste bin – Provision of best sanitation actors/contributors/beneficiaries/users prize/award among ward level
Food Hygiene and Nutrition	– 50% of HHs have practice of kitchen gardening despite of scarcity of proper water – If there will be sufficient access of irrigation water that will increase the kitchen gardening practices in more HHs – Most of families consume seasonal fruits and meat products available in local market – Broiler chicken has fulfilled the meat demand of local market	– There has been found different stages of mal-nutrition in community. – During the community surveillance there has been found 3 cases of SAM and 27 Cases of MAM in children – Junk food product consumption rate among children is very high – It is normal to use rice and curry with in 24 hours of cooking	– People requires food hygiene and nutrition awareness events – Required sensitization event on nutrition basics and balance food to avoid malnutrition impact
Solid Waste Management	- Waste management at HHs level and Community level both sectors are being less priority - Ward Office is not keeping the agenda of solid waste management in priority list	– Ward office has not allocated budget for solid waste management activities – Municipality office does not have clear plan on solid waste management – Municipality has not approved waste management framework and legal provision regarding the waste management issues	– It is very important to set joint planning meeting among municipality executive committee on planning of integrated waste management system as soonest as possible – Municipality should develop and issue Municipality Waste Management Act and Frameworks – Institutional WASH facilities operation framework should be developed and periodic joint monitoring has to be done.
Waterborne Diseases	– A total of more than 400 HHs do not have access of drinking water for	– Most of the HHs members have high prevalence of skin disease.	– Skin health camp in community level – Awareness on prevention of water born disease and proper care of children hygiene is required

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	4 month in dry season. – People does not have basic awareness on prevention measure of dairrhoeal infection and water born diseases.	– People are well aware of making oral rehydration treatment during diarrhea. – There is no provision of drinking water quality tasting.	
Menstrual Hygiene Management	– It is understood that menstruation is not a common agendas of male and female as it is assumed that only female are concerned of this issue – In comparison of terrain community, pahadi community are more backward and dogmatic on issue of meanstruation period.	– there are vast discrimination during menstruation period among Pahadi Bramhin and Kshetri community – Terrain community does not have discrimination on menstruation topic – Though proper management of menstruation hygiene in both communities are challenging as many of the women and girls uses unsafe/old clothes as pad – Menstruation will not be taken as process of reproductive health and normal cycle at HHs level – Due to absence of basic hygiene facilities in schools, girl lefts school during the peiod –	– Very important to extend awareness of menstruation hygiene management at all level – Development of gender friendly WASH facilities in schools and institutions especially in schools and public offices – Sensitization event on reproductive health and hygiene management among youths and adolescents
	Siraha – 11		
Access to Safe Water	– Most of the HHs have practice of tubewell water for drinking purpose. – Ward office has supported to install 36 new community tubewlls – No practice of water treatment	– Tubewell water contains yellow color and cream in storage point – Drinking water smells and have odor – Most of the tubewells are installed in depth of 50ft – No platform and proper drainage system in tubewells	– required drinking water quality test and facilities in community level – Transparency on drinking water supply system facilitated by DWSSSDO to users committee
Access to Improved Sanitation)	– Open Defecation Free Area declared – ODF campaign has accelerated the use of toilets from 5% to 85%.	– It is very costly to decompose safety tank. It costs similar of new safety tank construction. – Collected excreta from safety tanks dumps in open land or in forest. Which is similar of risk of open defecation.	– Provision of fecal sludge management – Post ODF intervention needed to sustain ODF achievement

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
		– There is no provision of fecal sludge management system/facilities. – About to 10-15% HHs need to revisit for assurance of no open defection.	
Hand Washing and Personal Hygiene	– All are well aware on importance of Hand Washing but rarely practice in action – Those parents who have tought their children to handwashing are being replicated by children	– 30% of population wash their hand with soap in critical times – Only those who have toilets in home are assumed to wash their hand with soap after toileting – Senior citizen does not have practices of wahing hands with soap.	– Ward office has proposed plan to work together and in partnership to promote hand washing and personal hygiene awareness at all level.
Household Sanitation	– HHs sanitation practice need to be improved. – Segregation of waste at sourse has not been in practice. – Most of the families have cattle/livestock for milk and meat.	– People dumps HHs waste on road side and public places – Plastics are burn in fire which is very harmful to the surrounding people through air pollution – Hand washing platforms are rarely available in HHs and institutional level	– Promote awareness on managing drinking water resource from out of danger of contamination – Awareness on segregation of HHs waste at source – Ward office has not proper strategic idea on post ODF plan and they require support from the project on this process.
Food Hygiene and Nutrition	– Most of families borrows vegetable from market than producting from home. – Dalit community people gets dietary food from river/streams and canal – Lunch and dinner contains simple nepali dishes of Dal, Vat, roti – Most of the families uses woods and animal dung (GUITHA) for cooking.	– People assumes that there is access use of chemical in vegetables – Alchohal consumption rate is very high – Ultra poor families do not use vegitables as they eats lunch and dineer with salt and raw oil. – Lack of safe storage of food and poor food hygiene practices – Lack of safe storage practices of drinking water in HHs level as they do not uses cover in water pots	– Awareness promotion on importance of balanced diet and nutrition. – Awareness on food hygiene and kitchen gardening.
Solid Waste Management	Most of the communities HHs are reluctant to practice waste management	– People dumps HHs waste in road side, road drainage, which has blocked flow of drainage.	– Develop and implement waste management strategy for market area and community level. – Municipality should manage and mobilize vehicle for waste collection and dumping sites.

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	- Municipality does not have integrated waste management strategy and plan		– Municipality and all wards should develop restriction and punishment for those who denies to follow municipality waste management policy.
Waterborne Diseases	– Youths and adults are well aware of preparing oral rehydration during dairrhoeal infection.	– Dairrhoeal infection, Pnemonia, Fever are the key illness that has prevalence to children in community. – Adults are also been affected by skin dieseases, dairrhoeal infection and fever so far. – Women has high prevalence of prolapse infection.	– Organize community level awareness campaign on ideas of preventing water born disease and child care. – Privide orientation on preparing oral rehydration process among children – Drinking water quality test – Provide orientation on water purification and point of use option
Menstrual Hygiene Management	– It is understood that menstruation is only related to female and male has not any responsibility to support her	– Old clothes been used as menstruation Pad – Pahadi's communities have discrimination to women during menstruation period – No access of safe pads	– Awareness raising events on menstruation hygiene management – Advocacy on functional WASH practices in institutional level regarding CGD friendly facilities
		Siraha 12	
Access to Safe Water	– There has not been tested water quality since 2009 or past 10 years. – Most of the tube well are installed in depth of 60 Ft – After 2015 earthquake iron contain in tubewell water has been increased	– There is no prohibition mark in Arsenic contained tube wells and people have been drinking such water. – Clothes color changes due to iron in water – Water pot has black spots – 200 HHs does not have private water resource and they go to public tubewell or neighbor tubewell for fulfilling the need of domestic water – There is tradition to use of animal dung in base of installed pipe of tubewell. That would increase the direct contamination of E-coliform in newly established tubewell.	– Water Supply and Sanitation Division Office Siraha has installed water supply system in Saraswar but the water quality of the installed boaring is not found satesfactory in terms of iron
Access to Improved Sanitation	- Though the ward has declared ODF but community people are not happy to observing the progress quality.	– Some off the public and private toilet sludge has been set on the pond water directly – There are many shared toilet in data – People goes to defecate in open place to save life of their safety tank	– Ward Office should have post odf and total sanitation plan onwards – Most of toilets are constructed with doble pit and 6 ring technology – The cost of cleaning safety tank service is very high. Municipality should have proper plan to conduct subsidy on cleaning safety tank.
Hand Washingand	– Most of the families are	– People uses ashes or soap for clensing/hand wash	– It is very urgent of activeness of community people on monitoring and

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
Personal Hygiene	engaged in farming and agriculture related livelihood – No bathroom in HHs level – Hand washing practices with soap has been increased from past	– It is assumed that only 50% kitchen worker may wash their hand during food preparation so far	followup of hygine practice in community – Form integrated wastsan committee in all clusters and set action plan
Household Sanitation	– People dumps house hold's waste in public places – Integrated urban development program, has been supporting to construct drainage in road side	– Status of HHs sanitation and hygiene is in risk due to unmanaged waste management practice – Livestock and Animal shade is one of the challenge to manage HHs waste management –	– There is need of waste management technology at HHs level
Food Hygiene and Nutrition	– Family based on individual economic capacity depends the consumption of nutritious food – 20% of the HHs have practice of kitchen gardening – Recently the kitchen utentils has been imfproved with cover and safety	– Maximum use of chemical fertilizer in vegetable farm – Many of the Hhs are not aware of food safety practices in kitchen – High consumption of junk product – Most of the HHs does not have practice to cover in pot/utentils – Most of the HHs kitchen management system are poor and risk of food contamination	– Awareness raising event on comprehensive food safety, balance diet and nutrition issues – Training to kitchen worker on food hygiene management
Solid Waste Management	– Ward office does not have waste management plan	– Market area people dumps urban waste in Mirchaiya Pokhari – Slaughter waste has been managed in pond directly – There is no sufficient vehicle for waste management in market area. – There is only presence of once in two month for waste collection.	– Ward office does not have waste management plan nad policies – It is very important to develop a integrated waste management plan with participation of all the relevant stakeholders
Waterborne Diseases	– People are aware on preparing oral rehydration system	– High prevalence of skind disease, fever and diarrheal infection	–
Menstrual Hygiene Management	–	– Unmarried male are not sensitized on menstruation health management whereas it has been known only issues of women	– Youth mobilization plan for promoting awareness on menstruation health and hygiene

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
		– School age children are not aware on menstruation health – Menstruation health and hygiene is very challenging due to people takes it as untouchable matters	
	Siraha – 17		
Access to Safe Water	– Private tube wells are installed in depth of 25ft to 75ft – Public tubewells are installed in depth of 100 ft to 175 ft	– Tube well water contains smell, color and iron where as it is not safe in the eyes of community people. – Tube well water has not been tested – People drinks water from tube well directly without any treatment	– Ward Office is exploring partnership opportunity to teste drinking water quality and financial assistance for technical service – No ideas of water treatment options – Ward office require support from Sabal Nepal to develop water quality increment plan
Access to Improved Sanitation	– People interest on importance of toilet has been increased – There is one public toilet in bus park, which has assigned a sanitation monitor for toilet care – This ward has been declared ODF	– There is 400 HHs toilet has been dried due to flood – Those families, whose toilet has been drained by flood water are started to defecate in open places – 80% HHs toilet has been constructed with single pit safety tank.	– People are in search of safety tank cleaning low cost options and technologies – Provision of elevated toilet in low land – Ward Office needed Post ODF planning support – Sensitization on WASH in emergency message in broader level
Hand Washing and Personal Hygiene	– Most of the people are aware on importance of Hand washing behavior – Consumption of toilet sop has been growing than previous year	– Only 50% people uses hand washing with soap. – Most of the people washes hand only with water – Senior citizen washes hand with clay and mud	– Hand washing campaign in clusters – Mobilize School children for hand washing awareness at school and HHs level
Household Sanitation	Understanding of people on improved sanitation has been increased. Which has created demand for sanitation facilities in community.	– No practice of waste bin – People dumps plastic in open places – Vegetable and kitchen residue feed to animal – There is no provision to drain tubewell water – Management of livestock shade is challenging for HHs waste management practice	– Promotional activities on HHs waste management options and solutions – Manage movable waste bin in many areas

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
Food Hygiene and Nutrition	– Flood hazards during rainy season – People grows vegetable in dry season	– Access use of chemical fertilizer in vegetable farm – Rare knowledge and practces on consumption of balance diet - Many families from ultrapoor community can not manage proper food for families - Poor food hygiene practice in household	– High prevalence rate of mal neutrition – No provision of nutrition counselling services
Solid Waste Management	– Municipality garbage collection vehicle arrives once in a month even not sure	– Waste management practice in market area is very poor	– Some individual collects re-cycle able waste i.e. iron, metals, plastic commodities etc. – Municipality and Ward office requires appropriate technical support on waste management system
Waterborne Diseases	– prevalence of seasonal disease among all age group rate is high – people are aware on oral re-hydration system	– Children age of under – 5 are highly affected of multiple illness – mosquito hazard	– Identify the vulnerable HHs and provide proper assistance with awareness support – No health post in ward no 17.
Menstrual Hygiene Management	– Terrain community do not discriminate to menstruation	– There is no open discussion on menstruation health and hygiene in families – Most of women uses unhygienic clothes as pad during menstruation period	– Conduct awareness on menstruation hygiene in schools and community
	Siraha – 21		
Access to Safe Water	– Ten years ago most of hand pump water were found arsenic infection – School tube-wells are installed ini deepest layer of water – Ward has been distributing tube-wells on the basis of received demand from group of users than individual.	– Though most of tube-wells are found arsenic infection, these data's are not available in record. – It has been more than 10 years of water quality testing – 20% people does not have private tube-well and tap or both. – Water smells and seen yello cream – Tube-well were sinked on flood during rainy season	– There have not been tested drinking water quality status of distributed public tubewells by ward offices – Ward office ha been distributed 42 set of tube wells in last three years – No practice of using filter – High demand of deep tube-wells – Some public tube-wells are unmanaged
Access to Improved Sanitation	– ODF Community – Most of HHs toilets are built with single pit toilets	– Most of the toilet fills during flood and excreta comes on the water	– Post ODF strategy and support

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	– Cost of safety tank service is very high.	– Each HHs in low land have to manage 3000/3500 npr for safety tank service each year. – Due to stress of fillinig toilet, people started ODF – 30% toilets are partially broken and not usable, that requires to repairment	
Hand Washing and Personal Hygiene	– People goes to pond to wash dishes – Children swims in pond water	– 20% people washes hand with mud or soil rather than soap or safe treatment – 60% youths are aware of hand washing practices and importance – There are some of the families who can not manage the cost for soap and other sanitation requirement for their use	–
Household Sanitation	– Women group are assigned to HHs sanitation – Mosquito hazards – HHs level composting is in practice in some HHs	– HHs waste dumps at public lands and road sides – Poor composting system of animal dung and farm products – Burning plastics – Fly hazards	– Required moveable waste bin in community level – Training on composting organic fertilizer through livestock shade product
Food Hygiene and Nutrition	– No practice of kitchen/home gardening – 50% family uses pressure cooker to prepare food	– People uses GUITHA and fire wood as energy to prepare food – Smoke is on of the challenge to the women health – Challenge to manage hand to mouth for family members in ultrapoor dalit families	– Awareness on food safety and kitchen hygiene – Ultra poor family focused intervention needed
Solid Waste Management	– Most of the people burns plastics and paper – There is individual waste collector comes to HHs	– – No provision on waste management sytem in practice – Public ponds, road sides are the place to dump all kind of garbage – Community are not senciere on improved waste management system – During the rain seasn flash flood flows all the garbage from river	– Introduce integrated waste management system in municipality level – Distribute moveable waste bin and introduce community level waste management system
Waterborne Diseases	– People goes to local health post for conselling service	– Skin disease – Fever – Mosquito hazard	– Annual health camp – Manage proper medicine in local health post

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
Menstrual Hygiene Management	–	– No discussion of MHM at HHs level – Many women have prolapse and uterious infection – Girls drop out from school during menstruation period	– Menstruation health Management awareness in community through schools
	Siraha – 22		
Access to Safe Water	– Hand pumps and tube wells are the main source of drinking water – Some of the families uses water filter – There has not been water test since last 12 years	– Restricted tube-wells water also being consumed for drinking purposes – Ultra poor families does not have private tube-wells – People are well aware on poor quality of water but do not have access and ability to introduce treatment facilities	– No record of installed public tiube wells and water quality test record – People assumes that it is required to installed over 200ft for quLity drinking water – People thinks that filter water is not fresh water as of direct water from tubewells or tap – Public tube wells are unmanged and requires renovation
Access to Improved Sanitation	– ODF Community – These toilets which were been constructed forcefully at final stages of ODF are not sustained – People have pressure to manage cost of safety tank in result some of they has restored open defecation	– 20% HHs toilets are use less – Poor monitoring and followup system has resulted poor sustainability of use of toilet – People goes to open defecation on around public pond, streams bank and rural roads. – Water users committee is dissolved.	– Awareness raisinig campaign for specific group – Provision of positive and negative both motivation for sustain ODF through municipality level – Provision of joint toilet for land less community – Provision of subsidy in safety tank services – Community mobilization in specific community of open defecation practice
Hand Washing and Personal Hygiene	– New generation are well aware of hand washing behavior – No provision of separate bathroom in HHs level in rural area	– Only 50% people uses soap or hand wash – People washes their hand with soap – People still uses pond water for cleansing utentials and washing cloths.	– Conduct pond and water resource leanseaning campaign – Develop public pond as water fun park – Promote hand washing aawareness with mobilization of women and children
Household Sanitation	– Some HHs manages kitchen waste as food for their animals	– HHs waste are dumping on the road sides – Poor understanding on practice and importance of waste management	– W/MWASHCC should act properly to direct and introduce local laws regarding waste management system effectively.
Food Hygiene and Nutrition	– Normal Nepali food – People have practice to have	– rare activities on food hygiene and nutrituion awareness – Fly hazard	– Orinetation on importance of food hygiene and food safety – Private hotels and resturants focused food hygiene awareness raising events and periodic monitoring

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	nutritious food in festivals – Uses Guitha and fire woods in kitchen	– People do not have practice of using soap/hand wash before having food – Food hygine management in hotels and restura is challenging	
Solid Waste Management	– Waste management is not in priority among local planners	– Municpality has not been able to expand waste management activities in all wards – Ignorance of waste management plan during planning process – Public are not aware on individual role and duty to improve sanitation and hygiene	– Provide technical support to develop long-term integrated waste management system in Municipality level – Develop waste management policy and act – Providion of reward and punishment regarding waste management practices
Waterborne Diseases	– Health expenses has been increasing level –	– Fever, Pemonia, dairrhoea, skin dieseas are key health challenges – Mosquito hazards	– Effective mobilization of FCHVs – Health post should store proper range of medicine
Menstrual Hygiene Management	– No discrimination on menstruation reson in terrain community	– Girls and women uess unhygienic clothes as pad during the period. – Girls used to break the school during menstruation period. – No girls friendly toilet in schools.	– Advocay to insure gender friendly toilet in all offices – Conduct menstruation hygiene management campaign – Integrate menstruation hygiene management awreness sessions in wards annual plan
	Kalyanpur – 11		
Access to Safe Water	– Water supply pipes are licked – Twenty years old supply system in function – Very less HHs uses supply water than tube-well water – water supply system is not functioning from many years	– Water users committee does not have operation and maintainanace knowledge – Distribution pipes are damanged and liked – Lack good governance system – Some toubewells water were seen Arsenic – Lack of technical knowledge on maintenance	– All the distribution pipe required to renovate or replace – Ward office may develop a plan for water quality test – Distribution of community tube-wells – Improvement on water supply system governance – Assign technical volunteers to operate Water supply system
Access to Improved Sanitation	– ODF Declared – 55 HHs does not have toilet – Most of the toilet design are double pit – School and health post have toilets	– 55 HHs does not have toilets – No public toilets are available but no. of HHs having open defection is very Hight than this – Unmanaged piglets in the market – Exact HHs data are not available in the ward – School toilets are unmanaged and dumped	– It is important of joint monitoring of ODF – Public toilet needed in market place – Ward office was allocated 2 lakhs in sanitation – Safety tank service charge is very high. It is better to manage on subsidy basis.

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	Kalyanpur – 3		
Access to Safe Water	– Tube well is main source of drinking water – There is one deep tube wells for water scarcity area	– More than 50% tube well affected by flood – Water quality has not been tested	– This year ward has plan to install 5 tube wells
Access to Improved Sanitation	– New RCC construction has increased the practice of safety tank – Most of the HHs have double pit toilets	– Flood water lickage in toilet ring – Safe tank disposes fecal sludge in open places i.e. river, forest or land with out treatment	– Urgency of post ODF plan – Joint monitoring visits
Hand Washing and Personal Hygiene	– People do not use toilet soap for hand wash	– Senor citizen uses soil or mud for hand washing – No provision of hand washing platform	– Organize awareness raising events ini community level
Household Sanitation	People uses animal (cow/OX/Bufallow) excreta/dung for plastering/painting the floor – People makes smokes of syaula to avoid mosquito bites at Hhs level	–	Organize awareness raising events ini community level
Food Hygiene and Nutrition	– Use of junk food has been increased –	– Not access of nutritious food to all	–
Solid Waste Management	– Waste management status depends on the individual awareness level – Some people decomposes the HHs chores product as composting manure.	– Plastic and papers are burned – There is unmanged waste in public places and markets – NO provision of movaable waste management/garbage bin	– Provision of dustwin in public places – Develop safe and saperate dumping site
Waterborne Diseases	– Skin disease	–	–
Menstrual Hygiene Management		– No open discussion about menstruation hygiene and health	

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
		– Women uses old clothes as pad during menstruation period	
	Kalyanpur – 6		
Access to Safe Water	– Tube well is the main source of drinking water – There have been some public tube well as well – Some NGOs has supported to install public tube wells earlier	– Water layer has been set from 30 ft of depth – Water has smells and color – Some of the toilets and tube wells has not been maintained proper distance – Water layer down during dry season – Water has not been tested	– All the oldest tube wells and those which are less than 50 ft depth should be replaced or reinstalled – Urgency of water quality test ' – Better to manage a over head tank water supply system – Tube well support to marnial communities
Access to Improved Sanitation)	– 95% HHs have toilet	– 5% HHs does not have private toilets but the number of peole defecation in open places is high - 40% toilet super structure have been made with bamboo. Which may requires to repair in each 4/5 years	- Safety tank cost is highly. It is required to manage subsidy provision by municipality. - Urgency to manage move able light waste bin in public places
Hand Washing and Personal Hygiene	- Adults baths daily	- Most of women do not wash hand with soap after cleansing baby toilets - Common practice of bathing and washing cloths in pond	– School and community focused hand washing awareness campaign
Household Sanitation	– people clens dust from home daily	– dumps HHs waste in public places and road sides – As the tube well water is not good so people go to pond to wash utentils and clothes – People decomposes animal product as compost	– Manage light container/wast bin in public places – Municipality should have waste management action plan
Food Hygiene and Nutrition	– Regular nepali food in practice – People are dependent on market for vegetables	– People assumes that there is no prevalence of mal nutrition in their community – No practice of balance diet	– Ward office should organize nutrition and food safety orientation
Solid Waste Management	– Though people collect waste at HHs level but there is no provision to manage safely.	– Though people collect waste at HHs level but there is no provision to manage safely.	–] – Manage light container/wast bin in public places – Waste composting training
Waterborne Diseases	– Diarrhea, typhoid, and malaria – Mosquito hazard – Skin disease	– There has been opd of more than 300 people having skin infection in local health post	– Organize health camp – Provision of sufficient medicine in local health post

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
Menstrual Hygiene Management	– People have information of menstruation period – People have information of Senitary pad as well	- Old clothes are used as sanitary pad, which is completely risky - Married man and women discuss about menstruation cycle with their couple - There is no practice to discuss about menstruation in family - There is not practice to have extra diet during menstruation period.	– Provide training and skills on preparing sanitary pad at HHs level – Integrated menstruation hygiene awareness training/orientation to male and female – Awareness session on MHM in Schools – Advocacy to establish enabling environment for girls and women during menstruation period in schools and Office. – Mobilize health post to promote menstruation health awareness messages
	Karjanaha – 9		
Access to Safe Water	– All the house holds drinks tube well water – 50% tube well has fixed with plat form – Most of tube well water layer fixed in 45ft	– 60 HHs does not have private tube well – 50% tube well does not have installed platform and drainage – Tube well water quality has not been tested since last 10 years – Approximpately around hundred number of tube well does not work in dry season – Most of the tube wells and toilets are very close. –	– Promote awareness on water purification system and point of use promotion messages – Connduct tube well platform installation campaign over the wards – Better to start a water supply system
Access to Improved Sanitation)	– 90% HHs belongs from the Dalit families – Most of the toilets are byilt with douple pit and some are single pit or installed safety tank –	– . – 5% HHs toilets need to renovate or reconstruct – No ideas on fecal sludge management – Most of the single pit toilets are about to filling and people are curious to next option to empty the toilet rings with low cost technology	– Awareness on functional sanitation and hygiene technology in community is required
Hand Washing and Personal Hygiene	– Most of people uses toilet soap for hand wash	– Senior citizen washes hand by plain water only.	– Ward office doe not have any program regarding hand washing awareness event
Household Sanitation	– People uses GUITHA to cooking food in kitchen – People are positive to improve kitchen hygiene	– Kitchen hygiene status is related with the people economic status and awreness level – HHs garbage dumps in public places and road sides	– Needed awareness raising programs

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
Food Hygiene and Nutrition	– People consume nutritious food in festivals	– Maximum consume of junk food amog children – People go to market for vegitable and food – Food hygiene practices in very challenging in ulltra poor families	. – Ultra poor HHs focused food hygiene and nutrition training
Solid Waste Management	– Availability of safety tank service from private sector –	– Collected feces from toilets are dumps in open land and without any treatment – Cost of private safety tank is very high – Ward Office does not have specific waste management strategy and plan – Live stocks are left on the road side	Ward office is requested to manage moving garbage bin and vehicle for garbage collection
Waterborne Diseases	–	– Skin disease – 25% of monthly income expenses for children health care.	– There is access of advance health facilities in Fulkumari Mahato hospital which is close by to the community – Children health awareness message is required by the community
Menstrual Hygiene Management	–	– No culture of discussion on menstruation period challeneges at HHs level – Girls do not goes to school during the period – Mostly old clothes used as sanitary pad	– Provision of sanitary pad in schools – Girld friendly toilet in schools – Awareness on importance of menstruation hygiene management in community and schools
	Kalyanpur – 5		
Access to Safe Water	– Tube wells are the main source of drinking water – 30 community tube wells are in well functioning	– There has not been water quality taste since a decade – Even though the water are found contaminated are not trated well – All the public tube wells were found colifirm infection	– Ward office does not have water treatment plan and strategy – Ward office does not have record of arsenic infected tube wells
Access to Improved Sanitation)	– Rural sanitation status is very poor and hazard – ODF declared – Many house holds does have toilets in Dalit settlement	– 50% HHs of this community goes to open defecation – Access open place for defecation ☺ – People have misconception of joint toilets makes entire house unhealthy – Distance of toilets and tube wells are close – Toilets rings are filled during flood and rain	– Though there is 4 public toilets but all are use less and dump – Ward office does not have post ODF plan – Mobilize joint monitoring committee by ward – Promote awareness on importance of improved sanitation
Hand Washing and Personal Hygiene	– Most people have bath in daily basis – People have clear idea on	– People do not wah their hand with soap – Especially children and senior citizen are not habitual of hand wash with soap	– Organize mand washing campaign in micro stages

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	importance of hand washing	– Most of people wahes hand with plain water	
Household Sanitation	– People uses animal (cow/OX/Bufallow) excreta/dung for plastering/painting the floor	– People dump HHs waste on road side – Live stocks are left on the road	– Form ward level and cluster level water sanitation and hygiene committee – Mobilize joint monitoring team in community level
Food Hygiene and Nutrition	– Some years ago Health office had organized mal nutrition screening program	– 29 children were found mal nutruiton	– Organize orientation on food hygiene and balance diet – Ward office should plan total sanitation in priority
Solid Waste Management	– Some families dumps garbage on composting pit	– Many HHs dumps collected waste on road sides and open places – Ward office has not set priority to WASH issues – Municipality office has not given priority to integrated waste management	– Provision of community garbage bin for waste collection – Awareness messages on waste management
Waterborne Diseases	–	– Dairrhea – Jaundice, fever and typhoid, Malaria – Mosquito hazard	– Distribution of mosquito net to ultra poor families – Provision of vector control service in municipality and ward level
Menstrual Hygiene Management	– Pahadi community have discrimination to women/female during menstruation –	– Lack of openly discussion practice regarding menstruation period and hygiene in family – Not availability of sanitary pad in local market in rural villages – Most of women uses old clothes as sanitary pad and which is not assumed safe	– Awareness raising on meanstruation health – Advocacy on importance of girls friendly WASH facilities in school, collage and public toilets – Prepare investment plan to improve public/institutional WASH facilities
	Karjanaha – 3		
Access to Safe Water	• Tube well are the main source of drinking water • Fund board has supported to install 60 tube wll in marginal communities some year ago • Most of private tube-wells are installed in range of 32-45 • OHT water sypply system of bastipur has been use less	• OHT users committee are unable to manage operation and maintainance cost • All the distribution pipeline and points have been broken • There is bill of more than 10 lakhs to be paid to NEA. • No sufficient number of users	• required heap of central/provience government to re-functioning of bastipur OHT • Alternate provision of water quality test of community tube-wells • Municipality has to be own the OHT system strengthen and re-functional support

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
Access to Improved Sanitation)	• The flood of 2074 wasdevastating than within last 25 years. • It is ODF community	• Due to the flood many HHs were displaced for around a month • Most of toilets were filled and flew of drain water • Poor hygiene practices in children • 20% HHs goes to open place to defecation	• Repairmen of toilets • Construct flood pass way in road area and low land • Elevated toilets in low land
Hand Washing and Personal Hygiene	• Most of HHs toilets having double pit • Ward office has organized hand washing events in earlier year	• Costly safety tank service as it took 3000-5000 per toilet • No provision of hand washing platform at HHs level	• Awareness program
Household Sanitation	• Project staffs, FCHVs and NGOs are the instruments to promote WASH awareness in communities	• People dups waste on the road side	•
Food Hygiene and Nutrition	• People grows vegetable in own land • Most of HHs have regular meat and fish	• Access use of fertilizer in agriculture and vegetables	
Solid Waste Management	• people dumps HHs waste/garbage on river • There will be garbage collector of iron and glass • There is garbage collection vehicle in municipality	• No regular schedule of municipality garbage collection vehicle	• Fix a waste management system and location through dumping site • Composting training at HHs level
Waterborne Diseases	•	• Male and female both has skin disease	•
Menstrual Hygiene Management	• Though male are aware of menstruation period on women but there will not be open discussion on their challenges • Ward Office has shown concern on	• Most of the female voluntarily go to bath in pond and river (not specific to period) • Schools toilets unmanaged for girls to use during period	• Conduct sanitation and MHM awareness campaign in Municipality • Advocacy for access and investment

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	the issues of menstruation hygine management. Where as there is allocation of NPr. 1 lakhs.		
	Karjanaha – 5		
Access to Safe Water	• VDC has installed 30 public tube wells • Some HHs does not have private tube well • Water layer is 25-30 ft	• Tube well and toilet distance is less than close of 10 miter • Water scarcity in dry season • Water quality has not been tested	• Provide tube well in dalit HHs as group approach • Water quality test of all tube well and schemes
Access to Improved Sanitation)	• ODF Community • Most of toilets having double pit • Lack of sufficient land for toilet especially in dalit community	• Some people does not have toilets • No public toilets • Ward office does not have post ODF plan • Many HHs toilets super structure requires repairmen	• Awareness raising • Post ODF program • Joint monitoring visit • Promotional support of Municipality office
Hand Washing and Personal Hygiene	• Most of HHs member are in foreign work in gulf and Malaysia	• Most of the people uses clay or ashes for hand wash	• Public awareness campaign
Household Sanitation	• HHs level waste dumps in road side • Kitchen residue gives to the animal	• HHs level waste dumps in road side • NO specific place to dry utensils	
Food Hygiene and Nutrition	• Most of the Hhs are able to manage sufficient food •	• Some of the Hhs especially from ultra poor category are unable to manage head to mouth for members • Awareness level on food hygiene is very low • 24 children were identified in category of mal nutrition	• Nutrition orientation support • Food Hygiene training • Awareness events
Solid Waste Management	•	• Ward office does not have solid waste management plan	• Find the appropriate dumping site • Introduce integrated waste management law
Waterborne Diseases	• Seasonal fever	• Goes to bath and washing clots in Pond • Health post does not have sufficient medicine • Vector related infections	• Vector bite/infection related disease control program/plan
Menstrual Hygiene Management	_ • There is no restriction to female during	• Pahadi community have discrimination to women/female during menstruation	• Women friendly wash facilities in school and institutions/offices etc • Provision of free sanitary pad in school • Awawreness on MHM at all level

Scopes of WASH	Present Situation	Issues/Problems	Needs/Measures to solve the problems
	menstruation period in family interaction in terrain community	• Lack of priority on challeneges of menstruation issues in the com munity	