

Total **SANITATION PLAN**
Of
ISHANATH MUNICIPALITY

Submitted to:

Rural Development Center (RDC) Nepal Rautahat, Madhesh Pradesh, Nepal

Submitted by:

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Acronyms

| | |
|-------|-----------------------------------|
| BS: | Bikram Sambat |
| FGD: | Focus Group Discussion |
| HH: | Household |
| KAP: | Knowledge, Attitude and Practices |
| KII: | Key Informant Interview |
| OD: | Open Defecation |
| ODF: | Open Defecation Free |
| ORS: | Oral Rehydration Solution |
| UN: | United Nations |
| WASH: | Water, Sanitation and Hygiene |

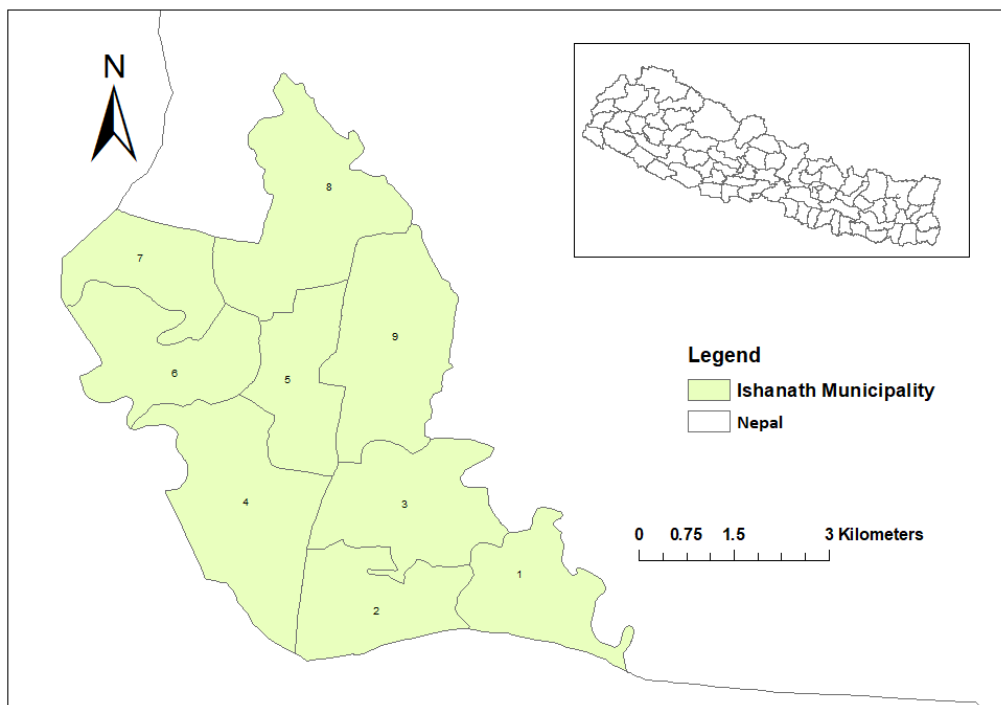
1. Background

Efforts to promote sanitation in Nepal began in the 1980s with the United Nations (UN) declaration of the International Decade of Drinking Water Supply and Sanitation. Nevertheless, sanitation effort began in early 90s (Government of Nepal 2011). Nepal became an open defecation-free country in October 2019. As a first step to Total Sanitation, ODF has been viewed as an important sanitation milestone, which implies all residents have access to sanitation facilities and do not defecate in the open (Kohalpur Municipality 2020). Sanitation has been recognized as the basis for health, dignity and development in recent years (Government of Nepal 2011).

1.1. Ishanath Municipality

Ishanath municipality is located in the Rautahat district of Madhesh Province in Nepal. The municipality comprise of nine wards. The area of municipality is 35.17 square kilometers. The municipality lies within the region of tropical climate.

There are 8084 families having total population of 53402 (Female- 26581) in the municipality. The municipality comprise of 6289 households (HHs) (CBS 2021).



Map 1: Map of the Ishanath Municipality

1.2. Scope

Based on the Knowledge, Attitude and Practices (KAP) survey conducted, Focus Group Discussion (FGD) and Key Informant Interview (KII), the general sanitation plan has been developed. The plan covers the drinking water management, solid waste management, and sanitation (use of toilets).

1.3. Objectives

The document intends to outline the general sanitation plan of the Ishanath Municipality of Rautahat district. The sanitation plan is developed to achieve safe drinking water, proper sanitation, and hygiene.

1.4. Limitations

The plan entirely is based on the limited number of wards covered and findings from KAP survey, FGD and KII conducted within the wards of the municipality. In the absence of each ward and settlements situation analysis, the plan does not pay much attention to the other environmental sanitation components but tries to establish the connection between them.

2. Plan Development Approach and Methods

The KAP survey, FGD and KII followed by informal interaction of relevant stakeholders and individuals are the primary methods adopted for this plan preparation process.

2.1. KAP Survey

KAP survey on water sanitation and hygiene (WASH) was conducted in November 2022, which gave brief insight of existing understanding of locals on sanitation. The KAP survey adopted cross-sectional study design and utilized quantitative methods utilizing the participatory approach to identify KAP status, gaps, resources, and opportunities to sanitation plan. The survey was administered to 110 respondents from wards 1, 3, 5 and 9 of Ishanath Municipality.

2.2. Focus Groups Discussion (FGD) and Key Informant Interview (KII)

FGD and KII were conducted to collect the qualitative data for developing the plan. The data from the FGD and KII was triangulated with the data collected from the survey. This gave the overall insight of the knowledge, attitude and perception of the community in sanitation sector, the result of which can be used for developing the sanitation plan. Three numbers of FGDs with municipal executive committee, women groups/mothers' group and WASH coordination committee and four numbers of KII were carried out in Ishanath Municipality.

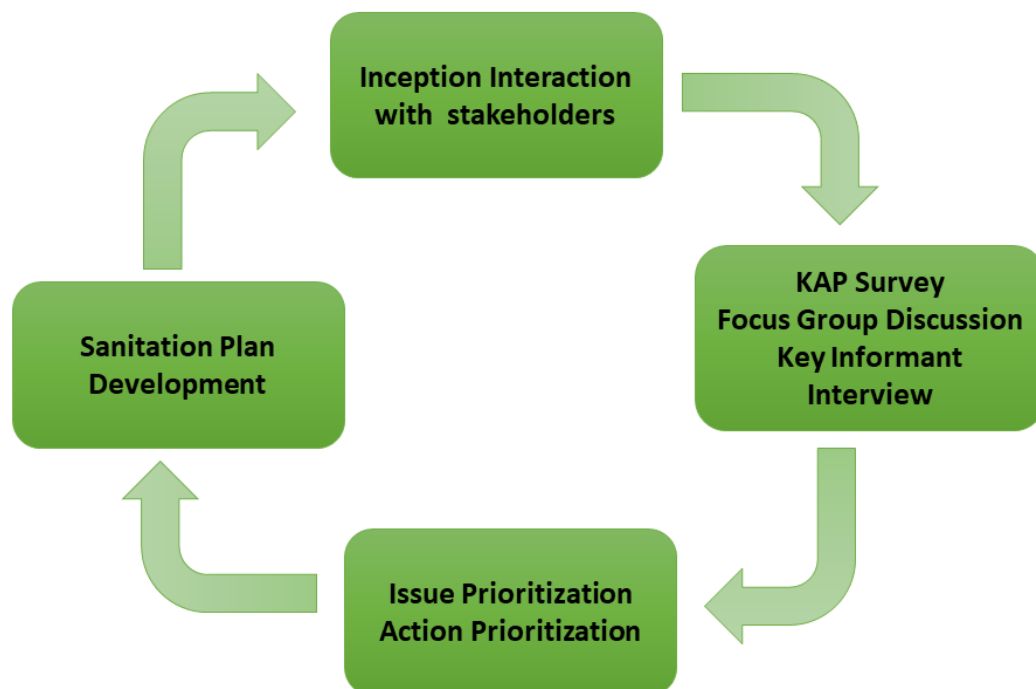


Figure 1: Sanitation Plan Development Approach

3. Results and Discussion

Based on the KAP survey conducted the existing status and gaps of sanitation within the municipality are identified, the details are outlined below.

3.1. Education Status

The analysis of the survey data showed that the 49% of the population of the Ishanath municipality are literate among the 110 respondents. Of which 15% has completed secondary school, 34% has completed primary. Still the municipality has 51% illiterate people, which shows the inaccessibility of information to certain group that will hinder the sanitation activities now and in future.

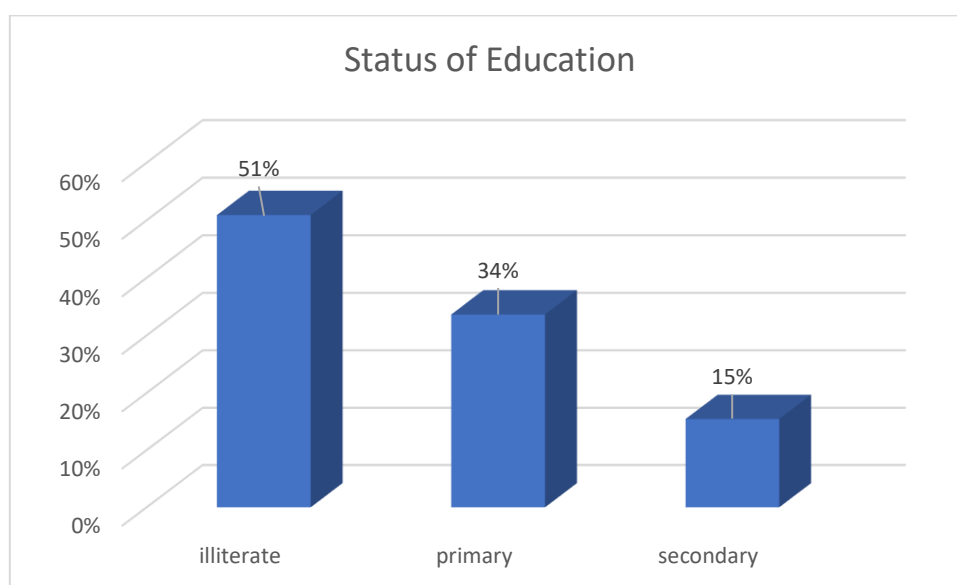


Figure 2: Education status of Respondents

3.2. Drinking Water

The people of this municipality are drinking water from communal tap stands, water tanks, rivers and ponds. The KAP study demonstrated that 96% of people drink water from the communal tap stand. Since the survey showed that water is not sufficiently available for 25% of the community, of this 46% use water containers to store the water in their houses. The majority (99%) of these people cover their containers.

Nearly half (48%) of the community people believe water carries infectious diseases. Therefore, 67% of the community people of this municipality use water treatment methods for drinking purposes like boiling water, use of Piyush, SODIS. People of this community are not satisfied with the water quality of the drinking water; they informed about the bad taste and bad smell. 39% of people in the municipality believe water contains arsenic/iron, which is toxic

element to the human body. Therefore, it is most to conduct the water quality assessment in the region.

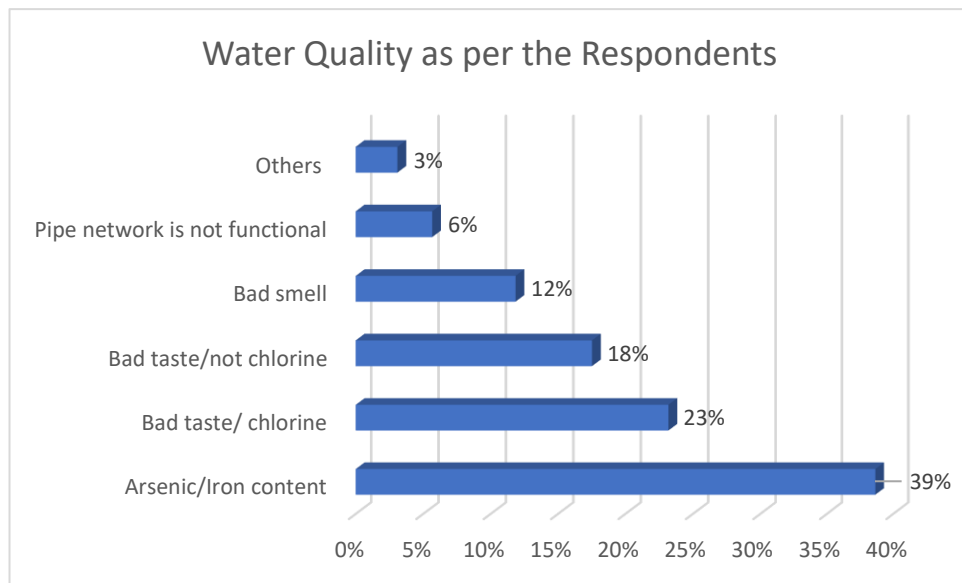


Figure 3: Water quality as per the respondents of Ishanath Municipality

3.3. Water Borne Diseases

The data analysis of the KAP survey showed that 48% of the population of the area are aware of water borne diseases. This shows that more than half of the people of this palika are ignorant about water borne infectious diseases. Since these people are not aware of it, if the disease outbreaks it will be difficult to contain.

However, the community has fair knowledge on diarrhea and its treatment viz. 65% of the community have ideas about the Oral Rehydration Solution (ORS) for Diarrhea, 3% go to clinic and about 31% responded that they would do nothing which is quite an area of concern.

3.4. Toilets

Majority of people feel safe using toilets, they find it comfortable. However, despite, declaration of open defecation free zone, 82% of the population of the area have observed open defecation. The people who are defecating in the open space are primarily the elderly. 43% of the respondents responded that elderly people practice open defecation (OD) the most and the least (only 8%) responded that teenagers practice OD. The data clearly shows that there might have emerged some form of issues which are hindering people going to toilet for defecation. Or the post-ODF activities have not been ensured seriously.

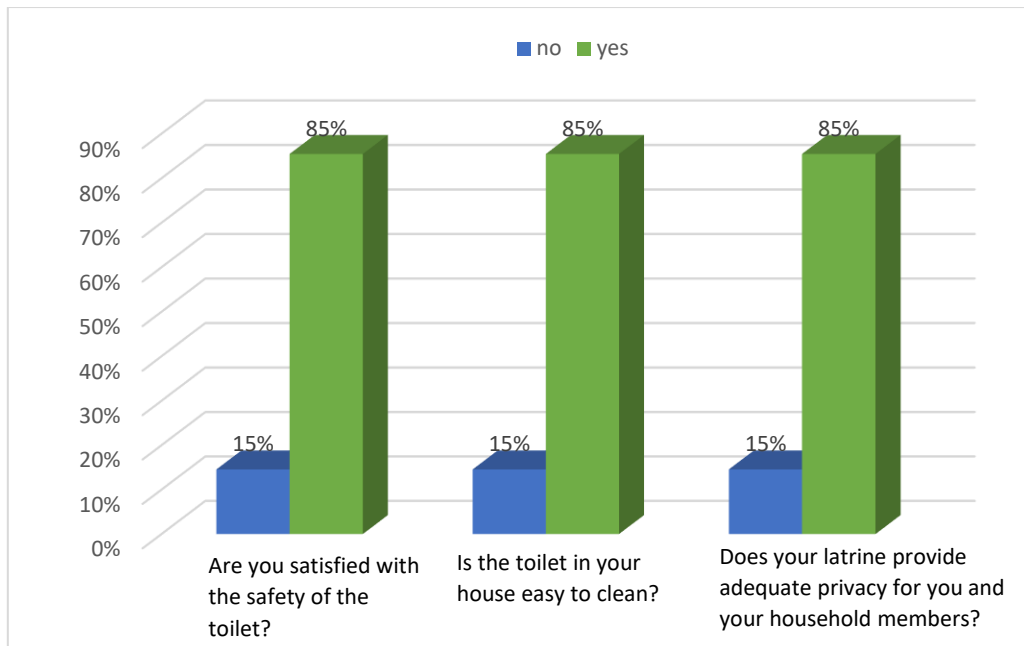


Figure 4: Satisfaction status of using toilet in the municipality

3.5. Personal Hygiene

The majority (97%) of the community people know when to clean their hands viz. after going to the toilet, before and after eating. 40% take a shower once a day and 59% take it twice a week. Similarly, 74% are involved in cleanliness and sanitation related awareness activities (cleanliness of toilet, drainage, environmental surroundings, public places, and proper waste management and hand washing techniques).

3.6. Waste Management

75% of the population in the surveyed area use either private or public bin or a plastic bag for waste disposal. 99% of the population of using plastic bin disposes of the garbage outside the garbage collection bins. 68% of the population of that area believe that there are not enough communal waste receptacles in the

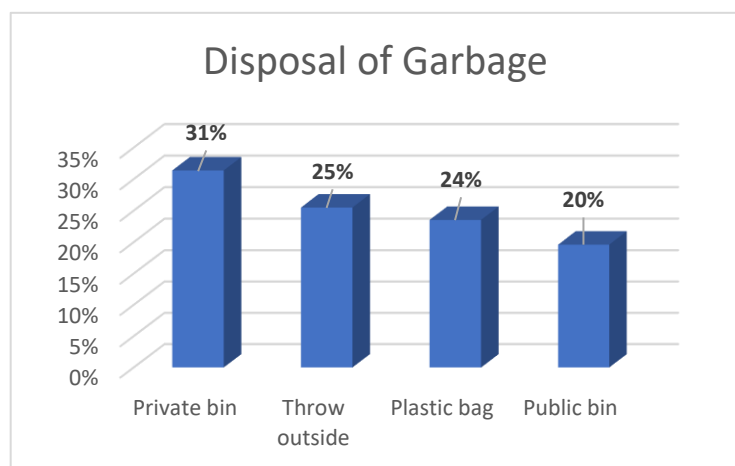


Figure 5: Status of garbage disposal in the municipality

municipality. 94% of people clean their drainage time to time. 62% consider littering garbage/waste is bad habit. The most notable thing is that 61% would pay for the garbage collector. 86% are not satisfied with the drainage system because of blockage.

4. Prioritization of Activities of Total Sanitation Plan

In addition to the KAP survey, the key informant interview (KII) and focus group discussion (FGD) were conducted. The results of the FGD, KII along with KAP survey were used to identify the priority issues and potential actions to be taken for environmental sanitation. Based on the needs and priorities, the following activities are identified as the prioritized activities to be intervened in the municipality.

4.1. Capacity Development and Building

Improve literacy of the municipality: The illiterate percentage of people in the area should be lowered to zero. There are several ways to lower this percentage viz. informal education (Praudh Sikshya), enrolling the children of school going age in schools. Students who have completed primary education or secondary education should be encouraged to complete at least higher secondary education. The wards and municipality can organize campaigns on school motivate school going age groups children for enrolment and promote informal education.

Awareness raising programs: The ability of the locals can be enhanced by exposing them to the new environment through training and orientation events. These people should be oriented on sanitation and health related issues and trained in associated skill. People of different ages despite their caste, gender, language should be trained on new skills and knowledge for long term benefit in the municipality.

Receiving education via in/formal education system, training/orientation provide access to information, which eventually leads to better sanitation.

Development of community wash volunteers: To raise the awareness on WASH, local governments and development partners can promote development of WASH volunteers at the village/settlement level who will act as a community WASH ambassador. Wards and municipality can provide certain incentives and some sort of recognition to encourage them to contribute in improving WASH in their locality.

4.2. Additional Water Source/s Identification and Testing Water Quality

The municipality will identify the regular source of water for drinking purposes in all the wards and settlements. The water source/s will provide drinking water regularly to the community. During the water source identification water will be tested for detecting if chemicals (iron, arsenic) or pathogen (e-coli) are present. This test will be conducted to ensure the taste of water, color and smell, and overall palatability of water.

4.3. Monitoring of post -ODF Activities

People, especially elderly people, and teenagers of this municipality are still defecating in the open space. This is vulnerable for several reasons viz. accidents, snake bite, water source pollution which lead to the spread of e-coli leading to endemic catastrophe. Therefore, the concerned team will first

- 1) Identify those households of elderly/teenagers to get idea whether standard toilet exist in their houses or not.
- 2) If toilets do not exist, find the way to construct it.
- 3) If toilets exist, then find the reason for not using the toilet and act accordingly.

4.4. Waste Management

4.4.1. Promulgation of policies/plans/guidelines to separate degradable and non-degradable waste at household level and manage other hazardous waste

With the sprawl of urban areas, solid waste has become one of the major challenges. The study carried out by ADB in 2013 in 58 municipalities showed that average municipal solid waste generation was 317 grams per capita per day. The result is 1,435 tons of municipal solid waste produced in Nepal every day, which translates into 524,000 tons every year. There are many technically and financially constrained municipalities that still practice roadside waste pickup and open dumping, which poses major health risks.

Therefore, municipality plans to develop key legal instruments (example appropriate policy and strategic framework, together with technical guidelines on key issues such as organic composting and landfill operations, to properly guide local bodies in effective waste management). Similarly, it will provide the legal way to promote Reduce, Reuse and Recycle the waste. At household level, the community/citizen will separate the waste into to degradable and non-degradable into different bins. Integrated solid waste management can be promoted. Data management, updating, and dissemination will play an important role in improving planning by local bodies and monitoring implementation. Hence provision of open data will be integrated in the key legal instruments. Similarly, the management of the hazardous waste or the risky waste from the hospital or service center into the incineration will be made provision in the legal document within the joint jurisdiction of the entity (viz. municipality and hospital).

4.4.2. Identification of space for degradable waste

Before demarcating the zone for degradable waste, thorough research will be conducted from social, physical, chemical, environmental and financial perspective. This space will receive minimum degradable waste from the community. The space will be utilized for making manure.

The municipality wide campaign for degradable waste management will be conducted that will encourage community to manage degradable waste in their house by burying them into pit or keeping them in manure making bin. Those families (for example families in rent house) who do not have any means to degrade the waste can be taken in the space maintained or provided by wards/municipality.

4.4.3. Provision landfill site for non-degradable waste

The municipality will first find a landfill site to dump the non-degradable waste. The area will be studied thoroughly looking their physical, social, chemical, environmental, and financial aspect. The non-degradable waste will be collected from each HHs and will be dumped in this site.

Additionally, municipality will make sure to increase access to safe drinking water in schools and health care facilities through cross-sector collaboration, enhance water quality by fortifying the water regulatory body, implementing water safety plans, and increasing community awareness of household-level water treatment options. Municipality will use the media and social media to raise awareness about hygiene practices, including menstrual hygiene management, advocate for gender and disability-inclusive sanitation facilities in hospitals and schools and create a strategy to ensure unreached populations have access to safe water while also improving the functionality, coverage, sustainability, and resilience of water supply systems.

Table 1: Priority Sanitation related Activities

| Activities | Location/Number | Objective | Responsible Agency | Timeline (BS) |
|--|-----------------------------|---|---------------------------|----------------------|
| Training | All wards | Skill based training (viz. Plumbing, Mason, ICS) that ensures sanitation or WASH related work within the community. | Municipality | 2080-2081 |
| Sensitization / Campaign / Media Campaign | Communities of All wards | Waste Management, Cleanliness, Water borne diseases, Menstruation | Municipality, Ward | 2081 |
| Open Data Dashboard | Municipality | Data management system developed and open for public use | Municipality | 2082-2083 |
| | | | | |
| Water Source Identification and Conservation | All wards | Identification of water sources for drinking purpose and their on-site conservation | Municipality | 2082 |
| Water Quality Assessment | All water sources | Physical, Chemical, Microbial, Pathological | Municipality | 2082 |
| Learning Documentation of water Quality Testing and Assessment | Municipality level | Knowledge Management | Municipality | 2083 |

| Activities | Location/Number | Objective | Responsible Agency | Timeline (BS) |
|---|---|--|---------------------------|--|
| | | | | |
| Reform or activate M-WASH CC | Re/formation of Ward level WASH-CC | Activate the earlier M-WASH CC | Municipality | 2080 |
| Inspection of toilets in each HHs | Ward level community | Monitoring of toilet constructed HHs (with toilet construction completion certificate) | Ward level WASH-CC | 2080 |
| Monitoring of Post ODF Activities | All wards | As per the monitoring report, the follow up activities will be prepared | Municipality | 2080 (For the follow up activities separate plan will be developed) |
| Construction of Public Toilet (PWD friendly toilet) | Municipality, Ward, School, Public places | Build toilets in public places. These toilets will be disability friendly. | Municipality, Ward | 2080 |
| Orientation on Sanitation | Communities of All wards | Regular use of Toilet Wash hands with soap and water | Ward level WASH-CC | 2080 onwards |
| Waste Management | | | | |

| Activities | Location/Number | Objective | Responsible Agency | Timeline (BS) |
|--|---------------------------|---|---------------------------|----------------------|
| Promulgation of policies/plans/guidelines to manage the waste | 1 | For all wards within the municipality | Municipality | 2081 |
| Identify focal person for sanitation at municipality and ward level | 1 Municipality 9 Wards | To determine the focal for sanitation activities | Municipality | 2080 |
| Capacity building activities to sanitation focal and other stakeholders | TBD | To enhance the capacity of people, involve in sanitation activities | Municipality | 2080-2083 |
| Installation of Incinerator for burning hazardous, infectious and non-infection waste from hospital or any other sources | 1 | Within the municipality | Municipality | 2081 |
| Provision of degradable waste bin | All HHs of all wards | Minimum budget will be charge for each bin for each HHs | Municipality and Wards | 2081 |
| Identification of Space for degradable waste | 1 site in each ward | Determine the location for composting degradable matter | | 2082 |
| Provision landfill site for non-degradable waste | 1 | 1 site within the municipality | | 2082 |

5. Budget

The budget will be allocated from the municipality/wards and resources will be leveraged from respective national and international development partners. The municipality will collaborate or coordinate with provincial or federal government in shortage to accomplish the work. The activities wise budget will be planned in next fiscal year's planning process.

6. Monitoring Plan

The monitoring committee or unit will be formed to track the activities and its accomplishment. The unit will look and track the financial, technical, and social. For this detailed monitoring plan will be developed in line with the prioritized activities. A monitoring plan (Table 2) will comprise of Responsible Person, Frequency of Monitoring, Status of Activities carried out, Achievement Time/Year, Financial status etc.

Table 2: Sample of Monitoring Plan

| Activity | Indicator | Unit | Target | Frequency | Achievement (Month/Year) | Responsibility | Financial status |
|-----------------|------------------|-------------|---------------|------------------|-------------------------------------|-----------------------|-----------------------------|
| | | | | | | | |

Note: this will be completed in sanitation plan sharing workshop.