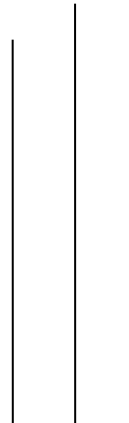


# TRAINING NEEDS ASSESSMENT FOR WASH SECTOR

A joint Undertaking of  
Department of Water Supply and Sewerage and JICA

## Draft Final Report



19 February 2014

## Community Development Forum (CODEF)



New Road, Kathmandu  
Phone: 977-1-4242347, 4242459  
Fax No: 977-1-4241926  
GPO Box: 9492, Kathmandu  
Email: [codefnepal@yahoo.com](mailto:codefnepal@yahoo.com),  
Website: [www.codefnepal.com](http://www.codefnepal.com)

## Contents

Abbreviation .....	4
1. Introduction .....	5
1.1 Background.....	5
1.2 Objective .....	6
1.3 Scope of Works.....	6
1.4 Specific Assignment .....	7
2. Methodology .....	8
3. Core Competencies Required by WUSC and WASH staff (Component A) .....	11
3.1 Problem analysis.....	11
3.2 Analysis of competencies of WUSCs.....	16
3.3 Perceived/Observed gaps in competencies of WUSC.....	17
3.4 Capacities assessment of M/VWASHCC.....	19
3.5 Capacities assessment of Water Supply and Sanitation Technician (WSST)/Plumber) .....	20
3.6 Capacities assessment of pump operator .....	21
3.7 Capacity assessment of Women Worker/Social Mobilizer .....	21
3.8 Capacity assessment of sub-engineer.....	22
3.9 Competencies of Engineers at WSSDO .....	23
3.10 Capacity assessment of sub-division/division head/engineers .....	24
3.11 Capacity assessment of DWASH-CC.....	25
4. Existing Training Courses in WASH Sector .....	26
4.1 Existing Training in the sector .....	26
4.2 Basic Feature of the Existing Training Components: .....	29
4.3 Key Issues and Gaps in the Existing Training.....	30
5. Existing Training Materials in WASH Sector (Component C).....	33
5.1 Background:.....	33
5.2 Collection of training materials .....	34
5.3 Overall assessment of training materials.....	34
5.4: Sample analysis of training materials available in the sector .....	38
6. Identification of key task, competency and standard key training in WASH Sector (Component D) ....	42

6.1 Analysis of competencies and training needs assessment .....	42
7. Plan for Development of Detail Training modules of WASH Sector (Component E).....	60
7.1 Development of Module .....	60
7.2 Plan of Action for development of Training Modules.....	61
Annex	
Annex 1: Analysis of desired competencies and training needs.....	78
Annex 2: List of Existing Training Courses .....	105
Annex 3: List of Organizations and People Met .....	135

## Abbreviation

CHRDU	: Central Human Resource Development Unit
DOLIDAR	: Department of Local Infrastructure and Agricultural Roads
DPs	: Development Partners
DTO	: District Technical Office
D-WASH-CC	: District Water, Sanitation and Hygiene Coordination Committee
DWSS	: Department of Water Supply and Sewerage
FCHV	: Female Community Health Volunteers
FGD	: Focus Group Discussion
M-WASH-CC	: Municipal Water, Sanitation and Hygiene Coordination Committee
ODF	: Open Defecation Free
PTA	: Parent Teachers Association
R-WASH-CC	: Regional Water, Sanitation and Hygiene Coordination Committee
SMC	: School Management Committee
SEIU	: Sector Efficiency Improvement Unit
TOT	: Training of Trainers
VMW	: Village Maintenance Workers
V-WASH-CC	: Village Water, Sanitation and Hygiene Coordination Committee
WASH	: Water, Sanitation and Hygiene
WSS	: Water Supply and Sanitation
WSSDO	: Water Supply and Sanitation Divisional Office
WUSC	: Water Users and Sanitation Committee

# 1. Introduction

## 1.1 Background

Nepal is a small landlocked country, sandwiched between India and China. The country is split into three ecological zones: mountain, hill and Terai, and divided into 75 districts and 3,915 Village Development Committees (VDCs). Nepal is one of the poorest countries of the world, ranking 157 among 187 countries in the world poverty index (UNDP 2013). Because of poverty and under development, the government of Nepal has not ensured the access of education, health, sanitation and water supply services to all the people of the country. In 1990, merely 6% of the population had access to sanitation facilities. At the end of the Eighth Plan (1997), there were 61% water supply coverage and 20% in sanitation coverage. In 2006, the government estimated that there was 46% sanitation coverage against 77% water supply coverage in the country (GoN, 2007). Currently, about 5.5 million people do not have adequate water service and 16 million lack adequate sanitation facilities. Nepal has achieved substantial progress in WASH services. Some 85% of the populations is served by improved water supply and 62% of households have a functioning latrine. Although the improved water supply coverage reported as above 80%, about half (43%) of the water supply schemes are not fully functional. Most of the drinking water systems built in the past have become either totally or partially defunct as the completed old schemes could not be repaired and improved or extended on a timely manner (NPC, 2007).

In 1997, the government formulated a comprehensive 20 years' WATSAN (Water and Sanitation) strategies. The strategies set a target of achieving 100% water supply and sanitation coverage in Nepal by 2017 AD. In line with this strategy, the government formulated National Rural Water Supply and Sanitation (RWSS) Policy and Strategy in 2004 that had a strong focus on water supply. Within the RWSS policy 2004, the Government of Nepal (GoN) reaffirms its commitment to the target of 100% water supply and sanitation coverage by 2017, as described in the tenth plan document (GoN 2004). Interim policy of GoN clearly stated that the government will follow the RWSS Policy 2004 and National Water Plan 2005 with the aim at achieving 100% coverage of basic level of water and sanitation facilities by the end of 2017, and will make efforts to make water and sanitation facilities sustainable and equitable (GoN, 2007). Sanitation and Hygiene Master Plan (2011) also sets a target to attain universal access to improved sanitation by 2017. It is unlikely to achieve the targets as per the MDG and national goal unless some radical modalities and strategies are evolved and implemented in near future.

The Department of Water Supply and Sewerage (DWSS), established in 1972 and it has become the lead agency for the water supply and sanitation sector of Nepal. Its main goal is to work in the direction to achieve the sector objective. In line with the sector's objective to have access to safe water supply and sanitation facilities by the year 2017 to all, DWSS in coordination with other Ministries and agencies has been concentrating its efforts in this direction. The Department for Local Infrastructural Development Agricultural Roads (DoLIDAR) is also involved in funding projects that are implemented through the technical division (DTO) of the District Development Committees (DDCs). A number of international development agencies such as Helvetas, FINNIDA, SDC, DFID, USAID, World Bank, Asian Development Bank, the United Nation Children's Fund (UNICEF), Plan Nepal, CARE Nepal, Water Aid and Centre for International Studies and Cooperation (CECI) have been supporting in WASH sector of Nepal. In order to facilitate the implementation of sanitation and hygiene programme as per Sanitation and Hygiene

Master Plan (2011), National Sanitation and Hygiene Coordination Committee (NHSCC) has been formed at the national level, Regional WASH Coordination Committees (R-WASH-CCs) at the regional level, District WASH Coordination Committee (D-WASH-CC) at the District and V-WASH-CC at the VDC level. NGOs, CBOs, Users' committees and community members also play an active role in WASH project implemented by different approaches. Because of lack of clear orientation and proper coordination at all levels, there is ambiguity about sanitation approaches and roles and responsibilities of different stakeholders in implementing sanitation programmes in the country. The capacity of WASH Sector has been enhanced due to lack of comprehensive training and continuing education process.

Capacity development is at the heart of the National WASH Programme. Currently there are a number of the Development Partners (DPs) actively involved in WSS sector to provide technical assistance to DWSS and WUSCs to carry out various types of training, workshop and study tour to enhance the quality and sustainability of WSS services across the country. All those capacity development efforts are targeted to local and central government counterparts to achieve more effective and quality programme implementation and to sustain outcomes at the sub-national and national levels. However, due to absence of systematic and coherent approaches, the activities undertaken by key stakeholders might have not been as effective as expected in order to meet the National Target.

With this regard, the Sector Efficiency Improvement Unit (SEIU), in association with the Centre for Human Resource Development Unit (CHRDU) and with financial supports of JICA, decided to carry out a Training Needs Assessment (TNA) of water, sanitation and hygiene (WASH) sector of Nepal from central level to community levels for effective development and sustainable management of water supply and sanitation schemes in rural and urban area. This Assessment will be a vital part of the formulation of the National WASH Programme and will help SEIU to develop a Comprehensive Capacity Development Strategy and Plan.

## **1.2 Objective**

The overall objective of this assignment is to assist CHRDU to identify training requirements in the WASH Sector, on the basis of evidence and market research, and contribute to develop standard training modules and packages for community and WASH sector staff for effective and sustainable management of Water Supply and Sanitation schemes in rural and urban areas of Nepal.

## **1.3 Scope of Works**

The proposed study will help to CHRDU to work standard training modules for sector. The consultant will work closely with the SEIU, JICA, CHRDU and task force formed by SEIU/DWSS. Training Need Assessment study will have five components:

Component A: Identify core competencies required by WUSC at community or small town and of WASH Sector staff involved in the process of Water Supply and Sanitation Development and management and compare with current capacity.

Component B: Make a list of training courses conducted in the sector by Government Institutions and CSOs relating to core functions of the water supply and sanitation program at community, district, regional and national levels and review report

Component C: Identify and assess training materials and working documents used to train users committee and agency staff on core WASH development and management tasks

Component D: Identification of key task, competency and standard key training required for all key personnel in the four key core functions (Water supply development, sanitation, system management and WQ improvement) from community to center level.

Component E: Propose a plan for development of detail training modules with the support of sector partners.

## **1.4 Specific Assignment**

As per the Terms of Reference (TOR), the specific tasks will include, but not limited to, the following;

### **i) Initial Preparation**

- Meet taskforce and understand intended task and finalise study plan(1W)
- Prepare checklist for visit to Sector agencies, their training institutes and some field projects, recording information from existing training, and format of TNA and agree with taskforce.(2W)

### **ii) Study Conduct**

- Visit CHRDU, FB, Newah, DoLIDAR and gather existing training and related materials which are published and frequently used (in Nepali and English, if only available in Nepali, provide 2 paragraph abstract in English).
- Visit two project sites in semi-urban setting, two in rural setting, two VWASHCC, two DWASHCC, One RWASHCC and identify key manpower or team in the core function of the water sanitation program (Water, sanitation, WQ and project management) and make list with core competency required.
- Develop finding report and plan for Reporting ad agree with task force on list of training for further work
- Prepare systematic and structured report of agreed trainings related core function
- Make list of other trainings of general nature like trainers training, management training etc.
- Prepare draft report and process for preparing standard training for all identified training.

### **iii) Workshop and Final Report**

- Assist in organizing workshop and prepare final report based on outcome of the study and result presented in workshop.

## 2. Methodology

The Consultants have used following methods and approaches in order to assess the training needs of WASH Sector Staff and community level beneficiaries.

### 1. Desk Review

The Consultants collected and reviewed following documents

- WASH Policy and Programme Documents
- Need Assessment and Survey Reports related to WASH Sector
- Training Manual on WASH
- Training Curricula and training materials being used by the sector

### 2. Methods of Data/Information Collection

Basically qualitative methods and techniques of data collection were used in the process of training needs assessment. Following methods and approaches were used in order to gather the required information and data.

### 3. Interview

Interview is the main technique of data collection from the WASH sector staff and stakeholders. Interview guide was prepared for conducting interview with participants. Interview was held with informants such as Regional Water Supply and Sanitation Chief, WSSD Chief, engineers and other staff working WASH sector in the sample districts and Chairpersons of WSS Users Committee.

### 4. Focus Group Discussion

Focus Group Discussion (FGD) technique was used to explore the views of groups of people engaging in WASH sector about training needs. FGD sessions were held with members of WSS Users' Committees, VWASHCC and DWASHCC as well as staff of WSSDO.

### 5. Questionnaire

Simple questionnaire has been developed and administered to the sample staff of WSSD. The questionnaire was designed in such a way that basic information such as age, sex, qualification, work experiences, undergone trainings and training needs of the individual could be gathered.

### 6. Consultation

Consultants consulted with senior staffs of DWSS and WASH Experts working at the central level in order to get their experts opinion on WASH sector training needs.

### 7. Study Sites and Sampling

With due consideration, three districts (Morang, Sunsari and Saptari) from Eastern Terai Region, Kaski from the Western Hill region were purposively selected. Consultants made field visits of WSSDOs and selected WASH Projects in the visited districts. Project sites from rural and urban/semi-urban settings in the selected districts were chosen in consultation with WSSDO Chiefs and Engineers.



Following samples were included for the study from six Districts:

## **8. Development of Need Assessment/Data Collection tools**

After having made review of related documents and reports related to WASH sectors, following tools were developed and finalized in consultation with SEIU and CHRDU/DWSS.

### ***Interview guide***

In order to conduct interview with the selected informants, interview guide was prepared. It consists of key questions under heading of planning, supervision, coordination, mobilization, reporting, water quality and sustainability of WASH programmes

### ***FGD guide/Checklist***

FGD guide has been prepared for conducting discussion with the members of WSS Users Committees. It consists of key questions under themes such as operation of WASH Facilities, maintenances of WASH facilities, Controlling WASH Facilities, Sustainability of WASH facilities and Health and Hygiene Promotion activities.

### ***Questionnaire***

Questionnaire was developed for collecting basic information of staff and target specific/individual training need assessment. Questionnaire includes current job position, academic qualification, work experiences, undergone trainings, job descriptions, job performances and training needs.

## **9. Field Survey/Study**

Two-week intensive field study was conducted in the sample districts by each consultant. Dr. C.B. Budhathoki visited the Morang, Sunsari and Saptari Districts First and Second Week of October, 2013. During field visit, WSSD chief and staff of three districts were interviewed and questionnaire was administered to the sample staff. Technicians and engineers of District Technical Office (DTO) who have been involved in water and sanitation programme were also interviewed. Dr. Budhathoki visited the Mangadh Waster Supply Plant and WSS Users Committee and its staff. Likewise, he visited rural water supply scheme at Jhorahat VDC and WASH project of NEWAH at Latang VDC of Morang District. Group Discussions were held with the members of WSS Users Committee and staffs were interviewed. Situation of water supply plant were observed.

In Sunsari District, WSSD chief and staff were interviewed with the help of interview guide and questionnaire. In this district, there is a Small Town Water Supply and Sanitation Programme that was completed several years back with the help of Asian Development Bank (ADB). The Consultants

visited the Small Town WSSP and discussed with them members and staff of WSS Users' Committee. In Saptari District, WSSD chief and staff of WSSD were interviewed and questionnaire was administered to the staffs. Rural water supply project located at nearby Mahendra Bajar was visited and observed by the consultant. Group discussion was held with the member of WSS user's Committee. The required information and data were gathered from the field using different techniques.

The Consultants also visited Kaski district where he interacted with the engineers, overseers, WSSTs and women mobilizers of western RMSO, staff of Nepal Red Cross Society. Besides, he also visited Pumdi Ghumdi rural water and sanitation scheme and Lekhanath small towns water supply and sanitation scheme. Some water supply and sanitation schemes in Baglung and Sindhupalchowk were also visited after feedback of the SEIU and JICA to explore more firsthand information from the hill communities.

## **10. Data Analysis and report writing**

Information and data generated from group discussions, interview and observation were recorded and field notes were prepared during time field visit. Later after arriving at Kathmandu, consultant spent considerable time in information compilation and data analysis. Key findings are presented in table and matrix. Qualitative data was handled and analyzed manually using thematic approach. Data collected from field study are triangulated with the information gleaned from the records and reports.

### 3. Core Competencies Required by WUSC and WASH staff (Component A)

**Component A: Identify core competencies required by WUSC at community or small town and of WASH Sector staff involved in the process of Water Supply and Sanitation Development and management and compare with current capacity.**

Based on the field visits of a number of water supply and sanitation schemes and also meeting with district, municipal, VDC and project level WASH stakeholders in the rural and urban areas, an attempt is done to analyze the problems comprising of technical, human resource, institutional and social dimension with the schemes and also with sector staff. Analysis has also been done to compare the existing and desired competencies required by the WUSC and WASH staff at various levels.

#### 3.1 Problem analysis

##### 3.1.1 Problems and issues of Water Supply Development at the District Level

District Water Supply and Sanitation Division (WSSD) office is responsible for planning, managing, implementing, monitoring and supervision of water supply and sanitation programme in the district. WSSD office provides technical and financial supports to the schemes and projects approved by the government during the pre-construction and construction phase. After construction, scheme is handed over to the WUSC. Even after construction, they are supposed to supervise the operation of the water supply system and technical support for operation and maintenance. Because of limited staff, they cannot supervise the condition of water supply system after construction. They cannot provide technical and financial support for operation and maintenances of the water supply facilities due to lack of adequate budget and staff. In addition to these, WASH sector at the district level has following problem and issues:

**Technical problem:** Existing technical staffs do not have adequate knowledge and experiences in designing rain water harvesting, overhead tank and water lifting mechanical system in terai and urban areas. They could not design water treatment plan at large scale and water safety plan. Lack of capacities to provide technical and procedural advices to repairing and maintenance of Water pump, panel board and other mechanical systems due to lack of electro-mechanical engineer at district level. Inability to maintain quality of construction due to lack of proper training to the technicians and masons, and lack of regular supervision

**Budget and financial problem:** WSSD office attempt to prepare annual budget allocating to different scheme on the basis priority. Government does not release adequate budget for identified and prioritized water supply schemes. Sometimes low priority schemes get budget. Several water supply projects (medium/large scale) remain uncompleted for several year due to lack of fragmented allocation

of budget from the government and lack of monitoring and supervision. In terai district, construction of medium to large scale projects continues for several years.

**Managerial and supervisory problems:** Because of proper management of resource and staff, WSSD office cannot provide design and estimates, budget and technical support to the different schemes. During the construction phase, WSSD office assigns particular staff for technical support and construction supervision. But after construction, they do not visit the completed schemes and projects to supervise the condition and functionality of the water supply services. WSSD Chiefs said that existing staff are often busy in new scheme and repairing of the some schemes, and they could not mobilize staff for monitoring and supervision of the old scheme.

**Sustainability problems:** Sustainability is the main issues of the WASH scheme in Nepal. WSSD and project implementing agencies could not pay attention to the sustainability issues of the schemes. They are not aware of sustainable plan and sustainable indicators. Operation and maintenance activities are not properly organized as per the needs of schemes. Maintenance budget and technical supports are provided to the particular schemes if the maintenance budget is approved for the particular scheme. Many schemes do not get support for the repairing and maintaining the water supply facilities. Community could not collect adequate fund for repairing and maintaining. Some schemes become partially or completely defunct due to lack of regular supervision and lack of contact between WUCS and WSSD at post construction phase.

**Coordination and integration problems:** Different agencies such as Fund Board, NEWAH, Plan Nepal, DTO and WSSDO are involved in WASH sectors. There are not working in coordinated way in the district. Each and every WASH scheme should be implemented through under direction of DWASCHH/WSSDO. Water supply and Sanitation activities are not properly integrated in many cases. More emphasis is given to the construction and completion of water supply scheme because existing technical staff has more experiences and capacities on water supply and less capacity on sanitation.

**Problems in sanitation programmes:** Sanitation and hygiene promotion programme focuses on awareness, motivation and behavior changes. But the existing capacities and human resources cannot organize and implement social and behavioral changes activities in the socio-economic and cultural contexts. Lack of capacities exist to design and produce IEC materials in local language and local contexts. Lack of capacities also exists to develop training curriculum and organize training local contexts such as terai, hill and mountain situation. Lack of capacities to design and implement sanitation and hygiene promotion programme at the district level as per District Specific needs

### **3.1.2 Existing problems and capacities of Water Users and Sanitation Committee (WUSC) on Water Supply and sanitation in rural communities**

#### **a. Problems with the rural water supply schemes**

Water supply services in rural areas often suffer from technical, social, ecological and managerial problems.

**Technical problems:** In gravity water supply schemes, polythene pipes were not properly placed under ground and at other some places the pipes were coming out from the ground. Somewhere intakes and reserve tanks were not properly designed and constructed in right place. Minor and medium problems such as pipe cracking, water leakage, out of order of tap, cracking of reserve tanks, etc was often observed. Repairing and maintenances were found to be neglected in most cases. Water quality is not known to the users and diarrheal diseases have not reduced. WUSCs lack understanding of timely repairing and preventive maintenances of water supply facilities and equipments.

**Managerial problems:** WUSCs visited in the districts did not have any operation and maintenance plan. They did not organize meeting regularly and did not keep record properly. In rural areas, maintenance fund was not continued for several years. WUSCs often lacks maintenance fund. WUSC of Kandelthar Water Supply scheme, Painyuthanthap-Baglung which was formed 2006 during the construction phase was disbanded. There was no regular meeting of the committee members. They did not have records of remaining fund, pipes, valve and taps. They lack skills for keeping records of financial transactions.

**Social problems:** There is a lack of feeling of ownership of water supply services among users. They are reluctant to contribute to the repairing and maintenance aspects of the services particularly in the terai tube wells. There is feeling that the scheme is still owned by implementing agency. Each household attempts to bring water in their courtyard by connecting personal pipe to the public tap. Conflicts have occurred among users in some schemes about personal use of public tap. Conflict between two communities about source of water also surface in some schemes.

**Ecological/environmental problems:** Water sources are not properly protected in some communities. In hill areas, landslide and floods occasionally damage water pipes and tanks. Discharge of water source is remarkably decreased during dry season in most of the schemes. In the terai, the water table has also gone down significantly.

#### ***b. Existing capacities of rural WUSC for water supply***

WUSCs were formed to initiate new WASH schemes. They were involved in planning of the scheme and upfront cash collection before the project. During the construction phase, they were responsible for community participation, resource mobilization, construction management, purchase of construction materials, quality control of construction, appointment of village maintenance workers (VMW), record and account keeping, and organizing sanitation and hygiene promotion activities in the communities. After completion of the project, they are responsible for operating and maintaining WASH facilities by employing care takers/VMW, fund raising for O & M, record and account keeping, extension of services and services level, and promotion of sanitation and hygiene. Discussion with the members of WUSCs in rural areas seem to be capable for mobilizing people and local resources during construction period and operating water supply systems by hiring village maintenance worker (VMW)/caretakers. As a whole, WUSCs possess following capacities:

- Mobilize users and local resources to contribute to the project during construction phase
- Hire VMW/care taker for operation and maintenance of water supply services

- Raise fund for operation and maintenance

However, the magnitude of the capacities is quite below than the desired levels.

### ***c. Existing capacities and problems of WUSCs on rural Sanitation***

#### *Problems with rural sanitation*

Communities give more priority on water supply services and do not pay much attention to the sanitation issue. In rural areas, most toilets were constructed without design. Some latrines get collapsed in the rainy season. Regular cleaning and maintaining part is very week. Sanitation and hygiene behavior was not changed at expected level because of lack of sanitation and hygiene promotion activities in the communities. After so long years of completion of water supply schemes, sanitation coverage is still at low coverage. It still needs some more time for obtaining Open Defecation Free (ODF) situation in the communities. Many households are still expecting subsidy to build toilets.

#### *Existing capacities of rural WUSC for sanitation*

Discussion with the members of WUSCs reveals that they had capacity to inform, motivate and mobilize people for constructing latrines and keeping surrounding clean. But they did not have plan for organizing sanitation activities in the community.

### **3.1.3 Existing capacities and problems of WUSC on Water Supply in Small Town/Urban Communities**

#### **a. Problems/issues with the urban water supply**

**Technical Problems:** Water supply services systems often suffer from water leakage from underground pipe cracking, disorder of electricity panel board and water pumping machine. In some cases, water supply scheme become failed during construction of deep boring system phase because lack of hydrological knowledge of technical staff. For instance, Mahendra `Bazaar Underground water supply system got failed and that scheme was transferred to the gravity flow scheme as it was located below hill areas. Because of lack of trained and experience technical staff at the WSSDO, overhead tank, boring system and water lifting system are not properly designed. Contractors also lack efficiency and competencies to carry out project activities as per estimation. Sometimes problem occurs at water treatment plants. There is problem of meter reading and calibration such as overcharge of water meter amount and failure of water meter. Water leakage from water conduit and distribution pipeline remain several days due to lack of capacity and equipment for leakage detection.

**Managerial problem:** WUSCs could not repair even minor problems such as water leakage from pipe and repairing of electricity panel board, water pump machine etc because lack of regular inspection and supervision as well as lack of knowledge and skill on problem detection system. They have not conducted facility inspection and facility malfunctioning such as manhole cover missing, differential settlement of valve chamber and unconfirmed valve location were found at the sites. But Mangadh WUSC of Morang had maintained the records of water production and supply, distribution, regular

inspection of water distribution facilities after training provided by JICA. The facility information maps showing location pipeline routes, network and valve was not prepared/maintained. Because of lack of awareness, most of the WUSCs do not keep proper records of water meter, well pumps and generators, and maintenance and inspection records of water distribution facilities and equipments. Records of Tariff collection and financial transaction were kept ledger book manually. They could not provide information about billing and due billing to the consumers in time.

**Social Problems:** Users were not properly informed about water quality and supply systems. Poor understanding exist between users and WUCS about quality of water and tariff including meter reading.

**Water quality management:** There is no regular check up of iron, turbidity, residual chlorine, PH value and coliform contamination. Frequency of backwashing flow was not properly recorded. Record of chlorine doses feeding and water production and distribution and production were not properly maintained.

#### ***b. Existing capacities of urban WUSCs***

Field observation and discussions/interviews with members of WUSCs in small town/urban areas reveal that they have capacity to do following activities:

- Policy development: WUSCs have capacity to formulate policy and rules regarding water supply services
- Budgeting and planning: Each year they prepare annual plan and budget for operating and maintaining water supply facilities.
- Mobilization and coordination: Mobilize people in the water supply development and coordinate with funding and implementing agencies and contractors
- Operation and maintenance: Daily operation of water supply services and repair minor problems by their technical staff.
- Managerial competencies: They can organize regular meeting and hold annual General meeting, prepare brief report of activities, collect tariff and keep the account of the transaction manually.

#### ***c) Existing capacities and problems of WUSC on urban Sanitation***

##### ***Problems***

- Solid wastes are not properly managed at the community level due to lack of planned activities of WUCS on solid waste management
- WUCS lack technical knowledge and staff for promoting solid waste management at the household level
- Liquid waste/sewerage was found stagnated or flowing near road and houses because of open sewerage in some areas. Septic tank is not properly constructed at the household level

##### ***Capacities***

- Organize interaction and rally on solid waste management and environmental sanitation
- Circulate message on use of latrine construction and use, and use of safe water

### **3.2 Analysis of competencies of WUSCs**

#### **3.2.1 Existing competencies of WUSC**

##### **a) For Water Supply in rural areas**

In order to manage water supply services in rural areas, WUSCs should have following core competencies:

***Policy and procedure development competencies:*** Formulate appropriate policy, rules and procedure for operating, controlling and maintaining water supply systems

***Managerial competencies:*** Capacity to organize and mobilize resource for operating the system, idea of book keeping. Knowledge and skills on annual operation and maintenance planning, and allocate budget for operation and maintenance including staff salary. Setup and implement the maintenance plan. Supervising and inspecting skills. Idea of sustainable planning. Coordination and leadership skills

***Technical competencies:*** Knowledge on sustainability indicators and their implementation. Knowledge and skill on water quality surveillance and water safety plan. Knowledge on water source protection and mitigation of water source depletion, water leakage management

##### **b) For sanitation in rural areas**

Required core competencies of Water Users and Sanitation Committee (WUSC) on Sanitation in rural areas

Since the sanitation is an integral part of water supply system, WUSCs should be responsible for organizing sanitation activities in their service areas. In order to perform sanitation related activities, they should have following core competencies:

***Managerial competencies:*** Skill on planning for monthly and annually sanitation activities. Knowledge and skills on mobilizing resources and organizing peoples for environmental sanitation, stopping open defecation and utilizing waste water. Idea of coordinating and getting supports from CBOs and other agencies working in the field of sanitation.

***Technical Competencies:*** Good understanding of importance of basic sanitation including latrine construction. Awareness of total sanitation, solid waste management and personal hygiene. Basic idea of operation and maintenances of latrine and compost making pit.

***Other competencies:*** Skill and knowledge on conflict resolution about social, water source and water distribution.



### 3.2.2 Required/desired core competencies of WUSC

#### a) For water supply in small towns/urban areas

In small town and urban areas, WUSC should be able to handle and manage medium scale water supply system. In order to effectively manage the water supply system, WUSCs should have following competencies:

**Policy and procedure development competencies:** Formulate appropriate policy, rules and procedure for operating, controlling and maintaining water supply systems

**Managerial competencies:** Leadership and coordination skills. Knowledge on annual and planning budgeting. Knowledge and skills on preparing sustainable plan, business plan and planning for O&M. Idea of record keeping and billing systems. Skill and knowledge on construction management

**Technical competencies:** Knowledge and skill on water leakage detection and its management, water safety plan and water surveillance, meter reading and water calibration and their technical problems. Skill on inspection and maintenance of mechanical systems.

**Other competencies:** Conflict resolution and public relation

#### b) For Sanitation in Small Town/Urban Areas

**Solid waste management** and maintaining water quality are associated with drinking water supply in small town and urban areas including the terai. WUSC should have following competencies to manage and organize sanitation related programme.

**Managerial competencies:** Leadership and coordination skills. Idea of planning environmental sanitation campaigns and public awareness activities. knowledge and skill on solid waste management at household level and community level. Skill on mobilizing staff, people and resources for solid waste management.

**Technical competencies:** Knowledge on composting, sanitary land fill, incineration. Understanding of total sanitation approach. Basis idea of communication and behavior change.

**Other competencies:** Knowledge and skill on conflict resolution, partnership with other agencies and resource tapping.

### 3.3 Perceived/Observed gaps in competencies of WUSC

#### 3.3.1 Gaps in competencies of WUSC in rural areas

Analysis of existing competencies, situation and desired core competencies indicate that there are inadequacies in the competencies of WUSC in rural areas. Water supply system in rural areas is not functioning properly due to the incompetency of WUSCs.

#### **a) Competency gaps in water supply sector**

- Inability to formulate rule and regulation about proper utilization of public tap and connecting private pipe on public tap.
- Lack of awareness on annual planning, holding annual GB and renewal of the committee and inability to hold meeting regularly
- Lack of inspection of water supply facilities and equipments
- Lack of knowledge and skills on preparing sustainable plan and sustainability indicators
- Less knowledge and skill on water quality surveillance and water safety plan
- Lack of knowledge on water source protection and mitigation of water source depletion
- Lack of knowledge on water leakage management
- Less knowledge on estimation of annual and event wise repair works
- In ability to raise fund for O & M

#### **b) Competency gaps in Sanitation**

- Lack of awareness on formulating and implementing rules, regulation and policies on solid waste disposal and environmental sanitation
- Less knowledge on solid waste management
- Less knowledge on planning and managing sanitation activities at the community level

### **3.3.2 Gaps in competencies of WUSC in small town and urban areas**

#### **a) Competency gap in water supply**

- Lack of knowledge and skills on preparing sustainable business plan for O&M.
- Lack of technical know how to identify water leakage and its management
- Lack of knowledge and skill on water safety plan and water surveillance
- Lack of knowledge and skill on meter reading and water calibration and their technical problems
- Lack of skill and knowledge on construction management
- Lack of technical knowledge for quality control of construction and construction materials
- Lack of regular inspection of water supply facilities and equipments

#### **b) Competency gap in sanitation**

- Lack of awareness on formulating and implementing rules, regulation and policies on solid waste disposal and environmental sanitation
- Less knowledge on solid waste management
- Less knowledge on planning and managing sanitation activities at the community level
- Lack of capacity to make the users/people aware of water quality, sanitation and hygiene behaviour
- Inability to plan and organize sanitation related activities

## **Existing capacities of governing/coordinating body ( M/VWASHCC) in Water Supply Scheme**

VWASHCC is formed in line with the Sanitation and Hygiene Master Plan (2011) of the country in order to facilitate and monitor the water supply and sanitation related activities at the VDC level. But they are basically oriented towards sanitation activities such hand washing, use of latrine, declaration of Open Defecation VDC etc. Discussion and interaction with the members of VWASHCC reveals that they have lacked competencies related to the planning, implementing and sustaining the water supply services at the VDC level because they are not trained in the roles and responsibilities of the VWASHCC in water supply sector.

### **3.4 Capacities assessment of M/VWASHCC**

#### **a) Existing capacities/competencies of M/VWASHCC in water supply**

- Identify and Prioritize the needs of water supply at the community level
- Support ward and VDC level water supply planning process
- Facilitate in the coordination of the concerned stakeholders and mobilize resources in the process of water supply development at the VDC level

#### **b) Existing competencies of M/VWASHCC in sanitation**

- Committed for ODF campaigning
- Motivated to allocate a portion of budget for sanitation
- Good coordination among the stakeholders
- Good command of people to persuade for stopping ODF
- Mobilization of schools for ODF campaigning

#### **c) Desired/core competencies of governing/coordinating body (M/VWASHCC) in Water Supply and sanitation Scheme**

- Knowledge of assessing needs and demand of water supply and identification of water sources at the VDC level
- Knowledge of mapping and planning of water supply services at the VDC level
- Skill on supervision and monitoring of water supply scheme and facilities at the VDC level
- Awareness of operation and maintenances of water supply service systems
- Prepare strategic planning for both water supply and sanitation integrated with DRR and climate change adaptations
- Facilitate triggering and community mobilization process for collective action.
- Form and activate different groups.
- Mobilize local human resources in sanitation campaigning

- Periodically monitoring the progress of total sanitation, ODF and water supply schemes and report to DWASHCC.

### **3.5 Capacities assessment of Water Supply and Sanitation Technician (WSST)/Plumber**

#### **a) Existing capacity/competencies**

Technicians working at community and district level have long experiences on connecting and fitting of water supply facilities based on gravity flow. Interaction with them during field visit reveals that WSST/Plumbers have following competencies:

- Fitting and jointing skills.
- Capacity to work as per estimate and specification.
- Knowledge and skills of O&M of WASH facilities.

#### **b) Desired Core competencies of WSST/Plumber**

- Fitting and jointing skills.
- Capacity to work as per estimate and specification.
- Skill and knowledge on construction technology and O&M of rain water, water treatment, overhead tanks and lifting systems.
- Knowledge on water safety plan, total sanitation, water quality surveillance, and suitability indicators
- Knowledge on data collection of functioning of the systems, service levels and O&M status.
- Skill on simple costing of O&M and repair works
- Skill on sanitation triggering tools
- Knowledge on water leakage management
- Knowledge on DRR components in water supply components

#### **c) Gaps in competencies of WSST/Plumber**

- Less familiar with latest technology related to rain water, water treatment plants, overhead tank technology, lifting, etc.
- Lack of knowledge and skills on urban water supply development and fitting.
- Less knowledge on sustainability indicators
- Less knowledge and skill on water quality surveillance and water safety plan
- Less knowledge on water leakage management (urban)
- Less knowledge on sanitation triggering tools
- Less knowledge on Disaster Risk Reduction (DRR) components in water supply components

### **3.6 Capacities assessment of pump operator**

#### **a) Existing capacities/competencies**

Pump operator working with WUSC at terai area, small town and urban areas is responsible for daily operation of pumps of the lifting water schemes, regular maintenance of pumps and installation and fixation of pumps. At present pump operator has following capacities.

- Capacity to repair plumbing system.
- Skill on operation of water supply services

#### **b) Desired core competencies of pump operator**

- Capacity to repair plumbing system.
- Skill on operation of water supply services
- Knowledge and skills on fitting and repairing all kinds of pipes used in water supply.
- Skill to detect and repair water lifting, filtration and electromechanical components

#### **c) Gaps in competencies of pump operator**

- Lack of capacity to identify the leakage point at water supply system.
- Lack of skill of fitting and repairing multilayer pipes and PVs., and repairing leakage of water reserve tank

### **3.7 Capacity assessment of Women Worker/Social Mobilizer**

#### **d) Existing capacity/competencies**

There is a position of women workers with SLC qualification at WSSD Office. She is basically responsible for assisting the technical staff in planning and implementing sanitation programme, sanitation promotion activities in targeted communities of the district. She also supports supervisors in carrying out sanitation related activities at the district level, and provides training to the WUCS and community members about sanitation and hygiene behavior. At presents, women works have following competencies:

- Data and information collection skills.
- Basis idea and knowledge on community participation and motivation
- Coordination and facilitation.
- Field Monitoring and reporting skill

#### **b) Desired core competencies of Women Workers/Mobilizers**

- Data and information collection skills.
- Community participation and group dynamics, coordination and facilitation skills
- Field Monitoring and reporting skill
- Good understanding of health and sanitation issues.

- Capacity to design appropriate health education and hygiene promotion programme.
- Triggering and behavior change skills
- Skill to design IEC and BCC materials
- Knowledge on GESI issues and mainstreaming with WASH schemes
- Knowledge on sustainability indicators, water surveillance and water safety plan
- Coordination skill with FCHVs

### **c) Gap in competencies of Women Workers**

- Lack of skills to design IEC materials.
- Poor understanding of behavior change skills
- Less knowledge on community mobilization of users and users committees for planning, construction and post construction water supply schemes
- Less knowledge on GESI issues in WASH schemes
- Less knowledge on sustainability indicators
- Less knowledge and skill on water quality surveillance and water safety plan

## **3.8 Capacity assessment of sub-engineer**

### **a) Existing capacity/competencies**

Sub-engineers working at WSSD Office are responsible for conducting survey and feasibility studies of water supply schemes and project, and designing and estimation of water supply schemes under guidance of engineers. They supervise construction of water supply schemes and provide training on pre-construction and post construction phase to the technicians and WUSCs. They are also responsible for controlling quality of construction of water supply and sanitation project. Discussion and interviews with them reveal that they have following capacities and competencies.

- Skill of survey for water supply schemes
- Skill on manual design and estimation of gravity water supply schemes
- Capacity to carryout construction activities as per design and specification.
- Construction supervision skills.
- Capacity to provide training to the VMW, technicians and users committee

### **b) Desired/core competencies of Sub-engineer**

- Skill of survey for water supply schemes
- Skill on manual design and estimation of gravity water supply schemes
- Capacity to carryout construction activities as per design and specification.
- Construction supervision skills.
- Capacity to provide training to the VMW, technicians and users committee
- Skill on CAD of gravity water schemes,
- Skill on design of rain water, pumping systems, DRR and reservoir tanks
- Knowledge on climate change issues and its impact on water supply schemes

- Knowledge on water safety plan, total sanitation, water quality surveillance, and suitability indicators
- Idea of quality of control and construction management including checking and inspecting materials at the field

**c) Gap in competencies of Sub-Engineer**

- Lack of skill on computer aided design of gravity water schemes
- Lack of skill on design of rain water technology, electrical and solar pumping and water treatment plants
- Less knowledge on climate change issues
- Less knowledge on water safety plan and water quality surveillance
- Less knowledge on designing total sanitation
- Less knowledge and experiences on designing locally and ecologically appropriate toilet including septic tank and sewerage system

### **3.9 Competencies of Engineers at WSSDO**

**a) Existing competencies**

Engineers working at WSSD office are responsible for feasibility study, selection of schemes, planning district level WASH scheme, designing and estimation of new scheme, construction supervision of on going project. They also estimate of operation and Maintenance for completed schemes, periodic updates of data related to WASH coverage in the given district. In addition, they provide technical support to user committees for construction and management of O and M tools. They have following capacities related to WASH:

- Knowledge, skill and experiences on survey and feasibility study of WASH scheme and project
- Knowledge and experiences on planning of district level WASH scheme and project
- Knowledge and skills on quality of control of WASH facilities construction including construction supervision
- Skill on manual design and estimation of gravity water supply schemes

**b) Desired competencies of Engineers at WSSDO**

- Knowledge, skill and experiences on survey and feasibility study of WASH scheme and project
- Knowledge and experiences on planning of district level WASH scheme and project
- Knowledge and skills on quality of control of WASH facilities construction including construction supervision
- Skill on CAD of gravity water schemes,
- Skill on design of rain water, pumping systems, DRR and water treatment plants, overhead tanks and horizontal drilling
- Skill on supporting to the sub-engineers on designing the engineering projects
- Knowledge on climate change issues and its impact on water supply schemes
- Knowledge on water safety plan, total sanitation, water quality surveillance, and suitability indicators

- Knowledge on designing water tariff and management of water leakage

**c) Gap in competencies of Engineers at WSSDO**

While analyzing existing capacities and desired core competencies, following gaps can be observed:

- Less experiences on computer aided design of gravity water schemes
- Less skill on design of rain water technology, electrical and solar pumping and water treatment plants, overhead tanks, and horizontal drilling
- Lack of skill and knowledge on DRR components
- Lack of training skill on imparting technical training to the sub-ordinates
- Less knowledge on climate change issues and impact on water supply schemes
- Less knowledge on water safety plan and water quality surveillance
- Less knowledge on designing total sanitation components
- Less knowledge on sustainable indicators of water supply schemes/projects

**3.10 Capacity assessment of sub-division/division head/engineers**

**a) Existing competencies**

Engineers and sub-division/division heads of WSSD Office are responsible for designing and estimating WASH scheme and projects, annual project planning and budgeting of the district level WASH project. They are also responsible for supervision and monitoring of the project and performance evaluation of staff. They have following capacities:

- Skills on planning and budgeting of annual planning of conventional WASH schemes
- Coordinate with CBOs, NGOs and line agencies and stakeholders for cooperation including multi-sectoral collaboration
- Knowledge and skill on designing and estimating of gravity flow based water supply project
- knowledge and skill on quality control of water supply scheme/project construction

**b) Desired core competencies of sub-division/division Head at WSSDO**

- Skills on planning and budgeting of annual planning of conventional WASH schemes
- Coordinate with CBOs, NGOs and line agencies and stakeholders for cooperation including multi-sectoral collaboration
- Knowledge and skill on designing and estimating of gravity flow based water supply project
- knowledge and skill on quality control of water supply scheme/project construction
- Knowledge on sustainable indicators
- Knowledge on planning and supervision of new technologies such as water treatment plants, rain water, lifting systems, solar lifting design
- Knowledge on climate change parameters and design
- Knowledge on design of DRR elements



### **3.11 Capacity assessment of DWASH-CC**

#### **a) Existing capacity**

District Water Supply, Sanitation and Hygiene Coordination Committee (DWASHCC) is facilitating and coordinating/governing body at the district level. It consists of DDC/LDO-Chairperson, WSSD Office-member secretary, and members- District Women Office, District Public Health Office, District Education Office, District Red Cross Office, Representatives of WSS projects in the district, and Representative of Civil Society. Most of the members such as DHO, DEO, WDO, LDO are busy with their routine schedule and pay less attention to the WASH programme at the district level. They are basically responsible for policy formulation, strategic planning of District WASH programme, mobilization of resources, and monitoring and supervision of the district WASH programmes. DWASH-CC has following capacities:

- Idea on developing district sanitation strategic planning
- Skill on organizing district level seminars and workshop on sanitation
- Monitoring skill of VDC ODF verification

#### **b) Desired competencies of DWASH-CC**

- knowledge and skill developing district sanitation strategic planning
- Skill on organizing district level seminars and workshop on sanitation
- Monitoring skill of VDC ODF verification
- TOT skill to dedicated staff for organizing district level training on WASH (strategies and monitoring (water quality, functioning of systems, ODF verification, etc)
- Use of sector and community levels triggering tools for ODF campaigning

#### **c) Competencies gaps and issues of DWASH-CC**

- Less focus on water components- no linking water to sanitation;
- Less motivation on sustainability aspects of water supply schemes
- Less focus on supervision and monitoring of sanitation campaigning in urban/municipality
- Less focus on developing integrated WASH strategic plan and linking WASH with other development activities

## 4. Existing Training Courses in WASH Sector (Component B)

Make a list of training courses conducted in the sector by Government Institutions and CSOs relating to core functions of the water supply and sanitation program at community, district, regional and national levels and review report

### 4.1 Existing Training in the sector

Training is an integral component of WASH sector that is essential for enhancing capacities of the concerned stakeholders for the successful, effective and sustainable provision of services. Several types of training packages have been developed and used by the government of Nepal and other concerned agencies involved in the WASH Sector. In the process of training need assessment, attempt was made to identify and analyze the different types of training developed and employed in the WASH sector in Nepal. A total of 180 types of trainings were identified and categorized in to four groups: beneficiary level, district level, VDC/project level and central/regional levels. They were further categorized into major functions of WASH sector such as water supply, water quality improvement, system management, and sanitation and hygiene. Of the 180 training, eighty-eight training packages from DWSS (60), the Fund Board (7), NEWAH (6), and RWSSP-WN and RVWRMP (15) were collected and analyzed (*See Annex 2*)

#### Community/beneficiary/VDC/municipal Level Training

Community/WASH committee is responsible for construction, operation and maintenance of WASH facilities. WASH scheme/project implementing government and non-government agencies organize training for community level stakeholders including WUSCs, staff and concerned persons involved in WASH sector. A total of 84 community level training was identified and presented in following table.

**Table: Community/Beneficiary Level Training**

Target groups	Type	Number of training related with								Total number of training
		Water supply		Sanitation and hygiene		Water quality improvement		System management		
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	
M/V-WASH-CC members	1	X	x	x	1	x	1	x	x	3
VDC/municipality	1	X	x	x	1	x	1	x	x	3
WUSC Members	2	2	2	3	3	3	3	3	3	24

VMW	1	1	1	1	1	x	1	1	1	8
Masons	1	1	1	x	1	x	x	x	x	4
Toilet builders	X	X	x	x	1	x	x	x	x	1
FCHVs	1	1	1	3	3	1	1	x	x	11
CBOs	2	2	2	2	2	2	2	2	2	18
Teachers	X	X	x	x	1	1	1	1	x	4
Students	X	X	x	x	1	1	1	1	x	4
SMC/PTA	X	X	x	x	1	1	1	1	x	4
Total	9	7	7	9	16	9	12	9	6	84

Out of 84 training, 24 trainings were designed for WUSC members and 18 trainings were related to CBOs. Only 8 trainings were designed for village maintenance workers and one training was related to toilet building. Number training by type is higher in rural areas than in urban areas. There is not a specific training focusing on water supply and sanitation scheme of terai region. Twenty-five trainings (16 rural and 9 urban areas) which were related to the sanitation issues cover almost all stakeholders at the community level. Some training designed for urban and rural communities include contents of water supply and system management including operation and maintenance of the facilities. A considerable number of trainings were designed for improving water quality. Only nine trainings were refresher training for different target groups (See Annex for detail).

#### District/Project Level Training

Project level training is frequently conducted in order to complete the project activities successfully. The number of district level training is equivalent to the community level training as both project level and community level trainings are designed and conducted side by side. Distribution of number of training by types and target groups is presented following table.

**Table: District/Project Level Trainings**

Target group	Type	Number of training related with								Total number of training
		Water supply		Sanitation and hygiene		Water quality improvement		System management		
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	
DWASHCC members	1	x	x	x	1	x	1	x	x	3
Senior Divisional Engineers	1	1	1	1	1	1	1	1	1	9
Engineers	1	1	1	1	1	1	1	1	1	9
Sub-engineers	1	1	1	1	1	1	1	1	1	9

Women workers	1	1	1	1	1	x	1	x	x	6
WSSTs	1	1	1	1	1	1	1	x	x	7
Plumbers	X	1	1	1	1	x	1	x	x	5
Pump operators	X	1	1	x	x	x	x	1	1	4
Electro mechanics	X	1	1	x	x	x	x	x	x	2
Chemists	X	x	x	x	x	1	1	x	x	2
Team leader/supervisors	X	1	1	1	1	1	1	1	1	8
Community motivators/triggers /mobilizers	1	1	1	1	1	1	1	1	1	9
Health promoters	1	1	1	1	1	1	1	x	x	7
Accountants	1	1	1	x	x	x	x	x	x	3
Private entrepreneurs	X	1	x	x	x	x	x	x	x	1
Total	9	13	12	9	10	8	11	6	6	84

Among the total 84 trainings, 9 types of training are equally targeted to divisional engineer, engineer, sub-engineers, community motivators/triggers and team leaders. A considerable number of trainings were found to be related to the WSST, women workers, health promoters, pump operators and plumbers. A least number of trainings were designed for targeting electro-mechanics, accountants, chemist, private entrepreneurs. Nine types of trainings were related to the basic/refresher and TOT. The number of trainings is equally targeted to rural and urban areas. Likewise, around 10 trainings were designed by including the contents of water supply, sanitation and water quality improvement (See Annex for detail aspect of district level training such as target groups, duration, contents, method and special focuses). Training related to the system management was not designed for targeting women workers, WSST, Plumber and Electro-mechanics and refresher training is lacking for them.

### Central/Regional Level Training

Central level staffs of WASH sector need to be trained periodically in order to update their knowledge and skills, and to enhance their professional competencies. We could not trace out the specific training targeting for central level key staff. It may be true that central level staffs are often sent to outside the country for the training. Only 12 types of trainings were related to the central/regional level staff. Out of the total training, nine trainings were found to be targeted to the Divisional Engineers and only two trainings were designed for sociologist (See Annex for detailed aspect central training). There is not a single trainings focusing on management and administration aspects of the central/regional level staff.

**Table: Central Level Training**

Target group	Type	Number of training related with								Total number of training
		Water supply		Sanitation and hygiene		Water quality improvement		System management		
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	
<b>Central levels</b>										
NSHCC members	x	x	x	x	x	x	x	x	x	
DGs/DDGs	x	x	x	x	x	x	x	x	x	
Section chiefs	x	x	x	x	x	x	x	x	x	
<b>Regional levels</b>										
RWASHCC members	x	x	x	x	1	x	x	x	x	1
Divisional Senior Engineers	1	1	1	1	1	1	1	1	1	9
Sociologists	x	x	x	1	1	x	x	x	x	2
<b>Total</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>12</b>

#### 4.2 Basic Feature of the Existing Training Components:

The following commonalities and features have been observed in the existing capacity development frameworks adopted in both the government run and donor funded projects:

**Target groups:** Basically, users' committee members, front line workers, community level volunteers, teachers and technician are targeted for water supply and sanitation related trainings and orientations.

**Capacity Development Tools:** In-house trainings, orientations, workshops and seminar are held with a prime aim to enhance knowledge and skills. Training focuses on promotion of knowledge and skills, orientation aims for building general understanding of the issues under consideration and workshop and seminar focuses mainly for assessing existing situation and building stakeholders' consensus. Field based exercise and on the job trainings are held especially for enhancing technical skills for facility construction and facilitation skills for running capacity development activities.

**Duration:** Often trainings are held in a time span ranging from 1 day to 7 days. Some skill-based intensive trainings (of masons and technical persons) require longer time period (e.g. up to 17 days).

**Training Venues:** The sector sector basically demands field based trainings and orientations for envisaged outputs. Often policy and planning level trainings/orientations/workshops are held in district levels while knowledge and skills based trainings (e.g. of users committee, volunteers and technical persons) are held in program areas followed by on the job training, observation and exposure visits.

**Training Contents:** Roles of users committee and technical staffs, construction of facilities, fund management, purification of water, operation and maintenance of facilities and monitoring and follow up are some of the core contents of trainings regarding water supply projects. Similarly, importance of toilets, hand washing with soap and general cleanliness in household, school and community levels are included in sanitation related training activities. In general, focus is given on use of safe water, safe disposal of human excreta, and attainment of ODF status and promotion of hand washing behaviors in all the water supply and sanitation sector related capacity development activities.

**Methods and Materials:** Basically interactive and participatory methods and materials are encouraged. Presentation, group discussion, demonstration and field exercise are some of the methodological tools commonly used in the sector. Besides, some agencies (like RWSSFDB and UNICEF use SARAR and PHAST tools respectively) for empowering communities and community action planning process. Booklets, posters and audio-visual means are use employed in the training process as per nature of the training.

**Resource Persons:** Leaving some exception, the sector stakeholders agencies often opt to mobilize their own staffs as the resource person for conducting trainings/orientations/workshops/seminars. These staffs are basically from engineering, social and finance background.

**Training Outputs:** Promotion of knowledge and skills on technical, planning and management aspects is the fundamental thrust of all the water supply and sanitation sector based trainings and capacity development activities. These trainings aim to empower participants to comprehend situation, assess challenges and opportunities, and select appropriate technical and management options and plan for future improvement through local level planning process.

#### **4.3 Key Issues and Gaps in the Existing Training**

**Focus to community and project staff:** Analysis of the existing trainings reveals that most of the trainings were designed for targeting WUCSs, CBOs and project level staff and major focus was given on community and project level issues of water supply and sanitation in both rural and urban context. Training designed by the government for community level stakeholders, less priority is given for FCHVS. However, FCHVs were found to be properly considered in sanitation and hygiene training designed by NEWAH/Fund Board/ RWSSP-WN.

**Imbalance training contents:** Existing trainings do not adequately covered the sustainability and system management aspects of the WASH services. Limited trainings were designed water quality improvement aspects. WUSC's orientation training towards the concept of total sanitation and hygiene is inadequate. Health volunteers and facilitators' trainings focused only on sanitation and hygiene promotion. Little attention is given on the waste management at the household level of rural areas. Training targeting for

member of WASH-CCs at different levels are left out in water supply component. Post-construction training to WUSCs is very limited at sectoral level. There is poor institutional and functional linkage between WUSCs and WASH-CCs for both rural and urban areas.

***Less comprehensive training package for target groups:*** Training for engineers and technical persons is inadequate at sectoral level. Likewise training for women workers is limited mainly to rural sanitation. Most of the sanitation related trainings were focused on improving sanitation by creating open defecation free zones (ODF), but concept and strategies of post-ODF sustainability strategies were not adequately included in the training. Likewise triggering training is not evenly distributed by all key agencies with due priority. Training and orientation for policy makers, planners and politicians for both water supply and sanitation are extremely limited.

***Variations in Target Audiences:*** The training audiences set by different government and non government agencies are not compatible with each other. For example, the government basically targets inter and intra sectoral stakeholders such as WASH, education, health, women and children, media, civil society, political parties, private sectors, WASH coordination committees, etc through different trainings, orientations, workshops and seminars while other agencies give more focus on users committee, front line workers, volunteers technicians, NGO staff, etc. This situation has weakened the multi sectoral and multi stakeholders' efforts for synergy and sector effectiveness.

***Incompatibility in Contents:*** There is a visible variation in training contents targeted to similar audiences. For example, the government run trainings give special focus on policy related matters, institutional arrangements from policy to implementation levels, cross-cutting feature of the WASH sector, sector level strategic planning, local body's leadership, unified planning arrangements in coordination with WASH coordination committees and participatory monitoring and follow-up arrangements. On the other hand, the donor funded sector programs give more focus on empowerment of users committee, community level planning process, behavioral dimensions, gender and social inclusion, livelihood and self-monitoring. The basis spirit of the Master Plan and National Water Quality Standard has not been equally localized through the training programs held by the different sector stakeholders.

***Conceptual and Methodological Differences in Training Models and Tools:*** The water supply and sanitation sector is gradually experiencing campaign and multi-stakeholders' collaboration approach in its planning, capacity development and implementation frameworks. The stakeholders' analysis shows that the government agencies, NGOs and donor are not standing on similar frameworks in this regards. DWSS has focused more on triggering and mass sensitization trainings for total sanitation, consideration of program approach rather than a project based enterprise, water safety with consideration of ODF and post-ODF intervention and consultation with wider sector stakeholders through district level conferences and seminars. The other sector stakeholders focus on project oriented in-house knowledge and skill based trainings. For example, RWSSFDB has not considered the basic principles of the Master plan in its training/capacity development and planning frameworks. This situation has hampered sector harmonization.

**Non-compliance with Policy Provisions:** The assessment of the training components shows that the sector stakeholders have not complied with the sector indicators set by Rural Water Supply Policy 2004, Joint Sector Review 2011, Master Plan and National Water Quality Standard. There is vast difference of training outcomes in terms of institutional strengthening, facility construction, functionality, behavioral change and water quality maintenance.

**Focused on imparting knowledge and skill but not attitude change:** Most of the existing sectoral trainings and capacity development activities are prone for enhancing knowledge and skills with less consideration of motivation and attitude building. Besides, appreciative inquiry approaches are poorly translated in reality. Continuation of such a traditional capacity development approach creates bottleneck towards motivation of wider sector stakeholders and mass action for the sector activities. The concept of sector triggering which is believed to bring about the marked changes in feelings and action is yet to be applied in the wider sectoral levels.

**Low Consideration of Livelihood Aspects:** It has been found that the government run sector activities has given less focus on income generation and livelihood opportunities though RWSSFDB and RVWRMP-II have included these components in their project works and training curricula. In addition, enhancement of technical competencies of the target groups could enable them to sell their expertise in the market and promote livelihood opportunities at individual levels too. But it has not been materialized as anticipated. So, it could be argued that the long term health improvement and poverty reduction strategy envisaged by the water supply and sanitation sector has been largely constrained amid such inconsistent situation.

**Slow Pace towards Modifications of Training Contents:** Even though there are visible modifications in contents and methods of the sectoral trainings, the pace for innovation, modification and replication is not evenly held by individual organization --both government and non government levels. Adoption of universal coverage and triggering approach in sanitation and integration of key issues like livelihood, gender and social inclusion, private sector mobilization, child club mobilization, partnership with media and civil society, transparency, hygiene behavior, water quality, multi-stakeholders collaboration, recognition of sanitation as a cross-cutting theme of development, etc are some of innovations experienced in the sector. However, these innovative aspects are neither adopted nor scaled up at wider sectoral levels, especially through planning and capacity development framework. This practice has made the sector more lethargic and stagnant.

**Poor Consideration of Interdisciplinary Expertise:** Basically engineers and sociologists are mobilized as the 'so called experts and resource persons' in the sectoral trainings and capacity development activities while economic, behavioral, public health and environmental dimensions are poorly underlined in the absence of the involvement of the market based experts representing those sectoral matters. This practice has deprived the sector to cross-pollinate the multi-sectoral experiences and integrate innovative learning from the competitive market force.

**Details of the training course list is available in Annex 2**



## 5. Existing Training Materials in WASH Sector (Component C)

**Identify and assess training materials and working documents used to train users committee and agency staff on core WASH development and management tasks**

### 5.1 Background:

The training and capacity development of the staffs, user committees and other WASH stakeholders is the heart of WASH program to sustain the implemented water supply and sanitation program in Nepal. Currently there are a number of the Development Partners (DPs) such as UNICEF, USAID, RWSSFDB, RVWRMP, NEHWA, NRCS, Water Aide and others actively involved in WSS sector and providing financial and technical support to government and NGOs to manage and implement sustainable water supply schemes and sanitation through Water Users and Sanitation Committees (WUSCs) including District/Municipality Water, Sanitation and Hygiene Coordination Committees (D/M/VWASHCCs) to carry out various type of trainings, workshops and seminars to enhance the quality and sustainability of WSS services across the country. As per the present assessment of the WASH sector status, the capacity development efforts have been designed and targeted to institutional development, management skills enhancement, operation and maintenance in WSS and social mobilization to achieve open defecation free campaign. These trainings and orientation program have targeted to VDCs, districts, regional and central level to ensure effective and qualitative outputs to sustain outcomes at the community level. However, due to the absence of systematic and coherent approaches, methodologies, coordinated action and appropriate training guidelines, training materials and inadequately trained trainers/facilitators, the training activities so far delivered to each level of participants are less effective as expected in order to meet the national goal.

The Centre for Human Resource Development Unit (CHRDU) established by the Government for the consolidating action on human resource development to design and implement comprehensive training package to each level of Government employees in WASH sector. However, the unit is also not effective at the desired level due to the absence of technical capability and inadequate trainers in the unit and its effective management part. The unit is also facing number of problems to ascertain the right participants in the training courses they needed for their job assignment in order to match the need and training program. It is also a difficult task for them to select and include participants in the training course according to their requirements due to unsystematic training plan. There is a prime need and potentiality to find out the training need according to requirements in technical design, implementation and to sustain the outcomes which are mandatory at community level for effective management and operation of water supply and sanitation schemes in rural and urban area.

## 5.2 Collection of training materials

The consultant has visited number of development partners (RWSSFDB, NEWAH, SEBAC-Nepal, RVWRMP) and Government agencies (CHRDU, DWSS and DoLIDAR) to collect the existing information on the training program, resource materials, other related information and documents to assess the training methods, duration, categories of staffs, strategies and training guidebooks/materials at organizational level and their use in WASH sector development. The consultant collected some training schedule, guidelines, training guidebooks, and resource materials from NEHWA, RWSSFDB, DWSS and CHRDU and assessed the existing training program/courses, its types and training materials in use to prepare this assessment report.

## 5.3 Overall assessment of training materials

The overall assessment of the orientation and training program and its guidebooks in use has been done in two levels which includes training and orientation program for the staffs and user committees for the implementation and operation and maintenance (O&M) of drinking water supply schemes and sanitation and hygiene promotion and campaign. The assessments have been made according to the collected materials, sectoral knowledge and experiences of the consultant.

**a) Drinking Water Supply Sector:** The DWSS through CHRDU is the only organization from the government sector to coordinate and facilitate comprehensive training program to all level or government staffs. The CHRDU is based in central region and there is no any unit or section established by the government in rest of the regional offices. Most of the training in water supply are designed and delivered on management, supervision, monitoring and operation and maintenance. The existing training courses, duration, participants and it's contain areas both for water supply and sanitation is refer to **Annex - 2**.

The development partners (DPs) such as Fund Board, Water Aide, UNICEF, RVWRMP, Water Aid, SNV, NEWAH and NRCS are also involved in designing and facilitating training and orientation program in capacity development of their own staffs , NGO partners and user committees. At the community level all of the organizations have formed the water and sanitation user committees and organized orientation training to member of the organizations which are not systematic. This training program also varies from one organization to another. There is no any uniformity in delivering the orientation to respective user committees (UCs). Every development partners and government organizations have shared that they are organizing orientation training to UCs and operation and maintenance of the WSS in their working district and VDCs. However, the training programs, which designed and implemented for similar nature and volume of schemes do not match each others.

**b) Sanitation and Hygiene Promotion/Campaign:** The training courses, participants, duration and content areas for the implementation of sanitation and hygiene behavior promotional activities are to some extend similar as compared to WSS. The DPs and government sector have designed orientation and training program to D/M/VWASHCC including NGOs partners and school level in similar fashion. These entire courses have been systemized package program with guidebooks, resource materials in all courses.

There are number of 1-2 days orientation, meetings and training program design and implemented at the district and VDC level by DPs and government organizations. These courses have been followed as guided by the master plan for the capacity development and institutional development of the D/M/VWASHCCs, FCHVs, NGOs staffs, SMC, schoolteachers and child clubs.

It is evident in many organizations that posters and IEC/BCC materials have been extensively designed and flip charts are also used in some organization as resource materials though some flicking backwards and forwards is required to construct an intelligible story. The general problems with the training materials are that the materials are less friendliness to culture, ecological regions, languages, gender.

### **C) Gap analysis:**

The training materials, guidelines, resource books, IEC/BCC and other relevant schedules so far developed, used and in practice for the capacity development of the government employees, NGOs staffs, user committees and D/M/VWASHCCs including SMC and school teachers in water supply and sanitation program have been analyzed. The training program are mostly organized by the Central Human Resource Development Unit of DWSS, Department of Local Infrastructure Development and Agricultural Roads (DOLIDAR), WHO, UNICEF, UN-Habitat, Rural Water Supply and Sanitation Fund Development Board, Nepal Red Cross Society, PLAN Nepal, Environment and Public Health Organization, Rural Village Water Resource Management Project/Rural Water Suply and Sanitation Project Westen Nepal/FINNIDA, Nepal Water for Health, Water Aid Nepal, stakeholders on School Led Total Sanitation (SLTS), Community Led Total Sanitation (CLTS), ecological sanitation and media advocacy have empowered the participants to advocate, lead and scale up WASH. All these initiation also lacked to developed efficient skills and role of the individual as well as developing successful and established mechanism to trigger and aware for sustainable WASH intervention in the country.

As per the findings on gap analysis, the training guidelines and materials so far used in the WASH sector are not that level in efficiently delivering to make skillful participants due to inadequate and unavailability of right trainers/facilitators as well as comprehensive training guidelines in each level according to its requirements. In the country there is no any database or roster of available WASH human resources and trainers in the WASH sector. As stated above, there are number of comprehensive training packages and guidelines developed, but due to less coordinated action and culture of not openly sharing by organization to other organizations, are in use only in their working VDCs and district. The CHRDU as a responsible government body is only the responsible organization to coordinate with development partners to prepare unified training guidelines is also not effective to bring all WASH stakeholders in signal chain for capacity and skill development area.

The general gaps identified are:

- Most of the training has only a schedule with topics of the sessions, but no session plan, specified training materials, resource materials. Mostly the training sessions are handled by the resource persons. Hence the same training is varied from one resource person to another

- The training is mostly imparting skill and knowledge bit not imparting motivation and behavior change. The training topics and materials largely lacks these motivational and behavior change related stuff
- The training materials are very limited and not easily available for their use. In many cases, although training materials are available but they are not available actually in the field during the training
- The training materials don't specify the level of participants and competencies require for the resource persons. Hence effectiveness of the training is questionable.
- None of the training seems to have follow up action and refresher training, hence use of the training is also questionable
- The training materials largely lack reference materials and also handouts. As such the effective use of the knowledge is doubted to retain in the mind of the participants
- There are largely lack of practical's/simulation and field exercise of knowledge being imparted.
- Also the illustrations with pictures, colors, modules are very much lacking

Among the various training materials collected form the sector, nine materials were selected purposively to assess the effectiveness. Followings are some of the sample materials selected.

Name of the training	Organizations	Target group level (centre to beneficiary)	Sector (water supply, sanitation, water quality, system management)	Rural/Urban
CAP training (Fund Board)	RWSSFDB	NGO staff	Water and sanitation	Rural
Management and business plan development training	DWSS/ADB	WUSC	System management	Urban
Quality control and supervision skill	DWSS/ADB	WUSC	Water quality improvement	Urban
VMV	RWSSFDB	VMW	System management	Rural
TOT on Health & sanitation promotion	NEWAH	NGO staff	Sanitation	Rural
MTOT on sanitation and hygiene (Mid RMSO)	Development partners	District sanitation facilitators	Sanitaiton	Rural
Preconstruction and post construction training (DWSS)	DWSS	WUSC	Water supply	Rural
Total Behavior Change (TBC)	DOLIDAR/Project	District sanitation facilitators	Sanitation	Rural
Water safety plan	DWSS	NGO/beneficiary	Water quality	Rural

			improvement	
--	--	--	-------------	--

#### 5.4: Sample analysis of training materials available in the sector

Name of Training /Training Materials	Contents	Language	Pictorial presentation	Session plan	Reference contents/resource
	<b>Relevancies and adequacy of the contents as per the expected output and objectives of the training</b>	<b>Relevancies of the language as per the target group/Terai specific</b>	<b>Relevancies and adequacy of Illustration with pictures, photo and their relevancies to the target group</b>	<b>Adequacy of level of details of the session plans; procedures and guide to the instructors</b>	<b>Availability of the reference /resource materials, and their relevancies and adequacy</b>
CAP training (Fund Board) 17 days	<p>The training duration is too lengthy; it should be within 10-12 days according to its relevancy and expected output.</p> <p>The content areas are very specific Training is more focused on how to use SARAR tools.</p> <p>The content area has focused on development phase preparation which includes WUC formation, community awareness and community building. It covers pre/during and post water supply scheme construction.</p> <p>It covers hygiene behavior change and conflict management.</p> <p>Less emphasis on sanitation improvements.</p> <p>The content areas covers mainly management, operation and maintenance</p> <p>The training covers field activities and exercises all tools in the village.</p>	<p>The training guidelines and IEC materials are prepared in common Nepali language.</p> <p>The languages and relevancies of the package for Gravity Water Supply which is not very relevant to Terai focus. However the SARAR tools are both for Terai and Hill.</p>	<p>The IEC materials and SARAR tools and pictures are adequately illustrated. It is like fun-play during the training.</p> <p>The tools can be applied in the field for practical exercise.</p>	<p>There is session plan in each topic and well documented guidelines to facilitators.</p> <p>The hygiene session and its hand-book according to Fund boards expected out comes.</p> <p>The session plan cover whole scheme cycle, hygiene, operation and maintenance and role of NGOs</p>	<p>Very clear resource/reference materials.</p> <p>SARAR Guidebook, health and hygiene guidebook.</p> <p>SARAR Kit bag and other necessary IEC materials.</p>

<p>Management and business plan development training (small towns) 5 days</p>	<p>This training program mainly focused concept, management skills and professional skills development.</p> <p>It has emphasis role of WUSC.</p> <p>Out of five days, 3 days alone deal with business plan development.</p>	<p>The training program is in English version and relevant only for urban/town water supply scheme.</p>	<p>There is no any illustration or picture.</p>	<p>There is no any session plan, it has just briefed the contain areas. No any instruction and guidelines to facilitators</p>	<p>No recommendation on resource materials. It can assume that the WUSC member has trained only in preparing business plan.</p>
<p>Quality control and supervision skill (small towns) 3 days</p>	<p>The objectives and outcomes of the training are very clear.</p> <p>On the name of content, there is listed only agenda.</p> <p>The role of WUSC, TPO and TDF in quality control is highlighted very clearly.</p> <p>In the agenda, the construction materials such as cement, pipes and other fittings such as pipe, socket, and get valve etc is very clarify specified in the paper.</p> <p>As per the intended outcome, the content is not enough for quality control.</p>	<p>The training program is in English and relevant only for urban/town water supply scheme.</p>	<p>There is no any illustration or picture specified in the training guidebook.</p>	<p>There is no any session plan; it has just briefed the agenda.</p> <p>No any instruction and guidelines to facilitators</p>	<p>No recommendation on resource materials.</p> <p>It can assume that the WUSC member has trained only in quality control.</p>
<p>VMV (Fund Board) 30 days</p>	<p>One hand book prepared and in use for VMW training.</p> <p>One month training according to need of practical exercise is very important to train and engaged VMW in the scheme.</p> <p>During this training one water supply scheme also built in some cases.</p> <p>The theory in the morning class and practical exercise in the day time.</p>	<p>The VMW hand book is prepared in Nepali and only for gravity water supply scheme, it cannot relevant for Terai.</p>	<p>The pipe fitting and other construction materials also presented in the Hand book. The photos and pictures are very relevant.</p>	<p>The session plan is not clear in the document. However, the facilitators overseer or engineers can run this training with the handbook</p>	<p>The VMW handbook is the reference/resources materials to run this training program</p>

	All participants will get chance to practical exercise in using heating plate to join HDP pipe.				
TOT on Health & sanitation promotion (NEWAH)  (12 days)	The training duration is enough as per the expected outcomes and objectives. The content areas are very specific and covered for sanitation and hygiene. It covers pre/during and post ODF campaign. It covers more specifically personal hygiene, hand washing practice Less emphasis on drinking water supply. The content areas covers mainly accelerate sanitation campaign to cover HH and institutional toilet. It address and covered norms and guidelines of the Nepal Sanitation Master Plan It included practical exercise in the field.	The training guidelines and IEC materials prepared in very simple Nepali language. The guidelines has not prepared in Terai specific. The languages and relevancies of the package for ODF campaign in hill which has less relevant to Terai.	It has adequate and relevant picture, and illustrations included. Field exercise for knowledge sharing is covered.	It included very good guidelines to facilitators. It is a complete hand book which can be used to cover each topic with its guidelines to facilitators. The hygiene and sanitation sessions equally covered in the hand book. The session plan cover whole sanitation cycle, hygiene and behavior change practice along with hand washing with soap. More focus on SLTS approach.	The hand book is covered with relevant topics in one signal book. Trainers can pick up the sessions with its clear instruction and guidelines.
MTOT on sanitation and hygiene (Mid RMSO) 7 days training	The training duration is not enough as per the expected outcomes and objectives. The content areas are very specific and compact which is very difficult to cover within the allocated time frame. The content areas are mainly deal with sanitation and hygiene. It covers pre/during and post ODF campaign. It covers hygiene behavior change and hand washing practice	The training guidelines and IEC materials prepared in very simple Nepali language. However, it has not spell out very clearly Terai specific. The languages and relevancies of the package for ODF campaign in hill which less relevant to Terai focuses.	According to thrust of the content, it has adequate picture, and illustration. The participants have recommended visiting field for practical exercise.	Very good instruction guidelines to facilitators. The complete hand book has prepared which can be use to cover each topic with its guidelines to facilitators. The hygiene session and sanitation session in the hand book covered according to sanitation	The hand book is covered every things with in one signal book. Trainers can pick up the session with its clear instruction and guidelines.



	<p>Less emphasis on water supply. The content areas covers mainly accelerate sanitation campaign to cover HH and institutional toilet. It address and covered norms and guidelines of the Nepal Sanitation Master Plan The training covers field activities and exercise what participants learned in the class room discussion.</p>	<p>The separate Terai specific training guidebook is highly necessary.</p>		<p>campaign basis</p> <p>The session plan cover whole sanitation cycle, hygiene and behavior change practice along with hand washing with soap. More focus on CLTS approaches with very few coverage on SLTC</p>	
<p>Preconstruction and post construction training (DWSS)</p> <p>4 days training to each pre and post construction (8 days)</p>	<p>There are a total of two guidebooks which are separately for pre and post construction WUSC training program. Content areas are just covered water supply scheme construction. The areas of hygiene and sanitation are not spell-out at all in the content areas.</p>	<p>The guideline is prepared in Nepali language.</p> <p>The language is very simple and relevant to target participants.</p>	<p>There is no any photos and pictures</p>	<p>The session plan is prepared and included in one package guideline.</p> <p>It is clearly described on how to deliver the session.</p>	<p>The guidebook which recommended both for pre and post water supply scheme construction is enough information.</p>
<p>Total Behavior Change (TBC) (RWSSP-WN)</p> <p>4 days</p>	<p>Very nice guideline for TBC workers. Covered; disease transmission route, behavior change, hand washing with soap, community motivation, personal hygiene and number of simulation exercise included in the content. Mainly focused for ODF, sanitation and hygiene behavior change.</p>	<p>Very simple language used in the document. The training covered only for hill and can be used in Terai with modification. It covered widely on community led total behavior change in hygiene and sanitation.</p>	<p>Very relevant photos, picture and illustration.</p>	<p>Very good instruction and guidelines to facilitator.</p> <p>The class room process presented very clearly.</p>	<p>The recommended resource materials: CLTS hand book. BC training guidelines. District WASH implementation norms. Nepal's master plan and project documents RWSSP-WN</p>
<p>Water safety plan (DWSS)</p> <p>4 days</p>	<p>A guidebook specifically prepared for this training. Contents are designed according to the objectives and expected outcomes and very relevant. The training covered filed visit and hands on practice on safety plan.</p>	<p>The handbook is prepared in Nepali language and very relevant according to target group</p>	<p>There is enough of illustration and picture kept as required.</p>	<p>It covers all points as per the intended outcomes. There is no any clear session plan to facilitators.</p>	<p>The recommended hand book is one of the reference/resource materials to the facilitators.</p>

**Note: List of training materials available in the sector is given in Annex 3.**

## 6. Identification of key task, competency and standard key training in WASH Sector (Component D)

Identification of key task, competency and standard key training required for all key personnel in the four key core functions (Water supply development, sanitation, system management and WQ improvement) from community to center level.

### 6.1 Analysis of competencies and training needs assessment

Based on the list of existing training and job descriptions of various target groups of the training, a attempt has been made to assess existing competencies with due consideration of their job descriptions followed by random interview with selected target groups of the training. Considering the latest policy mandates, sector dynamics and sector review, attempt was also made to assess the gaps in the existing competencies. Based on the gap analysis on competencies, a set of recommendations were made to reformulate the revised key tasks/job description to allow the WASH personnel to meet the challenges of sustainability of water supply and sanitation schemes and projects. The key tasks have been formulated from the central level policy makers down to the beneficiary level people.

A thorough analysis has also been done to derive desired competencies and list of training required for each personnel at various levels.

The details of training needs such as key topics against each targets group will be identified in the next chapter.

Table : Summary of target groups

Central/regional	District	VDC/municipal/project	Beneficiary
Senior Divisional Engineers of Departments	DWASHCC members	MWSASHCC/VWASHCC members	WUSC members
Sociologists	Division/sub-division heads/engineers	Sub-engineers	VMWs/care takers
RWASHCC members	Master sanitation triggers	WSSTs/Plumbers	Community sanitation triggers
	Team leaders	Women workers/social mobilizers	SMC/PTA members
	Chemists/lab assistants	Pump operators	Teachers
		Field coordinators	Students/child clubs
			FCHVs

Below is the comprehensive analysis of competencies to derive training needs.

**A. Central/regional level target groups**

**SDE and Engineers (of DWSS/RMSOs)/Engineers**

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Lack of skill on computer aided design of gravity water schemes  Lack of skill on design of rain water technology, electrical and solar pumping and water treatment plants  Lack of training skill on imparting technical training to the sub-ordinates	Organize training to district engineers and sub-engineers on CAD of gravity water schemes, and also design of rain water, pumping systems, water treatment plants, DRR  Support the districts to design and implement various technologies of water supply systems	TOT skill on CAD of gravity water schemes, and also design of rain water, pumping systems, DRR and water treatment plants	Training on design of rural Water supply schemes  Training on design of urban water supply schemes
Sanitation and hygiene	Less knowledge on designing total sanitation components		Knowledge and skill on total sanitation approach	Training on total sanitation approach,
Water quality improvement	Less knowledge on water safety plan and water quality surveillance		Knowledge and skill on water safety plan, water quality surveillance,	Training on water safety plan, and water quality surveillance
System management	Less knowledge on sustainable indicators of water supply schemes/project		Knowledge and skill on sustainable water supply indicators Skill on designing water supply tariff (urban)	Training on sustainability of water supply and sanitation schemes

**Sociologists of DWSS (ministry, DWSS, RMSOs)**

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply		Planning and designing 5+1 indicators		
Sanitation and hygiene	Un even skill and knowledge among all the sociologists on ODF and sanitation campaigning  Less experience and skill on post ODF sanitation campaigning	Facilitate training at the national, regional and district levels  Facilitate to establish and re-enforce sanitation resource centers at the regional directorates	Planning and designing skill on 5+1 indicators Knowledge on integrating DRR in sanitation programme	TOT on development of strategic WASH planning  Master TOT on triggering and facilitation
Water quality improvement	Skill only on sanitation but less knowledge on water quality aspects	Knowledge management at the national, regional and district level	Knowledge and skill on water safety plan	Training on water safety plan
System management	Less oriented on sustainability aspects of water supply schemes	Introduce water safety plan in all the sanitation promotional campaigning  Support the district to plan and implement DRR activities	Skill on knowledge management, news clips and documentation  Knowledge in types of water supply and sustainability aspects of water supply schemes (both rural and urban)	Training on sustainability of water supply and sanitation  Training on knowledge management
Others	Less knowledge on TOT skill  Lack of skill and knowledge on disaster response and rehabilitation (DRR)  Less knowledge on climate change issues and impact on water supply	Explore research and contribute towards sustainability of water supply schemes	Skill to facilitate training, workshop Conceptual clarity and designing and managing resource centers Knowledge on climate change issues and its impact	Basic training on climate change and its impact on water supply schemes

	schemes		on water supply schemes	
--	---------	--	-------------------------	--

**R-WASHCC members**

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water Supply	Less focus on water components-linking to sanitation;  No planning for water supply coverage  Less focus to urban WASH sector	Periodic updates of WASH information of the districts and publication  Dedicate a team of staff for training to and monitoring of the districts	Skill on developing WASH (strategic action plan, water quality, functioning of systems, ODF verification, etc)	TOT on developing and updating district WASH strategic action planning
Sanitation and hygiene	Only sanitation resource centers attempted to establish; not focus to water quality	Periodically monitor the water quality of various schemes of the districts		TOT on M&E framework
Water quality improvement				
System management	Less motivation on sustainability aspects of water supply schemes	Encourage the districts to plan and update district WASH strategic action plans	Skill and knowledge on periodic monitoring of WASH schemes for functionality	
Others	Lack of funding to the research and development	Monitor functioning of water supply schemes and provide feedback for better functioning	M&E reporting skills	
	Lack of dedicated staff for supporting to the districts  Lack of reporting mechanism from districts to region and from region to the central agencies	Monitoring and backstopping to urban WASH sector		

## B. District Level target groups

### DWASHCC members

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Less focus on water components- no linking water to sanitation  Less focus on developing WASH strategic planning	Periodic updates of WASH information of the district and publication  Dedicate a team of staff for training to and monitoring of the VDCs/municipalities	Skill and knowledge on WASH strategic action planning	Training on developing and updating district WASH strategic action planning  TOT on M&E framework
Sanitation and hygiene	Less focus on supervision and monitoring of sanitation campaigning in urban/municipality	Periodically monitor the water quality of various schemes in the district	knowledge on use of sector and community levels triggering tools for ODF campaigning	
Water quality improvement			Understanding on focus on water quality issues	
System management	Less motivation on sustainability aspects of water supply schemes	Encourage the VDCs/municipalities to plan and update WASH strategic action plans	Skill for organizing district level training on sustainability and functioning of WASH	
Others	Lack of reporting mechanism from VDC/municipality to region and the central agencies	Monitor functioning of water supply schemes and provide feedback for better functioning  Monitoring and backstopping to urban WASH sector		Training on M&E reporting

**Division/sub-div heads/engineers**

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Lack of knowledge on design of rain water technology, electrical and solar pumping and water treatment plants  Un-even planning and supervision skill of water treatment plant and overhead tanks.	Ensure that design of water supply schemes would contain sustainable aspects of water supply schemes  Introduce and supervise new technologies such as rain water and lifting systems, in the areas where gravity water systems is infeasible.	Knowledge on planning and supervision of new technologies such as water treatment plants, rain water, lifting systems, solar lifting design	Refresher training on water supply technology  Training on M&E framework
Sanitation and hygiene	Un even skill and knowledge on developing district and VDC/municipal level water and sanitation strategic action planning	Ensure that water supply projects are integrated with sanitation, climate change and DRR	Skill and knowledge on developing WASH strategic action plan	
Water quality improvement		Ensure that the district would have periodic and updated WASH strategic planning to meet the national targets	Knowledge and skill on WSP and water quality surveillance	
System management	Un-even skill and knowledge on planning of sustainability aspects of water supply schemes	Ensure that sanitation programme would include a minimum of 5+1 indicators as per the Master Plan	Knowledge on sustainable indicators	
Others	Lack of skill and knowledge on DRR components  Less knowledge on climate change issues and impact on water supply schemes		Knowledge on climate change parameters and design  Knowledge on design of DRR elements	



### Project Engineers/Departmental Engineers

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	<p>Lack of skill on computer aided design of gravity water schemes</p> <p>Lack of skill on design of rain water technology, electrical and solar pumping and water treatment plants, overhead tanks, and horizontal drilling</p> <p>Lack of training skill on imparting technical training to the sub-ordinates</p>	<p>Ensure that water supply planning would include water safety plan, water quality surveillance, total sanitation (5+2 indicators), climate change, and sustainability and DRR elements.</p>	<p>Skill on CAD of gravity water schemes,</p> <p>Skill on design of rain water, pumping systems, DRR and water treatment plants, overhead tanks and horizontal drilling</p> <p>Skill on supporting to the sub-engineers on designing the engineering projects</p>	<p>Basic training on CAD of gravity water supply systems</p> <p>TOT on WSP, design of rain water, solar lifting, pumping design, water treatment plants, overhead tanks, horizontal drilling and DRR</p> <p>Training on urban water supply technology and management</p>
Sanitation and hygiene	<p>Less knowledge on designing total sanitation components</p>		<p>Skill on designing sanitation programme</p>	<p>Training on designing total sanitation programme</p>
Water quality improvement	<p>Less knowledge on water safety plan and water quality surveillance</p>		<p>Knowledge on water safety plan, total sanitation, water quality surveillance, and suitability indicators</p>	<p>Training on water safety plan, and water quality surveillance</p>
System management	<p>Less knowledge on sustainable indicators of water supply schemes/projects</p>		<p>Knowledge on designing water tariff and management of water leakage</p>	<p>Training on water supply approaches, technologies and sustainability aspects</p>
Others	<p>Less knowledge on climate change issues and impact on water supply schemes</p> <p>Lack of skill and knowledge on DRR components</p>		<p>Knowledge on climate change issues and its impact on water supply schemes</p>	<p>Basic training on climate change and its impact on water supply schemes</p>

### Chemists/Lab assistants

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply		Report periodically the water quality standards in the selected water supply schemes as per the policy mandates		
Sanitation and hygiene	Lack of knowledge on health risk factors			
Water quality improvement	Lack of knowledge on water quality policy mandates and standards	Monitor randomly water supply schemes to spot check the water quality standards	Knowledge on national water quality standards Monitoring skill of spot water quality check	Training on water quality assurance in water supply schemes
System management				
Others				

### C. VDC/municipal/project level target groups

#### Sub- engineers

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Lack of skill on computer aided design of gravity water schemes  Lack of skill on design of rain water technology, electrical and solar pumping and water treatment plants	Assist for water supply planning and design that would include water safety plan, water quality surveillance, total sanitation (5+2 indicators), climate change, and sustainability and DRR elements.	Skill on CAD of gravity water schemes,  Skill on design of rain water, pumping systems, DRR and reservoir tanks Knowledge on climate change issues and its impact on water supply schemes	Refresher training on basic design of water supply and sanitation schemes  Training on Construction supervision and management
Sanitation and hygiene	Less knowledge on designing total sanitation components  Less knowledge on hygienic toilets (also ecosan toilets), Child, Gender and Disable friendly (CGD) school toilets	Assist to design and estimate overhead tank, reserve tank and other tanks in urban/terai and hill areas.	Skill on hygienic HH and CGD friendly school toilets	
Water quality improvement	Less knowledge on water safety plan and water quality surveillance		Knowledge on water safety plan, total sanitation, water quality surveillance, and suitability indicators	
System management	Less knowledge on sustainable indicators of water supply schemes/projects		Idea of quality of control and construction management including checking and inspecting materials at the field level.	Training on sustainability of water supply and sanitation
Others	Lack of skill and knowledge on DRR components  Less knowledge on climate change issues			

	and impact on water supply schemes			
--	------------------------------------	--	--	--

**M/VWASHCC members**

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Focused only for sanitation but not water supply	Assess the needs and demands of total sanitation and drinking water.  Prepare strategic planning for both water supply and sanitation integrated with DRR and climate change adaptations	Capacity for developing strategy and action for total sanitation and water supply components integrated with DRR, climate change adaptations, water quality improvement	Refresher training on basic design of water supply and sanitation schemes
Sanitation and hygiene	Lack of capacity for developing strategy and action for total sanitation  Lacks triggers and other human resource for ODF campaigning	Facilitate triggering and community mobilization process for collective action.	Capacity to mobilize triggers and other human resource for ODF campaigning, water supply and water quality improvement	
Water quality improvement	Even not focused to water quality improvement  Lack of technical personnel and adequate budget for water supply and water quality improvement	Form and activate different groups.  Periodically monitoring the progress of total sanitation, ODF and water supply schemes and report to DWASHCC.		
System management	Less knowledge on sustainable indicators of existing water supply schemes/projects	Mobilize local human resources in sanitation campaigning	knowledge on sustainable indicators of existing water supply schemes/projects	Training on sustainable management of existing water supply schemes/projects
Others	Lacks knowledge and skill on DRR components to integrate with WASH  Lacks knowledge on climate change effect on water and sanitation.		Knowledge on DRR and climate change adaptations	



### WSSTs/Plumbers

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Less familiar with latest technology related to rain water, water treatment plants, overhead tank technology, lifting, etc.  Lack of knowledge and skills on urban water supply development and fitting.	Facilitate users committees meeting to maintain O&M systems of schemes  Collect data of schemes in a regular basis about the functioning of the systems, service levels and O&M status.	Skill and knowledge on construction technology and O&M of rain water, water treatment, overhead tanks and lifting systems.	Training on construction supervision
Sanitation and hygiene	Less knowledge on sanitation triggering tools	Estimate O&M, repairing cost of the systems and report to the users committees	Skill on sanitation triggering tools	Training on sanitation and hygiene
Water quality improvement	Less knowledge and skill on water quality surveillance and water safety plan	Periodically monitor the sustainability indicators of the schemes	Knowledge on water safety plan, total sanitation, water quality surveillance, and suitability indicators	Training on sustainability of WASH schemes and sanitation
System management	Less knowledge on sustainability indicators  Less knowledge on water leakage management (urban)	Backstop VMW of the schemes for major O&M and repair  Facilitate communities with sanitation triggering tools	Knowledge on data collection of functioning of the systems, service levels and O&M status.  Skill on simple costing of O&M and repair works  Knowledge on water leakage management	
Others	Less knowledge on DRR components in water supply components		Knowledge on DRR components in water supply components	Training on DRR in WASH system

### Women workers/social mobilizers

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Less knowledge on community mobilization of users and users committees for planning, construction and post construction water supply schemes	<i>Sanitation and hygiene</i> Assist to the sanitation supervisor to plan and design health education and public awareness campaign.	Formation of water users committee representing adequate female, institutionalize and capacity building	Training on institutionalization of WUSCs
Sanitation and hygiene	Lack of sanitation triggering skills.  Lack of capacities to design and implement health and sanitation education at the district level.  Lack of skills to design IEC materials.  Poor understanding of behavior change skills	Motivate and trigger people for behavior change and toilet construction.  Develop locally appropriate IEC materials and utilize locally available resources.  Measure and monitor the progress of the sanitation.  <i>Water supply</i>	Capacity to design appropriate health education and hygiene promotion programme.  Triggering and behavior change skills  Skill to design IEC and BCC materials	Training on total sanitation approach
Water quality improvement	Less knowledge and skill on water quality surveillance and water safety plan	Assist users committee to Mobilize users specially women in the water supply schemes	Knowledge on water surveillance and water safety plan	Training on sustainability of water supply and sanitation
System management	Less knowledge on sustainability indicators	Impart training to women groups of water supply scheme  Jointly work with WSSTs for introducing water surveillance and water safety plan in the water supply scheme areas	Knowledge on sustainability indicators,  Coordination skill with FCHVs	
Others	Less knowledge on GESI issues in WASH schemes  Lack of coordination with Female	Coordinate with FCHVs for health, sanitation related training and data collection	Communication and motivational skills.  Knowledge on GESI	

	Community Health Volunteers ((FCHVs) for women mobilization, and data collection		issues and mainstreaming with WASH schemes	
--	--	--	--	--

### Pump operators

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply		Install, repair and maintain all kinds of pipes, plumbing system and its components.		Training on O&M of pumping system
Sanitation and hygiene				
Water quality improvement		Operate water supply system.		
System management	Lack of capacity to identify the leakage point at water supply system.  Lack of skill of fitting and repairing multilayer pipes and PVs., and repairing leakage of water reserve tank	Detect problem and repair water lifting, filtration and mechanical system under the guidance of sub-engineer/engineer	Knowledge and skills on fitting and repairing all kinds of pipes used in water supply  Skill to detect and repair water lifting, filtration and electromechanical components	
Others				



## D. Beneficiary level target groups

### Village Maintenance Workers (VMW)

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply		Assist to develop water safety plan and water quality surveillance monitoring indicator  Responsible for ensuring water safety plan implemented  Take part in water quality surveillance monitoring  Implement water source depletion mitigation measures  Control water wastage and leakage of the water supply schemes  Estimate for annual cost for repair of the systems and inform to users committee for fund raising		
Sanitation and hygiene				
Water quality improvement	Lack of skill and knowledge on water safety plan and water surveillance		Skill on designing and monitoring water safety plan and water surveillance	Training on water safety plan and water quality surveillance
System management	Lack of knowledge on sustainability indicators  Lack of knowledge on water leakage management		Skill on identifying and implementing sustainability indicators  Skill on identification and implementation of water source protection and mitigation of water source depletion  Skill on identifying and implementation of water leakage management	Training on sustainability of water supply schemes
Others				

## WUSC members

Elements	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Lack of skill and knowledge on construction management  Lack of technical knowledge for quality control of construction and construction materials	Develop policy, procedure and rules for operating and maintaining the water supply system  Prepare strategic plan for maintenance and sustainable plan.	Technical knowledge for quality control of construction and construction materials  Technical know how to identify water leakage and its management	Training on construction management, quality control of construction and construction materials  Training on water leakage and its management,
Sanitation and hygiene		Plan for minimizing leakage of water systems  Introduce water safety plan and water quality surveillance in the systems in a structured and periodic manner  Integrate sanitation and hygiene an integral part of the water scheme	Skill on planning sanitation programme, and mobilizing communities in ODF campaign  Skill on developing and enforcing sanitation rules and norms to carry out ODF campaign and post ODF campaigning	Training on ODF campaigning  Training on post ODF campaigning
Water quality improvement	Lack of knowledge and skill on water safety plan and water surveillance	Impart refresher training to technical staff time to time for latest knowhow	Knowledge and skill on water safety plan and water surveillance	Training on water safety plan and water surveillance
System management	Lack of knowledge and skills on preparing sustainable business plan for O&M.  Lack of technical know how to identify water leakage and its	Integrate DRR in the WASH system	Knowledge and skills on preparing sustainable business plan for O&M.  Skill on computerized information, record keeping	Training on preparing sustainable business plan for O&M.  Training on fund raising for O&M

	<p>management</p> <p>Lack of computerized information, record keeping and billing system</p> <p>Lack of knowledge and skill on meter reading and water calibration and their technical problems</p> <p>Less knowledge on sustainability indicators</p> <p>Lack of knowledge on water source protection and mitigation of water source depletion</p> <p>Lack of knowledge and skill on fund raising for O&amp;M</p>		<p>and billing system (urban)</p> <p>Knowledge and skill on meter reading and water calibration and their technical problems (urban)</p>	<p>Training on computerized information, record keeping and billing system (for urban WUSC)</p> <p>Training on meter reading and water calibration and their technical problems (urban)</p>
Others	<p>Lack of skill and knowledge on conflict resolution about social, water source and water distribution.</p> <p>Less knowledge on DRR components in water supply components</p>		<p>Skill and knowledge on conflict resolution about social, water source and water distribution</p> <p>Knowledge on DRR components in water supply components</p>	<p>Training on conflict resolution about social, water source and water distribution</p> <p>Training on DRR components in water supply components</p>

**Note: Details of competency analysis is given in Annex 1**

## 7. Plan for Development of Detail Training modules of WASH Sector (Component E)

**Propose a plan for development of detail training modules with the support of sector partners**

### 7.1 Development of Module

The target groups have been divided into four categories based on their location of performance and jobs. The training targeted for each category has been leveled as the corresponding module. For example the training to the central and regional level target groups are leveled as central and regional level training module. The modules are as follows:

Name of the module	Target group
Module 1: Central and regional level training module	<ul style="list-style-type: none"> <li>• SDE and Engineers (of DWSS/RMSOs/Engineers/Project Engineers)</li> <li>• Sociologists</li> <li>• R-WASHCC members</li> </ul>
Module 2: District level training module	<ul style="list-style-type: none"> <li>• DWASHCC members</li> <li>• Division/sub-division heads/Engineers</li> <li>• Lab assistant/chemists</li> <li>• Team Leader /Project Manager</li> <li>• District level master sanitation triggers</li> </ul>
Module 3: VDC/municipal/project level training module	<ul style="list-style-type: none"> <li>• M/VWASHCC members</li> <li>• Sub-Engineers</li> <li>• Field coordinators</li> <li>• WSSTs/Plumbers</li> <li>• Pump operators</li> </ul>

	<ul style="list-style-type: none"> <li>• Women workers/women social mobilizers</li> </ul>
Module 4: Project beneficiary level training module	<ul style="list-style-type: none"> <li>• VMW</li> <li>• WUSC</li> <li>• Village level triggers</li> <li>• SMC/PTA</li> <li>• Teachers</li> <li>• Child clubs</li> <li>• FCHVs</li> </ul>

## 7.2 Plan of Action for development of Training Modules

Each training module has a number of training targeted to different target groups in that level. In this plan, each training is illustrated with key topics required to meet the desired competences of the respective target groups. Also the competencies of the expert have been identified to develop training module of each training being proposed. Tentative days required to develop a module for each training is also suggested in the plan. Details plan of development of the training module of each category is given below in the table.

## Plan of action of development of training module

### Module1 : Central level/regional level training module

Target group	Name of training	Key topics	Support partner	Expertise required for developing module	Duration to develop the manual (days)
<b>SDE and Engineers (of DWSS/RMSOs Engineers/Project Engineers</b>	Training on design of rural Water supply schemes	<ul style="list-style-type: none"> <li>• TOT on CAD of gravity water supply systems and design of rain water schemes</li> <li>• Design parameters of sustainability of water supply schemes</li> </ul>	???	Masters degree in civil/water supply engineering with a minimum of 10 years of experience on facilitating and designing central level Water supply training	5 days
	Training on design of urban water supply schemes	<ul style="list-style-type: none"> <li>• Design of urban water supply schemes (pumping systems, and water treatment plants, water tariff</li> <li>• Design parameters of sustainability of water supply schemes</li> </ul>			10 days
	Training on sustainability of water supply and sanitation schemes	<ul style="list-style-type: none"> <li>• High lights of sanitation master plan, MAF and master plan implementation guidelines</li> <li>• Sanitation triggering tools</li> <li>• Designing total sanitation programme (ODF and post ODF campaigning)</li> <li>• Water safety plan, and water quality surveillance</li> <li>• Sustainable water supply indicators and sustainability aspects</li> <li>• Design of DRR element in the water supply systems</li> <li>• Basic concept of climate change and adaptation to mitigate climate change</li> </ul>			15 days

				training	
<b>Sociologists (Ministry/department regional/projects)</b>	TOT on development of strategic WASH planning	Development of district level/municipal and municipal WASH strategic planning <ul style="list-style-type: none"> <li>• Development of water supply action plans</li> <li>• Development of ODF strategic planning</li> <li>• Development of post ODF strategic planning</li> <li>• Integration of DRR in WASH planning</li> </ul> High lights of sanitation master plan, MAF and master plan implementation guidelines		Masters degree in education, health and or any other development field with a minimum of 10 years of experience on facilitating and designing central level sanitation (both urban and rural) training in Nepal or abroad  Experienced on urban sanitation (waste management) , emergency WASH, climate change is also preferred	5 days
	Training on knowledge management	Development, recording, storing and dissemination of WASH related articles, reports, and other publication  Development of IEC materials  Development of photography, ideography,  Development of case studies, story writing, news clips,			5 days
	Training on sustainability of water supply and sanitation	Sanitation triggering tools  Basic training on water supply approaches, policies, models  Sustainability indicators and their implementation  Basic training on climate change and its adaptation on water supply schemes			5 days
	Master TOT on triggering and facilitation	Conceptual clarity on theory of triggering and development of triggering tools  Application and facilitation of triggering tools			5 days

		Facilitation of workshop/seminar/training/conference			
<b>R-WASHCC members</b>	TOT on developing and updating district WASH strategic action planning	<p>Development of district level/municipal and municipal WASH strategic planning</p> <ul style="list-style-type: none"> <li>• Sanitation triggering tools</li> <li>• Development of water supply action plans</li> <li>• Development of ODF strategic planning</li> <li>• Development of post ODF strategic planning</li> <li>• Integration of DRR in WASH planning</li> </ul> <p>High lights of sanitation master plan, MAF and master plan implementation guidelines</p>		Masters degree in education, health and or any other development field with a minimum of 10 years of experience on facilitating and designing central level sanitation (both urban and rural) training	5 days
	TOT on M&E framework	<p>Indicators setting and process of monitoring/ ODF verification</p> <p>Process of water quality surveillance and monitoring of functioning of water supply schemes based on sustainability indicators</p> <p>Setting indicators M&amp;E of WASH and reporting mechanism</p>		Experienced on urban sanitation (waste management), emergency WASH, climate change is also preferred	5 days



## Module 2: District level training module

Target group	Name of training	Key topics	Support partner	Expertise required for developing module	Duration to develop the manual (days)
<b>DWASHCC members</b>	Training on developing and updating district WASH strategic action planning	<p>Development of district level/municipal and municipal WASH strategic planning</p> <ul style="list-style-type: none"> <li>• Sanitation triggering tools</li> <li>• Development of water supply action plans</li> <li>• Development of ODF strategic planning</li> <li>• Development of post ODF strategic planning</li> <li>• Integration of DRR in WASH planning</li> </ul> <p>Sanitation sensitization and sector triggering</p> <p>High lights of sanitation master plan, MAF and master plan implementation guidelines</p>		<p>Masters degree in education, health and or any other development field with a minimum of 10 years of experience on facilitating and designing district level water and sanitation (both urban and rural) training</p> <p>Experienced on urban sanitation (waste management), emergency WASH, climate change is also preferred</p>	5 days
	M&E framework	<p>Indicators setting and process of monitoring/ ODF verification and also post ODF status</p> <p>Process of water quality surveillance</p> <p>Monitoring of functioning of water supply schemes based on sustainability indicators</p> <p>Setting indicators M&amp;E of WASH and reporting mechanism</p>		<p>Experienced on urban sanitation (waste management), emergency WASH, climate change is also preferred</p>	5 days

<b>Division/sub-division heads</b>	Refresher training on water supply and sanitation	Design of rain water, solar lifting, pumping design, water treatment plants, and integration of DRR Design parameters of sustainability of water supply schemes  Refreshing on developing and updating strategic WASH action plans ensuring 5+1 sanitation indicators		Masters degree in civil/water supply engineering with a minimum of 10 years of experience on facilitating and designing district level Water supply training	10 days
	Training on M&E framework	Refresher on water safety plan, and water quality surveillance Water supply approaches, innovative technologies and sustainability aspects.  Process of water quality surveillance  Monitoring procedures for functioning of water supply schemes based on sustainability indicators  Setting indicators M&E of WASH and reporting mechanism		Experienced on urban water supply, climate change, emergency WASH, design is also preferred  The other expert will be of sociology background with a minimum of 10 years in sanitation sector for facilitating and designing sanitation training	10 days

<b>Lab assistants/chemists</b>	Training on water quality assurance in water supply schemes	Orientation on national water quality standards and policy mandates  Training on monitoring of spot water quality check		Master degree on chemical engineering /water quality/chemistry with five years relevant experience	5 days
<b>District level master sanitation triggers</b>	Master ToT on triggering	Development of district/VDC/municipal level WASH strategic action planning  Conceptual clarity and development of sector and community triggering  Imparting training to VDC level triggers on sanitation movement  Support to DWASHCCs in planning and monitoring of WASH strategic interventions  Facilitation of district/VDC/municipal level sanitation related training, seminar, workshop and conference  Knowledge management of sanitation sector		Masters degree in education, health and or any other development field with a minimum of 10 years of experience on facilitating and designing district level water and sanitation (both urban and rural) training	5 days
<b>Team Leader /Project Manager</b>	Project management training	Planning of project activities and setting mile stones  Monitoring of project activities  Staff supervision for timely and quality accomplishment		Masters degree in civil/water supply engineering with a minimum of 10 years of experience on facilitating and	10 days

		<p>Quality control of construction materials and construction</p> <p>Safe water quality and water safety plan</p> <p>Training management of staff and project beneficiaries</p> <p>Establishment of project beneficiaries with local bodies and other concerned stakeholders</p> <p>ODF and total sanitation integrated with water supply</p> <p>Safe water quality and water safety plan</p> <p>Develop exit strategies/policies or sustainability strategies (eg, human resource, O&amp;M fund, linkage with local bodies, institutionalization of users committee)</p> <p>Prepare progress report and completion report</p>		<p>designing central level Water supply training</p> <p>Experienced on urban water supply design is also preferred</p> <p>The other expert will be of sociology background with a minimum of 10 years in sanitation sector for facilitating and designing sanitation training</p>	
--	--	--	--	---	--

### Module 3: VDC/Municipal/project level training module

Target group	Name of training	Key topics	Support partner	Expertise required for developing module	Duration to develop the manual (days)
<b>M/VWASHCC</b>	Training on developing	<p>Development of VDC/municipal and municipal level WASH strategic planning</p> <ul style="list-style-type: none"> <li>• Sanitation triggering tools</li> </ul>		Masters degree in education, health	10 days

<b>members</b>	strategy and action for total sanitation and water supply components	<ul style="list-style-type: none"> <li>• Development of water supply action plans</li> <li>• Development of ODF strategic planning</li> <li>• Development of post ODF strategic planning</li> <li>• Integration of DRR and climate change adaptation in WASH planning</li> </ul> <p>High lights of sanitation master plan, MAF and master plan implementation guidelines</p>		and or any other development field with a minimum of 10 years of experience on facilitating and designing district level water and sanitation (both urban and rural) training	
	Training on sustainable management of existing water supply schemes/projects	<p>Establishment of O&amp;M systems at the VDC/municipal levels</p> <p>Monitoring procedures for functioning of water supply schemes based on sustainability indicators</p> <p>Linkage of WASH with livelihood for sustainability</p> <p>Indicators setting and process of monitoring/ ODF verification and also post ODF status</p>		Experienced on urban sanitation (waste management), emergency WASH, climate change is also preferred	5 days

<b>Sub-Engineers</b>	Refresher training on basic design of water supply and sanitation schemes	<p>Basic CAD of gravity water supply systems</p> <p>Design of WSP, design of rain water, solar lifting, pumping design, reservoir tanks,</p> <p>Design parameters of sustainability of water supply schemes</p> <p>Design/prototype of Hygienic HH and CGD school toilets together with septic tanks</p> <p>Sanitation triggering tools</p> <p>Design of ODF action plans and monitoring process</p> <p>Water safety plan, and water quality surveillance</p>		<p>Masters degree in civil/water supply engineering with a minimum of 10 years of experience on facilitating and designing district level Water supply training</p> <p>Experienced on urban water supply, climate change, emergency WASH, design is also preferred</p>	10 days
	Training on Construction supervision and management	<p>Quality control and construction management</p> <p>Spot materials quality checking</p>		<p>The other expert will be of sociology background with a minimum of 10 years in sanitation sector for facilitating and designing sanitation training</p>	5 days
	Training on sustainability of water supply and sanitation	<p>Monitoring procedures for functioning of water supply schemes based on sustainability indicators</p> <p>Monitoring of 5+1 indicators of sanitation in the VDC and municipalities</p> <p>Basic concept of climate change and its impact on water supply schemes</p> <p>Basic concept of DRR management and integration</p>			5 days

		into water supply and sanitation			
<b>WSSTs/Plumbers</b>	Training on construction supervision	Construction technology and O&M of rain water, water treatment, overhead tanks, lifting systems and DRR components		Masters degree in civil/water supply engineering with a minimum of 10 years of experience on facilitating and designing district level Water supply training  Experienced on urban water supply, climate change, emergency WASH, design is also preferred  The other expert will be of sociology background with a minimum of 10 years in sanitation sector for facilitating and designing sanitation training	10 days
	Training on sustainability of WASH schemes and sanitation	Data collection of functioning of the systems, service levels and O&M status  Concept of water safety plan, and designing and implementation procedures  Water quality surveillance procedures  Sustainability indicators of water supply  Identification of water leakage and its management			5 days
	Training on sanitation and hygiene	Sanitation triggering tools  5+1 indicators of post ODF sanitation			5 days
<b>Pump operators</b>	Training on O&M of pumping system	Installation, repairing maintaining all kinds of pipes including PVC and multi-layers  Repairing and maintaining water lifting and supply system			5 days

<b>Women workers/women social mobilizers</b>	Training on total sanitation approach	<p>Designing need based health and sanitation education programme</p> <p>Development of IEC/BCC materials at local levels</p> <p>Triggering, motivation and behavior change skills</p> <p>Water surveillance and water safety plan</p> <p>Training on GESI mainstreaming with WASH schemes</p>		Masters degree in education, health and or any other development field with a minimum of 10 years of experience on facilitating and designing district level water and sanitation (both urban and rural) training	5 days
	Training on sustainability of water supply and sanitation	<p>Coordination mechanism with FCHVs for community level training and data collection</p> <p>Identification of water supply sustainability indicators and management</p> <p>Identification of 5+1 indicators of sanitation after ODF and enforcement procedures</p>			5 days
<b>Field coordinator</b>	Community mobilization training	<p>Field level planning and supervision of activities and quality control of construction materials and construction activities</p> <p>Triggering tools, ODF and total sanitation activities</p> <p>Establishment of O&amp;M fund and its mobilization</p> <p>Establishment of project beneficiaries with local bodies and other concerned stakeholders</p>			5 days



		<p>Develop exit strategies/policies or sustainability strategies (eg, human resource, O&amp;M fund, linkage with local bodies, institutionalization of users committee)</p> <p>Field level training management to the beneficiary levels</p> <p>Development of water and ODF rules and regulation to sustain them</p> <p>Prepare field progress report and completion report</p>			
--	--	--	--	--	--

## Module 4: Project beneficiary level training module

Target group	Name of training	Key topics	Support partner	Expertise required for developing module	Duration to develop the manual (days)
<b>VMW</b>	Training on water safety plan and water quality surveillance	Designing and monitoring water safety plan and water surveillance		Masters degree in civil/water supply engineering with a minimum of 10 years of experience on facilitating and designing community level Water supply training	5 days
	Training on sustainability of water supply schemes	<p>Masonry works of water supply schemes</p> <p>Pipe threading, cutting, jointing and laying</p> <p>Introduction and installation of pipe fittings</p> <p>Identification and implementation of water source protection and mitigation of water source depletion</p> <p>Identifying and implementation of water leakage management and estimation of annual repair works</p> <p>Identifying and implementing water supply sustainability indicators</p>			10 days
<b>WUSC</b>	Pre implementation	<ul style="list-style-type: none"> <li>• Identification of quality construction materials and quality control</li> </ul>		Masters degree in civil/water supply	10 days

	training	<ul style="list-style-type: none"> <li>• Sanitation triggering tools</li> <li>• Planning and mobilizing ODF campaigning</li> <li>• Conflict resolution about social, water source and water distribution</li> <li>• DRR components in water supply components</li> <li>• Record keeping and account keeping</li> </ul>		engineering with a minimum of 10 years of experience on facilitating and designing district level Water supply training	
	During implementation training	<ul style="list-style-type: none"> <li>• Construction management</li> <li>• Fund raising for O&amp;M and mobilization</li> <li>• Identification and implementation of WASH Sustainability indicators its mobilization</li> <li>• Public auditing/hearing</li> </ul>		Experienced on urban water supply, climate change, emergency WASH, design is also preferred	10 days
	Post implementation training	<ul style="list-style-type: none"> <li>• Preparing sustainable business plan for O&amp;M</li> <li>• Identification of water leakage and its management</li> <li>• Post ODF campaigning</li> <li>• Water safety plan and water surveillance</li> <li>• Computerized information, record keeping and billing system (for urban WUSC)</li> <li>• Meter reading and water calibration and their technical problems (urban WUSC)</li> </ul>		The other expert will be of sociology background with a minimum of 10 years in sanitation sector for facilitating and designing sanitation training	10 days
<b>Village level sanitation triggers</b>	Training on triggering	<p>Development of VDC level WASH strategic action planning</p> <p>Conceptual clarity and development of sector and community triggering</p> <p>Application of triggering tools in the communities</p> <p>Support to VWASHCCs in planning and monitoring</p>		Masters degree in education, health and or any other development field with a minimum of 10 years of experience on facilitating and designing district level water and sanitation (both urban and	5 days

		<p>of WASH strategic interventions</p> <p>Facilitation of VDC level sanitation related training, seminar, workshop and conference</p> <p>Knowledge management of sanitation sector</p>		rural) training	
<b>Teachers</b>	School sanitation and hygiene training	<p>Triggering tools, ODF and post ODF activities</p> <p>Formation and reformation of child clubs to promote ODF campaign</p> <p>Develop ODF norms, rules and regulation to sustain</p> <p>Identify the roles of teachers to carry put ODF campaign</p> <p>Develop sanitation linkage with SIP and VWASHCCs</p> <p>CGD friendliness toilets and menstrual hygiene facilities and behaviors</p> <p>Hand washing with soap – importance, critical times, methodologies</p>		Masters degree in education and or any other development field with a minimum of 10 years of experience on facilitating and designing district level water and sanitation (both urban and rural) training	5 days
<b>SMC/PTA</b>	School sanitation and hygiene training	<p>Triggering tools</p> <p>ODF and post ODF activities</p> <p>Identify the roles of SMC/PTA in ODF campaigning</p>		Masters degree in education, health and or any other development field with a minimum of 10 years of experience on	5 days

		Monitor ODF status at the school and community level		facilitating and designing district level water and sanitation (both urban and rural) training	
<b>Child clubs</b>	School sanitation and hygiene training	<p>Triggering tools</p> <p>ODF and post ODF campaign and activities</p> <p>Identify the roles of child clubs in ODF campaigning</p> <p>CGD friendliness toilets and menstrual hygiene facilities and behaviors</p> <p>Hand washing with soap – importance, critical times, methodologies</p> <p>Monitor ODF status at the school and community level</p>		Masters degree in education, health and or any other development field with a minimum of 10 years of experience on facilitating and designing district level water and sanitation (both urban and rural) training	5 days
<b>FCHVs</b>	Community sanitation training	<p>Triggering tools</p> <p>ODF and post ODF campaign and activities</p> <p>Identify the roles of FCHVs in ODF campaigning</p> <p>CGD friendliness toilets and menstrual hygiene facilities and behaviors</p> <p>Hand washing with soap – importance, critical times, methodologies</p>		Masters degree in education, health and or any other development field with a minimum of 10 years of experience on facilitating and designing district level water and sanitation (both urban and rural) training	5 days

		Mobilization of mother/women groups in ODF campaigning			
--	--	--	--	--	--

## Annex 1: Analysis of desired competencies and training needs

### B. Central/regional level

#### SDE and Engineers (of DWSS/RMSOs)/Engineers

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Annual planning and budgeting  Planning and organizing training  Estimation of projects  Supervision of projects	Skill on manual design and estimation of gravity water supply schemes	Lack of skill on computer aided design of gravity water schemes  Lack of skill on design of rain water technology, electrical and solar pumping and water treatment plants  Lack of training skill on imparting technical training to the sub-ordinates	Organize training to district engineers and sub-engineers on CAD of gravity water schemes, and also design of rain water, pumping systems, water treatment plants, DRR  Support the districts to design and implement various technologies of water supply systems	TOT skill on CAD of gravity water schemes, and also design of rain water, pumping systems, DRR and water treatment plants	Training on design of rural Water supply schemes  Training on design of urban water supply schemes
Sanitation and			Less knowledge on designing total		Knowledge and skill on total sanitation	Training on total sanitation

hygiene			sanitation components		approach	approach,
Water quality improvement			Less knowledge on water safety plan and water quality surveillance		Knowledge and skill on water safety plan, water quality surveillance,	Training on water safety plan, and water quality surveillance
System management			Less knowledge on sustainable indicators of water supply schemes/project		Knowledge and skill on sustainable water supply indicators Skill on designing water supply tariff (urban)	Training on sustainability of water supply and sanitation schemes

**Sociologists of DWSS (ministry, DWSS, RMSOs)**

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Social studies, research and development for environmental sanitation promotion  Institutionalize information systems and analyse  Organize seminar, workshop, orientation and dissemination of IEC materials for environmental sanitation and awareness raising			Planning and designing 5+1 indicators Facilitate training at the national, regional and district levels		
Sanitation and hygiene		Research knowledge on designing sanitation promotional activities  Facilitation skill on workshop, seminars, training at the national, regional and district levels  Knowledge and skill on ODF campaigning	Un even skill and knowledge among all the sociologists on ODF and sanitation campaigning  Less experience and skill on post ODF sanitation campaigning	Facilitate to establish ad re-enforce sanitation resource centers at the regional directorates  Knowledge management at the national, regional and district level	Planning and designing skill on 5+1 indicators Knowledge on integrating DRR in sanitation programme	TOT on development of strategic WASH planning  Master TOT on triggering and facilitation
Water quality improvement			Skill only on sanitation but less knowledge on water quality aspects	Introduce water safety plan in all the sanitation promotional campaigning	Knowledge and skill on water safety plan	Training on water safety plan
System management	Recommendation for policy formulation and reformulation		Less oriented on sustainability aspects of water supply schemes	Support the district to plan and	Skill on knowledge management, news clips and documentation Knowledge in types	Training on sustainability of water supply and sanitation



	Participate in various seminar, workshop and training			implement DRR activities  Explore research and contribute towards sustainability of water supply schemes	of water supply and sustainability aspects of water supply schemes (both rural and urban)	Training on knowledge management
Others			Less knowledge on TOT skill  Lack of skill and knowledge on disaster response and rehabilitation (DRR)  Less knowledge on climate change issues and impact on water supply schemes		Un even skill to facilitate training, workshop at the national, regional and district levels Conceptual clarity and designing and managing resource centers Knowledge on climate change issues and its impact on water supply schemes	Basic training on climate change and its impact on water supply schemes

## R-WASHCC members

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water Supply	Encourage and support the districts for formulating and implementing their district strategic action plans;  Formulate programs to help districts for helping them plan and implement their hygiene and sanitation programs;	Skill on planning and review of regional level sanitation campaigning  Organizing skill of regional level triggers ' training  Motivation on Organizing regional level seminars and workshop on sanitation	Less focus on water components- linking to sanitation;  No planning for water supply coverage  Less focus to urban WASH sector	Periodic updates of WASH information of the districts and publication  Dedicate a team of staff for training to and monitoring of the districts  Periodically monitor the water quality of various schemes of the districts  Encourage the districts to plan and update district WASH strategic action plans  Monitor functioning of water supply schemes and provide feedback for better functioning	Skill on developing WASH (strategic action plan, water quality, functioning of systems, ODF verification, etc)	TOT on developing and updating district WASH strategic action planning  TOT on M&E framework
Sanitation and hygiene			Only sanitation resource centers attempted to establish; not focus to water quality			
Water quality improvement						
System management	Monitor the performance of the hygiene and sanitation activities in the region;	Monitoring skill of district ODF verification	Less motivation on sustainability aspects of water supply schemes		Skill and knowledge on periodic monitoring of WASH schemes for functionality	
Others	Regularly organize		Lack of funding to the research and development  Lack of dedicated		M&E reporting skills	

	<p>seminars and conferences to review the performance of the local bodies in sanitation promotion;</p> <p>Organize annual WASH sector review workshop;</p> <p>Organize regional multi-stakeholder forums to share the experience between the partners. Organize exchange visit for D-WASH-CC for better knowledge sharing.</p>		<p>staff for supporting to the districts</p> <p>Lack of reporting mechanism from districts to region and from region to the central agencies</p>	<p>Monitoring and backstopping to urban WASH sector</p>		
--	--	--	--	---	--	--

## B. District Level training

### DWASHCC members

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	<p>Prepare the district strategic Master Plan/Plan of Action;</p> <p>Monitor the performance of the VDCs and Municipalities in sanitation;</p> <p>Encourage and support the VDCs and Municipalities to declare ODF;</p>	<p>Skill on developing district sanitation strategic planning</p> <p>Skill on organizing district level seminars and workshop on sanitation</p>	<p>Less focus on water components- no linking water to sanitation</p> <p>Less focus on developing WASH strategic planning</p>	<p>Periodic updates of WASH information of the district and publication</p> <p>Dedicate a team of staff for training to and monitoring of the VDCs/municipalities</p> <p>Periodically monitor the water quality of various schemes in the district</p>	<p>Skill and knowledge on WASH strategic action planning</p> <p>knowledge on use of sector and community levels triggering tools for ODF campaigning</p>	<p>Training on developing and updating district WASH strategic action planning</p> <p>TOT on M&amp;E framework</p>
Sanitation and hygiene	<p>Regularly organize seminars and conferences to review the performance of the local bodies;</p>	<p>Monitoring skill of VDC ODF verification</p>	<p>Less focus on supervision and monitoring of sanitation campaigning in urban/municipality</p>	<p>Encourage the VDCs/municipalities to plan and update WASH strategic action plans</p> <p>Monitor functioning of water supply schemes and provide feedback</p>	<p>Understanding on focus on water quality issues</p>	
Water quality improvement	<p>Create conducive</p>					

System management	environment to mainstream private sector in WASH activities.		Less motivation on sustainability aspects of water supply schemes	for better functioning	Skill for organizing district level training on sustainability and functioning of WASH	
Others	<p>Establish coordination and communication with NSHSC and R-WASH-CC for collaboration and information sharing</p> <p>Do resource mapping and stakeholders analysis for the effectiveness of program</p> <p>Establish district level resource center.</p>		Lack of reporting mechanism from VDC/municipality to region and the central agencies	Monitoring and backstopping to urban WASH sector		Training on M&E reporting

**Division/sub-div heads/engineers**

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Annual project and budget planning of the district  Supervision and monitoring of the projects Performance evaluation of staff	Skills on planning and budgeting of annual planning of conventional WASH schemes	Lack of knowledge on design of rain water technology, electrical and solar pumping and water treatment plants  Un-even planning and supervision skill of water treatment plant and overhead tanks.	Ensure that design of water supply schemes would contain sustainable aspects of water supply schemes  Introduce and supervise new technologies such as rain water and lifting systems, in the areas where gravity water systems is infeasible.	Knowledge on planning and supervision of new technologies such as water treatment plants, rain water, lifting systems, solar lifting design	Refresher training on water supply technology  Training on M&E framework
Sanitation and hygiene			Un even skill and knowledge on developing district and VDC/municipal level water and sanitation strategic action planning	Ensure that water supply projects are integrated with sanitation, climate change and DRR	Skill and knowledge on developing WASH strategic action plan	
Water quality improvement					Knowledge and skill on WSP and water quality surveillance	
System management			Un-even skill and knowledge on planning of sustainability aspects of water supply schemes	Ensure that the district would have periodic and updated WASH strategic planning to	Knowledge on sustainable indicators	

				meet the national targets		
Others			<p>Lack of skill and knowledge on DRR components</p> <p>Less knowledge on climate change issues and impact on water supply schemes</p>	<p>Ensure that sanitation programme would include a minimum of 5+1 indicators as per the Master Plan</p>	<p>Knowledge on climate change parameters and design</p> <p>Knowledge on design of DRR elements</p>	

### Project Engineers/Departmental Engineers

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	<p>Planning of district level WASH schemes</p> <p>Feasibility studies, and selection of scheme areas</p> <p>Design, estimation and construction supervision of new schemes</p> <p>Estimates of O&amp;M for completed schemes</p>	Skill on manual design and estimation of gravity water supply schemes	<p>Lack of skill on computer aided design of gravity water schemes</p> <p>Lack of skill on design of rain water technology, electrical and solar pumping and water treatment plants, overhead tanks, and horizontal drilling</p> <p>Lack of training skill on imparting technical training to the sub-ordinates</p>	Ensure that water supply planning would include water safety plan, water quality surveillance, total sanitation (5+2 indicators), climate change, and sustainability and DRR elements.	<p>Skill on CAD of gravity water schemes,</p> <p>Skill on design of rain water, pumping systems, DRR and water treatment plants, overhead tanks and horizontal drilling</p> <p>Skill on supporting to the sub-engineers on designing the engineering projects</p>	<p>Basic training on CAD of gravity water supply systems</p> <p>TOT on WSP, design of rain water, solar lifting, pumping design, water treatment plants, overhead tanks, horizontal drilling and DRR</p> <p>Training on urban water supply technology and management</p>
Sanitation and hygiene	Regular monitoring of completed schemes		Less knowledge on designing total sanitation components		Skill on designing sanitation programme	Training on designing total sanitation programme
Water quality improvement	Periodic updates of WASH coverage data		Less knowledge on water safety plan and water quality surveillance		Knowledge on water safety plan, total sanitation, water quality surveillance,	Training on water safety plan, and water quality



	Technical support to users committees for construction and management of O&M tools				and suitability indicators	surveillance
System management			Less knowledge on sustainable indicators of water supply schemes/projects		Knowledge on designing water tariff and management of water leakage	Training on water supply approaches, technologies and sustainability aspects
Others			Less knowledge on climate change issues and impact on water supply schemes  Lack of skill and knowledge on DRR components		Knowledge on climate change issues and its impact on water supply schemes	Basic training on climate change and its impact on water supply schemes

### Chemists/Lab assistants

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	<ul style="list-style-type: none"> <li>Maintenance of water lab</li> <li>Water quality testing of water samples received form districts</li> </ul>	Skill on regular maintenance and operation of water lab		Report periodically the water quality standards in the selected water supply schemes as per the policy mandates  Monitor randomly		
Sanitation and hygiene			Lack of knowledge on health risk factors			
Water quality improvement			Lack of knowledge on water quality policy mandates and standards		Knowledge on national water quality standards  Monitoring skill of spot water quality	Training on water quality assurance in water supply schemes

				water supply schemes to spot check the water quality standards	check	
System management						

### C. VDC/municipal/project level

#### Sub- engineers

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Feasibility studies  Survey of schemes  Design and estimation of water supply schemes under guidance of engineers	Skill on manual design and estimation of gravity water supply schemes  Skill of survey for water supply schemes  Capacity to carryout construction activities as per design and specification.	Lack of skill on computer aided design of gravity water schemes  Lack of skill on design of rain water technology, electrical and solar pumping and water treatment plants	Assist for water supply planning and design that would include water safety plan, water quality surveillance, total sanitation (5+2 indicators), climate change, and sustainability and DRR elements.  Assist to design and estimate overhead tank, reserve tank and other tanks in urban/terai and hill areas.	Skill on CAD of gravity water schemes,  Skill on design of rain water, pumping systems, DRR and reservoir tanks Knowledge on climate change issues and its impact on water supply schemes	Refresher training on basic design of water supply and sanitation schemes  Training on Construction supervision and management
Sanitation and hygiene	Construction supervision  Training on pre-construction and post construction  Quality control of construction materials	Construction supervision skills.  Capacity to provide training to the VMW, technicians and users committee	Less knowledge on designing total sanitation components  Less knowledge on hygienic toilets (also ecosan toilets), Child, Gender and Disable friendly (CGD) school toilets		Skill on hygienic HH and CGD friendly school toilets	
Water quality			Less knowledge on		Knowledge on water	

improvement			water safety plan and water quality surveillance		safety plan, total sanitation, water quality surveillance, and suitability indicators	
System management			Less knowledge on sustainable indicators of water supply schemes/projects		Idea of quality of control and construction management including checking and inspecting materials at the field level.	Training on sustainability of water supply and sanitation
Others			Lack of skill and knowledge on DRR components  Less knowledge on climate change issues and impact on water supply schemes			

**M/VWASHCC members**

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Preparation and updating of the WASH strategic planning  Form up a monitoring team for regularly monitoring and	Committed for ODF campaigning  Motivated to allocate a portion of budget for sanitation	Focused only for sanitation but not water supply	Assess the needs and demands of total sanitation and drinking water.  Prepare strategic planning for both water supply and sanitation	Capacity for developing strategy and action for total sanitation and water supply components integrated with DRR, climate change adaptations, water quality improvement	Refresher training on basic design of water supply and sanitation schemes
Sanitation and hygiene	provide technical backstopping to the communities and schools;  Organize review meetings and follow up activities for smooth implementation and monitoring,	Good coordination among the stakeholders  Good command of people to persuade for stopping ODF  Mobilization of schools for ODF campaigning	Lack of capacity for developing strategy and action for total sanitation  Lacks triggers and other human resource for ODF campaigning	integrated with DRR and climate change adaptations  Facilitate triggering and community mobilization process for collective action.	Capacity to mobilize triggers and other human resource for ODF campaigning, water supply and water quality improvement	
Water quality improvement	Coordinate with D-WASH-CC for sharing of necessary information and decisions.		Even not focused to water quality improvement  Lack of technical personnel and adequate budget for water supply and water quality improvement	Form and activate different groups.  Periodically monitoring the progress of total sanitation, ODF and water supply schemes and report to DWASHCC.		

System management	Do resource mapping and stakeholders analysis for the effectiveness of program;		Less knowledge on sustainable indicators of existing water supply schemes/projects	Mobilize local human resources in sanitation campaigning	knowledge on sustainable indicators of existing water supply schemes/projects	Training on sustainable management of existing water supply schemes/projects
Others			Lacks knowledge and skill on DRR components to integrate with WASH  Lacks knowledge on climate change effect on water and sanitation.		Knowledge on DRR and climate change adaptations	

### WSSTs/Plumbers

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	<p>Jointing of fittings of the assigned schemes</p> <p>Impart training to VMW on fitting and sanitation</p> <p>Listing fittings required for schemes</p>	<p>Fitting and jointing skills.</p> <p>Capacity to work as per estimate and specification.</p> <p>Knowledge and skills of O&amp;M of WASH facilities</p>	<p>Less familiar with latest technology related to rain water, water treatment plants, overhead tank technology, lifting, etc.</p> <p>Lack of knowledge and skills on urban water supply development and fitting.</p>	<p>Facilitate users committees meeting to maintain O&amp;M systems of schemes</p> <p>Collect data of schemes in a regular basis about the functioning of the systems, service levels and O&amp;M status.</p>	<p>Skill and knowledge on construction technology and O&amp;M of rain water, water treatment, overhead tanks and lifting systems.</p>	<p>Training on construction supervision</p>
Sanitation and hygiene	<p>Maintain inventory of construction materials</p>		<p>Less knowledge on sanitation triggering tools</p>	<p>Estimate O&amp;M, repairing cost of the systems and report to the users committees</p>	<p>Skill on sanitation triggering tools</p>	<p>Training on sanitation and hygiene</p>
Water quality improvement	<p>Quality control of construction</p> <p>To support to the WUSC for operation and maintenance of the WASH facilities.</p>		<p>Less knowledge and skill on water quality surveillance and water safety plan</p>	<p>Periodically monitor the sustainability indicators of the schemes</p> <p>Backstop VMW of the schemes for major O&amp;M and repair</p>	<p>Knowledge on water safety plan, total sanitation, water quality surveillance, and suitability indicators</p>	<p>Training on sustainability of WASH schemes and sanitation</p>
System management			<p>Less knowledge on sustainability indicators</p>		<p>Knowledge on data collection of functioning of the systems, service</p>	

			Less knowledge on water leakage management (urban)	Facilitate communities with sanitation triggering tools	levels and O&M status. Skill on simple costing of O&M and repair works Knowledge on water leakage management	
Others			Less knowledge on DRR components in water supply components		Knowledge on DRR components in water supply components	Training on DRR in WASH system



**Women workers/women social mobilizers**

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Assist in planning and implementing sanitation programme in the district and communities	Data and information collection skills.  Motivation and mobilization skills.	Less knowledge on community mobilization of users and users committees for planning, construction and post construction water supply schemes	<i>Sanitation and hygiene</i>  Assist to the sanitation supervisor to plan and design health education and public awareness campaign.		
Sanitation and hygiene	Assist in sanitation promotional activities  Assist in coordination and reporting Training to users	Coordination and facilitation.  Field Monitoring and reporting skill	Lack of sanitation triggering skills.  Lack of capacities to design and implement health and sanitation education at the district level.  Lack of skills to design IEC materials.  Poor understanding of behavior change skills	Motivate and trigger people for behavior change and toilet construction.  Develop locally appropriate IEC materials and utilize locally available resources.  Measure and monitor the progress of the sanitation.	Capacity to design appropriate health education and hygiene promotion programme.  Triggering and behavior change skills  Skill to design IEC and BCC materials	Training on total sanitation approach
Water quality improvement			Less knowledge and skill on water quality	<i>Water supply</i>	Knowledge on water surveillance and	Training on sustainability of

			surveillance and water safety plan	Assist users committee to	water safety plan	water supply and sanitation
System management			Less knowledge on sustainability indicators	Mobilize users specially women in the water supply schemes  Impart training to women groups of water supply scheme	Knowledge on sustainability indicators,  Coordination skill with FCHVs	
Others			Less knowledge on GESI issues in WASH schemes  Lack of coordination with Female Community Health Volunteers ((FCHVs) for women mobilization, and data collection	Jointly work with WSSTs for introducing water surveillance and water safety plan in the water supply scheme areas  Coordinate with FCHVs for health, sanitation related training and data collection	Communication and motivational skills.  Knowledge on GESI issues and mainstreaming with WASH schemes	

## Pump operators

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	<ul style="list-style-type: none"> <li>• Daily operation of pumps of the lifting water schemes</li> <li>• Regular maintenance of pumps</li> <li>• Installation and fixation of pumps</li> </ul> Electrical and plumbing works	Capacity to repair plumbing system.		Install, repair and maintain all kinds of pipes, plumbing system and its components.		Training on O&M of pumping system
Sanitation and hygiene						
Water quality improvement		Skill on operation of water supply services		Operate water supply system.	Knowledge and skills on fitting and repairing all kinds of pipes used in water supply	
System management			Lack of capacity to identify the leakage point at water supply system.			
Others		Lack of skill of fitting and repairing multilayer pipes and PVs., and repairing leakage of water reserve tank		Skill to detect and repair water lifting, filtration and electromechanical components		

## D. Beneficiary level

### Village Maintenance Workers (VMW)

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	Daily operation of the system	Skill on daily operation and maintenance of water supply systems		Assist to develop water safety plan and water quality surveillance monitoring indicator		
Sanitation and hygiene						
Water quality improvement	Repair and maintenance of system in a regular manner	Skill on daily operation and maintenance of water supply systems	Lack of skill and knowledge on water safety plan and water surveillance	Responsible for ensuring water safety plan implemented	Skill on designing and monitoring water safety plan and water surveillance	Training on water safety plan and water quality surveillance
	Control leakages of water if any					
System management	Manage O&M tools		Lack of knowledge on sustainability indicators	Take part in water quality surveillance monitoring	Skill on identifying and implementing sustainability indicators	Training on sustainability of water supply schemes
			Lack of knowledge on water leakage management	Implement water source depletion mitigation measures	Skill on identification and implementation of water source protection and mitigation of water source depletion	
				Control water wastage and leakage of the water supply schemes	Skill on identifying and implementation of water leakage management	
				Estimate for annual cost for repair of the		
Others						

				systems and inform to users committee for fund raising		
--	--	--	--	--	--	--

## WUSC members

Elements	Existing key tasks	Existing competencies	Gaps in competencies	Recommended tasks	Desired core competencies	Training needs
Water supply	<p><b>Before project</b></p> <ul style="list-style-type: none"> <li>• Planning of the project</li> <li>• Upfront cash collection</li> </ul> <p><b>During project</b></p> <ul style="list-style-type: none"> <li>• Construction management</li> <li>• Contract management (urban)</li> <li>• Community mobilization</li> <li>• Local materials collection,</li> <li>• Purchase of construction materials</li> <li>• Quality control of construction and construction materials</li> <li>• Sanitation promotion</li> <li>• Appointment of</li> </ul>	<p><b>Urban WUSC</b></p> <p>Participation in the scheme planning</p> <p>Motivation to users to contribute to the project</p> <p>Coordination skill with funding partners, implementing organizations and contractors</p> <p>Daily operation of schemes</p> <p>Mobilization skill of staff (adm/account/technicians)</p> <p>Regular tariff collection</p> <p><b>Rural WUSC</b></p> <p>Mobilization of communities</p> <p>Motivation to users to contribute to the project</p>	<p>Lack of skill and knowledge on construction management</p> <p>Lack of technical knowledge for quality control of construction and construction materials</p>	<p>Develop policy, procedure and rules for operating and maintaining the water supply system</p> <p>Prepare strategic plan for maintenance and sustainable plan.</p> <p>Plan for minimizing leakage of water systems</p> <p>Introduce water safety plan and water quality surveillance in the systems in a structured and periodic manner</p> <p>Integrate sanitation and hygiene an integral</p>	<p>Technical knowledge for quality control of construction and construction materials</p> <p>Technical know how to identify water leakage and its management</p> <p>Skill on planning sanitation programme, and mobilizing communities in ODF campaign</p> <p>Skill on developing and enforcing sanitation rules and norms to carry out ODF campaign and post ODF</p>	<p>Training on construction management, quality control of construction and construction materials</p> <p>Training on water leakage and its management,</p> <p>Training on ODF campaigning</p> <p>Training on post ODF campaigning</p>
Sanitation and hygiene						

	VMW/plumbers	Daily operation of the schemes		part of the water scheme	campaigning	
Water quality improvement	<ul style="list-style-type: none"> <li>Record and account keeping</li> </ul> <p><b>After project</b></p> <ul style="list-style-type: none"> <li>Mobilization of VMW/plumber</li> <li>Fund raising in a regular manner for VMW/plumber and O&amp;M</li> <li>Water tariff fixation (urban)</li> <li>Identification of water leakage and its solutions (urban)</li> <li>Office management (urban)</li> <li>Water safety plan</li> <li>Daily operation and maintenance</li> <li>Extension of service and service levels</li> <li>Promotion of sanitation and hygiene</li> </ul>	<p>Monthly fund raising for O&amp;M</p> <p>Mobilization of VMW/care takers</p>	<p>Lack of knowledge and skill on water safety plan and water surveillance</p>	<p>Impart refresher training to technical staff time to time for latest knowhow</p>	<p>Knowledge and skill on water safety plan and water surveillance</p>	<p>Training on water safety plan and water surveillance</p>
System management			<p>Lack of knowledge and skills on preparing sustainable business plan for O&amp;M.</p> <p>Lack of technical know how to identify water leakage and its management</p> <p>Lack of computerized information, record keeping and billing system</p> <p>Lack of knowledge and skill on meter reading and water calibration and their technical problems</p>	<p>Integrate DRR in the WASH system</p>	<p>Knowledge and skills on preparing sustainable business plan for O&amp;M.</p> <p>Skill on computerized information, record keeping and billing system (urban)</p> <p>Knowledge and skill on meter reading and water calibration and their technical problems (urban)</p>	<p>Training on preparing sustainable business plan for O&amp;M.</p> <p>Training on fund raising for O&amp;M</p> <p>Training on computerized information, record keeping and billing system (for urban WUSC)</p> <p>Training on meter reading and water calibration and their technical problems</p>

	Monitoring mechanism		<p>Less knowledge on sustainability indicators</p> <p>Lack of knowledge on water source protection and mitigation of water source depletion</p> <p>Lack of knowledge and skill on fund raising for O&amp;M</p>			(urban)
Others			<p>Lack of skill and knowledge on conflict resolution about social, water source and water distribution.</p> <p>Less knowledge on DRR components in water supply components</p>		<p>Skill and knowledge on conflict resolution about social, water source and water distribution</p> <p>Knowledge on DRR components in water supply components</p>	<p>Training on conflict resolution about social, water source and water distribution</p> <p>Training on DRR components in water supply components</p>



## Annex 2: List of Existing Training Courses

### Central/Regional Level Training

SN	Title and Training Contents	Target Groups	Duration	Key Contents of Training	Expected Outcomes	Methods and Materials	Special Focus and Features
1	<b>Trainers Training on Total Sanitation (Sanitation and Hygiene)</b>	Technical staff of DWSS and sector stakeholders	3 days	<ul style="list-style-type: none"> <li>-Country state of sanitation, Master plan, local development related acts and rules and different level coordination committee</li> <li>-Importance of partnership and collaboration</li> <li>-Concept and principles of total sanitation, triggering tools and techniques at community and sectoral levels and ODF declaration process</li> <li>-IEC/BCC materials</li> <li>-Generation and mobilization of local level resources</li> <li>-Formulation of VDC and Municipality level strategic plan</li> </ul>	Empowerment of participants for the application of total sanitation approach and formulation of strategic plan for ODF process and behavioral change	<ul style="list-style-type: none"> <li>-Presentation and discussion</li> <li>-Experience sharing</li> <li>-Use of audio visual materials</li> </ul>	<ul style="list-style-type: none"> <li>-Strengthening of local level planning process with focus on total sanitation</li> </ul>
2	<b>Triggering Training on Sanitation and Hygiene</b>	Technical persons of the sector	5 days	<ul style="list-style-type: none"> <li>-Scenario of WASH in national and global context</li> <li>-National rural and urban policies and Sanitation and Hygiene Master Plan-2011</li> <li>-Analysis of WASH in terms of health, economy and dignity</li> </ul>	-Empowerment of participants along with understanding of policy, plan and sectoral dynamics, ODF/total sanitation approach,	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Group works</li> <li>-Field practice</li> <li>-Audio visual and</li> </ul>	<ul style="list-style-type: none"> <li>-Attitudinal change through triggering</li> <li>-Collaborative efforts</li> </ul>

	<b>Promotion (Sanitation and Hygiene)</b>			<ul style="list-style-type: none"> <li>-Sanitation and hygiene related issues, challenges and barriers</li> <li>-Concept of ODF and total sanitation</li> <li>-Concept, theory and tools of triggering at community and sectoral level</li> <li>-Stakeholders analysis</li> <li>-Sanitation technology and point of use water treatment</li> <li>-Development of training curriculum and facilitation tips</li> <li>-Behavioral change communication</li> <li>- WASH coordination committees, generation ad mobilization of local resources and strategic planning</li> </ul>	concept and practice of triggering and behavioral change, facilitation skills and strategic planning	printed materials	-Elimination of open defecation
3	<b>Trainers' Training</b>	Engineer/Sociologist	2 weeks				
4	<b>Orientation Workshop</b>	Sector agencies	3 days				
5							
6	<b>Community Management Training</b>	Engineer/Sociologist	2 weeks				
7	<b>Sanitation Training</b>	Divisional Engineer	6 days				
8	<b>Sanitation Training</b>	Engineer/Sociologist	6 days				

9	<b>Workshop on Monitoring Indicators</b>	Divisional Engineer/Engineer	5 weeks				
10	<b>Training of Trainers on Health and Hygiene Promotion</b>	Staff of NEWAH	12 days	<ul style="list-style-type: none"> <li>-Policy and approach of organization</li> <li>-Community management, project organization and stakeholders' roles</li> <li>-Gender and social inclusion</li> <li>-Historical aspects and goal of sanitation</li> <li>-Triggering tools and techniques</li> <li>-Community monitoring</li> <li>-Faecal oral transmission of diseases</li> <li>-Water and sanitation induced diseases</li> <li>-Importance of ORS/ORT</li> <li>-Personal hygiene and use of latrines</li> <li>-Menstrual hygiene</li> <li>-Food hygiene</li> <li>-Management of solid wastes, liquid wastes and animal wastes</li> <li>-Water quality</li> <li>-User friendly water and sanitation facilities in schools and households</li> </ul>	Enhancement of knowledge and skills of participants on project planning, community triggering on sanitation, hygiene and health and visualization of model place in sanitation	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Group discussion</li> <li>-Field exercise</li> <li>-Discussion</li> <li>-Brain storming</li> <li>-Role play</li> </ul>	Consideration of nutrition and social inclusion aspects

				<ul style="list-style-type: none"> <li>-Indicators of clean and healthy home</li> <li>-Hygiene and sanitation campaigns</li> <li>-Acute respiratory infection, immunization and nutrition</li> <li>-Safe motherhood</li> <li>-HIV/AIDS and uterus prolapsed</li> <li>-School sanitation and hygiene</li> <li>-Communication and facilitation skills including use of IEC/BCC</li> <li>-Survey, planning and community monitoring</li> <li>-Role of HSF, CHSV and CCHG</li> </ul>			
--	--	--	--	--	--	--	--

### District Level Training

SN	Title and Training Contents	Target Groups	Duration	Key Contents of Training	Expected Outcomes	Methods and Materials	Special Focus and Features
1	<b>Review Workshop on Total Sanitation Model VDC (TSMV)</b>  (Sanitation and Hygiene)	TSMV team members	2 days	-Introduction, indicators and importance of total sanitation  -Method of assessment/thematic survey  -Steps of TSMV  -Assessment of results and difficulties  -Development of action plan	Capacity development of participants for comprehending and assessing situation of community level total sanitation and preparing plan of action	-Presentation and discussion  -Sharing of case studies  -Observation of households  -use of audio visual materials	-Sustainability of ODF and hygiene behaviors through community initiation
2	<b>Orientation on Sanitation and Hygiene</b>  (Sanitation and Hygiene)	VDC Secretaries	2 days	-State of sanitation, hygiene and water supply in the district and associated challenges  -National level policies, Master Plan, local governance act and role of local bodies  -Concept of total sanitation and application of triggering tools  -Formation and role of WASH coordination committee  -Identification of stakeholders and local level resources  -Strategic plan on sanitation and hygiene and VDC profile	Participants empowerment for local level planning, resource mobilization and triggering of community and sectoral level stakeholders	-Presentation and discussion  -Use of audio visual materials	-Strengthening of local level planning process
3	<b>Orientation on Sanitation and</b>	Political leaders, civil society,	1 day	-State of sanitation and hygiene in national and district contexts	Participants empowerment for advocacy on total	-Presentation and discussion	-Collaboration and commitments

	<b>Hygiene (Sanitation and Hygiene)</b>	human right activists and media		<ul style="list-style-type: none"> <li>-National level policies, Master Plan, local governance act and role of media, civil society and political sectors</li> <li>-Concept of total sanitation</li> <li>-Formation and role of WASH coordination committee</li> <li>-Identification of stakeholders and local level barriers and hindrances</li> <li>-Strategic plan on sanitation and hygiene</li> </ul>	sanitation, local level resource mobilization and community persuasion for change		for promotional actions
4	<b>Orientation on Sanitation and Hygiene (Sanitation and Hygiene)</b>	Education networks	1 day	<ul style="list-style-type: none"> <li>-State and challenges of sanitation and hygiene in national and district contexts</li> <li>-National level policies, Master Plan and role of education sector</li> <li>-Concept of total sanitation and triggering</li> <li>-Linkage of sanitation and hygiene with school curriculum</li> <li>-Formation and role of WASH coordination committee and stakeholders</li> <li>-School and resource center level plan of action</li> </ul>	Participants re-orientation towards integration of sanitation and hygiene components with education process	-Presentation and discussion	- Institutionalization of sanitation and hygiene through educational socialization process
5	<b>Training on Sanitation and Hygiene (Sanitation and Hygiene)</b>	Facilitators, social mobilizers and members of NGOs and	2 days	<ul style="list-style-type: none"> <li>-Assessment of access to water and sanitation, adverse impacts of poor sanitation and water supply and analysis of barriers</li> <li>-Sanitation as a social movement and behavioral changes</li> <li>-National policies and Master Plan</li> <li>-Approaches of sanitation, concept of total sanitation and triggering tools</li> </ul>	-Participants orientation and empowerment towards effective community mobilization and local level planning process	-Presentation -Discussion	-Persuasion for sanitation as a social movement

				<ul style="list-style-type: none"> <li>-Collaboration of stakeholders, joint initiatives and strategic plan</li> <li>-Formation and roles of VDC level WASH coordination committees and facilitators</li> </ul>			
6	<b>Teachers Training (Urban Sanitation and Hygiene)</b>	School teachers from ADB funded sub-projects	3 days	<ul style="list-style-type: none"> <li>-Health and sanitation</li> <li>-Prevention of diseases and use of toilets</li> <li>-Food and malnutrition</li> <li>-Roles and responsibility of teachers</li> </ul>	-Increase in teacher's pro-activeness for leading sanitation and hygiene promotion activities in school and communities	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> </ul>	-Improved hygiene and nutritional status
7	<b>Training on Community Action Planning, Health,</b>	Community Technicians and Community Workers	17 days	<ul style="list-style-type: none"> <li>-Roles of community technicians and community workers</li> <li>-Communication</li> <li>-SARAR tools (flexi-flans, un-serialized posters, self-survey pocket chart, three pile sorting, healthy home survey and community mapping</li> <li>-Community monitoring and evaluation</li> <li>-Personal, domestic and environmental hygiene</li> <li>-Technical options of water and sanitation system</li> <li>-Coordination and cooperation</li> <li>-Mother tap stand and child groups</li> <li>-Health education</li> <li>-Nutrition, immunization, oral rehydration solution and</li> </ul>	Enhancement of participants methodological, technical, managerial, planning, coordination and conflict management expertise and skills for water supply and sanitation projects	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Demonstration</li> <li>-Field practice and visits</li> </ul>	Consideration of cross cutting issues of social mobilization

				<p>malnutrition</p> <ul style="list-style-type: none"> <li>-Waste water and kitchen gardening</li> <li>-Diseases transmission route</li> <li>-Sanitation Revolving Loan Fund</li> <li>-Project cycle and its components</li> <li>-Community Action Plan</li> <li>-Selection and roles of users committee</li> <li>-Modules of workshop modules</li> <li>-Legal aspects of water and users committee</li> <li>-Causes of conflict, conflict cycle and conflict analysis</li> <li>-Negotiation skills, conflict management and peace building</li> </ul>			
	<b>Training on Community Led Total Behavioral Change on Hygiene and Sanitation</b>	Motivators	4 days	<ul style="list-style-type: none"> <li>-State of sanitation and hygiene in national and district contexts</li> <li>-National policies and guidelines</li> <li>-Concept and principles of Community Led Total Behavioral Change on Hygiene and Sanitation</li> <li>-Major aspects of hygiene and sanitation</li> <li>-Concept of hand washing</li> <li>-Triggering tools</li> <li>-Sanitation ladders and toilet types</li> </ul>	<ul style="list-style-type: none"> <li>-Motivation and empowerment of participants for conducting community triggering activities leading to ODF declaration and total behavioral change</li> </ul>	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Demonstration</li> <li>-Discussion</li> <li>-Exercise</li> <li>-Field practice</li> <li>-Observation</li> </ul>	Total behavioral change as an ultimate dream



				<ul style="list-style-type: none"> <li>-Concept, process and skills of behavioral change and community awareness</li> <li>-Identification and mobilization of natural leaders</li> <li>-Roles of motivators for consensus building, households sanitation, ODF and Total Behavioral Change</li> <li>-WASH plan</li> <li>-Cross cutting issues</li> </ul>			
8	<b>Community Motivators' Training (Urban Sanitation and Hygiene)</b>	Representatives of sub-committee, women committee, members of local clubs and CBOs and staff of VDCs/municipalities	6 days	<ul style="list-style-type: none"> <li>-Transmission of diseases and awareness on health</li> <li>-Awareness raising materials</li> <li>-Communication and motivation</li> <li>-Roles and responsibilities of motivators</li> </ul>	Enhancement of participant's knowledge and attitudes about community sanitation and health	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-Demonstration</li> </ul>	-Community motivation
9	<b>Community Health Workers' Training (Urban Sanitation and Hygiene)</b>	Female community health volunteers, traditional birth attendance and members of local clubs and health	5 days	<ul style="list-style-type: none"> <li>-Water and sanitation related communicable diseases and treatment of diarrhoea</li> <li>-Techniques and tools of health awareness campaigns</li> <li>- Roles and responsibilities of health workers</li> </ul>	Enhancement of participant's knowledge and skills about prevention of water and sanitation related communicable diseases	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-Role play</li> </ul>	-Prevention of communicable diseases

		institutions					
10	<b>Waste (Solid and Liquid) Management Training (Urban Sanitation and Hygiene)</b>	Sanitation workers of VDCs and municipalities, members of WUSC, local clubs and CBOs and households	5 days	<ul style="list-style-type: none"> <li>-Types of solid and liquid wastes, segregation of waste, composting and waste management</li> <li>-Harmful impact of waste on public health</li> <li>-Roles and responsibilities of participants</li> </ul>	Enhancement of participant's skills for solid and liquid waste management and development of action plan	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> </ul>	-Community level waste management
11	<b>Community Motivators Training Accounting Training (Urban Sanitation and Hygiene)</b>	Representatives of sub-committee, women committee, members of CBOs and local clubs and staff of VDCs and municipalities	4 days	<ul style="list-style-type: none"> <li>-Projective objectives and process</li> <li>-Sanitation, hygiene and water and sanitation born communicable diseases</li> <li>-Motivation, communication, community mobilization and formulation of action plan</li> <li>-Roles and responsibilities of participants</li> </ul>	-Participant's increased motivation for community mobilization and toilet promotion	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-Observation</li> <li>-Role play</li> </ul>	Preparation of community level action plan
12	<b>Basic Gender Training (Urban Water Supply and sanitation)</b>	WUSCs members, sub-committee members and NGO staff	4 days	<ul style="list-style-type: none"> <li>-Gender and social inclusion</li> <li>-Gender sensitive indicators and monitoring tools</li> <li>-Gender mainstreaming in project works</li> </ul>	-Participant's empowerment for gender sensitive planning	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-Observation</li> <li>-Role play</li> </ul>	-Gender and social inclusion

						-Guidelines	
13	<b>Orientation training (Urban Water Supply and sanitation)</b>	Water Users Association (WUA)/WU SCs	2 days	-Project objective and procedures -Coordination and role of PMO, EDC, local bodies, WUSCs, WUA and NGO and stakeholder -Gender and social inclusion -Monitoring and supervision	-Empowerment of participant's for project management, coordination and communication	-Presentation -Discussion -Question answer -Guidelines	-Project management and social inclusion
14	<b>Trainers Training on Community Led Total Sanitation</b>	WUSCs, sanitation sub-committee, overseer, social mobilizer, health assistant, teachers, local NGOs,	7 days	-Concept and steps of CLTS -Ignition Participatory Rural Appraisal Tools -Roles of stakeholders -Sanitation facilities	Participant's understanding about total sanitation	-Presentation -Discussion -Question answer -Observation	Total sanitation
15	<b>Operation and Maintenances Training (Urban Water Supply)</b>	Resource persons, trainers, facilitators and trainers	7 days	-Water supply system -Operation and maintenance -Accessories -Roles of plumbers and maintenance workers	Participants empowerment to handle and maintain piped water supply system	-Presentation -Discussion -Question answer	-System management
16	<b>Solid Waste Management Training (Urban Sanitation and</b>	Representatives of WUSCs and NGOs	7 days	-State of solid waste in Nepal -Solid waste generation and management -Integrated solid waste management	Participant's empowerment for waste management	-Presentation -Discussion -Question answer	Waste management

	<b>Hygiene)</b>						
17	<b>Orientation for Office Management</b>  <b>(Urban Water Supply and Sanitation)</b>	Office managers of the project areas	7 days	-Concept of office management  -Preparation of business plan  -Monitoring, evaluation and grievances handling  -Human resource and financial management  -Roles and responsibilities of the office managers	Promotion of participant's knowledge and skills on managerial and human resource management	-Presentation  -Discussion  -Question answer  -Experience sharing	-Office management for better outputs
18	<b>Orientation</b>  <b>(Urban Water Supply and Sanitation)</b>	Overseer, social mobilizer and computer operator	3 days	-Objective and procedures of the project  -Role of TDF, TPO and stakeholders  -Financial arrangements, monitoring and evaluation	-Increase in participant's familiarity with project implementation procedures and roles of stakeholders	-Presentation  -Discussion  -Question answer  -Group work  -Brainstorming	-Project operation
19	<b>Financial Management and Accounting Training</b>  <b>(Urban Water Supply and Sanitation)</b>	Resource persons, trainers, facilitators and support staff	4 days	-Planning and budgeting  -Procurement and reimbursement  - Record keeping and documentation and	-Increase in participant's ability in financial management of the project including budgeting, accounting and auditing	-Presentation  -Discussion  -Question answer  -Group work  -Brainstorming	Financial and account management

20	<b>Orientation (Urban Water Supply and Sanitation)</b>	Local NGOs	3 days	<ul style="list-style-type: none"> <li>-Objective, procedures and phases of the project</li> <li>-Roles and responsibilities of stakeholders</li> <li>-Financial management and OBA model</li> <li>-Health, hygiene education and solid waste management</li> <li>-Gender equality and social inclusion</li> <li>-Monitoring and evaluation</li> </ul>	-Participant's general understanding about the procedures of project implementation, financial arrangements, community sensitization and monitoring and follow up	<ul style="list-style-type: none"> <li>-Presentation (lecture)</li> <li>-Discussion</li> <li>-Question answer</li> <li>-Experience sharing</li> <li>-Project document</li> </ul>	-Project management
21	<b>Water Quality Monitoring Training</b>	Engineer	6 days				
22	<b>Training on Ground Water</b>	Engineer	6 days				
23	<b>Training on Ground Water</b>	Overseer	6 days				
24	<b>Training on Ferro-cement Tank Construction Technology Training</b>	WSST	5 weeks				
25	<b>Community Management Training</b>	Overseer	2 weeks				

26	<b>Administrative / Management Training</b>	District engineer	5 weeks				
27	<b>Administrative / Management Training</b>	Engineer	5 week				
28	<b>Trainers' Training</b>	Overseer	2 weeks				
29	<b>Trainers' Training</b>	WSST	2 weeks				
30	<b>Trainers' Training</b>	Women worker	2 weeks				
31	<b>Technical Orientation Training</b>	Engineer	2 weeks				
32	<b>Technical Orientation Training</b>	Overseer	2 weeks				
33	<b>Community Management Workshop</b>	District engineer	6 days				
34	<b>Trainers' Training</b>	District engineer	6 days				

### Community/Beneficiaries Level Training

S N	Title and Training Contents	Target Groups	Durati on	Key Contents of Training	Expected Outcomes	Methods and Materials	Special Focus and Features
1	<b>Pre- construction training  (Water Supply and Sanitation)</b>	Water Supply Users and Sanitation Committees (WUSCs)	6 Days	<ul style="list-style-type: none"> <li>-Importance of water supply and sanitation program and its aims and components</li> <li>-Roles and responsibility of WUSCs</li> <li>-Technologies on sanitation, operation and maintenance</li> <li>-Faecal oral transmission routes of diseases</li> <li>-Water safety and inter relationship among drinking water, health and sanitation</li> <li>-Women's participation in sanitation activities</li> <li>- Motivation, leadership, community participation and contributions</li> <li>-Management of cash, kind and store inventory</li> <li>-Operation and maintenance fund, collection and mobilization of water tariff</li> <li>-Mobilization of operation and maintenance workers</li> </ul>	Enhancement of knowledge and skills on policy aspects, planning, implementation, operation, maintenances and social mobilization of water supply and sanitation project activities along with increase in self-confidence and accountability of WUSCs towards the works.	<ul style="list-style-type: none"> <li>-Creative and in-depth discussion</li> <li>-Group works</li> <li>-Booklets, postcards and audio visual materials</li> </ul>	<ul style="list-style-type: none"> <li>-Rural sanitation</li> <li>-Focus on knowledge and skills</li> <li>- Empowerment of WUSCs through promotion of knowledge and skills on technical, management and social mobilization aspects</li> </ul>
	<b>Post- construction training  (Water Supply</b>	Water Supply Users and Sanitation Committees	3 days	<ul style="list-style-type: none"> <li>- Policy, importance, objectives and procedures of operation and maintenance</li> <li>-Identification of problems and solutions regarding operation and maintenance</li> </ul>	-Empowerment for sustainable operation and maintenance of facilities, effective mobilization of	<ul style="list-style-type: none"> <li>-Participatory, creative and in-depth discussion</li> <li>-Booklets, postcards</li> </ul>	-Effectiveness of operation, maintenance and sustainability

	<b>and Sanitation)</b>	(WUSCs)		<ul style="list-style-type: none"> <li>-Roles and responsibility of WUSCs</li> <li>-Importance of sanitation, sanitation messages and awareness building</li> <li>-Protection of water from source to mouth</li> <li>-Community mobilization and mobilization of community fund</li> <li>-Project handover</li> </ul>	community fund, in-depth understanding about deep implications of poor sanitation on society, proper understanding about roles and responsibility of WUSCs and inner feelings towards project ownership	and audio visual materials	of projects activities
2	<b>Water Safety Plan (Water Supply)</b>	Water safety plan team	1 day	<ul style="list-style-type: none"> <li>-Water quality and health</li> <li>- Water quality standard, guidelines and water safety plan</li> <li>-Steps of water safety plan intervention and plan of action</li> <li>-Formation and mobilization of tap/toile groups and conduction of campaign</li> <li>-Water quality testing and monitoring</li> </ul>	Basic understanding about policy and operational aspects of water safety plan and preparation of plan of action	<ul style="list-style-type: none"> <li>-Presentation and discussion</li> <li>-Field observation</li> </ul>	<ul style="list-style-type: none"> <li>-Field based training</li> <li>-Knowledge and skill enhancement</li> <li>-Development of community level plan of action</li> </ul>
3	<b>Management and Business Plan Development Training (Urban Water Supply and Sanitation)</b>	WUSC members and staff	5 days	<ul style="list-style-type: none"> <li>-Roles and responsibilities of service providers</li> <li>-Personal, organizational and management skills</li> <li>-Business plan development</li> <li>-Documentation, financial management and grievances handling</li> </ul>	Enhancement of participant's capacity on organizational management, business plan development and sustainability of WUSCs	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-Experience sharing</li> <li>-Exercise</li> </ul>	-Business plan formulation



4	<b>Discussion on Sanitation and Hygiene (Sanitation and Hygiene)</b>	Facilitators, community mobilizers and women groups	1 day	<ul style="list-style-type: none"> <li>-Existing state of sanitation and hygiene, challenges and factors behind poor sanitation</li> <li>-National policies, Master Plan and sanitation as a social movement</li> <li>-Triggering tools</li> <li>-Formation and role of V-WASH-CC and strategic plan</li> </ul>	-Development of basic know how about community triggering and local level planning	-Discussion	-Social mobilization as a basis of behavioral change
5	<b>Health Hygiene Education (HHE) Training (Urban Sanitation and Hygiene)</b>	WUSC members and ward level sub-committee	4 days	<ul style="list-style-type: none"> <li>-Importance of sanitation and hygiene and faecal oral transmission of diseases</li> <li>-Sanitation facilities, operation and maintenance</li> <li>-Roles and responsibilities of WUSCs</li> </ul>	Enhancement of participant's knowledge about prevention of sanitation related diseases	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-IEC materials</li> </ul>	-Knowledge transfer
6	<b>Animal Waste Management Training (Urban Sanitation and Hygiene)</b>	Animal keeping households, sanitation workers and members of CBOs and local clubs	4 days	<ul style="list-style-type: none"> <li>-Different types of communicable diseases and prevention</li> <li>-Proper handling of animal wastes</li> <li>-Roles and responsibilities of households</li> </ul>	Promotion of participant's knowledge on animal waste management	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> </ul>	-Household level waste management
7	<b>Eco-san Toilet Construction Training (Urban)</b>	Project level households and WUSCs	7 days	<ul style="list-style-type: none"> <li>-Concept of eco-san toilets and their use</li> <li>-Construction of eco-san toilets</li> </ul>	Promotion of participant's knowledge on concept and technology of	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> </ul>	-Incentivizing sanitation through recycling of waste as a

	<b>Sanitation and Hygiene)</b>				eco-san toilets	-Group work -Field practice for construction -Design of eco-san toilets	resource
8	<b>Orientation training (Urban Water Supply and sanitation)</b>	Water Users Association (WUA)/WU SCs	Project level (2 days)	-Project objective and procedures -Coordination and role of PMO, EDC, local bodies, WUSCs, WUA and NGO and stakeholder -Gender and social inclusion -Monitoring and supervision	-Empowerment of participant's for project management, coordination and communication	-Presentation -Discussion -Question answer -Guidelines	-Project management and social inclusion
9	<b>Training on Sanitation and Hygiene (Sanitation and Hygiene)</b>	Child club members	1 day	-Existing state of sanitation and hygiene, challenges and factors behind poor sanitation -Roles of child clubs in sanitation promotion -Concept of total sanitation and School Led Total Sanitation -Approaches of sanitation promotion and triggering tools	-Development of participants positive attitudes towards the importance of sanitation and hygiene	-Presentation -Discussion	-Behavioral change
10	<b>Training on Sanitation and Hygiene (Sanitation and Hygiene)</b>	Teachers, SMC, PTA	1 day	-Existing state of sanitation and hygiene, challenges and factors behind poor sanitation -Roles of teachers, SMC, PTA, child clubs in sanitation promotion -Concept of total sanitation, School Led Total Sanitation and social mapping -Linkage of sanitation and hygiene with school curriculum	-Development of participants positive attitudes and enabling environment towards integration of sanitation and hygiene with education system	-Presentation -Discussion	-Education as an instrument for socialization of improved sanitation and hygiene

				<ul style="list-style-type: none"> <li>-Formation and role of role D/V-WASH-CC</li> <li>-School and resource center level strategic plan</li> </ul>			
11	<b>Training for School Teachers (Urban Sanitation and Hygiene)</b>	Primary school teachers' training	4 days	<ul style="list-style-type: none"> <li>-Communicable diseases</li> <li>-School sanitation and health</li> <li>-Communication and motivation for behavioral change</li> <li>-Roles and responsibility of primary teachers</li> </ul>	Enhancement of participant's attitudes and skills regarding management of school sanitation	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-SSHE guidelines</li> </ul>	-Re-socialization for school level sanitation and hygiene education
12	<b>Trainers Training on Community Led Total Sanitation</b>	WUSCs, sanitation sub-committee, overseer, social mobilizer, health assistant, teachers, local NGOs,	Project level (7 days)	<ul style="list-style-type: none"> <li>-Concept and steps of CLTS</li> <li>-Ignition Participatory Rural Appraisal Tools</li> <li>-Roles of stakeholders</li> <li>-Sanitation facilities</li> </ul>	Participant's understanding about total sanitation	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-Observation</li> </ul>	Total sanitation
13	<b>Health and Sanitation Education Training (Health, Sanitation and Water Supply)</b>	Village Health Workers	3 days	<ul style="list-style-type: none"> <li>-Importance of water supply, health and sanitation</li> <li>-Roles and responsibility of Community Health Volunteers</li> <li>-Revolving fund mobilization</li> <li>- Faecal oral transmission route of diseases and prevention</li> <li>-Protection of water source, water induced diseases and purification of drinking water</li> </ul>	-Empowerment of participants knowledge and skills for community motivation and persuasion for adopting good health and sanitation behaviors including transmission of water	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Group discussion</li> <li>-Question answer</li> </ul>	-Health impacts of improved sanitation

				<ul style="list-style-type: none"> <li>-Diarrhoea and Oral Rehydration Therapy</li> <li>-Types and importance of toilets</li> <li>-Management of waste, waste water and cattle dung</li> <li>-Motivation, communication and assessment of community situation</li> <li>-Importance of nutrition and immunization</li> <li>-Roles and responsibilities of Community Health Volunteers</li> </ul>	and sanitation induced health problems		
14	<b>Water Supply and sanitation Training</b>  (Water Supply and Sanitation)	Village Maintenance Workers	4 days	<ul style="list-style-type: none"> <li>-Policy, pre-condition and procedures of maintenance</li> <li>-Importance of sanitation, community awareness and protection of water from source to mouth</li> <li>-Mobilization of communities and local level fund</li> <li>-Understanding about different components of water supply systems</li> <li>-Pipelines, fittings and maintenance of structures</li> </ul>	Enhancement of participants knowledge and skills on water supply and sanitation systems and structures as well as maintenance	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Use of booklets, posters and pamphlets</li> <li>-Field observation</li> </ul>	-Technical and operation and maintenance aspects
15	<b>Health Education and Sanitation Promotion Training</b>  (Water Supply and Sanitation)	School teachers and students	3 days	<ul style="list-style-type: none"> <li>-Personal hygiene and environmental sanitation</li> <li>-Diarrhoea and dehydration</li> <li>-Vitamin A, nutrition and immunization</li> <li>-Importance of toilets and different sanitation promotion activities</li> <li>-Documentation and reporting</li> </ul>	-Increase in participants' understanding about importance of sanitation, nutrition and toilets for sanitation promotion	<ul style="list-style-type: none"> <li>-Group discussion</li> <li>-Brainstorming</li> <li>-Story telling</li> <li>-Games and demonstration</li> </ul>	Linkage of sanitation, health and nutrition

16	<b>Account Training</b>	Treasurers	Project level (4 days)	<ul style="list-style-type: none"> <li>-Roles and responsibilities of users committees</li> <li>-Information about RWSSFDB and its support organizations</li> <li>-Accounting system of support organizations and users committees</li> <li>-Income and expenditure of cash and kind</li> <li>-Opening of bank account</li> <li>-Store management and procurement</li> <li>-Management of sanitation fund</li> <li>-Financial statement, reporting and auditing</li> </ul>	-Enhancement of participants' basic understanding about organizational policy on financial management, store management and auditing	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Exercise</li> <li>-Review of documents</li> </ul>	-Financial accountability of users' committee
17	<b>Hygiene and Sanitation Training (Sanitation and Hygiene)</b>	Female Community Health Volunteers	2 days	<ul style="list-style-type: none"> <li>-Roles of Female Community Health Volunteers</li> <li>-Issues and behaviors of community level sanitation</li> <li>-Faecal oral transmission of diseases and sanitation induced diseases</li> <li>-Hand washing in critical times</li> <li>-Use of toilets and management of baby's faeces</li> <li>-Water purification</li> <li>-Food hygiene</li> <li>-Role of volunteers in VDC level open defecation free campaign and hygiene behavior promotion</li> </ul>	-Promotion of participant's knowledge on disease transmission, open defecation free campaign and hygiene behavior promotion	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question and answer</li> <li>-</li> </ul>	Hygiene behavior promotion

18	<b>Water Supply and Sanitation Workshop</b>  (Water Supply and Sanitation)	Head Master and Health Teacher	2 days	<ul style="list-style-type: none"> <li>-State of water supply, sanitation and hygiene in Nepal</li> <li>-Physical facilities and behaviors on water supply, sanitation and hygiene</li> <li>-Analysis of curriculum pertaining to health education</li> <li>-Faecal oral transmission of diseases</li> <li>-Hand washing in critical times</li> <li>-Master Plan, use of toilets, role of school in open defecation free campaign</li> <li>-Water purification</li> <li>-Personal and environmental sanitation</li> <li>-Menstrual hygiene promotion</li> <li>-Health education and indicators of clean schools</li> <li>-Development of plan of action</li> </ul>	Participants motivation and capacity development for maintaining personal hygiene, cleanliness of facilities and preparing plan of action for model school in sanitation	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Group works</li> <li>-Observation</li> <li>-Games</li> <li>-Use of awareness raising materials</li> </ul>	Linkage of hygiene and sanitation for health improvement
19	<b>Orientation on Sanitation and Hygiene</b>  (Sanitation and Hygiene)	School Water, Health and Sanitation Committee	1 day	<ul style="list-style-type: none"> <li>-National state of sanitation, goal and impacts of poor sanitation</li> <li>-Personal hygiene of students</li> <li>-Status of sanitation of class rooms, grounds, tap and toilets</li> <li>-Indicators of clean schools</li> <li>-Plan of action</li> </ul>	-Enhancement of technical skills of the participants to assess sanitation and hygiene condition of school and students and formulate plan of action	<ul style="list-style-type: none"> <li>-Discussion</li> <li>-Presentation</li> <li>-Observation</li> </ul>	Concept of model school

20	<b>Sanitation and Hygiene Training (Sanitation and Hygiene)</b>	Community Child Health Club, Child Club, Child Health Awareness Committee	2 days	<ul style="list-style-type: none"> <li>-Importance of health and sanitation in school and community</li> <li>-Water and sanitation induced diseases</li> <li>-Personal, household and environmental sanitation</li> <li>-Indicators of model school and communities</li> <li>-Plan of action</li> </ul>	Enhancement of participant's knowledge on personal hygiene and school and community level cleanliness and sanitation planning	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Role play</li> <li>-Discussion</li> <li>-Observation</li> <li>-Exercise</li> <li>-Use of posters</li> </ul>	Concept of model school and community
21	<b>Sanitation and Health Promotion Training (Sanitation and Health)</b>	Community Health and Sanitation Volunteers	1 day	<ul style="list-style-type: none"> <li>-Water and sanitation induced diseases</li> <li>-Faecal oral transmission of diseases</li> <li>-Personal, household and environmental sanitation</li> <li>-Preparation of <i>Jeevanjal</i></li> <li>-Indicators of model school and communities</li> <li>-Hand washing and nail trimming campaign</li> <li>-Roles of Community Health and Sanitation Volunteers</li> </ul>	Enhancement of participant's knowledge on personal hygiene and their roles for sanitation and health promotion	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Use of materials</li> <li>-Question answer</li> </ul>	Community empowerment through social mobilization activities
22	<b>Orientation Training (Water and Sanitation)</b>	Users Committees (UCs)	1 day	<ul style="list-style-type: none"> <li>-Fund flow, allocation of funds and registration of UCs</li> <li>-Step by step process of projects</li> <li>-Roles of UCs, DDC, VDC and V-WASH-CC and support agencies and individuals</li> <li>-Project implementation, operation and maintenance</li> <li>-Monitoring and evaluation</li> </ul>	Enhancement of participants conceptual, technical, promotional and managerial knowledge and skills about water supply and sanitation system and financial management	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Group discussion</li> <li>-Games</li> <li>-Observation</li> <li>-IEC materials</li> </ul>	Integration of water, sanitation, income generation and livelihood

23	<b>77Fiscal Management and Account Training</b>  <b>(Water and Sanitation)</b>	Users Committees (UCs)	3 days	<ul style="list-style-type: none"> <li>-Fund flow and allocation of funds</li> <li>-Contribution of VDC and users</li> <li>-Agreement of Contract</li> <li>-Installment release and payment</li> <li>-Bill, voucher and account keeping</li> <li>-Material contribution</li> <li>-Operation and maintenance fund</li> <li>-Existing acts and regulation of the government and project implementation guidelines</li> <li>-Procurement and auditing</li> <li>-Store keeping</li> <li>-Standard of local and foreign materials</li> <li>-Cost estimate and account keeping</li> <li>-Transparency and monitoring</li> <li>-Progress report</li> <li>-Gender and social inclusion</li> <li>-Access of women to economic resources</li> <li>-Documentation</li> </ul>			
24	<b>Operation</b>	Users	1 day	-Basic introduction of the project			



	<b>and Maintenance and Water Safety Plan Training (Water and Sanitation)</b>	Committees (UCs)		<ul style="list-style-type: none"> <li>-Components of operation, maintenance and sustainability of projects</li> <li>-Components of water safety plan</li> <li>-Role of UCs</li> </ul>			
25	<b>Kitchen Gardening Training (Water and Sanitation)</b>	Users Committees (UCs)	1 day	<ul style="list-style-type: none"> <li>-Components of kitchen gardening</li> <li>-Production and consumption of vegetables</li> <li>-Use of waste water for irrigation</li> <li>-Use of urine and manure</li> <li>-Role of UCs for kitchen gardening promotion</li> <li>-Fund management and procurement of seeds</li> </ul>			
26	<b>Design/Cost and Community Action Plan Training (Water and Sanitation)</b>	Users Committees (UCs)	2 days	<ul style="list-style-type: none"> <li>-Design and cost estimate</li> <li>-Structures</li> <li>-Materials and human resources</li> <li>-Environment conservation including plantation</li> <li>-Promotion of toilets, soak pit, waste pit and management of solid waste and waste water</li> <li>-Promotion of ODF areas</li> <li>-Identification and mobilization of resources</li> <li>-Community action plan including materials and human</li> </ul>			

				resources			
27	<b>Pre-Construction Seminar (Water and Sanitation)</b>	Users Committees (UCs), members of procurement committee and V-WASH-Cc	1 day	<ul style="list-style-type: none"> <li>-Provision of agreement of implementation stage</li> <li>-Roles of UCs and different stakeholders</li> <li>-Documentation</li> <li>-Public hearing and auditing</li> <li>-Community action plan and supervision</li> <li>-Store management</li> <li>-procurement plan and rules and regulation</li> <li>-Availability of skilled and unskilled labor</li> <li>-Quality of materials and structures</li> </ul>	Enhancement of participant's understanding about agreement, procurement and transparency	<ul style="list-style-type: none"> <li>-Discussion</li> <li>-Procurement manual</li> <li>-Agreement letter</li> </ul>	Transparency and accountability
28	<b>Financial Management Refresher training (Water and Sanitation)</b>	Users Committees (UCs), coordinator of monitoring committee and members of V-WASH-CC	1 day	<ul style="list-style-type: none"> <li>-Review about bills, accessories and material transportation</li> <li>-Account keeping and contribution of DDC, VDC and users</li> <li>-Store management</li> <li>-Inventory of income and expenditure</li> </ul>	Review of problems and learning about financial and store management	<ul style="list-style-type: none"> <li>-Discussion</li> <li>-Exercise</li> <li>-Bills and vouchers</li> <li>-Quotations</li> </ul>	Financial empowerment and self-reliance
29	<b>During Construction</b>	Users Committees (UCs), V-	1 day	-Identification and remedies of project related problems and disputes	Review of problems and future recommendation for	<ul style="list-style-type: none"> <li>-Discussion</li> <li>-Sharing</li> </ul>	Collective ownership and

	<b>Seminar (Water and Sanitation)</b>	WASH-CC, VDC representatives and observer of monitoring team		<ul style="list-style-type: none"> <li>-Income and expenditure</li> <li>-Review of community action plan</li> <li>-Financial and procurement management</li> <li>-Quality of materials and store management</li> </ul>	betterment		accountability
30	<b>Public Auditing Preparation training</b>	Users Committees (UCs) and representative of VDC	1 day	<ul style="list-style-type: none"> <li>-Importance of public auditing</li> <li>-Tools and techniques of auditing</li> <li>-Process of auditing</li> <li>-Gender and social inclusion</li> <li>-Audit report</li> </ul>	Enhancement of participant's basic know how about auditing procedure	<ul style="list-style-type: none"> <li>-Discussion</li> <li>-Exercise</li> <li>-Bill and vouchers</li> <li>-Bank statement</li> <li>-Progress reports</li> </ul>	Public accountability and fiscal discipline
31	<b>Post Construction Workshop</b>	Users Committees (UCs) and selected users	2 days	<ul style="list-style-type: none"> <li>-Existing status of scheme</li> <li>-Progress and financial report</li> <li>-Operation and maintenance regulations</li> <li>-Public audit</li> </ul>	Promotion of participant's basic skills about gap identification, revision of working policies and promotion of documentation	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Sharing</li> </ul>	Review for improvements
32	<b>Sustainability Orientation</b>	V-WASH-CC	1 day	<ul style="list-style-type: none"> <li>-Step by step approach of RVWRMP</li> <li>-Concept, objectives and activities of post construction</li> <li>-Roles and responsibility of V-WASH-CC</li> <li>-Potential area of support to UCs</li> </ul>	Enhancement of participant's general understanding about rationale and need of post construction activities	<ul style="list-style-type: none"> <li>-Discussion</li> <li>-Experience sharing</li> </ul>	Sustainability
33	<b>Basic Operation and</b>	Female Tap Group	2 days	<ul style="list-style-type: none"> <li>-Structures and components of schemes</li> </ul>	Enhancement of participant's skills about operation and	<ul style="list-style-type: none"> <li>-Discussion</li> </ul>	Sustainability of structure, behaviors and

	<b>Maintenance, Sanitation and Hygiene Training</b>			<ul style="list-style-type: none"> <li>-Problems encountered in supply system</li> <li>-Repair and maintenance</li> <li>-Importance of sanitation, hygiene and nutrition</li> <li>-Prevention of water born diseases</li> <li>-Toilets, hand washing and waste water</li> <li>-Livelihood and plan of action</li> </ul>	<p>maintenance, sanitation and livelihood promotion</p>	<ul style="list-style-type: none"> <li>-Exercise</li> <li>-Brainstorming</li> <li>-Story telling</li> </ul>	<p>livelihood promotion</p>
34	<b>Operation and Maintenance Training</b>	UCs members of post construction phase	4 days	<ul style="list-style-type: none"> <li>-Legal aspects of UCs</li> <li>-Local self governance act</li> <li>-Rural Water Supply and Sanitation Policy 2004</li> <li>-Post construction activities</li> <li>-Operation and maintenance</li> <li>-Management of accessories</li> <li>-Rationale of operation and maintenance fund</li> <li>-Project monitoring and evaluation</li> <li>-Water safety plan</li> <li>-Community action plan</li> <li>-UC general assembly</li> </ul>	<p>Enhancement of participant's understanding about operation and maintenance and legal aspects and project monitoring and evaluation</p>	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Group discussion</li> </ul>	<p>-Sustainability and institutionalization of UCs and schemes</p>
35	<b>Capacity Development Training</b>	Masons	4 days	<ul style="list-style-type: none"> <li>-Assessment of access to water and sanitation and adverse impacts of poor sanitation and water supply</li> <li>-Concepts and tools of total sanitation</li> </ul>	<p>-Participant's enhancement of knowledge and skills for construction and</p>	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Site observation</li> </ul>	<p>-Promotion of knowledge and skills on construction</p>

	<b>(Sanitation and Hygiene)</b>			<ul style="list-style-type: none"> <li>-Personal, household and environmental sanitation</li> <li>-Faecal oral transmission of diseases and preventive measures</li> <li>-Household and school level toilets types</li> <li>-Different components of toilets</li> <li>-Construction materials, preparation of mixtures and masonry works</li> </ul>	operation and maintenance of household and school level toilets	-On the job training	works
36	<b>Training on Sanitation and Hygiene</b>  <b>(Sanitation and Hygiene)</b>	V-WASH-CC members	2 days	<ul style="list-style-type: none"> <li>-Assessment of access to water and sanitation at national and local levels and analysis of challenges</li> <li>-Sanitation as a social movement and behavioral changes</li> <li>-National policies and Master Plan</li> <li>-Approaches of sanitation, concept of total sanitation and triggering tools</li> <li>-Collaboration of stakeholders, local bodies and NGOs</li> <li>-Formation and roles of VDC level WASH coordination committee</li> <li>-Formulation of strategic plan</li> </ul>	-Participants orientation and empowerment towards enhancing collaboration and soliciting joint commitments for local level planning, financing, community mobilization, self-monitoring and conduction of sanitation as a social movement	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> </ul>	-Multi-stakeholders collaboration
37	<b>Quality Control and Supervision Training</b>  <b>(Urban Water Supply)</b>	WUSCs members	3 days	<ul style="list-style-type: none"> <li>-Project objective</li> <li>-Roles of TPO, TDF and WUSCs</li> <li>-Construction of facilities</li> <li>-Monitoring and supervision</li> </ul>	Participant's empowerment for quality construction management	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> </ul>	Construction management

38	<b>Experience Sharing and Future Planning Workshop</b>	WUSC chairperson	7 days	<ul style="list-style-type: none"> <li>-Financial planning</li> <li>-Institutional development</li> <li>-Risk management and human resource management</li> </ul>	Participant's understanding about financial and institutional management	<ul style="list-style-type: none"> <li>-Presentation</li> <li>-Discussion</li> <li>-Question answer</li> <li>-Experience sharing</li> </ul>	Strategic planning
----	--	------------------	--------	---	--	---	--------------------

## Annex 3: List of Organizations and People Met

Agencies	Designation	Numbers
<b>1. Central agencies</b>		
DWSS	DDG	1
	Electro mechanic section	1
	Water quality section	1
	Small towns water supply project (PMO/)	3
	Sanitation task force	2 times
NGOs	NEWAH	1
	Fund Board	1
	RWSSPWN- (team leader)	1
	NRCS	1
<b>2. Central RMSO, Pokhara</b>		
	Engineers	4
	WSST	2
	Women workers	1
	Plumber	1
	Chemist	1
<b>3. Small towns water supply projects</b>		
Lekhanath small towns; Kaski	WUSC meeting	10
	Engineer	1
	Plumber/operator	1
	Meter readers	2
Itahari small town WUSC, Sunsari	WUCS chair, vice chair secretary, members	4
	Manager	1
	sub-engineer	1
	Electrician	1
	Pump operator	1
	Plumber	1
<b>4. DWASHCCs</b>		
Morang DWASHCC	Coordinator, Secretary and Members	2

Sunsari DWASHCC	Coordinator and members	4
<b>5. WSSDOs</b>		
Morang WSSD Office	WSSD Chief	1
	Engineer	2
	WSST	1
	Women Worker	1
Sunsari WSSD Office	Engineer	2
	Sub-engineer	1
	WSST	3
	Women Worker	1
Saptari WSSD Office	WSSD Chief	1
	Engineer	1
	Sub-engineer	2
	Accountant	1
	WSST	2
	Women Worker	1
Baglung WSSDO	SDE	
	Deep jyoti YC	
	Paiyun Thanthap VDC- Kadelthar WSS, NEWAH	
	Bhimi WSS, Bhimi Karena VDC, Fund Board	
	Singana VDC, Singana WSS, DWSS	
VWASHCCs		
Letang VDC, Morang	Chair, members and social mobilizers	5
	Pump operator	1
<b>6. WUSCs</b>		
Morang Mangadh (WUSC)	WUCS chair and members	4
	Manager/accountant	1
	Technician	1
	Plumber	1
	Operator	1
	Meter reader	1
Morang Jhorahat (WUSC)	WUCS chair, secretary and member	3
	Manager	1



	Operator	1
Pumdi Bhumdi WUSC, Kaski	Members	10
Saptari Mahendra bazaar WUCS	WUSC chair, vice chair, secretary, member and users	7
<b>7. Schools</b>		
Pumdi Bhumdi primary school	SMC/PTA	10
	Teachers	2
	Child club members	5
	VMW	1
	WSST	1