

**Water Resources Management Program
(WARM-P/Helvetas)
&
Rural Village Water Resources Management
Project (RVWRMP)**



GUIDELINES

for

**Water Use Master Plan (WUMP)
Preparation**

December 2007

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ADB/N	Agricultural Development Bank / Nepal
AEPC	Alternate Energy Promotion Center
CBO	Community Based Organisation
CBWSSSP	Community Based Water Supply and Sanitation Sector Project (ADB)
CM	Community Mobilisation / Mobiliser
CO	Community Organisation
DAG	Disadvantaged Group
DDC	District Development Committee
DDF	District Development Fund
DEDF	District Energy Development Fund
DIDC	District Information and Documentation Center
DISCO	District Soil Conservation Office
DMC	District Management Committee
DOI	Department of Irrigation
DoLIDAR Roads	Department of Local Infrastructure Development and Agricultural Roads
DTO	District Technical Office
DWSS	Department of Water Supply and Sewerage
DWRDF	District Water Resources Development Fund
EIA	Environmental Impact Assessment
EURO	Euro
FCHV	Female Community Health Volunteer
FG	Functional Group
FY2/T1	Fiscal Year 2 (2064/2065) Trimester 1 etc.
GOF	Government of Finland
HDI	Human Development Index (UNDP)
Helvetas	Swiss Association for International Development Cooperation
GON	Government of Nepal
HRD	Human Resource Development
IDA	International Development Association (World Bank)
IEE	Initial Environmental Examination
LDF	Local Development Fund
LDO	Local Development Officer
LNGO	Local Non-Governmental Organisation
LSGA	Local Self-Governance Act 1999
MFA	Ministry for Foreign Affairs of Finland
M&E	Monitoring and Evaluation
MG	Mothers' Group
MH	Micro hydro
MLD	Ministry of Local Development
MOEST	Ministry of Environment Science and Technology
MOE	Ministry of Education
MOHP	Ministry of Health and Population
MOWR	Ministry of Water Resources
MPPW	Ministry of Physical Planning and Works
NGO	Non-Governmental Organisation
NPC	National Planning Commission

LIST OF ABBREVIATIONS (Cont.)

NPD	National Project Director
NPR	Nepalese Rupee
NWSC	Nepal Water Supply Corporation
NWSSCC	National Water Supply and Sanitation Coordination Committee
O&M	Operation and Maintenance
PC	Project Coordinator
PCO	Project Coordinator Office
PSU	Project Support Unit
PWD	Public Works Directives
REDP	Rural Energy Development Programme
REDS	Rural Energy Development Section (also DDC: REDS)
RVWRMP	Rural Village Water Resources Management Project (The Project)
RWSSSP	Rural Water Supply and Sanitation Support Programme (Phase III)
SO	Support Organisation
TA	Technical Assistance
TL	Team Leader
UC	User Committee
UG	User Group
UNDP	United Nations Development Programme
USD	United States Dollar
VDC	Village Development Committee
VMW	Village Maintenance Worker
WARM-P	Water Resources Management Project (Helvetas)
WB	The World Bank
WDO	Women Development Office
WRA	Water Resources Adviser
WSD/(SD)O	Water Supply Division/(Sub-Division) Office
WUC	Water User Committee
WUMP	Water Use Master Plan

1. INTRODUCTION

WARM-P of Helvetas Nepal and RVWRMP supported by the Governments of Finland and Nepal under the umbrella of the Ministry of Local Development, have jointly prepared this Guideline for preparation of Water Use Master Plan at the VDC level. The Guideline is primarily meant for the use of WARM-P and RVWRMP and based on their experience, in WARM-P since 2001 and in RVWRMP since 2007. However, with minor adjustments other water sector projects, agencies and actors can easily use the Guideline. WARM-P and RVWRMP intent to update the Guideline based on lessons learnt, annually. Similarly, experiences and lessons learnt have been and will be disseminated and shared with sector stakeholders.

Water Resources Management Program (WARM-P) has the objective of enhancing wellbeing of the communities through productive water use of the VDC. With the aim of making the VDC successful in maximizing the productive use of available water, the Program has been launching the demonstration water supply schemes from the ground of about 25 years of experience in implementing community water supply and sanitation schemes in the country. WARM-P piloted successfully the concept of Water Use Master Plan (WUMP) from 1998 to 2000 in Western Region. Since 2001 WARM-P has worked in Doti, Dadeldhura and Achham districts of Far Western and Dailekh and Jajarkot Mid Western regions. WARM-P works with local communities in close coordination with local governments and having local NGOs as facilitators and partners.

Rural Village Water Resources Management Project (RVWRMP) has since October 2006 worked in Darchula, Baitadi, Dadeldhura, Bajhang, Bajura, Doti and Achham of Far-Western region and Humla and Dailekh of Mid-Western region in Nepal. The project idea is to develop multiple use of water resources on the basis of comprehensive Water Use Master Plans (WUMP) to be prepared for the selected priority VDCs and it will be implemented by local user committees with help of private and public support organizations. All activities in the Project districts are under the respective DDCs.

The objective of the RVWRMP, namely "improved rural livelihoods", will be met by implementation of Integrated Water Resources Management concept, i.e. optimal development and use of available water resources, protection of resources and tapping the economic value of water for the well-being and welfare of people using these resources. Water will be the means for balanced social and economic development to benefit rural areas.

2. WATER USE MASTER PLAN

2.1 Purpose of WUMP

Water Use Master Plan (WUMP) identifies the existing use of water resources in a VDC and makes an integrated plan for use of water in a rational, equitable and

sustainable way.

WUMP is aimed to be a commonly accepted plan of utilization and conservation of water resources in a VDC, prepared by the communities under guidance of the VDC, and thus reflecting local demand and responsibilities. The objectives of WUMP are:

- Inventory of water resources and other relevant local resources and the existing water related infrastructure/ facilities
- Identification and prioritization of potential activities in water sector
- Promoting sustainable investment in water sectors
- Promoting conservation of water resources and environmental sanitation

2.2 Content of WUMP Report

WUMP report is a pre-feasibility level basic document for overall water use and sanitation planning and identifying communities' priority needs classified by various use categories such as drinking water supply, irrigation, micro-hydro power production, multiple use of water, etc.

A WUMP should include at least the following:

- Inventory of available water resources and their current use (existing situation of water use, level of facilities, functional status of facility systems)
- Socio-economic baseline information (demographic, land holdings, income activities, health & hygiene situation, resources, opportunities, access, services, supports, other activities)
- A sustainable and balanced water resources development plan with due consideration on environment, sanitation and water rights
- Gender sensitive, inclusive, pro-poor and socially accepted development priorities of the communities
- Preliminary design and costing of potential investments or other activities such as capacity building.

A standard Table of Contents for WUMP is presented in Annex 6 of this Guideline.

2.3 WUMP as a Planning Tool

The VDCs and DDCs can use their WUMP(s) for:

- Annual planning of water sector activities;
- Periodic planning of water sector activities;
- “Marketing tool” to attract projects, donors, NGOs and government agencies to work in and invest in the concerned VDCs;

- MLD, DDC and/or VDC can make acceptance of WUMP and its prioritized investment plans a pre-condition to work in the water sector in the concerned VDCs;
- Enabling easy updating of water resource inventory and water related infrastructure/ facilities

3. WUMP PREPARATION PROCESS

3.1 Step-wise process

WUMP preparation is a 17-steps process as illustrated in Figure 1. WUMP preparation must take place in close coordination and steering by the concerned VDC to ensure commitment in and ownership of the plan by the local authorities, political parties and the communities. Similarly, DDC should endorse the WUMP and thus be involved in its preparation. However, VDCs and DDCs do not have all required human resources and professionals to make the WUMP by themselves alone. External financial and human resources are necessary to facilitate and assist VDC/DDC and communities in the participatory resource inventory and planning process. Current understanding about ideal roles and responsibilities of various actors in WUMP preparation are presented in Chapter 7 of this Guideline.

It is anticipated that in the future VDCs and DDCs would be more capacitated to take the entire responsibility of WUMP preparation, also using local and external human resources for facilitation and professional tasks.

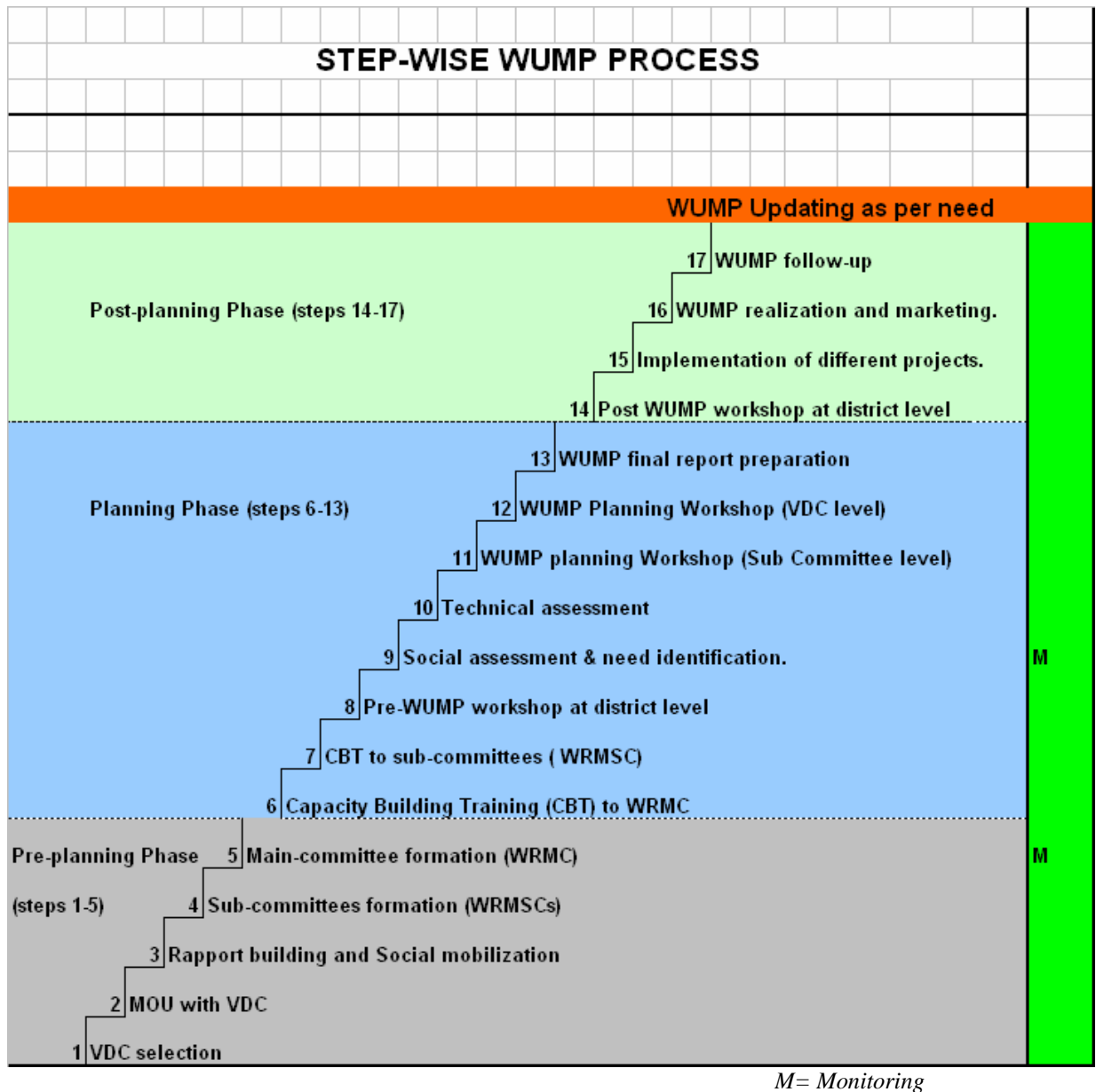


Figure 1: Step-wise WUMP process

3.2 Planning Phases

The step-wise WUMP preparation process comprises three (3) main phases:

- Pre-planning phase (steps 1 to 5);
- Planning phase (steps 6 to 13), and
- Post-planning phase (steps 14 to 17).

In Pre-planning phase the Project continues social mobilization activities that were initiated earlier, following the Project’s own guidelines. In RVWRMP Community Mobilizers (2 per VDC) are recruited and existing Community Organizations (COs)

are mobilized. If there are no functioning COs, then COs will be formed and trained. Particularly for coming WUMP preparation, awareness raising campaigns of communities through COs are carried out. The Project assigns also a Support Organization (SO) to assist in base-line data collection and in other activities SO assisted by the CMs facilitates formation of the Water Resources Committees at cluster level and at the VDC level. As a result of pre-planning phase activities the communities and all people are supposed to know about the coming WUMP, they are organized for WUMP, and a good rapport with the communities is built.

In Planning Phase a Consultant will be engaged for training the WRMCs and sub-committees. Consultant carries out participatory social and technical assessments, writes a draft WUMP report, organizes WUMP workshops first at sub-committee level and lastly at VDC level and prepares the Final Report. The SO, assigned by the Project as well as the CMs assist the Consultant in the Planning Phase.

In Post-planning Phase a workshop is organized at the district level to introduce the plan to the DDC and other stakeholders. DDCs endorsement for the WUMP is important. The Project initiates with the VDC schemes based on the “1st year priority list” of the WUMP. Also, recognition and appreciation of the WUMP is sought from other stakeholders at the district and the central levels.

WUMP updating will be necessary from time to time. Principally the same 17-steps process will be repeated. However, many steps can be taken with much less effort in the process of updating. Updating would be useful at least every five years prior periodic planning.

3.3 Time Schedule

WUMP preparation should be arranged taking into account the following principles:

- Dry season for source measurements is relatively short time in April/May;
- Social mobilization and rapport building takes time, minimum 4-6 months and sometimes more than a year may be necessary; and
- Field work of WUMP should not coincide with peak agricultural activities in the concerned areas

4. METHODOLOGY OF WUMP PREPARATION

The Project applies an array of methodologies in WUMP preparation:

- Desk studies for collecting existing data, maps, orthophotos, etc;
- Community mobilization using e.g. PRA tools, group discussions, mass meetings;
- Formation or activating Community Based Organizations (COs, WRMSCs, WRMCs);
- Training CBOs;
- Field data collection of socio-economic situation;
- Field inventory of water resources and existing infrastructure;
- Technical measurements;

- Data analysis, pre-feasibility level planning and costing of proposed projects;
- Need identification at cluster level;
- Planning workshops at cluster and village level;
- Production of reports.

Utilization of GIS is a must in WUMP preparation process. All information will be geo-referenced using GPS in the field. Standard database will be used. Field data collection can be fully manual or partly automatic. Manual data collection means that all data, measurements, GPS readings etc. will be store on paper. Then data is fed into computer in the office. There are two manual stages, write down on paper, type on computer, that possesses a risk of human errors. Automatic data collection (e.g. in GPS) and automatic transfer to computer in the field is highly recommended. This allows also data verification on maps at the site. For this the field team needs a portable computer, cables for data transfer, and facility to recharge computer batteries.

5. STEP-WISE INSTRUCTIONS FOR WUMP PREPARATION

5.1 VDC Selection

First DDC selects working VDCs in the Project based on a set of criteria of the Project Implementation Guideline (PIG).

DMC assigns a Support Organization (SO) to work in the concerned VDCs (ref. competitive selection process and criteria presented in PIG).

5.2 MOU with VDC

DDC and VDC sign a Memorandum of Understanding about WUMP (ref. sample MOU in PIG) and possible further implementation of schemes based on the WUMP. By signing the MOU the VDC also confirms its commitment to contribute in funding of schemes.

5.3 Social Mobilization and Rapport Building with Communities

The Project carries out social mobilization and rapport building activities with communities following the “Social Mobilization Guideline” of the Project. Key elements in social mobilization are: (i) assigning a female and a male CM to work in the VDC, (ii) activating existing COs or if not possible, forming new COs based on livelihood similarities, typically cluster-wise, one CO of female and one CO of male – each household represented in COs, and (iii) orienting COs about coming WUMP.

The Project also organizes socio-economic baseline data collection, assigning SO and CMs to do the field work.

The following activities shall be done during rapport building:

- Meet with VDC secretary, VDC chairperson, CMs, FCHVs, teachers, social workers, political party representative etc. and explain about WUMP, objective of social assessment.
- Know the existing situation about CBOs & other external organizations working in the VDC (*format no. SA 2*)
- Organize VDC level Orientation: Invite all persons through VDC secretary, participants of meeting will be VDC secretary, VDC body, FCHVs, teachers, local clubs, political party leaders, local organizations, influential persons, CMs, chairperson of COs (if exist). (*refer Annex- 1 SA 3 b and Annex-2 TR I*)

In the orientation

1. Explain about WUMP and objectives of social process, role / responsibilities of SO & others.
 2. Fix date for cluster level orientation
 3. Fix WRMSC boundaries/ areas according to water shed.
 4. Prepare seasonal calendar (*refer Annex-3 sample no.i*)
- Organize cluster level orientation
 - To assure participation of DAG in WUMP preparation process, organize confidence building interaction with Dalit & women, key influential persons of VDC (exclusively) It will be organized at VDC level. (*refer Annex-1 format SA 3c and Annex-2 TR II*)

5.4 Sub-committee (WRMSC) Formation

SO, assisted by the CMs, conduct community meetings, preferably with each cluster or CO separately, and orient the communities about objectives, need of sub-committees and a main committee. During this step, some of the PRA tools can be used and separate group meetings with men and women should also take place, as required.

Representation from each household during formation of WRMSC is important and at least a representative from each CO is essential. Inform every household in each cluster for mass meeting at convenient and central part of subcommittee for WRMSC formation. After orientation, WRMSC will be formed by having representation of COs in the subcommittee, where COs they exist/ are active. Similarly, representation from DAG and each cluster is essential. Among the total members of WRMSC at least 50 % must be women & proportional representation of Dalit & Janjati is essential. Minimum number of members in a sub-committee will be 9 and maximum depends upon number of clusters/COs. For this step, flash cards and other motivational tools will be used.

At the end of meeting, make decision for minimum 2 persons (man & women) who will be the member of WRMC at VDC level (assure the representation from each ward). Also fix the date to form WRMC. During this formation process, the clear instruction and clarity about watershed boundaries should be provided to participants and role and responsibilities of WRMSC & WRMC should be explained (*refer Annex-2 TR X*).

5.5 Main Committee (WRMC) Formation

After the formation of sub committees, a main Water Resources Management Committee (WRMC) will be formed with representation of members from sub-committees (WRMSCs), as well as some VDC personnel and other key persons from the VDC. The proportionate representation of women, Dalit, Janjatis and minority groups will be sought for ensuring social inclusiveness. The size of the committee will be between 15 and 25. While forming WRMC, proper care should be taken to have as many as possible of the VDC personnel in the committee, so as to get more resources from the VDC. This is also to ensure that VDC is the major partner in implementing WUMP and later the schemes. . Similarly, trans-boundary representation of members in the WRMC should also be considered in some specific cases when some of the potential water sources are situated in adjacent VDCs.

Also, an advisory panel should be formed with the representation of active political parties to advice to WRMC, as elected VDC bodies/ representatives are not available for the time being.

For the formation of WRMC, organize meeting with all selected representative members from WRMSC, members of WRMSC. , VDC secretary, CMs, Chair persons of COs and other influential persons (*refer Annex-1 format SA 3 a, b and SA 4b*).

5.6 Capacity Building Training (CBT) to WRMC

Capacity Building Training on community capacity growth emphasizing participation, development, gender balance, communication, water resources management, IWRM, WUMP concept and development and legal issues will be conducted.

The detailed training content is described in training content. (refer Annex-2 TR-V and Annex-1 SA 3c).

Additionally, an observation tour to the communities where WRMC is already active may be organized by the project. Organizing or participating in observation tour is not included in the tasks of the WUMP consultant.

5.7 Capacity Building Training to Sub-committees (WRMSC)

Trickling down the knowledge gained by the WRMC members to WRMSCs will be catalyzed by conducting orientation workshops/discussions. Social team members accompanied by few trained WRMC representatives will conduct the orientation sessions on issues such as, participation, development, gender balance, communication, and legal issues.

5.8 Pre-WUMP Workshop at District Level

The Project organizes a pre-WUMP coordination workshop between the WRMC and concerned stakeholders to establish linkage between them. During the workshop the

Project (by DMC) facilitates how the Water Use Master Plan (WUMP) of the VDCs is prepared and the potential resource organizations explain about their working modality. In this way, the resource organization will know the strength of the WRMC and the WRMC will know how they can approach for implementation of the activities identified in WUMP. This workshop will help seek commitments from resource organizations during post co-ordination workshop. (Refer Annex-2 TR VII for workshop schedule)

Participation of WUMP Consultant will be mandatory in this workshop to understand the situation in the DDC and the VDC, and to build rapport with stakeholders and WRMC.

5.9 Social Assessment

The study will be based on participatory approach by using some of the PRA tools. The major activities during social assessment will be social/resource mapping, wealth ranking, verification of seasonal calendar which was prepared during rapport building, water related need identification etc. The consultant, assisted by the SO and CMs, is expected to encourage all the communities and people of all stratum to participate in all the activities related with the study. The people should be encouraged to show all the water sources within and outside the VDC which can be used for the clusters within the VDC.

The social booklet of each WRMSC will be duly filled in using PRA tools during Social Assessment. Some information of the booklet can be collected through one's own observation, semi-structured interviews with the key informants as well as informal talks with the local people of all class. Particularly, mapping on infrastructure, hardship and the water sources will be done during this process. After preparing maps of all the WRMSC areas, a final compilation will be done. The outcomes of the Social Assessment will be integrated with technical assessments for delineating the priorities in WUMPs.

Before and during the social assessment, communities through WRMSCs will be motivated for hygiene education and sanitation and latrine construction, use and maintenance. In addition, efforts will be placed on building up awareness among the beneficiaries for the adoption of improved sanitation practices, such as proper hand washing and keeping the vicinity of house, water tap-stands and toilets clean. At least one demonstration latrine will be built in one WRMSC area.

Following activities will be carried out during social assessment:

- i. HHs level information collection (*refer Annex-1 format SA 1*)
- ii. Wealth ranking (*refer Annex-1 SA 7 a-c*)
- iii. Verify seasonal calendar ;if needed (*refer Annex-3 sample no i*)
- iv. Collect HH level and other geo-socio economic information as per the provided format (*format SA 5a-t*).Get information from base-line data collected by CM (if available), Provide a copy of all these / data to consultants.

- v. Need identification; prepare wish list of water related needs from different cluster/COs. Provide adequate time and interaction for need identification. Assure the GESI (*refer Annex-1 format SA 8 a -e & SA 6*);
- vi. Social / resource mapping (*refer Annex-3 sample ii*)
- vii. Consolidate the wished list of needs collected from different cluster/COs (*refer Annex-1 format SA 8f*)

A joint monitoring of WUMP preparation will be done by the team members from DDC/DMC, PSU and/or WARM-P/Helvetas during this step.

5.10 Technical Assessment

5.10.1 General

The technical assessment work must be carried out during dry season approximately on or about April and May.

Technical assessment in each sub-committee level will be preceded by a social assessment, which will form the basis for the technical assessment. The technical team will receive the social data and social map for conducting technical assessment of the VDC. The team together with the representative of the cluster and some members of sub-committee will start its technical assessment work of sub-committee. The technical team will then move to the second sub-committee for the same sequence of work as in previous subcommittee. Then the technical team interacts with key person or members to participate in technical assessment on the following days. Similarly, the process continues till the completion of the last sub-committee. During the Technical assessment the social staff (sociologist, SO field coordinator) who had conducted the social assessment in the VDC shall accompany the technical team.

More specifically, technical studies will include:

1. Measure, take GPS reading and describe all the water source identified and sources including that were left out during the social assessment. There are several water sources identified during social assessment within the VDC and the adjoining VDCs, which are being used or can be optimally used for different water related development activities of the VDC.
2. Map all the measured sources of VDC or trans-boundary VDC, geographical demarcation of the Sub-committees, indicating their distances from some reference points and their altitude. It is also necessary to show the present use of water sources and proposed schemes (new). The map should indicate existing infrastructure, which is necessary for the preparation of WUMP (e.g. houses, paths, school, forest, river, pond and agricultural land, etc.). The sub-committee wise social map prepared during social assessment should be used for the necessary information.
3. Categorize all the potential water sources for possible application of water requirement according to their quality, discharge, accessibility reliability and

suitability, such as drinking water, irrigation (canal, pipe, pond, drip /sprinkle irrigation), multi use system application, small or micro hydro-electric power, cottage industrial use, recreational purpose, fish pond etc.

4. Use Sub-committee Profile (Form-TA/01-I) for detail information of existing drinking water supply systems that are used for drinking water purpose in each cluster to see existing condition and determine service level. Use form TA/01-II, TA/01-III for existing sanitation condition and existing defecation, carcass disposal, solid waste disposal and cremation area respectively.
5. Collect general information with GPS reading, present use, potential use, need for further improvement, Environment around the source and prepare layout plan of all sources under **Source Survey** (use Form-TA/02).
6. Use Inventory Forms for detail information of all existing water projects (improved) and their status
 - Form- TA/03 for Existing Water Supply Project
 - Form- TA/04 for Existing irrigation Project
 - Form- TA/05 for hydropower Project including water mill/ghatta
 - Form- TA/06 for Miscellaneous water related project
7. Use Proposal Forms
 - Form-TA/07 for proposed **drinking water** project (Gravity) for both new potential project and project requiring repair or rehabilitation
 - Form-TA/08 for proposed **drinking water project (other than gravity)** both new potential project and project requiring repair or rehabilitation
 - Form-TA/09 for proposed **irrigation project (conventional)** both new potential project and project requiring repair or rehabilitation
 - Form-TA/10 for proposed **irrigation project (non conventional)** both new potential project and project requiring repair or rehabilitation
 - Form-TA/11 for proposed **hydropower project** both new potential project and project requiring repair or rehabilitation
 - Form-TA/12 for proposed **multiple use system application project (MUSA)**
 - Form-TA/13 for proposed **miscellaneous project**.
8. Collect all other information required to develop WUMP report.

5.10.2 Tools, Equipment, Digital Map and other Accessories

Basic Equipments and Tools required during technical assessment

Following equipments are needed for water source measurements by using bucket method

- | | |
|------------------------|------------|
| • Bucket – 10-20 Litre | 1 per team |
| • Stop watch | 1 per team |

Following maps and GIS equipments are needed for taking geo-reference data.

- Topographic maps (prints) 1 set per team
- Resources maps (prints) 1 set per team
- GPS meter 1 set per team

GPS meter should be calibrated from Employer before use.

Following equipments are required for survey

- Pedometer 1 per team
- Altimeter 1 per team
- Abney Level 1 per team
- Digital Camera 1 per team
- Calculator 1 per team
- Measuring Tape (30m and 3m) 1 per team

Tools (Arrange from field)

- Ansi as per need
- Kodalo as per need
- Bucket 1 (At least three readings should be taken and time should be more than 10 seconds)

For communication

- Satellite phone or CDMA phone for quick communication

Others tools/ materials

- Technical Format set
- Writing papers, pen, pencil, eraser

Optional Equipment and tools

In addition to basic equipment and tools, the following are the optional equipment that will enhance accuracy and efficiency of the Consultant's work. Therefore, consultants are encouraged to use the following equipments during the field survey based on their availability and convenience:

For discharge measurement by conductivity meter

- Conductivity meter 1 per team
- Measuring cylinder – 1 Litre 1 per team
- Pipette – 10 ml 3 per team
- Weighing machine - .01mg to 500 gram 1 per team
- Salt (LS) 1kg/measurement site)

To download GPS data every day and to verify the readings on the maps

- GPS with computer communication cable, high-sensitivity receiver and a capacity to record 500 waypoints
- Notebook with spare batteries for at least 4 hours of autonomy
- A solar panel to recharge notebook batteries

5.10.3 Maps required for the field

Following prints and digital maps shall be required in the field for verification:

a. Access map:

Print A0 size colour map with roads, VDC boundaries and village names.

b. River thematic map:

Print A0 size colour map with rivers, VDC boundaries, village names. Add faded roads in background.

c. Land use thematic map:

Print A0 size colour map with landuse (includes water bodies, forest, cultivated land, etc), rivers, VDC boundaries, village names. Add faded roads in background.

d. Contour thematic map:

Print A0 size color map with contours, rivers, VDC boundaries, village names. Add faded roads in background.

e. Topographic map:

Print A0 size colour map with all layers including satellite imagery, rivers, VDC boundaries, village names. Add faded roads in background.

5.11 WUMP Planning Workshops at Sub-committee level

Based on the findings of the social and technical assessments, a VDC water profile will be prepared serving as a basis for the WUMP for the sub committee to plan, prioritise, execute, operate and manage water related activities in an integrated way. The profile consists of measurement and description of water sources identified during the assessments for their potential uses such as drinking water, irrigation, micro hydro, other applications, etc. Also, it is expected that the assessments shall provide detailed insights into realities of the existing water situation, especially on available discharge, management practices, problems and possible utilization of the water sources. This information shall be used to develop a WUMP at the sub committee level.

One day workshop will be conducted with the WRMSC members including community people to share the findings of the social and technical assessments; to verify the findings. During the workshop the participants will exercise on holistic and sector specific prioritization of water related projects to know the water related needs at sub committee level.

Participation from each household is important in planning, as this is the key step for WUMP preparation. Similarly participation of women and socially disadvantage group will be ensured in this exercise. It is the responsibility of the SO and CMs to mobilize men and women to participate in the planning meeting.

Carry- out planning workshop at each WRMSC level and prioritize based on priority list from cluster/COs. (*refer Annex-1 SA 8 g-k & SA 3 a,b,c*)

5.12 WUMP Planning Workshop at VDC Level

A 3-days workshop will be conducted with the WRMC members and representatives of WRMSCs, member of DDC and advisory panel member (political party representative in the VDC) to share the findings of the social and technical assessments; to verify the findings; and to prepare immediate and long-term action plans by prioritizing activities. During the workshop the participants will exercise on holistic and sector specific prioritization of water related projects to know the water related needs of the VDC. The members are also expected to /or WARM-P/Helvetas during classify support required for implementation of projects through internal and external resources. Accordingly, immediate plans and long term plans will be formulated to develop, manage and utilize the potential water sources.

In the planning workshop:

- up date & finalize the VDC level priority list
- 5 yrs plan (*refer Annex-1 format SA 9 a*)
- Detail 1 year plan (*refer Annex-1 format SA 9 b*)
- identification of potential resource organizations(*refer Annex-1 format SA 9 e*)
- List out support activities like ; training, observation tour, skill trainings (*refer Annex-1 format SA 9 d*)
- Follow-up action to complete 1 year plan & support activities. (*refer Annex-1 format SA 9c*)
- Collect commitment by VDC, political leaders, community etc. (*refer letter sample SA 9 f & g Letter*). Consultant needs this letter to includes in final report of WUMP.

5.13 WUMP Report Preparation

Based on the outcomes of the technical and social assessment consultant team will prepare the WUMP reports as mentioned in reporting part of the TOR. The report will be finalised after VDC level planning workshop.

GIS and GPS will be integral elements of the WUMP report. The GIS output expected is described under topic 5.10.8 of technical assessment.

The reports that shall be produced are as follows:

A) Executive Summary (English and Nepali) -In Leaflet

B) VDC Level Report

1. Volume 1: Main Report English and Nepal
2. Volume 2: Appendices Binding of all subcommittee level volume 2 report (English only)
3. Volume 3: Maps English only

C) Subcommittee Level Report

1. Volume 1: Main Report Nepali only

Some relevant map (Planned and existing water projects in A4 paper) attached with report

2. Volume 2: Appendices English only

D) Data Base: E-copy (English only)

A standard Table of Contents for these WUMP reports is presented in Annex-6 of this Guideline.

5.14 Post-WUMP Workshop at District Level

After preparing WUMP report, the respective WRMC will communicate with the potential resource organizations that were introduced during pre-coordination workshop. Post coordination with potential support organizations will take place formally by organizing a post coordination workshop. These workshops will emphasize developing co-operating mechanisms of the WRMC with potential support organizations for the long-term realization of the various identified water related projects. During workshops efforts will be made to obtain clear statements on commitment from the participating organizations for implementation of projects as prioritized in the WUMP.

(Refer AneeX-1 SA 3c, Annex -2 TR X for detail workshop schedule)

5.15 Water Projects Implementation Based on WUMP

Water projects will be implemented based on the WUMP. The potential resource organization will support VDC/WRMC to implement the projects as per their commitment made in step 14 and working approach.

5.16 WUMP Realization from Resource Organizations

The project as well as DDC will support the VDC/WRMC to develop and strengthen

co-operating mechanisms with potential support organizations for the long-term realization of the various identified water related projects. Then VDC is expected to work together with such organizations in various water-related projects.

5.17 WUMP Follow-up

The effectiveness of WUMP will be monitored by conducting follow up study some years after WUMP preparation. The number of documented contacts with the resource organisations for implementing the activities identified and committed by the respective WRMC and the skills and knowledge applying by the WRMC members for strengthening the water resource management of the VDC will be assessed during the follow up.

6. STANDARD FORMATS

Standard formats will be used in collection and presentation of information and the plans as follows:

- Social assessment formats, Annex 1
- Maps, Annex 3
- Technical formats, Annex 5

The Project will provide a database for storing and analysis of the data.

7. ROLES AND RESPONSIBILITIES IN WUMP PREPARATION

Involvement of various parties in WUMP preparation is presented in a table below.

Table 1: Roles and Responsibilities in WUMP Preparation

Step	Main Responsible	Support	Remarks
1. VDC selection	DDC	DMC	
2. MOU with VDC	DDC	DMC	
3. Rapport building with community	SO	CM	
4. WRMSC formation and Program orientation meeting to WRMSC	SO	CM	Preliminary Sub-Committee division will be done by PSU by the help maps/ orthophotos
5. WRMC formation	SO	CM	
6. CBT to WRMC	Consultant	SO/CM	
7. CBT to WRMSC	Consultant	SO/WRMC/CM	
8. Pre-WUMP coordination workshop	WRMC and VDC	SO/DDC	
9. Social assessment	Consultant and SO	CM	

10. Technical assessment (Source inventory)	Consultant	SO/CM	
11. WUMP planning workshop (Sub-Committee level)	WRMSC and Consultant	SO /CM	
12. WUMP planning workshop(VDC level)	WRMC and Consultant	SO /CM	
13. WUMP Report Finalization	Consultant		
14. Post WUMP workshop	WRMC	SO	
15. Implementation of Water Projects	WRMC	VDC, DDC, Resource organization	
16. WUMP realization from resource organizations	Resource organization		
17. WUMP follow up	WRMC		

Note:

- WUMP = Water Use Master Plan
- CBT = Capacity Building Training
- CM = Community Mobilizer of the Project
- WRMSC = Water Resources Management Sub-Committee
- WRMC = Water Resources Management Committee
- MOU = Memorandum of Understanding
- VDC = Village Development Committee
- SO = Support Organization recruited by the Project

8. MONITORING

Monitoring of WUMP activities will be done by a team composed of personnel from the Project (WRA or PSU specialists or engineers), DDC (DDC members or LDO or planning officer or programme officer), DTO (DTO chief or engineer or overseer) and sector agencies. Minimum number of monitoring during WUMP preparation will be one. Refer project monitoring guidelines for details.

Key monitoring indicators are:

- A. *Participation of people (Qualitative and quantitative indicators)*
 1. Proportion of household attending meetings (inclusion/gender, ethnicity, poverty)- quantitative
 2. Retention of WUMP objective and process in sample of 10-15 household – qualitative
- B. *Verification of inventory data*
 1. Cross-checking/ measurement (source yield, GPS readings, etc)
 2. Interviews/ discussions with men and women
- C. *Compliance with announced time frame*
 1. Progress report versus initial time frame
 2. Dates of submission of progress reports
- D. *Quality of reports submitted*

ANNEX 1

Social Assessment Formats

घर धूरी सर्वेक्षण फाराम

SA-1

जिल्ला:

गा.वि.स.:

उपसमिति:

घर ID	घरमूलीको		वडा	टोल (cluster)		जातजाति			धर्म	भाषा			मुख्य पेशा					
	पूरा नामथर	लिङ्ग		नाम	टोलको ID	दलित	जनजाति	अन्य		मातृ	नेपाली भाषा बोल्न सक्ने	अन्य स्थानीय भाषा	कृषि	ब्यापार	जागिर	मजदूर	विदेश	अन्य
		म																

घर धूरी सर्वेक्षण फाराम

SA-1

जिल्ला:

गा.वि.स.:

उपसमिति:

घर ID	घरमूलीको		परिवार सख्या								विद्यालय जाने उमेर (६ देखि १५ वर्ष) पूगेका तर विद्यालय जाने नगरेका			शैक्षिक विवरण								अपाङ्ग		संस्थागत आवद्धता																	
	पूरा नामथर		जम्मा		०-५वर्ष		६-१५वर्ष		१६-४९ वर्ष		५० - ७५ वर्ष		७५ वर्ष भन्दा		बालक		बालिका		जम्मा		निरक्षर		साक्षर		प्रा.वि./ नि.मा.ि व.		मा. वि. शिक्षा		SLC/IA		स्नातक वा माथि		अपाङ्ग		संस्थागत आवद्धता						
	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू	म	पू							

घर धूरी सर्वेक्षण फाराम

SA-1

जिल्ला:

गा.वि.स.:उपसमिति:

घर ID	घरमूलीको	खानेपानीको सूविधा (पानी भर्ने स्थान)						घरमा पानीको प्रयोग		घरायसी सरसफाई					प्रमुख वाली उत्पादन (किलोग्राम)						कैफियत				
	शूरा नामथर	पाइपधारा/कुवा (ताडला) खोला/कूलो/पधेरोधारा/पोखर 1/वर्षातको पानी	पानीको गुणस्तर (सरक्षित, स्वीकार्य, नराप्तो वा धेरै नराप्तो)	पानीको परिमाण उपलब्धता	पानी ओसार्न लाग्ने समय (मिनेट)	पानी प्राप्त हुने समय (घण्टा/ दिन)	महानको विश्वसनियता (महिना/वर्ष)	गाग्री /दिन	गाग्रीको नाप (लिटर)	शौचालय			भाडा सूकाउ ने चाङ्ग	धुंवा रहित चूलहो	घरायसी फोहोर खाल्डोमा फाल्ने गरेको	धान	गहुं/जौ	मकै	कोदो	दलहन		तेलहन	अन्य		
										पक्किक वाटर सिल भएको)	पक्किक वाटर सिल नभएको)	कच्चि													

पानीको परिमाण उपलब्धता:
 प्रयाप्त : ४५ लि. भन्दा धेरै ठिकै : २५ देखी ४५ लि. सम्म अप्रयाप्त: १५ देखी २५ लि. सम्म धेरैकम : १५ लि. देखी कम

Attendee Sheet for committee/mass/orientation meeting

Purpose of meeting:

Name of Committee:

Date:

Venue:

S.N	Name	Adress	Committee	Post	Signature
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					

Summary:

Participants	Total	Dalit	Janajati	Other
Female				
Male				
Total				

बैठक, भेला, अभिमुखिकरणको उपस्थिति

बैठकको उद्देश्य:

समितिको नाम:

मिति:

स्थान:

क्र.स	नाम	ठेगाना	समिति	पद	हस्ताक्षर

सारांश:

	सहभागी	जम्मा	दलित	जनजाती	अन्य
महिला					
पुरुष					
जम्मा					

अनुशिक्षण भेला

जिल्ला:

गा.वि.स.:

भेला संख्या:

सहजकर्ता:

मिति

स्थान:

सहभागी घरसंख्या:

सभेटिएका टोलहरु:

सभेटिएका वडाहरु:

जात जाती	महिला	पुरुष	जम्मा
दलित			
जनजाती		:	
बाहुन			
क्षेत्री			
ठकुरी			
अन्य			

अनुशिक्षणको क्रममा प्राप्त जानकारीहरु:

देखा परेका समस्याहरु:

सहभागी मध्येका महत्वपूर्ण व्यक्तिहरु:

District:

VDC:

Orientation meeting

Meeting No.

Facilitator:

Date:

Venue:

Covered HHs:

Covered Wards:

Covered clusters:

Cast	Male	Female	Total
Dalit			
Janjati			
Brahamin			
Chhetri			
Thakuri			
Others			

Findings of meeting in brief:

Observed problems:

Key persons with in participants:

Training/ workshop attended form

Name of training/ workshop:

Date:

Venue:

S.N	Name	Adress	Committee/ organization	Post	Signature				
					1st day	2nd day	3rd day	4th day	5th day
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									

Summary:

Participants	Total	Dalit	Janajati	Other
Female				
Male				
Total				

तालिम / गोष्ठि-उपस्थिति फाराम

तालिम / गोष्ठिको नाम:

मिति:

स्थान:

सि.नं	सहभागीको नाम	ठेगाना	समिति / संस्था	पद	हस्ताक्षर				
					प्रथम दिन	दोस्रो दिन	तेस्रो दिन	चौथो दिन	पाँचौ दिन

जम्मा:

सहभागी	जम्मा	दलित	जनजाती	अन्य
महिला				
पुरुष				
जम्मा				

Water Resource Management Sub Committee (WRMSC) formation

VDC:

District:

Sub committee No:

Ward No (covered Cluster/tolel):

Date:

S.N	Name	Post	Ward No.	Cluster/Tole	Remarks
1		Chair person			
2		Vice-chair			
3		Secretary			
4		Member			
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Summary:

	Total	Female	Male
Dalit			
Janjati			
Other			
Total			

Problem faced during committee formation:

जलश्रोत व्यवस्थापन उप समिति विवरण

जिल्ला

गा.वि.स.

उप समिति नं.

वार्डनं. (समेटीएका टोल वा क्लष्टर):

गठन मिति:

क्र.स	नाम	पद	महिला	पुरुष	वार्ड नं.	टोल/क्लष्टर	कैफियत
१		अध्यक्ष					
२		उपाध्यक्ष					
३		सचिव					
४		सदस्य					

सारांश:

सहभागीहरु	जम्मा	महिला	पुरुष
दलित			
जनजाती			
अन्य			
जम्मा			

समिति गठन गर्दा देखा परेका कठिनाईहरु:

Water Resource Management Committee (WRMC) formation

VDC:

District:

Date:

Venue:

S.N	Name	Post	Sub committee no.	Ward no.	Remarks
1		Chair/Coordinator			
2		Vice-chair			
3		Secretary			
4		Member			
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Summary:

	Total	Female	Male
Dalit			
Janjati			
Other			
Total			

Problem faced during committee formation:

जलश्रोत व्यवस्थापन मुल समिति विवरण

जिल्ला

गा.वि.स.

गठन मिति:

स्थान:

क्र.स	नाम	पद	महिला	पुरुष	वार्ड नं.	उपसमिति नं.	कैफियत
१		अध्यक्ष					
२		उपाध्यक्ष					
३		सचिव					
४		सदस्य					

सारांश:

सहभागीहरु	जम्मा	महिला	पुरुष
दलित			
जनजाती			
अन्य			
जम्मा			

समिति गठन गर्दा देखा परेका कठिनाईहरु:

Water Resource Management Advisory Committee formation

VDC:

District:

Date:

Venue:

S.N	Name	Post	Sub committee no.	Ward no.	Remarks
1		Chair/Coordinator			
2		Vice-chair			
3		Secretary			
4		Member			
5					
6					
7					
8					
9					
10					
11					

Summary:

	Total	Female	Male
Dalit			
Janjati			
Other			
Total			

Problem faced during committee formation:

जलश्रोत व्यवस्थापन सल्लाहकार समिति विवरण

जिल्ला

गा.वि.स.

गठन मिति:

स्थान:

क्र.स	नाम	पद	महिला	पुरुष	उपसमिति	वार्ड नं.	कैफियत
१		अध्यक्ष					
२		उपाध्यक्ष					
३		सचिव					
४		सदस्य					

सारांश:

सहभागीहरु	जम्मा	महिला	पुरुष
दलित			
जनजाती			
अन्य			
जम्मा			

समिति गठन गर्दा देखा परेका कठिनाईहरु:

(क) भौगोलिक र प्राकृतिक विवरण

- (१) सिमाना : उत्तर ----- दक्षिण -----
पूर्व ----- पश्चिम -----
- (२) नजीकको मोटर आइ पुग्ने स्थान
- (३) मुख्य खोला, नदी :
- (४) मुख्य बनस्पति :
- (५) बनस्पतिको प्रयोग :
- (६) मुख्य जनावरहरू :
- (७) नदी कटान भएको भए विवरण :
- (८) मुख्य बजार क्षेत्र :
- (९) पहिरो आदि गएको भए विवरण :

विवरण	जम्मा	दलित		जनजाती		अन्य	
		महिला	पुरुष	महिला	पुरुष	महिला	पुरुष
प्राथमिक शिक्षा							
माध्यमिक शिक्षा							
एस. एल. सी. उत्तिर्ण र आइ. ए. उत्तिर्ण							
स्नातक उत्तिर्ण वा सो भन्दा माथि							

(१०) दक्ष जनशक्तिको जानकारी (थोरै संख्यामा भए नाम खुलाउने)

विवरण	दैनिक ज्याला	दक्ष जनशक्ति					
		दलित		जनजाती		अन्य	
		म	पु	म	पु	म	पु
सिमेन्ट मसलाको गारो लगाउने							
प्लम्बर							
स्थानीय चर्पी निर्माणकर्ता (तालीम प्राप्त)							
वर्षातको पानी संकलन गर्ने घैंटो निर्माणकर्ता (तालीम प्राप्त)							
महिला सामुदायिक स्वास्थ्य स्वयं सेविका							
ग्रामीण स्वास्थ्य कार्यकर्ता							
खानेपानी प्राविधिक							
काठको काम गर्ने कर्मी							
विद्युत प्राविधिक							
बृष प्राविधिक							
पशु सेवा प्राविधिक							
सामुदायिक/सामाजिक परिचालक							
.....							

(११) बसाई सराई सम्बन्धी विवरण (बिगत एक वर्षमा)

क्रम	कहाँ	वर्षको कुन महिना	किन	अनुमानित कति
१	भारत (अस्थाइ)			
२	नेपालमै तराई तर्फ (अस्थाइ)			
३	नेपालमै तल्लो पहाडि क्षेत्र तर्फ (अस्थाइ)			
४	स्थायी रुपमा गा.वि.स. भित्रै			
५	स्थायी रुपमा नेपाल भित्रै			
६	भारत बाहेक अन्य देश			

(१२) खेती सम्बन्धी विवरण

- मुख्य बाली के के हुन ?
घरेलू प्रयोगका लागि:
व्यापारका लागि:
- तरकारी खेती भएको भए के ? घरेलू प्रयोगका लागि:
व्यापारका लागि:
- फलफूल खेती भएको भए के ? घरेलू प्रयोगका लागि:
व्यापारका लागि:
- तरकारी, फलफूलको बजारको संभावना छ कि छैन ?:
- पशुपालनमा के के पाल्ने गरिएको छ ?
- कुन कुन किसिमका जडीबुटीहरूको संरक्षण, संवर्द्धन र प्रवर्द्धन हुने गरेको छ ?
- ति जडीबुटीहरूलाई बेच विखन गर्ने नजीकको बजार कहाँ छ ?
- अन्य:.....

१३) कृषि र जागीर वाहेकका आम्दानीका श्रोतहरू

- निकासी हुने बस्तुहरू के के ?
- यो टोलमा / उपसमितिमा
- जातीय पेशा (Caste occupation)
- घरेलु उद्योग केही भए

किराना पसल कति छन् ?

- चिया पसल, होटल कति छन् ?
- हाट कति कति अवधिमा लाग्छन् ? महिनामा पटक
- मेला कति कति अवधिमा लाग्छन् ? वर्षमा पटक

- ऋण (जोखो) लिनुपर्दा सामान्यतः कहाँवाट लिने गरिएको छ ? (बैंक/सहकारी/ब्यक्ति)

- ऋणको औसत व्याजदर

बैंक:

सहकारी:

ब्यक्ति:

(१४) नजीकको ठूलो बजार :

(१५) गाँउमा उपलब्ध हुने स्थानीय सामग्रीको विवरण

सामग्री	गाँउमा वा गाँउ बाहिर	कहाँ	प्रचूर वा ठिक्क वा कम	जान आउन लाग्ने समय (घण्टा)
ढुङ्गा				
बालुवा				
काठ				
बाँस				
घर छाउने ढुँगा (स्लेट)				
घट्टको जांतो बनाउने ढुँगा				
अन्य:				

(ग) महिला/पुरुषको भूमिका जिम्मेवारी

(१) दैनिक रुपमा गरी आएका कामहरु (चिनो लगाउनुस्)

काम	महिला	पुरुष	काम	महिला	पुरुष
पानी बोक्ने			लुगा धुने		
खाना पकाउने			घाँसपात खोज्ने		
सरसफाइ गर्ने			घट्ट जाने		
गाइ बस्तुलाई खुवाउने			दाउरा खोज्ने		
अन्न पिच्ने			केटाकेटी हेर्ने		
बजार/किनमेल जाने			बैठकमा भाग लिने		
सार्वजनिक भेला तथा आम सभामा भाग लिने			व्यापार गर्ने		
गोठालो जाने			खेतालो जाने		
मजदूरी गर्न जाने					

(२) सामाजिक कृयाकलापमा संलग्नता

- आमा समूह आदि कति छन् विवरण दिने र कस्तो रुपमा काम गरिरहेका छन् ?
- अन्य कुनै प्रकारका समूहहरु छन् जसमा महिलाहरुको सदस्यता छ ?
- महिलाहरुको यस्ता समूहमा कस्तो भूमिका छ ? (सक्रिय, निष्क्रिय र स्थान)
- महिला वडा सदस्यको कस्तो भूमिका रहेको छ ? (सक्रिय, निष्क्रिय)

(३) आर्थिक गतिविधि

- महिलाहरूले पसल चलाएको, सिलाइ बनाइ गरेको आदि कुनै आमदानी हुने कार्यहरु आफ्नो क्षेत्रमा देखिन्छन् कि ?

(४) घर भित्र वा समाजमा महिलाको स्थिति साधारणतया कस्तो देख्नु हुन्छ ?

- पुरुषहरूले सम्पूर्ण निर्णय गर्ने (दबिएको)
- केहि निर्णय महिलाले गर्ने (जस्तै हाट जाने, पसल जाने)

(५) तपाइको क्षेत्रभित्र महिला पुरुषको सम्बन्ध र स्थिति वारे आफ्नो अवलोकन, विचारधारा लेख्नुहोस् ।

(घ) विकास इतिहास सम्बन्धि टिपोटहरु

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID

क्रस	विकास गतिविधिहरु	समेटेको टोलहरु (clusters)		समय र वर्ष	हालको अवस्था
		नाम	टोल ID ¹		

¹ Code for cluster area with shared water supply systems:District id – VDC id – subcommittee id – Ward id - **cluster id (01)**

(ड) हाल चालु भइरहेको विकास गतिविधिहरुको छोटकरी विवरण

जिल्ला ID: गा.वि.स. ID: उपसमिति ID:

क्रम	कार्य विवरण	समेटेको टोलहरु (clusters)		सहयोगी संस्था	कहिले सकिन्छ	सहभागिताको किसिम	कैफियत
		नाम	टोल ID ²				

² Code for cluster area with shared water supply systems:
District id – VDC id – subcommittee id – Ward id - **cluster id (01)**

(च) टोलको विवरण

खानेपानी लिन जाने धारा/पंधरोको आधारमा टोल विभाजन र टोल ID निर्धारण गरिएको छ। यस जल उपयोग गुरुयोजनामा टोल वा Cluster भन्नाले यसलाई नै बुझाउनेछ।

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID

सामाजिक टोलिले भर्ने						प्राविधिक टोलिले भर्ने				
टोल ID ³	टोल वा बस्ति वा cluster	वडा नं.	गाउँ (Village) ⁴		घर संख्या	जनसंख्या	GPS Reading			
			नम	गाउँ ID			X	Y	Accuracy	SN

³ Code for cluster area with shared water supply systems: District id – VDC id – subcommittee id – Ward id - **cluster id (01)**

⁴ Names of villages shown in the topo map. Make corrections in names, if needed. District id – VDC id – subcommittee id - **village id**

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(छ) हालसम्म सम्पन्न भइसकेका खानेपानी योजना सम्बन्धी विवरण

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID

योजना ID ⁵	योजनाको नाम	योजनाको किसिम	प्रयोग भएको पानीको श्रोत		लाभान्वित टोलहरु (clusters)		लाभान्वित घरधूरी	खा.पा.व्य.स.		मर्मत संभार कोष		गां. मं का.		सम्पन्न वर्ष	संचालन (छ/छैन)	सहयोगी संस्था	
			नाम	ID	नाम	टोल ID		छ/छैन	सक्रिय / निष्क्रिय	छ/छैन	नियमित उठ्ने गरेको छ/छैन	छ/छैन	सक्रिय / निष्क्रिय				

⁵ Existing water supply scheme code:

District id – VDC id – subcommittee id – existing water supply scheme id (EW01)

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(ज) हालसम्म सम्पन्न भइसकेका सिंचाई योजना सम्बन्धी विवरण

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID:

योजना ID ⁶	योजनाको नाम	योजनाको किसिम	प्रयोग भएको पानीको स्रोत		सिंचाई गरेको क्षेत्र			लाभान्वित घरधूरी	उपभोक्ता समिति		मर्मत संभार कोष		गा. मं का. (हेरालु)		सम्पन्न वर्ष	चालु (छ/छैन)	सहयोगी संस्था	
			नम	ID	ठाउँ	वडा नं.	रोपनी		छ/छैन	सक्रिय / निष्क्रिय	छ/छैन	नियमित उठ्ने गरेको छ/छैन	छ/छैन	सक्रिय / निष्क्रिय				

⁶ Existing water supply scheme code:

District id – VDC id – subcommittee id – existing water supply scheme id (EW01)

(भ) हालसम्म सम्पन्न भइसकेका जलशक्ति (लघु जलविद्युत, टर्बाइन मिल, घट्ट) योजना सम्बन्धी विवरण

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID:

योजना ID ⁷	योजनाको नाम	योजनाको किसिम	प्रयोग भएको पानीको श्रोत		लाभान्वित टोलहरु (clusters)		लाभान्वित घरधूरी	क्षमता (कि.वा.)	स्वामित्व (समुदाय वा व्यक्तिगत)	उपभोक्ता स.: (छ/छैन)	सम्पन्न वर्ष	चालु छ/छैन	सहयोग गर्ने संस्था
			नाम	ID	नाम	टोल ID							

⁷ Existing hydropower scheme code:

District id – VDC id – subcommittee id – existing hydropower scheme id (EH01)

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(ज) हालसम्म सम्पन्न भइसकेका अन्य योजना सम्बन्धी विवरण

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID

योजना ID. ⁸	योजनाको नाम	योजनाको किसिम	प्रयोग भएको पानीको श्रोत		लाभान्वित टोलहरु (clusters)		लाभान्वित घरधूरी	उपभोक्ता स.: (छ/छैन)	सम्पन्न वर्ष	मर्मत कोष (छ/छैन)	हेरालु (छ/छैन)	चालु (छ/छैन)	सहयोग गर्ने संस्था
			नाम	ID	नाम	टोल ID							

⁸ Existing Ohter scheme code:District id – VDC id – subcommittee id – **existing other scheme id (EO01)**

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(ट) हाल निर्माणाधिन रहेका खानेपानी योजना सम्बन्धी विवरण

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID:

योजना ID ⁹	योजनाको नाम	योजनाको किसिम	प्रयोग भएको पानीको श्रोत		लाभान्वित टोलहरू (clusters)			खा.स.व्य.स. (छ/छैन)	मर्मत कोष (छ/छैन)	ग्रा.म.का. (छ/छैन)	शुरु वर्ष	सम्पन्न हुने वर्ष	सहयोगी संस्था
			नाम	ID	नाम	टोल ID	लाभान्वित घरधूरी						

⁹ Under construction water supply scheme code: District id – VDC id – subcommittee id – **under construction water supply scheme id (UW01)**

(ठ) हाल निर्माणाधिन रहेका सिंचाई योजना सम्बन्धी विवरण

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID

योजना ID ¹⁰	योजनाको नाम	योजनाको किसिम	प्रयोग भएको पानीको श्रोत		सिंचाई गरेको क्षेत्र			लाभान्वित घरधूरी	उपभोक्ता स. (छ/छैन)	मर्मत कोष (छ/छैन)	हेरालु (छ/छैन)	शुरु वर्ष	सम्पन्न हुने वर्ष	सहयोगी संस्था
			नम	ID	ठाउँ	वडा नं.	रोपनि							

¹⁰ under construction irrigation scheme code: District id – VDC id – subcommittee id – **under construction irrigation scheme id (UI01)**

(ड) हाल निर्माणाधिन रहेका जल शक्ति (लघु जलविद्युत, टर्बाइन मिल, घट्ट) योजना सम्बन्धी विवरण

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID

योजना ID ¹¹	योजनाको नाम	योजनाको किसिम	प्रयोग भएको पानीको श्रोत		लाभान्वित टोलहरु (clusters)			क्षमता (कि.वा.)	स्वामित्व (समुदाय वा व्यक्तिगत)	मर्मत कोष (छरछैन)	अपरेटर (छरछैन)	शुरु वर्ष	सम्पन्न हुने वर्ष	सहयोग गर्ने संस्था	
			नम	ID	नाम	कोड नं.	लाभान्वित घरधूरी								

¹¹ under construction hydropower scheme code: District id – VDC id – subcommittee id – under construction hydropower scheme id (UH01)

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(ढ) हाल निर्माणाधिन रहेका अन्य योजना सम्बन्धी विवरण

जिल्ला ID:

गा.वि.स. ID:

उपसमिति ID

योजना ID ¹²	योजनाको नाम	योजना को किसिम	प्रयोग भएको पानीको श्रोत		लाभान्वित टोलहरु (clusters)			उपभोक्ता स. (छरछैन)	मर्मत कोष (छरछैन)	हेरालु (छरछैन)	शुरु वर्ष	सम्पन्न हुने वर्ष	सहयोग गर्ने संस्था
			नम	ID	नाम	कोड नं.	लाभान्वित घरधूरी						

¹² under construction other scheme code: District id – VDC id – subcommittee id – **under construction Other scheme id (U001)**

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फाराम नं. SA-6 बाट लिन

(थ) बिद्यमान खोलाहरुका विभिन्न ठाउँमा पानीको अवस्था बारे जानकारी

जिल्ला ID: गा.वि.स. ID: उपसमिति ID
.....

श्रोत ID ¹⁵	खोलाको नाम	श्रोतको अवस्थिति			हाल श्रोतको प्रयोग		जलविद्युत वा सिंचाइको लागि खोला दर्ता भएको वा नभएको
		जिल्ला	गा.वि.स.	वडा	योजनाको किसिम	योजनाको कोड	

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(द) सरसफाइ वारे जानकारी

जिल्ला ID: गा.वि.स. ID: उपसमिति ID.....

(१) टोल अनुसार चर्पी विवरण: (घरधुरी सर्वेक्षण फारामबाट)

टोल ID ¹⁶	टोल	जम्मा घरसंख्या	चर्पी संख्या	प्रयोग गर्ने घर संख्या	स्थायी		अस्थायी	प्रयोग छ / छैन	संभार कसरी गरिएको छ
					वाटर सिल भएको	वाटर सिल नभएको			

¹⁶ Code for cluster area with shared water supply systems (Latrine information will be taken for the same clusters):
District id – VDC id – subcommittee id – Ward id - **cluster id (01)**

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(२) साधाणतया गाँउको सरसफाइ स्थिति:

- बाटोघाटो

- घर आँगन

- विद्यालय

- धारा, कुवा, पँधेरो

- खेर जाने पानीको ब्यवस्थापन

- ठोस फोहोर (जैविक) ब्यवस्थापन

- नकुहिने (प्लास्टिक) फोहोरको ब्यवस्थापन

- समग्रमा व्यक्तिगत सरसफाइको स्थिति

SA-5s

(ध) स्वास्थ्यको स्थिति

आफु समुदायमा रहदा भ्रूडा पखाला, टाइफाइड, आँउ आदि पानीजन्य रोगबाट विरामी भएको वा मृत्यु भएको जानकारी (विगत एक वर्ष)

जिल्ला ID: गा.वि.स. ID: उपसमिति ID

.....

टोल ID ¹⁷	टोल	विरामी नाम	उमेर	लिङ्ग	रोग	मिति	उपचार भएको	विरामी भइ मृत्यु भएको

¹⁷ Code for cluster area with shared water supply systems (Health information will be taken for the same clusters): District id – VDC id – subcommittee id – ward id - **cluster id (01)**

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(न) घर परिवारको आर्थिक स्थिति

घरधुरी सर्वेक्षण फाराम र आर्थिक स्तरीकरण (PRA) बाट (१ ले सबभन्दा गरीव जनाउंछ) ।

जिल्ला ID: गा.वि.स. ID: उपसमिति ID

.....

घर ID ¹⁸	घरमुलीको नाम	टोल		१	२	३	कैफियत
		नाम	ID ¹⁹				

¹⁸ Household code: District id – VDC id – subcommittee id – cluster id – **household id (001)**

¹⁹ Code for cluster area with shared water supply systems (Each household information should represent with the same clusters for different analysis): District id – VDC id – subcommittee id – cluster id (01)

बिद्यमान पानीका श्रोतहरुको जानकारी

जिल्ला ID: गा.वि.स. ID: उपसमिति ID
.....

श्रोत ID ¹	श्रोतको नाम (मुल,कुवा,नाउला,पँधेरो, खोल्सी,खोला,कुलो,नहर पोखरी,ताल,हिमक्षेत्र)	श्रोतको अवस्थिती			हाल श्रोतको प्रयोग			स्वामित्व (सार्वजनिक वा ब्यक्तिगत)
		जिल्ला ID	गा.वि.स. ID	वडा नं.	योजना भए		ब्यवस्थित योजना बिना प्रयोग	
					योजनाको किसिम	योजनाको ID		

¹ Code for spring sources, spring fed stream sources and snow fed stream sources:

Wealth Ranking Detail Sheet

VDC:

District:

WRMSC No.:

Ward No.:

Date:

HH no.	Name of HH head	Tole/Cluster	W	M	L	HH no.	Name of HH head	Tole/Cluster	W	M	L
1						41					
2						42					
3						43					
4						44					
5						45					
6						46					
7						47					
8						48					
9						49					
10						50					
11						51					
12						52					
13						53					
14						54					
15						55					
16						56					
17						57					
18						58					
19						59					
20						60					
21						61					
22						62					
23						63					
24						64					
25						65					
26						66					
27						67					
28						68					
29						69					
30						70					
31						71					
32						72					
33						73					
34						74					
35						75					
36						76					
37						77					
38						78					
39						79					
40						80					

Note : W : Well (a) , M : Medium (b) , L: Low (c)

Wealth Ranking Summary Sheet

VDC:

District:

WRMSC No.:

Ward No.:

Covered Tole/Cluster:

Ranking	HHs No.	Total no. of HH	Indicators
Well			
Medium			
Low			
	Total HH		

Note : W : Well (a) , M : Medium (b) , L: Low (c)

VDC level Wealth Ranking Summary Sheet

VDC:

District:

Ranking	WRMSC									Total	Indicators			
	1	2	3	4	5	6	7	8	9					
Well														
Medium														
Low														
Total														

Note : W : Well (a) , M : Medium (b) , L: Low (c)

ANNEX 2

Training Content

गा.वि.स.स्तरको अनुशिक्षण भेला

सि.नं	विषय	प्रक्रिया
१	रजिष्ट्रेसन	हाजिरी रजिष्टरमा दर्ता गर्ने
२	स्वागत,परिचय	मन्तव्य
३	उद्देश्य	न्यूज प्रिण्ट पेपरमा लेखेर टाँस्ने
४	श्रोत संस्थाको कार्यक्रमबारे जानकारी	वाख्यान गर्ने, ब्रोसर वितरण गर्ने ।
५	एकिकृत जलश्रोत व्यवस्थापन कार्यक्रमको कुर्ची अवधारणा	ठुलो पोष्टर देखाइ वाख्यान गर्ने ।
६	जलउपयोग गुरुयोजनावारे परिचय	वाख्यान (केहो, किन बनाउने, बनाउँदा के के गर्नु पर्छ ?)
७	जलउपयोग गुरुयोजना तयारीको खुड्किले निति	कपडाको पोष्टर देखाइ वाख्यान एवं ट्याण्ड आउट वितरण
८	जलश्रोत व्यवस्थापन उप समिति, मूल समिति, र सल्लाहकार समितिहरूको आवश्यकता र गठन प्रक्रिया वारे जानकारी ।	वाख्यान, ट्याण्ड आउट वितरण
९	छलफलबाट क्लस्टर वा टोलको बसाई तथा धबतभचकजभम अनुसार जलश्रोत व्यवस्थापन उपसमितिको भौगोलिक सिमाना छुट्याउने ।	व्यख्या गरेर प्रष्ट गर्ने तथा छलफलबाट सिमाना तोक्ने ।
१०	गुरुयोजना निर्माणमा गा.वि.स.एवं जलश्रोत व्यवस्थापन उप समिति, मूल समिति र सल्लाहकार समितिको भूमिका	वाख्यान, ट्याण्ड आउट वितरण
११	कार्ययोजना निर्माणः <ul style="list-style-type: none"> ● अगुवा व्यक्तिहरूको सहयोगमा वडा वा टोल स्तरको भेलार अनुशिक्षण गर्नका लागि कार्ययोजना बनाउने । ● महिला तथा दलितको आत्म विस्वास अन्तरकृया वारे सामान्य जानकारी एवं गोष्ठीकाका लागि कार्ययोजना तथा छनौट प्रक्रिया ● जलश्रोत व्यवस्थापन उपसमिति गठनका लागि कार्ययोजना बनाउने । 	लैंगिक तथा सामाजिक समावेशीकरणको निति प्रष्ट पार्ने
१२	समापन	सहभागी एवं श्रोत व्यक्ति

वार्ड तथा कलस्टर स्तरको अनुशिक्षण भेला

सि.नं	विषय	प्रक्रिया
१	रजिष्ट्रेसन	हाजिरी रजिष्टरमा दर्ता गर्ने
२	स्वागत, परिचय	मन्तव्य
३	उद्देश्य	न्यूज प्रिण्ट पेपरमा लेखेर टाँस्ने
४	श्रोत संस्थाको कार्यक्रमबारे जानकारी	वाख्यान गर्ने, ब्रोसर वितरण गर्ने ।
५	एकिकृत जलश्रोत व्यवस्थापन कार्यक्रमको कुर्ची अवधारणा	ठुलो पोष्टर देखाइ वाख्यान गर्ने ।
६	जलउपयोग गुरुयोजनाबारे परिचय	वाख्यान (केहो, किन बनाउने, बनाउँदा के के गर्नु पर्छ ?)
७	जलउपयोग गुरुयोजना तयारीको खुड्किले निति	कपडाको पोष्टर देखाइ वाख्यान एवं ह्याण्ड आउट वितरण
८	जलश्रोत व्यवस्थापन उप समिति, मूल समिति, र सल्लाहकार समितिहरूको आवश्यकता र गठन प्रक्रिया बारे जानकारी ।	वाख्यान, ह्याण्ड आउट वितरण
१०	गुरुयोजना निर्माणमा गा.वि.स.एवं जलश्रोत व्यवस्थापन उप समिति, मूल समिति र सल्लाहकार समितिको भूमिका	वाख्यान, ह्याण्ड आउट वितरण
११	कार्ययोजना निर्माणः <ul style="list-style-type: none"> ● महिला तथा दलितको आत्म विस्वास अन्तरकृया बारे सामान्य जानकारी एवं गोष्ठीकाका लागि कार्ययोजना तथा छनौट प्रक्रिया ● जलश्रोत व्यवस्थापन उपसमिति गठनका लागि कार्ययोजना बनाउने । 	लैंगिक तथा सामाजिक समावेशीकरणको निति प्रष्ट पार्ने
१२	समापन	सहभागी एवं श्रोत व्यक्ति

जलश्रोत व्यवस्थापन कार्यमा दलितको प्रभावकारी सहभागीता :
 आत्मविश्वास अभिवृद्धि गोष्ठी
 अवधि : दुई दिन

विषयवस्तु

- श्रोत संस्थाको कार्यक्रमबारे परिचय
- दलितको दृष्टिकोण वाट हाम्रो समाजको अवस्था
- विकास र सामाजिक कार्यमा दलित पछाडी पर्नुका कारणहरु
- छुवाछुत र दलित सम्बन्धि कानुनी अधिकारहरु
- समानता प्राप्त गर्न चाल्नुपर्ने र लिनुपर्ने नितिहरु/कार्यहरु
- जल उपयोग गुरु योजना निर्माणको खुड्किले निति
- जल उपयोग गुरु योजना निर्माणमा समुदायको सहभागिता : आवश्यकता र महत्व
- गा.वि.स. र समुदाय स्तरमा निर्माण गरिने समितिहरु र तिनको गठन प्रक्रिया
- जलश्रोतमा पहुँच र व्यवस्थापन कार्यमा दलितको सहभागिता : आवश्यकता र महत्व
- समितिहरुमा दलितको सहभागीता र निर्णय प्रक्रियामा भूमिका
- पारस्परिक एकता र आत्म विश्वासको विकास
- दलितको जलश्रोत व्यवस्थापनमा सहभागिता वृद्धिको लागि कार्ययोजना

जलश्रोत व्यवस्थापन कार्यमा महिलाको प्रभावकारी सहभागिता
आत्मविश्वास अभिवृद्धि गोष्ठी
अवधि : दुई दिन

विषयवस्तु

- श्रोत संस्थाको कार्यक्रमबारे परिचय
- महिलाको दृष्टिकोणबाट हाम्रो समाजको अवस्था
- विकास र सामाजिक कार्यमा महिला पछाडी पर्नुका कारणहरु
- महिलाको मौलिक तथा कानुनी अधिकारहरु
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- महिलाको जलश्रोत व्यवस्थापनमा सहभागिता वृद्धिको लागि कार्ययोजना

जलश्रोत व्यवस्थापन कार्यमा दलितको प्रभावकारी सहभागीता :
 आत्मविश्वास अभिवृद्धि गोष्ठी
 अवधि : दुई दिन

विषयवस्तु

- श्रोत संस्थाको कार्यक्रमबारे परिचय
- दलितको दृष्टिकोण वाट हाम्रो समाजको अवस्था
- विकास र सामाजिक कार्यमा दलित पछाडी पर्नुका कारणहरु
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- जलश्रोतमा पहुँच र व्यवस्थापन कार्यमा दलितको सहभागिता : आवश्यकता र महत्व
- समितिहरुमा दलितको सहभागीता र निर्णय प्रक्रियामा भूमिका
- पारस्परिक एकता र आत्म विश्वासको विकास
- दलितको जलश्रोत व्यवस्थापनमा सहभागिता वृद्धिको लागि कार्ययोजना

जलश्रोत व्यवस्थापन कार्यमा महिलाको प्रभावकारी सहभागिता
आत्मविश्वास अभिवृद्धि गोष्ठी
अवधि : दुई दिन

विषयवस्तु

- श्रोत संस्थाको कार्यक्रमबारे परिचय
- महिलाको दृष्टिकोणबाट हाम्रो समाजको अवस्था
- विकास र सामाजिक कार्यमा महिला पछाडी पर्नुका कारणहरु
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- जल उपयोग गुरु योजना निर्माणको खुड्किले निति
- जल उपयोग गुरु योजना निर्माणमा समूदायको सहभागिता : आवश्यकता र महत्व
- गा.वि.स. र समूदाय स्तरमा निर्माण गरिने समितिहरु र तिनको गठन प्रक्रिया
- जलश्रोतमा पहुँच र व्यवस्थापन कार्यमा महिलाको सहभागिता : आवश्यकता र महत्व
- समितिहरुमा महिलाको सहभागीता र निर्णय प्रक्रियामा भूमिका
- पारस्परिक एकता र आत्म विश्वासको विकास
- महिलाको जलश्रोत व्यवस्थापनमा सहभागिता वृद्धिको लागि कार्ययोजना

Session Plan for Capacity Building Training (CBT)

SN	SESSION - 1	SESSION - 2	SESSION - 3	SESSION - 4
1	<ul style="list-style-type: none"> • Opening & Welcome • Introduction • Setting Ground Rules • Expectation Collection 	<ul style="list-style-type: none"> • Introduction of Resource organization. • IWRM Concept & Approach 	<ul style="list-style-type: none"> • WARM Chair • Water Use Master Plan • WUMP preparation Flow Chart 	<ul style="list-style-type: none"> • Experience of Master Plan • Role & Responsibility of WRMC, WRMSC & Advisory Committee
2	<ul style="list-style-type: none"> • Review of day – 1 • Development Concept 	<ul style="list-style-type: none"> • Concept of Community Organisation • Role of CO in Community Development 	<ul style="list-style-type: none"> • Leader, Leadership • Meeting procedure 	<ul style="list-style-type: none"> • Motivation • Community Participation • Communication
3	<ul style="list-style-type: none"> • Review of day - 2 • Decentralisation & Self Governance Act 	<ul style="list-style-type: none"> • Water Resources Act • VDC Act • VDC Planning Process 	<ul style="list-style-type: none"> • Local Resources Identification and Mobilisation • . 	<ul style="list-style-type: none"> • <u>PRA</u>: --Wealth Ranking, -- Seasonal Calendar -- Social Mapping
4	<ul style="list-style-type: none"> • Review of day - 3 • <u>PRA</u>: --Wealth Ranking, -- Seasonal Calendar -- Practice of Social mapping 	<ul style="list-style-type: none"> • Need Identification • Source yield measurement 	<ul style="list-style-type: none"> • Participatory Planning and Implementation • Prioritization process (based on hardship score) 	<ul style="list-style-type: none"> • Conflict Management • Gender and Social inclusion.
5	<ul style="list-style-type: none"> • Review of day – 4 • Health Education & Sanitation • Water born disease 	<ul style="list-style-type: none"> • Toilet • Prevention of waterborne disease. 	<ul style="list-style-type: none"> • HIV AIDS • Action Plan 	<ul style="list-style-type: none"> • Feedback • Evaluation • Closing

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Details:

Session Plan for Capacity Building Training (CBT)

SN	SESSION - 1	SESSION - 2	SESSION - 3	SESSION - 4
1	<ul style="list-style-type: none"> • Opening & Welcome • Introduction • Setting Ground Rules • Expectation Collection 	<ul style="list-style-type: none"> • Introduction of WARM-P, Helvetas and RVWARM-P, FINNIDA. 	<ul style="list-style-type: none"> • WARM Concept & Approach • WARM Chair • WUMP preparation Flow Chart 	<ul style="list-style-type: none"> • Water Use Master Plan • WUMP & Co-ord. Wsp. • WARM Experience
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	•	•	•	•
	•	•	•	•
	•	•	•	•
2	<ul style="list-style-type: none"> • Review of day – 1 • Role & Responsibility of WRMC & WRMSC 	<ul style="list-style-type: none"> • Development Concept • Concept of Comm. Organisation 	<ul style="list-style-type: none"> • Role of CO in Community Development • Community Participation 	<ul style="list-style-type: none"> • Communication • Motivation
	•	•	•	•
	•	•	•	•
	•	•	•	•
	•	•	•	•
3	<ul style="list-style-type: none"> • Review of day - 2 • Decentralisation & Self Governance Act 	<ul style="list-style-type: none"> • Local Resources Identification and Mobilisation 	<ul style="list-style-type: none"> • Decentralisation & Self Governance • Leader, Leadership style 	<ul style="list-style-type: none"> • Water Resources Act • VDC Act • VDC Planning Process

			<ul style="list-style-type: none"> • Meeting procedure. 	
	•	•	•	•
	•	•	•	•
	•	•	•	•
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4	<ul style="list-style-type: none"> • Review of day - 3 • <u>PRA</u>: <ul style="list-style-type: none"> --Wealth Ranking, -- Seasonal Calendar -- Social Mapping 	<ul style="list-style-type: none"> • Practice of Social mapping • Source yield measurement • Need Identification & Prioritisation 	<ul style="list-style-type: none"> • Participatory Planning and Implementation • Conflict Management 	<ul style="list-style-type: none"> • Gender and Social inclusion. •
	•	•	•	•
	•	•	•	•
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	•	•	•	•
5	<ul style="list-style-type: none"> • Review of day – 4 • Health & Sanitation <ul style="list-style-type: none"> -Introduction and importance 	<ul style="list-style-type: none"> • Water born disease • HIV AIDS 	<ul style="list-style-type: none"> • Action Plan • Feedback • Evaluation 	<ul style="list-style-type: none"> • Closing
	•	•	•	•
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Session Plan for Capacity Building Training (CBT) to WRMSC

SN	SESSION - 1	SESSION - 2	SESSION - 3	SESSION - 4
1	<ul style="list-style-type: none"> • Opening & Welcome • Introduction • Setting Ground Rules • Expectation Collection 	<ul style="list-style-type: none"> • Introduction of Resource organization. • IWRM Concept & Approach 	<ul style="list-style-type: none"> • WUMP preparation Flow Chart • Role & Responsibility of WRMC ,WRMSC & Advisory panel. 	<ul style="list-style-type: none"> • Concept of Comm. Organisation • Meeting Process • Communication
2	<ul style="list-style-type: none"> • Review of day – 2 • Concept of water shed. • <u>PRA</u>: --Wealth Ranking, -- Social /Resource mapping • Decentralisation & Self Governance 	<ul style="list-style-type: none"> • Water Resources Act • Need Identification & Prioritisation • Participatory Planning and Implementation • 	<ul style="list-style-type: none"> • Source yield measurement • Local Resources Identification and Mobilisation • Gender and Social inclusion. 	<ul style="list-style-type: none"> • Health Education& Sanitation • Water born disease • Toilet • HIV/AIDS • Action plan

Pre-WUMP Workshop

S.N	Subject	Process	Responsible
1	Name/Organization Registration		
2	Chairing the workshop Introduction	participatory	DDC chairperson
3	Welcome to the participants, objective of the workshop	Presentation	WRMC, SO
4	Presentation <ul style="list-style-type: none"> - Water Use Master Plan (WUMP), IWRMP approach (WARM-Chair.) - WUMP Preparation Step by step in detail 	Presentation with posters, Hand out	Resource organization
5	Presentation from WRMCs (what they have done till now and their future tentative plan)	presentation	WRMC
6	Presentation from Resource Organizations within district <ul style="list-style-type: none"> - Working modality. - Future plan on water related activities in concern VDCs 	Presentation	Line agencies
7	Closing		Chairperson

WATER USE MASTER PLAN PLANNING WORKSHOP

DAY-1

S.N	ACTIVITIES	METHODOLOGY/REMARKS
1	Welcome to participants	Welcome speech from WRMC Chairperson/Coordinator.
2	Introduction of participants	Use some ice breaking exercise
3	Workshop Objectives	Facilitator will highlight on the objectives
4	IWRM Concept, Philosophy (Chair)	WARM-Chair
5	Steps done so far (before WUMP)	Explain WARM steps, Briefing on previous steps completed
6	Sharing of Success WUMP VDC experiences	Any one VDC (Bajhung, Chhatiwan, Nirauli, Goganpani).
7	Review on basic principle or basis of project selection and prorotization criteria.	Display in board or brown papper of project selection and prirotization criteria.
8	Discussion on Need identification Projects.	Compile list and verified.
9	8. Discussion on Planned projects by WRMSCs.	Compile list and verified.

DAY-2

S.N	ACTIVITIES	METHODOLOGY/REMARKS
1	Review of previous day, for clarity	Ask questions if there are to be clarified
2	Presentation of Social Assessment findings contd.....	Correction and recommedetion of SA findings .
3	Presentation of Technical Assessment findings contd.....	Presentation of Technical Assessment findings contd.....
4	Presentation of Technical Assessment findings contd.....	Presentation of Technical Assessment findings contd.....
5	Identification of potential collaborators	Listing out of existing resources and potential collaborators in the district
6	Prioritization of the activities of SA/TA	Team will explain the process and TC will compile the findings, if any

DAY-3

TIME	ACTIVITIES	METHODOLOGY/REMARKS
1	Review on DAY-2 agenda for clarity.	Review works, if any
2	Five Year Plan	Make clusterwise groups and let them to prioritise all the activities identified. A big group exercise will be done for VDC level prioritization for 5 years. Let them keep the criteria while prioritising. Use the form for Five Year Plan.
3	Five Year Plan (Continued)
4	One year detail plan	They are re-prioritised in big group for one year. Let them note the criteria while prioritising. Use the form of One Year Plan. Any facilitator compile the
5	Follow Up Action Plan	WRMC together with WARM-P will prepare the Follow Up Action Plan
6	Closing	Speech from WRMC Chp and WARM-P staff

Post-WUMP Workshop

S.N	Subject	Process	Responsible
1	Name/Organization Registration		
2	Chairing the workshop Introduction	participatory	DDC chairperson
3	Welcome to the participants, objective of the workshop	Presentation	WRMC, SO
4	Review Presentation <ul style="list-style-type: none"> - Water Use Master Plan (WUMP), - IWRMP approach (WARM-Chair.) - WUMP Preparation Step by step in detail 	Presentation with posters, Hand out	Resource organization
5	WUMP Presentation from WRMCs <ul style="list-style-type: none"> - Salient features of WUMP report - Five year plan and one year detail plan - Distribution of WUMP report 	Presentation WUMP Final Report Chart & Graphs	WRMC, VDC, SO
6	Presentation from Resource Organizations within district <ul style="list-style-type: none"> - Working modality - Future plan on water related activities in concern VDCs - Commitment 	Presentation	Line agencies
7	Closing		Chairperson

जलश्रोत व्यवस्थापन कार्यक्रम, हेल्भेटास, नेपाल

संयोजकको भूमिका तथा जिम्मेवारी

- आफ्नो कार्य क्षेत्रको नियमित भ्रमण गर्ने र आफ्नो उत्प्रेरक तथा जलश्रोत व्यवस्थापन कार्यक्रमको सामुदायिक सहजकर्ताहरूको कामहरू निरीक्षण गर्नुका साथै आवश्यक उत्प्रेरणा दिने
- फिल्डमा कार्यरत कार्यकर्ताहरूको प्रतिवेदन संकलन गरी प्रगति प्रतिवेदन तयार गरी नियमित रूपमा जलश्रोत व्यवस्थापन कार्यक्रमको कार्यालयमा पेश गर्ने
- फिल्ड स्टाफसंग छलफल गरी नियमित रूपमा मासिक कार्य योजना तयार गरी एक प्रति ज. व्य. का. को कार्यालयमा पठाउने
- आफू वा प्रतिनिधि जलश्रोत व्यवस्थापनको कार्यालयमा हुने लन्ड्र बैठकमा नियमित रूपमा सहभागि हुने
- फिल्ड स्टाफहरूले फिल्डमा विताएको अवधि र भ्रमण दिनहरूको अभिलेख नियमित रूपमा दुरुष्ट राख्ने
- कार्यक्रमको हरेक खुड्किलाहरूमा समुदायमा आफ्नो भन्ने भावनाको विकास, सरसफाईमा देखिएको परिवर्तन, महिला सहभागिताका साथै समुदाय व्यवस्थापनमा भएका उपलब्धि, सबलीकरणका प्रक्रिया, घर नजिकै खानेपानी उपलब्ध भएको कारण वचत भएको समयको सदुपयोग र अन्य चाखलाग्दा कुराहरू समावेश गरी तयार पारिएको अन्तिम प्रतिवेदन कार्यालयमा पेश गर्ने
- व्यवस्थित हिसाव कितावका साथै ठीक ठीक समयमा प्रतिवेदन पेश गर्ने
- फिल्ड स्टाफहरूबाट समुदायमा उत्प्रेरणाको कमी देखिएमा सो कामको पनि जिम्मेवारी लिने
- आफ्नो कार्यक्षेत्रमा हेल्भेटासका अन्य कार्यक्रम संचालित छन् भने राम्रो समन्वय कायम गरी अनुभवको आदान प्रदान गर्ने
- जलश्रोत व्यवस्थापन कार्यक्रमको आचार संहिता कडाईका साथ पालना गर्ने
- आफ्नो गैर सरकारी संस्थाका नीति तथा नियमहरूको पालना गर्ने

जलश्रोत व्यवस्थापन कार्यक्रम, हेल्भेटास, नेपाल

समुदाय उत्प्रेरकको भूमिका तथा जिम्मेवारी

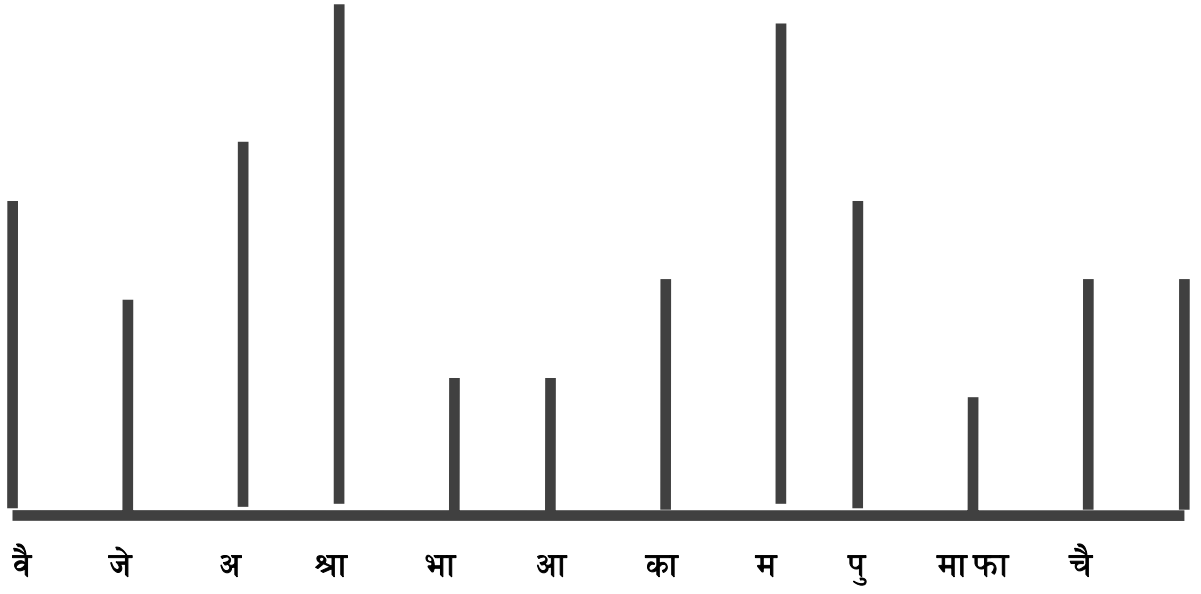
- जलश्रोत व्यवस्थापन कार्यक्रम हेल्भेटासबाट सहयोग हुने खानेपानी तथा सरसफाई कार्यक्रमको पूर्व तयारी, कार्यान्वयन तथा मर्मत संभार चरणको जिम्मेवारी लिने जसले गर्दा आवश्यक सबै शर्तहरू पुरा हुनुको साथै कार्यक्रममा महिला लगायत उपभोक्ताहरूको अधिकतम सहभागिता रहोस्
- कार्यक्रमका वारेमा पारदर्शिता कायम गर्नुका साथै खानेपानी तथा सरसफाई व्यवस्थापन समितिलाई पनि हरेक परिस्थितिमा सो कायम गर्न सहयोग गर्ने
- खानेपानी तथा सरसफाई व्यवस्थापन समितिलाई आफ्नो भूमिका तथा जिम्मेवारीका वारेमा सचेत गराउने
- जलश्रोत व्यवस्थापन कार्यक्रम तर्फको सामुदायिक सहजकर्ताको सहयोगमा खानेपानी तथा सरसफाई व्यवस्थापन समितिको तालिममा श्रोत व्यक्तिको रूपमा काम गर्ने
- पानी उपभोक्ताहरूलाई खासगरी चर्पी निर्माण र प्रयोगमा जोड दिई सरसफाईका अन्य पक्ष जस्तै व्यक्तिगत सरसफाई, घरेलु सरसफाई र वातावरणीय सरसफाईका लागि उत्प्रेरित गर्ने
- कार्यक्षेत्रमा विताईएका दिन तथा भ्रमण दिनहरूको दुरुस्त रेकर्ड राख्ने (फिल्ड कार्य तथा अफिस कार्यहरूको अभिलेखका लागि छुट्टै पुस्तिका प्रयोग गर्ने)
- खानेपानी तथा सरसफाई व्यवस्थापन समितिको गठन, ग्रामीण मर्मत कार्यकर्ता र महिला धारा संभार कार्यकर्ताको छनोट गर्दा समुदायलाई सहयोग दिने
- कार्यक्रमको हरेक चरणमा खासगरी निर्णय प्रक्रियाहरूमा महिला तथा उपेक्षित समुदायलाई समावेश गराउने
- आफ्नो फिल्डको कार्य योजना तथा प्रतिवेदन समय मै संयोजक समक्ष पेश गर्ने
- आफ्नो कार्यक्षेत्रमा हेल्भेटासका अन्य कार्यक्रम संचालित छन् भने राम्रो समन्वय कायम गरी अनुभवको आदान प्रदान गर्ने
- जलश्रोत व्यवस्थापन कार्यक्रमको आचार संहिता कडाईका साथ पालना गर्ने
- आफ्नो गैर सरकारी संस्थाका नीति तथा नियमहरूको पालना गर्ने

ANNEX 3

**Sample
(Social map, Seasonal calendar etc.)**

नमूना मौसमी पात्रो

महिना अनुसार कामको व्यस्तता (महिला र पुरुषको अलग अलग बनाउने)



सामाजिक श्रोत नक्शा बनाउंदा प्रयोग गरिने रंग सामग्री र संकेत

SA-sample-2

विवरण	जमीनका लागि रंग र सामग्री	संकेत	कागजमा उतार्दा प्रयोग गर्ने रंग र विधि
सिमाना	सेतो चुना वा खरानी		कालो मार्करले कोर्ने
वाटो, गोरेटो	”		कालो साइनपेनले लाइन कोर्ने
पुल	”		कालो साइनपेनले पूलको आकार बनाउने
मन्दिर	पहेँलो चुना		मंदिरको चित्रमा पहेँलो रंग लगाउने
घर	साना ढुंगा		घरको चित्र बनाउने
चर्पी भएको घर	ढुंगामा रातो रंग		घरको छेउमा चर्पीको चित्र बनाउने
पानी घट्ट	पहेँलो रंगले घट्टको चित्र कोर्ने		घट्टको चित्रमा पहेँलो रंग लगाउने
ढुंगा खानी	ससाना ढुंगाको थुप्रो राख्ने		ढुंगाको थुप्रोको चित्र बनाउने
पानीको मुल	नीलो चूनाले गोल बनाउने		गोल आकारको चित्रमा निलो रंग लगाउने
सरकारी भवन	पहेँलो चूनाले ठूलो घरको चित्र बनाउने		भवनको चित्रमा पहेँलो रंग लगाउने
विद्यालय	पहेँलो चुनाले ३ कोठे घर बनाउने		विद्यालयको चित्रमा पहेँलो रंग लगाउने
खेत	पराल, छत्राली		वायांको चित्र जस्तै हरियो रंगले बनाउने
जंगल	स्याउला, हांगा		हरियो रंगले वायांको चित्र जस्तै बनाउने

सामाजिक नक्शा तयार गर्दा आवश्यक पर्ने सामग्रीहरूको सूची

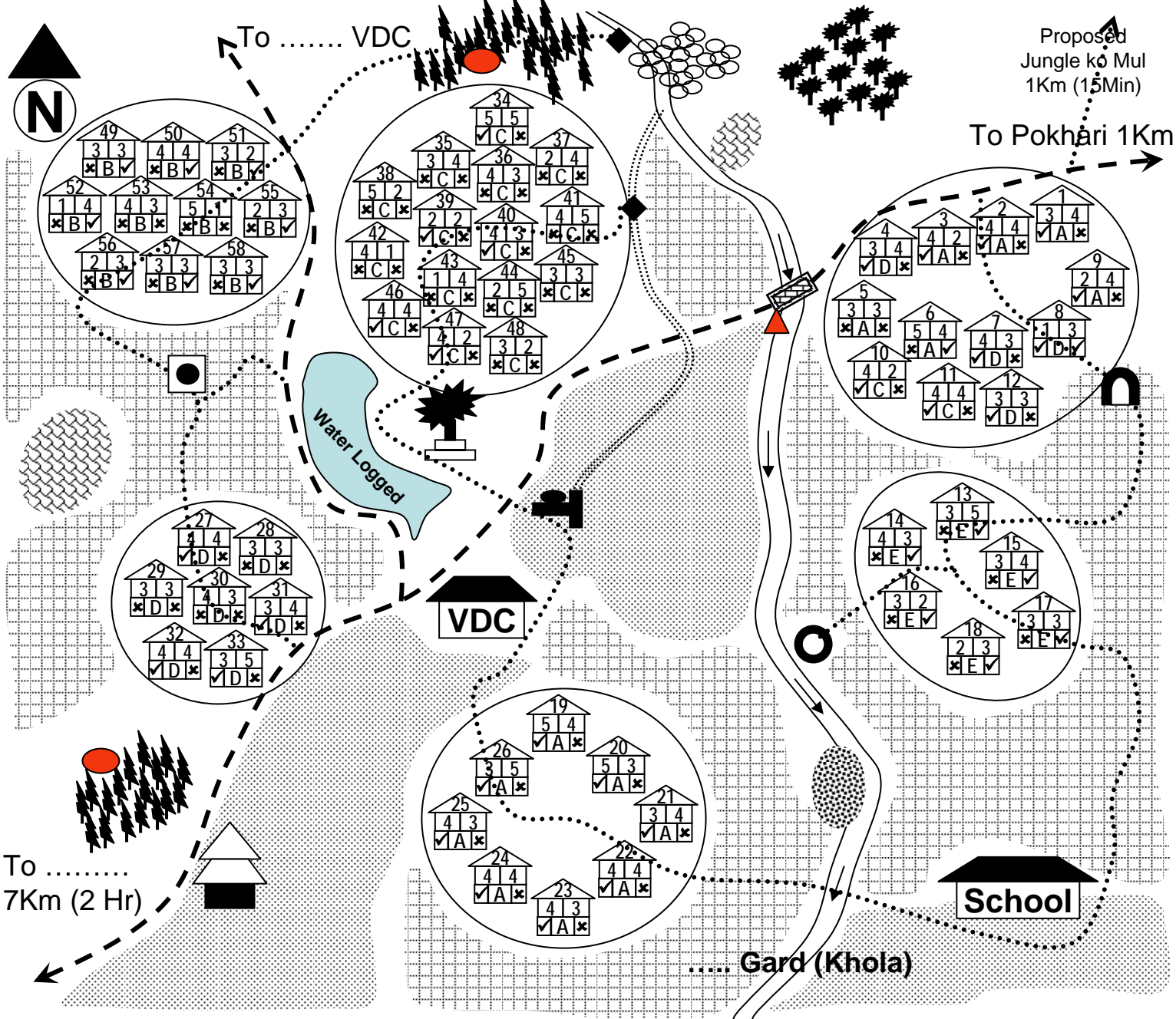
- खरानी वा चुन्ना सेतो, पहेँलो, रातो, निलो रंगको धुलो
- ब्राउन पेपर
- विभिन्न रंगका साइनपेनहरू
- विभिन्न रंगका मार्कर पेनहरू
- विभिन्न रंगका कार्डवोर्ड पेपरका टुक्राहरू
- रंगिन चकहरू
- पेन्सिल, इरेजर, पेन्सिल शार्पेनर
- रूलर, कैंची
- हाजिरी रजिस्टर
- दरी वा उपयुक्त कपडा

Legend

- Main Track
- River/stream
- Pub. Buildings
- Chautaro
- Temple
- Bridge/Culvert
- Kulo/Canel
- Dhunge Dhara
- Mul/Jaruwa
- Kuwa/Naulo
- Inar/Dug well
- Water Point
- Footway
- Land Slides
- Sand Query
- Stone Query
- Jungle/Bush
- Households
- Public Ground
- Cultivated Land
- Open Defecation
- Waste Disposal

Notes:
 N – HH Number
 F – Female Pop
 M – Male Pop
 T – HH Toilet
 C – Caste
 P – Poor HH

Caste Category: A – Dalit, B – Janajati, C – Other



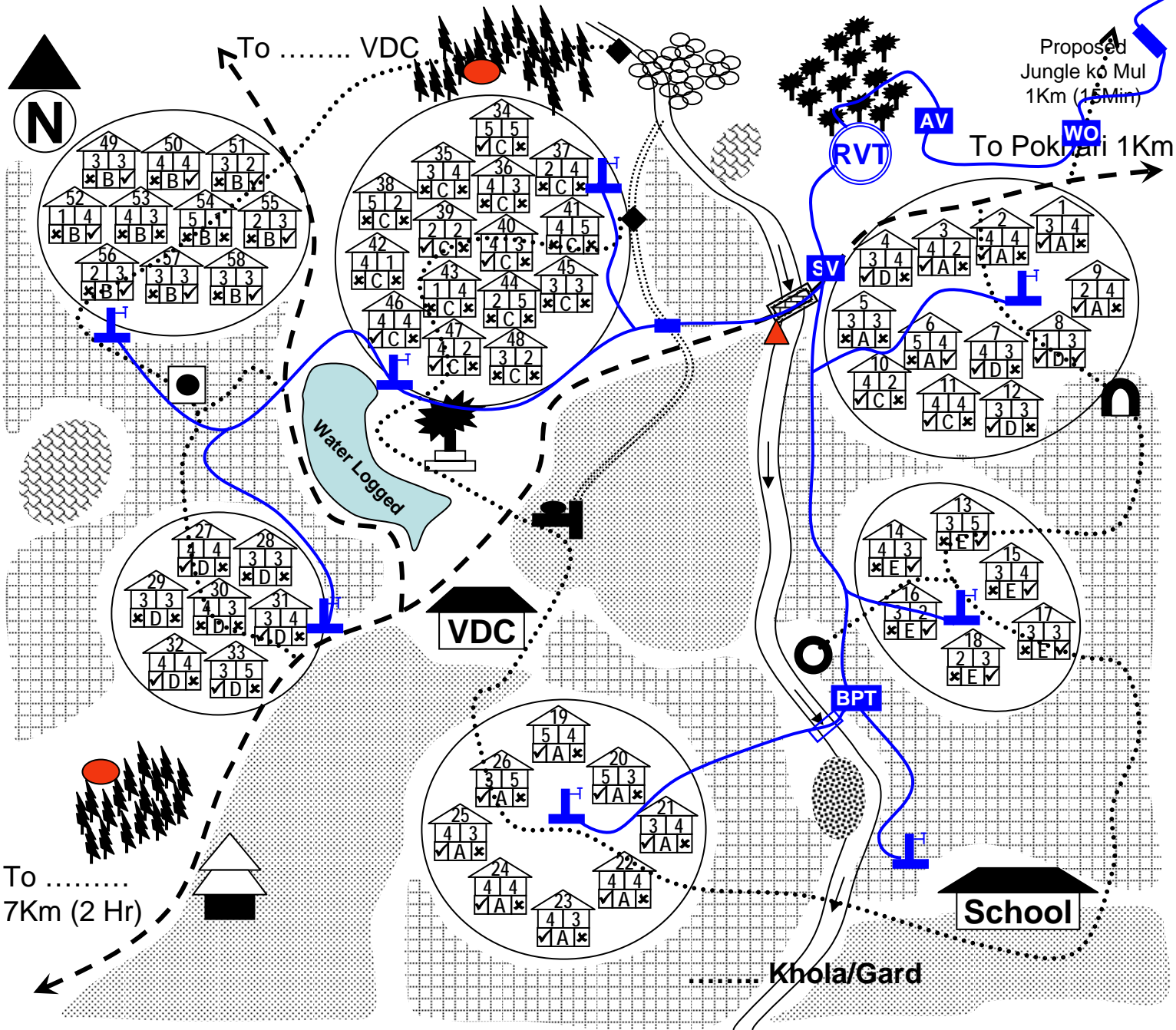
Community Map of Water Supply and Sanitation Scheme

Legend

- Main Track
- River/stream
- Pub. Buildings
- Chautaro
- Temple
- Bridge/Culvert
- Kulo/Canel
- Dhunge Dhara
- Mul/Jaruwa
- Kuwa/Pandera
- Inar/Dug well
- Water Point
- Footway
- Land Slides
- Sand Query
- Stone Query
- Jungle/Bush
- Households
- Public Ground
- Cultivated Land
- Open Defecation
- Waste Disposal

Notes:
 N – HH Number
 F – Female Pop
 M – Male Pop
 T – HH Toilet
 C – LSI Cat (Caste)
 P – Poor HH

Caste Category: A – Dalit, B - Janajati, C – Other



Community Map of W/S scheme

Legend

Tap Standpost 

Valve Chamber 

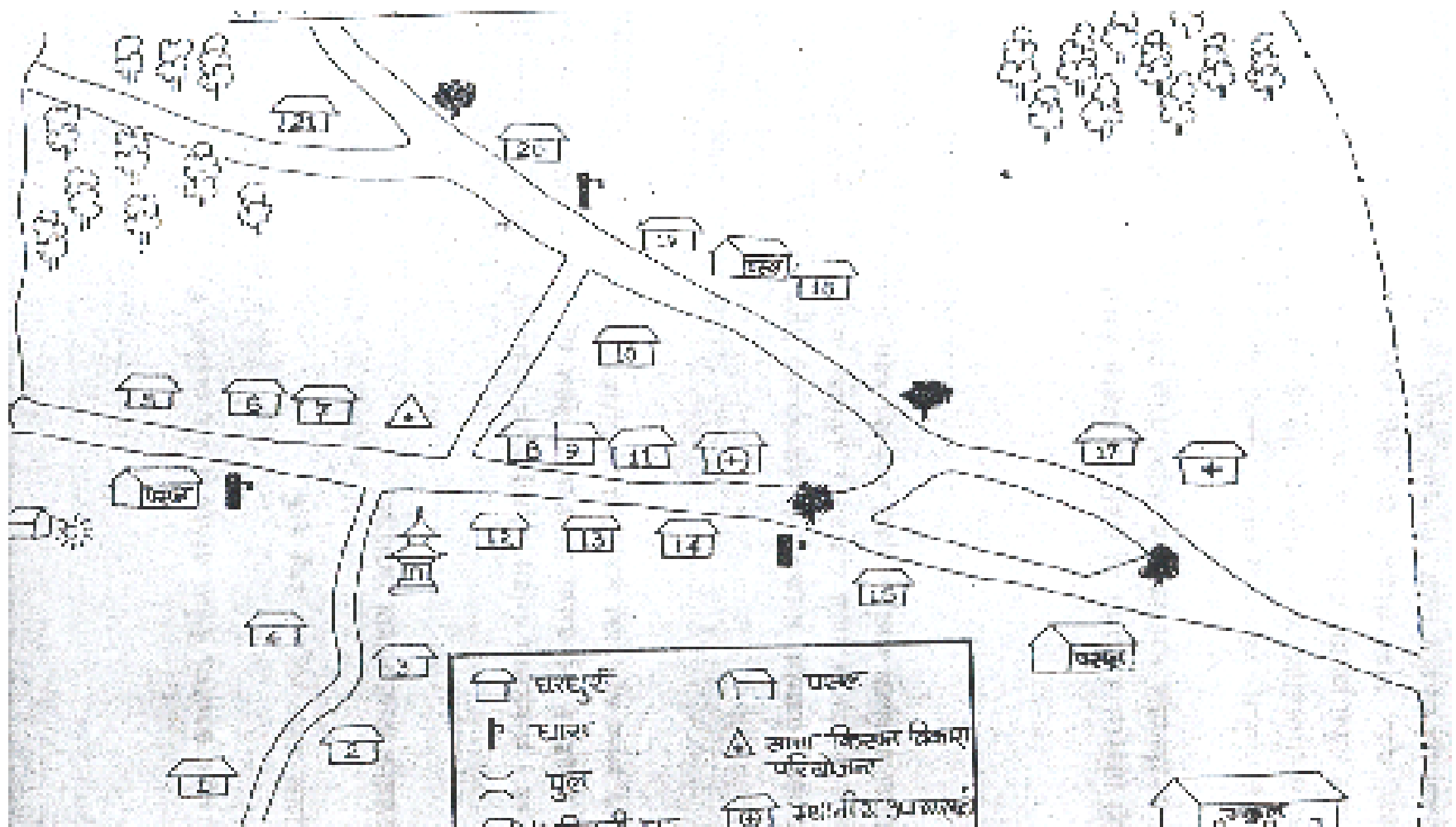
GI Crossings 

Cable Crossing 

Note:
-All Dimension in Mtr
-Not in Scale.

Layout Plan of W/S Scheme

सामाजिक/श्रोत नक्शाको नमुना



ANNEX 4

Instructions for Technical Assessment

Instructions for Technical assessment

1. Database Development IDs and Codes

A database process will be developed for data entry, retrieval, processing, dissemination and mapping. Attention will be given to produce practical data entry forms, updating and compatibility with various report production needs as well as mapping using standard codes and each information's shall have links all from disaggregated forms. A standard database will be produced.

IDs and Codes

I. WATER SOURCES (SPRING, SPRING-FED STREAM & SNOW-FED STREAM):

Apply codes and ID by location of sources

ID: Start from 01 and use continuous numbers for one sub-committee. Again start from 01 in next sub-committee. Make these IDs in the field

Example: District id = 60, VDC id = 0032, Subcommittee id = 05,
Ward id = 04, Water sources id = 08

Sub-committee id for other VDCs who do not have such sub-committee area, will have this id as 00.

Codes: District id - VDC id - Subcommittee id - Ward id - Water sources id

Example: 600032050408 (Enter this code during database entry)

II. WATER BODIES (PONDS, LAKES, PERMANENT SNOW AREA, ETC):

Apply codes by location of sources

ID: Start from 01 and use continuous numbers for one sub-committee. Again start from 01 in next sub-committee. Make these IDs in the field

Example: District id = 60, VDC id = 0032, Subcommittee id = 05
Ward id = 04, Water bodies id = 12

Sub-committee id for other VDCs who do not have such sub-committee area, will have this id as 00.

Codes: District id - VDC id - Subcommittee id - Ward id - Water bodies id

Example: 600032050412 (Enter this code during database entry)

III. STREAMS (FLOW MEASUREMENT POINTS AT POTENTIAL PROJECT SITES, SIGNIFICANT CHANGE IN DISCHARGE, JUNCTION OF STREAMS, OUTLET POUR POINT (LOWEST POINT OF VDC))

Apply codes by location of sources

ID: Start from 01 and use continuous numbers for one sub-committee. Again start from 01 in next sub-committee. Make these IDs in the field

Example: District id = 60, VDC id = 0032, Subcommittee id = 05
Ward id = 04, Stream points id = 15

Sub-committee id for other VDCs who do not have such sub-committee area, will have this id as 00.

Codes: District id - VDC id - Subcommittee id - Ward id –Stream points id

Example: 600032050415 (Enter this code during database entry)

IV. EXISTING WATER PROJECTS / WATER USAGE

Based on GPS surveys, map the existing individual schemes (water supply, irrigation and micro-hydro, traditional water mills, turbine mills, etc). Use the following codes.

ID:

Existing Water supply scheme, start from **EW01** and use continuous numbers for one sub-committee.

Existing irrigation scheme, start from **EI01** and use continuous numbers for one sub-committee.

Existing hydropower scheme, start from **EH01** and use continuous numbers for one sub-committee.

Existing multiple use systems application (MUSA) scheme, start from **EM01** and use continuous numbers for one sub-committee.

Existing other scheme, start from **EO01** and use continuous numbers for one sub-committee.

Again start from 01 in next sub-committee. Make these IDs in the field

Code:

District id – VDC id – subcommittee id – existing water supply scheme id

District id – VDC id – subcommittee id – existing irrigation scheme id

District id – VDC id – subcommittee id – existing hydropower scheme id

District id – VDC id – subcommittee id – existing MUSA scheme id

District id – VDC id – subcommittee id – existing other scheme id

Example ID: District id = 60, VDC id = 0032, Subcommittee id = 05

Existing water supply scheme id = EW01
Sub-committee id for other VDCs who do not have such sub-committee area,
will have this id as 00.

Example Code: 60003205EW01 (To be used during data entry)

V. UNDER CONSTRUCTION WATER PROJECTS / WATER USAGE

Based on GPS surveys, map the existing individual schemes (water supply, irrigation and micro-hydro, traditional water mills, turbine mills, etc). Use the following codes.

ID:

Under construction Water supply scheme, start from **UW01** and use continuous numbers for one sub-committee.

Under construction irrigation scheme, start from **UI01** and use continuous numbers for one sub-committee.

Under construction hydropower scheme, start from **UH01** and use continuous numbers for one sub-committee.

Under construction multiple use systems application (MUSA) scheme, start from **UM01** and use continuous numbers for one sub-committee.

Under construction other scheme, start from **UO01** and use continuous numbers for one sub-committee.

Again start from 01 in next sub-committee. Make these IDs in the field

Code:

District id – VDC id – subcommittee id – Under construction water supply scheme id

District id – VDC id – subcommittee id – Under construction irrigation scheme id

District id – VDC id – subcommittee id – Under construction hydropower scheme id

District id – VDC id – subcommittee id – Under construction MUSA scheme id

District id – VDC id – subcommittee id – Under construction other scheme id

Example ID: District id = 60, VDC id = 0032, Subcommittee id = 05

Under construction water supply scheme id = UW01

Sub-committee id for other VDCs who do not have such sub-committee area, will have this id as 00.

Example Code: 60003205UW01 (To be used during data entry)

VI. PROPOSED WATER PROJECTS / WATER USAGE

Based on GPS surveys, map the existing individual schemes (water supply, irrigation and micro-hydro, traditional water mills, turbine mills, etc). Use the following codes.

ID:

Proposed Water supply scheme, start from **PW01** and use continuous numbers for one sub-committee.

Proposed irrigation scheme, start from **PI01** and use continuous numbers for one sub-committee.

Proposed hydropower scheme, start from **PH01** and use continuous numbers for one sub-committee.

Proposed multiple use systems application (MUSA) scheme, start from **PM01** and use continuous numbers for one sub-committee.

Proposed other scheme, start from **PO01** and use continuous numbers for one sub-committee.

Again start from 01 in next sub-committee. Make these IDs in the field

Code:

District id – VDC id – subcommittee id – Proposed water supply scheme id

District id – VDC id – subcommittee id – Proposed irrigation scheme id

District id – VDC id – subcommittee id – Proposed hydropower scheme id

District id – VDC id – subcommittee id – Proposed MUSA scheme id

District id – VDC id – subcommittee id – Proposed other scheme id

Example ID: District id = 60, VDC id = 0032, Subcommittee id = 05

Proposed water supply scheme id = PW01

Sub-committee id for other VDCs who do not have such sub-committee area, will have this id as 00.

Example Code: 60003205PW01 (To be used during data entry)

VII. STRUCTURE SITE OF WATER PROJECTS / WATER USAGE

(Existing, under construction and proposed schemes)

Code: Codes to locate structure sites:

District id–VDC id–subcommittee id – existing water supply scheme id – structure id

District id – VDC id – subcommittee id – existing irrigation scheme id – structure id

District id–VDC id–subcommittee id – existing hydropower scheme id – structure id

District id – VDC id – subcommittee id – existing MUSA scheme id – structure id

District id – VDC id – subcommittee id – existing other scheme id – structure id

Structure ID: Start from 01 for each scheme of each scheme type.

Example ID: District id = 60, VDC id = 0032, Subcommittee id = 05

Existing water supply scheme id = EW01, structure id =01

Example Code: 60003205EW0101 (To be used during data entry)

VIII. EXISTING DEFECAATION, CREMATION, CARCASS/SOLID WASTE DISPOSAL AREA

Location of the area where the population without toilet most frequently defecates should be prepared. Additionally cremation, carcass/solid waste disposal area shall be equally mapped.

ID:

Existing defecation area, start from **DEF01** and use continuous numbers for one sub-committee.

Existing cremation area, start from **CRE01** and use continuous numbers for one sub-committee.

Existing carcass/solid waste disposal area, start from **SOL01** and use continuous numbers for one sub-committee.

Again start from 01 in next sub-committee. Make these IDs in the field

Code for defecation area:

District id – VDC id – subcommittee id – ward id - defecation area id

Code for solid waste/carcass disposals area:

District id – VDC id – subcommittee id – ward id - Solid waste/carcass disposal area id

Code for cremation area:

District id – VDC id – subcommittee id – ward id - cremation area id

Example ID: District id = 60, VDC id = 0032, Subcommittee id = 05, Ward id = 01, Defecation area id = DEF01

Example Code: 6000320501DEF01 (To be used during data entry)

IX. CLUSTER (TOLE)

Cluster with geographic location as well as with shared existing water systems will be mapped. Cluster represents the groups of households using same water points (dhara, pandhero/traditional water sources). The cluster size is based on water supply facilities tables of Sub-committee Profiles (Refer Format No. TA/01-I).

ID: Start cluster ID from **01** in each sub-committee. Again start from 01 in next sub-committee. Make these IDs in the field.

Code for cluster area with shared water supply systems:

District id – VDC id – subcommittee id – Ward id - cluster id

Example ID: District id = 60, VDC id = 0032, Subcommittee id = 05, Ward id = 01, Cluster id = 01

Example Code: 600032050101 (To be used during data entry)

2. Instructions for Field work

1. Obtain social map and following other relevant social data prepared by social assessment team.
 - Description of tole/cluster in the subcommittee
 - Cluster wise number of household (disaggregated by cast) in the sub-committee,
 - Cluster wise population (disaggregated by gender) in the sub-committee,
 - Name and location of water sources,
 - List of existing and ongoing water schemes (DWS, irrigation, hydropower etc.),
 - Location of resources like jungle, cultivation land, river,
 - Location of infrastructure like School building, VDC building, Temple, Health Post building, trail, Suspension / Suspended bridge, Hydro power, Irrigation schemes, Water mills, Development Organizations, Local groups, etc.,
 - Demarcation of Sub-committee boundary,
 - Need of water related development activities like drinking water, irrigation, MUSA, micro hydropower, etc as prioritized by the communities.
2. Introduce with community people and explain about objectives and importance of the technical assessment.
3. Fill general information of sub-committee on Sub-committee profile form Form-TA/01-I, TA/01-II and TA/01-III
4. Inform community to manage about 4 to 5 persons who have good knowledge of village profile and source location during technical assessment.
5. Arrange tools (Ansi, kodalo, bucket, etc.), technical equipment (GPS, altimeter, pedometer, tape, abney level, stop watch, plastic sheet, camera, required numbers of formats, etc.) and social map /information.
6. Fill the Source survey form TA/02 as described in the forms.
 - If the source is using for drinking purpose then fill the existing water supply condition in sub committee profile form TA/01 and if there is any existing improved systems like drinking, irrigation, micro-hydro, ponds and others then fill relevant inventory form (Inventory Forms-TA/03, 04, 05 and 06).
 - If the source is used in improved system for any water related scheme and the scheme proposed for repair or rehabilitation, then fill proposal form -TA/07, 08, 09, 10, 11, 12 and 13 for relevant scheme.(Please tick whether the scheme is new, repair or maintenance).
 - If the source is not in use and proposed for new scheme as per social assessment then fill the proposal form -TA/07, 08, 09, 10, 11, 12 and 13 for relevant scheme. (Please tick whether the scheme is new).
7. Prepare resource map indicating all the details which are necessary to prepare water use master plan even though more details are in social map or verify

with the social map. It is Social team's obligation to prepare the social map of whole VDC and give to Technical team.

8. Explore possibilities of integrated multiple use projects from same source (example-dws + MHP, dws + irrigation, MHP + irrigation, MHP + irrigation + water supply, etc) for multiple use of water. Community people may not have idea about multiple uses, it needs more discussion with them about possibility of it. First priority will be given for multiple uses of water sources.
9. Assess river training, land slide protection, source improvement and conservation, plantation works, environment conservation needs.
10. Explore rainwater harvesting (household system or community system or for school), mechanical lifting (ram pump or Linarus), pumping by wind turbine, solar pumping, electricity / diesel pumping, or alternative water supply systems etc. Analyze and recommend for the best possible option.
11. Take photographs of the surveyed area, sources, settlements, special area, focus group, workshops, for the reference, which will be useful during preparation of WUMP report.
12. At the end of sub-committee technical assessment, interact with participants (people participated during technical assessment) about the overall findings.
13. Similarly continue the work at other sub-committees.

3. Instructions for office work

1. List all the source description (sub-committee wise)
2. List all the existing drinking water status (sub-committee wise)
3. List all the existing irrigation, micro-hydro and miscellaneous projects status (sub-committee wise)
4. Preliminary design and analysis of proposed (new, repair and rehabilitation) schemes
5. Lay-out preparation of proposed (new, repair and rehabilitation) schemes
6. Tentative cost estimate of proposed (new, repair and rehabilitation) schemes
7. Prepare summary sheet of proposed schemes (dws, irrigation, micro-hydro, MUSA etc)
8. Indicate all existing schemes, proposed schemes, all water sources, infrastructures, forest and other resources of the VDC in the contour map.
9. Incorporate feedback from the employer on the interim draft report and submit First Draft Report

10. Incorporate details about implementation plan, from planning workshop
11. Submit Final Draft after correction in Planning workshop
12. Prepare and submit final reports
13. Refer to Water Use Master plan Preparation (WUMP) Guideline while preparing the WUMP Report

4. Instructions for GIS output

Formats

All the elements described hereafter have to be produced as a hard copy, a shp-file in standard UTM coordinate and a PDF file ready for A4 printing unless specified otherwise.

Each map must have a unique reference number, a scale and a coordinate grid in standard UTM.

General Location Map

Based on digitized topographic map reducing the number of details for easy perception, inclusion of ward boundaries and villages (settlement) names, etc shall be verified with local people. An index map must be incorporated showing the location in Nepal.

Color printing is required in size **A3 or A2**.

VDC level Location of sources, existing water bodies and flow measurement points of streams:

Based on GPS surveys, map all the water sources considered in the inventory, all the water bodies, and flow measurement points of the streams. Using GPS survey, also map all the clusters (by shared use of water tapping points) in the villages.

For clarity, includes roads, rivers and streams, settlement names (if settlement names differ from the topographic map, establish a table of correspondence), major landmarks.

Color printing is required in size **A3 or A2**.

Detail scheme maps:

Based on GPS surveys, map the existing, under-construction and proposed individual schemes (water supply, Irrigation and micro-hydro, traditional water mills, turbine mills, etc). Parallel elements of different schemes should be shown on each map.

Contours, roads, rivers, landmarks, spot levels from the topographic map shall be added. Use standardized symbols for water supply, irrigation, micro-hydro, water mills and turbine mills.

When available, use downloaded satellite imagery as background.

Household locations should be approximated on digital topographic map layer or with GPS survey if new settlements have emerged since the map was establishment.

Approximate layout of future schemes should be prepared on the topographic map background with contours and tentative location of taps/outlets. When available, use satellite imagery as a background.

Served and unserved map:

Covering the whole VDC, an analysis of area served well, satisfactorily, unsatisfactorily and not served by any scheme should be prepared. Irrigation service, water supply and hydropower service should be separated.

Covering sub-committee, an analysis map of the area with existing service levels of water supply facilities shall be produced. For the purpose, GPS location of cluster with shared water supply systems shall be analyzed. Refer Format TA/01-I: Sub-committee profile.

Approximate layout of future scheme should be added on this served/unserved background.

Printing size is **A3 or A2** (color).

Defecation, cremation, carcass disposal/solid waste disposal area:

A map evaluating the area where the population without toilet most frequently defecates should be prepared. Rivers, path and sources should be mapped as background. Additionally cremation, carcass disposal and solid /liquid waste disposal area shall be equally mapped.

Catchment of river/stream used or planned for irrigation, micro-hydro, traditional water mills and turbine mills:

A map of the catchments of the rivers/streams presently used or planned for irrigation, micro-hydro, traditional water mills and turbine mills should be prepared.

Presence of irrigation systems, micro-hydro projects, traditional water mills and turbine mills using the same rivers/streams downstream or upstream outside the programme VDC should be investigated with local informants.

Approximate location of these intakes outside the programme VDC should be mapped. GPS survey may be carried out if time/location permits.

Printing size is **A3 or A2** (color).

5. Sprinkler/Drip irrigation

- Collect source information on measured and safe source yields, type of source, head available, command area, type of crop, level of feasibility (high: pressure >60 m, moderate: pressure 30-60 m, low: pressure <30m), pipe length, no. of sprinkler in case of **sprinkler irrigation**.
- Collect information on measured and safe source yield, type of source, head available (1 m is sufficient), command area, length of pipe, type of crop in case of **drip irrigation**.
- Also prepare a sketch map.

- Some other points to be considered proposing drip/sprinkler:
 - ◇ high silt load: no drip
 - ◇ yield <0.1 lps: no sprinkler
 - ◇ head < 15 m: no sprinkler
 - ◇ No costing is required in either case.

6. Micro-hydro Power

Provide a sketch showing headwork, silt ejector, head race canal length, fore-bay/sedimentation tank, pen-stock, powerhouse, tailrace canal. Generally micro-hydro is of two types namely peltric set with power generation less than a KW and of turbine type with power generation more than a KW.

Overall efficiency (including penstock pipe, turbine, generator, power transmission losses):

- When using cross flow turbine, efficiency = 60%
- When using pelton turbine, efficiency = 70%.

*Power(watts)=6*q(lps)*h(m) for cross flow turbine*
*Power(watts)=7*q(lps)*h(m) for cross flow turbine*

One household requires about 100 watts.

Assess the type of canal (earthen, lined, piped), crossing types, need for silt ejector, fore-bay combined with sedimentation tank, type of penstock, power house, foundation/machine, etc.

- penstock
 - Upto 150m, Use MS pipe with flange sets
 - 150m to 250m, Use MS pipe with welded joints (welding arranged in the site)

Assess requirement of anchor blocks in case of undulating ground profile.

(Note: For Costing Refer the Water Use Master Plan Preparation Guideline)

- **summary (cost/kW for power generation greater than 20 kW)**
 - Up to NPR 200,000/kW: cheap
 - NPR 200,000 to 250,000/kW: most ideal
 - 250,000 to 350,000/kW: may be needed for example if transportation of non-local materials by helicopters

7. Pumping/lifting and rain water harvesting

Collect information on population, HH, name of the cluster, pipe length, lifting head, type of pump, water collection surfaces, cost sharing mechanism with the VDC, community and other resource organizations, and O&M aspects of the pumped/lifting system.

Collect information on rainfall intensity, type of collection area, location of storage tank, transmission and distribution length, O&M of the rain water system. Also explore for possibility of individual tank.

Supplement source related and other information as in surface drinking water system.

8. Multiple Use System Applications (MUSA)

Explore possibilities of integrated multiple use projects from same source (example-dws + MHP, dws + irrigation, MHP + irrigation, MHP + irrigation + water supply, etc) for multiple use of water. First priority will be given for multiple uses of water sources.

A typical example of MUSA, integration of DWS with irrigation, is shown here

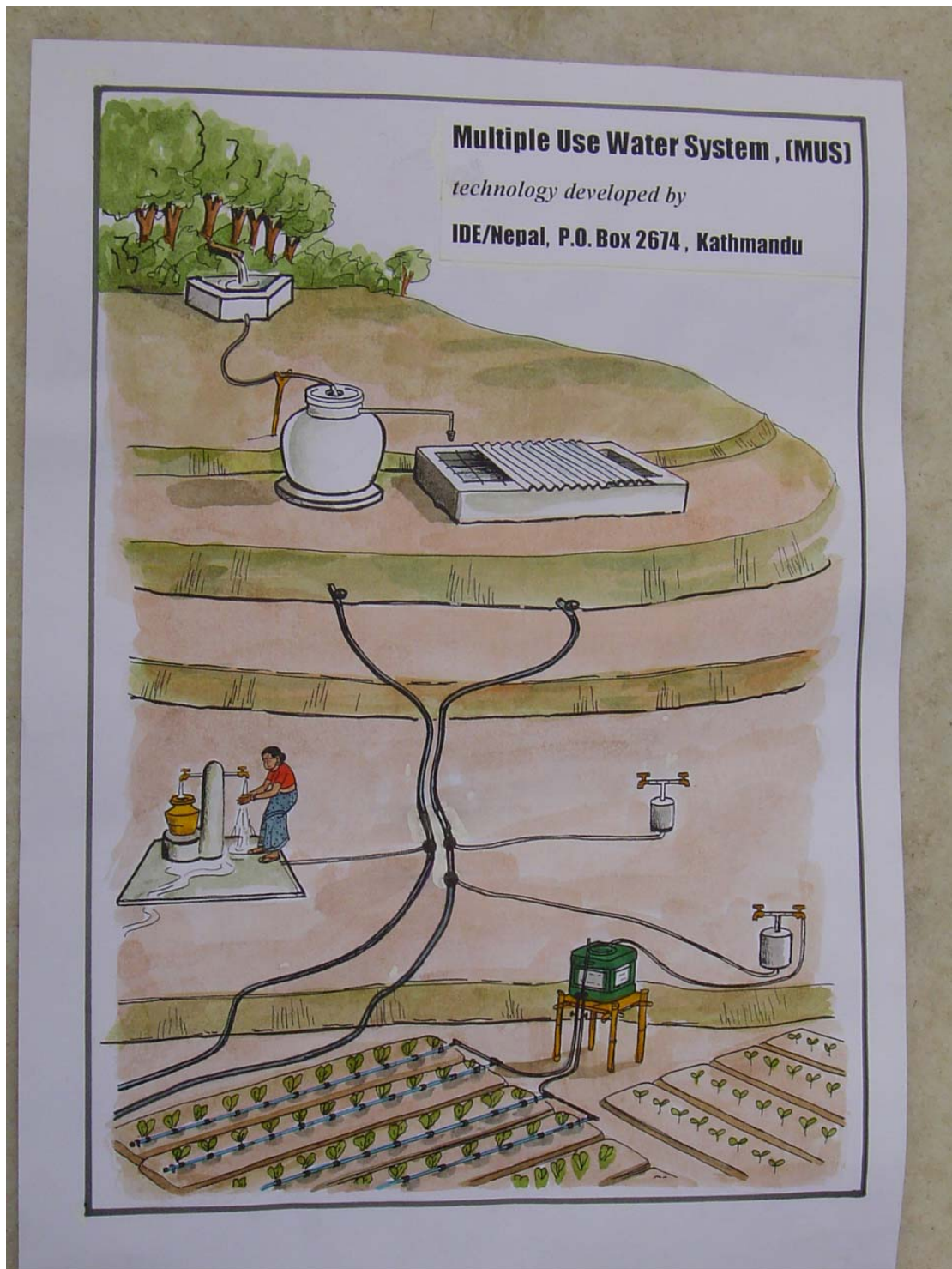


Figure 1: Typical Example of a MUSA scheme

9. Cost estimation

Cost may differ with remoteness, means of transportation of non-local materials and potential use local resources.

A) Water Supply and Sanitation

1) Gravity Flow System (New)

Components: DI, CC, IC, RVT, DC, BPT, Tapstand, Crossing, PL
(Quantity as per standardization)

Costing: Planning stage- District rate (standard)
Implementation- Scheme wise cost

2) Source Improvement

- ◆ D/I & PE tank with attached tap
- ◆ D/I & 1.5 m³ FCT with attached tap
- ◆ D/I & 2.5 m³ FCT with attached tap
- ◆ D/I with CC & tap
- ◆ D/I with attached tap

Costing similar to Gravity Flow System.

3) Rain water harvesting schemes

Components Roof
Gutter
Jar (1 Unit) Mostly 6.5 M³

4) Gravity Flow System (Rehab Schemes)

- ◆ Repair
 - Minor
 - Major
- ◆ Rehabilitation
- ◆ Renewal

In case of Major repair or rehabilitation

- ◆ partly functioning (20% of new component)
- ◆ non functioning (50% cost of new component)
- ◆ Pipeline (50% cost of new component)

In case of system renewal

- ◆ 80% cost of the total new system

5) Sanitation (Toilet)

- I) Household level (external materials like pan, pipe, reinforcement bars, cement)
 - ◆ Double pits (Sulav)
- II) Institutional Toilet
 - ◆ Offset pit
 - ◆ VIP
 - ◆ Sulav with multi cabins

Costing : Quantity will be calculated for the remaining types : costing basis will be same as d/w components.

B) Irrigation and Drainage

1) Canal Irrigation

- ◆ Farmer Managed Irrigation System less than 20 ha
- ◆ Major Irrigation system greater than 20 ha

Basic Components

- ◆ For FMIS : Head works as Diversion structure of Gabion
 - ◇ Use of mostly earthwork canal, lined where necessary- avg. Size 0.4*0.4
 - ◇ Design Q as 3 litre/s/ha
 - ◇ For cross drainage structure preferably use pipe or RCC/etc. Where necessary
 - ◇ Use of HDPE pipe in unstable zone.
- ◆ For Major Irrigation System, Site specific approach
- ◆ Rates to be developed using district rates with actual transportation cost. For local material use actual local cost.

2) Drip Irrigation

- ◆ System suitable for Individuals and Market accessible places
- ◆ System rates will be according to size following IDE rates
 - ◇ 4 ana
 - ◇ 8 ana
 - ◇ 16 ana

3) Sprinkler Irrigation

- ◆ System Rec. For Individual Farmers
- ◆ Co-ordination with ADBN for technology
 - Reference: Peter Stern's - IT Publication
 - Hill Irrigation Manual- IOE, TU

4) Micro Irrigation

- ◆ Integrate with DWS

- ◆ Can be used for kitchen gardening
- ◆ Cost increment for transmission part only
- ◆ Introduce separate plastic Irrigation Pond or Increase RVT size for storing irrigation water

5) Drainage & Wastewater

- ◆ Provision of Drainage/ Pipe for safe disposal of waste water from tap.
- ◆ Drainage of Waste water to Cattle feeding pond

Overflow

- ◆ Safe & proper disposal of Overflow water
- ◆ Excess water can be used for Kitchen garden, if possible
- ◆ Provision of separate plastic Irrigation Pond for storing irrigation water
- ◆ Provide excess water as drinking water source to other nearby community, if possible.

C. Environment and Ecology

1) Source Conservation

- a) Plantation (Number and species of plant/area) in catchment
- b) Construction of catch drain (length of drain, volume of earthwork)
- c) fencing around the source (Barbed wire fencing with angle/wooden post)
- d) Gabion/ bamboo cribs for checking slides

2) Forest Management

- a) Nursery Establishment
- b) Number and species of plant
- c) Fencing work (Barbed wire fencing with wooden post)
- d) Guard for protection of forest

3) Grazing Land Identification

- a) Grass sodding area (use diversified grass seeds)

4) Gully control

- a) Gabion/ Bamboo/ Banded masonry/dry stone masonry check dams
- b) Earthwork (volume)

5) Terrace Improvements

- a) Earthwork (small terracing, inward sloping)
- b) Bush/brush plantation at the edge of terrace (kaansh/daleghash)

6)River Bank Stabilization

- a) Flood Embankment (Earthen, stone, bamboo cribs)
- b) Grass sodding/ Plantation along the river bank
- c) Gabion mattress for apron
- d) Spurs (Gabion, dry stone)

7) Landslide Treatment

- a) Catch drain (Earthwork)
- b) Hessian jute mattress with vegetation
- c) Gabion/dry wall/ banded masonry retaining structures
- d) Rip-rap with drainage in landslide area
- e) Deep rooted tree/shrub/grass plantation
- f) Check dam (gabion, dry wall, banded masonry)

8) Hill Slope Erosion Protection

- a) Interception drain towards natural stream
- b) Tree, shrub, grass plantation.

Reference Guidelines and Norms

- ◆ Roadside Bio-engineering Published by Geotechnical Unit of DOR
- ◆ Guidelines published by ICIMOD on watershed management
- ◆ guidelines followed by AEPC on micro-hydro
- ◆ Norms of DOLIDAR on civil constructions
- ◆ Bio-engineering norms published by DOR
- ◆ Norms of AEPC on micro-hydro feasibility
- ◆ Norms of DOLIDAR on civil constructions

Gabion Specification

- ◆ Use Maccaferri gabions
- ◆ Machine woven
- ◆ Hexagonal mesh (100*120)
- ◆ 10 SWG wire mesh
- ◆ 8 SWG Salvage wire

Rates

- ◆ Use local skilled/Unskilled Labor rate
- ◆ Non-local material rate from nearest market with truck transportation
- ◆ District rates

ANNEX 5

Technical Formats

Technical Assessment - Formats

SN	Information	Formats Number
1	Sub committee Profile	TA/01-I, TA/01-II, TA/01-III
2	Source Survey	TA/02
3	Inventory- Existing Water Supply Project	TA/03-I, TA/03-II , TA/03-III
4	Inventory- Existing Irrigation Project	TA/04-I, TA/04-II
5	Inventory- Existing Hydropower Project	TA/05-I, TA/05-II
6	Inventory- Existing Miscellaneous Project	TA/06-I, TA/06-II
7	Proposal for Water Supply Project (gravity)	TA/07-I, TA/07-II, TA/07-III, TA/07-IV
11	Proposal for alternative water supply projects	TA/8-I, TA/8-II, TA/8-III
8	Proposal for Irrigation Project (Conventional)	TA/09-I, TA/09-II, TA/09-III
12	Proposal for irrigation project (non-conventional)	TA/10-I, TA/10-II, TA/10-III
9	Proposal for Micro-hydro Project	TA/11-I, TA/11-II , TA/11-III, TA/11-IV
10	Proposal for Multiple Use System Applications (MUSA)	TA/12
13	Proposal for Miscellaneous Project	TA/13-I, TA/13-II, TA/13-III
14	Other Information Required on Water use	TA/ 14 Others

SUB COMMITTEE PROFILE

Form-TA/01-I

a. General Information

Sub committee No:

Total HHs:

Population:

Page 1

Location:(Ward/s):

Number of Clusters:

District ID:

VDC ID:

Sub Committee ID:

b. Existing Water Supply Condition

Cluster name ¹								
Cluster ID ²								
Ward no.								
HHs								
Population								
<i>i) Dry season source</i>								
Source Name								
Source no.								
Type of source								
Source yield (lps)								
Tapped yield (lps)								
Quantity available at cluster (lps)								
Quantity available at cluster (Lpcd)								
Fetching time(round trip)								
Continuity (hrs/day)								
Reliability (month/year)								
Water quality								

¹ Cluster of households with shared water supply systems (**Refer clusters in SA 5f "Cha. Tole/cluster information"**)

² Cluster code: District id – VDC id – subcommittee id – Ward id - **cluster id (01)** (Refer cluster ID in "Cha. Tole/cluster information")

District ID: **VDC ID:** **Sub Committee ID:**

Existing Water Supply Condition (Contd..)

Cluster name ³								
Cluster ID ⁴								
Ward no.								
HHs								
Population								
<i>ii) Alternate/Wet season source</i>								
Source Name								
Source no.								
Type of source								
Source yield (lps)								
Tapped yield (lps)								
Quantity available at cluster (lps)								
Quantity available at cluster (lpcd)								
Fetching time(round trip)								
Continuity (hrs/day)								
Reliability (month/year)								
Water quality								

Water consumption:								
No of trips/day/HH for domestic use								
Liters per trips								

³ Cluster of households with shared water supply systems (**Refer clusters in SA 5f "Cha. Tole/cluster information"**)

⁴ Cluster code: District id – VDC id – subcommittee id – ward id - **cluster id (01)** (Refer cluster ID in "Cha. Tole/cluster information")

SUB COMMITTEE PROFILE

Form-TA/01-II

b) Existing Sanitation Condition

(To be Sumarized from HH format SA XX)

District ID:.....	VDC ID:.....	Sub Committee ID:			
Cluster name ⁵					
Cluster ID ⁶					
Ward no.					
HHs					
Population					
Nos. of Latrine:					
Permanent:					
a) With water seal					
b) Witout Water seal					
Temporary					
Status of latrine:					
a)Good					
b)Moderate					
c)Poor					
Latrine Implementation Supported by (Orgnization and Number of latrine)					
General cleanliness of surrounding area					
Nos. of Chang (drying rack)					
Nos of garbage pit					
Nos of improved cooking stoves					

⁵ Cluster of households with shared water supply systems (cluster name same as DWS for sanitation information)

⁶ Cluster code: District id – VDC id – subcommittee id – ward id - **cluster id (01)** (Refer cluster ID in SA 5f "Cha. Tole/cluster information")

=

Form-TA/01-III
Page 1

SUB COMMITTEE PROFILE

C) Existing defecation, carcass disposal, solid waste disposal and cremation area

A map evaluating the area where the population without toilet most frequently defecates should be prepared. Rivers, path and sources should be mapped as background. Additionally cremation, carcass disposal and solid /liquid waste disposal area shall be equally mapped.

DEFECATION AREA:

District ID:.....		VDC ID:.....		Sub Committee ID:				
Defecation area ID ⁷	Defecation Area	District	VDC	Ward No.	GPS Reading			
					X	Y	Accuracy	SN

⁷ District id – VDC id – subcommittee id – ward id - defecation area id (DEF01)

SUB COMMITTEE PROFILE

Form-TA/01-III
Page 2

C) Existing defecation, carcass disposal, solid waste disposal and cremation area

CARCAS/SOLID WASTE AREA:

District ID:..... VDC ID:..... Sub Committee ID:

Carcass/Solid waste area ID ⁸	Carcass/ solid waste disposal Area	District	VDC	Ward No.	GPS Reading			
					X	Y	Accuracy	SN

CREMATION AREA:

Cremation area code ⁹	Cremation area	District	VDC	Ward No.	GPS Reading			
					X	Y	Accuracy	SN

⁸ District id – VDC id – subcommittee id – ward id - Solid waste/carcass disposal area id (SOL01)

⁹ District id – VDC id – subcommittee id – ward id - cremation area id (CRE01)

SOURCE SURVEY¹⁰

(Fill up this format for every water source/bodies/stream measured points)

a) General Information

Form-TA/02

Source ID¹¹:

Name of source:

Type of source:

spring

Spring-fed steam

Snow-fed stream

Water bodies

Stream

Location : District name:

VDC Name:

Ward No.

Owner of the source:

Elevation:

Elevation and GPS reading:

X	Y	Elevation	Accuracy	Reading Number

Source yield:

Measured yield (lps):

Safe yield (consult with for villagers):

Flow measurement Method:

Date measured:

Water quality:

*(By observation & interview)***Source disputes, if any:****f. Environment around the source area:**

(middle of jungle, bushes, land, landslide area, rivulet, etc. & indicate chances of contamination due to upstream settlement)

b) Present use of this source

(dws/irrigation/microhydro/cattle feeding/others)

c) Potential use of source

(dws and or irrigation or micro-hydro and or multiuse or cattle feeding + others)

d) Need for further improvement**e) General Remarks:****Layout plan of source location**

(Note: indicate location of every source corresponding to other source location and surrounding the source layout plan.)

¹⁰ Source survey should include survey of spring, springfed stream, snowfed stream sources, water bodies/structures and stream flow measurement at potential project sites, Significant change in discharge, junction of major streams, Outlet pour point (lowest point of VDC) etc.

¹¹ Refer ऋ, ढ, ङ – List of existing water sources.

Code for water sources:

District id – VDC id – subcommittee id – ward id - **watersources id**Code for water bodies: District id – VDC id – subcommittee id – ward id –**water bodies id**Code for flow measurement points of streams: District id–VDC id–subcommittee id–ward id – **stream points id**

INVENTORY**Existing Water Supply Project**

Form-TA/03-I

1. PROJECT DESCRIPTION

Scheme name:
 Existing WS Scheme Code:
 Type of system:
 Supported by:
 Operation started (year):

2. SOURCE DESCRIPTION

(Source no from form TA/02):
 Source code:
 Source name:

Operation status: a) functioning well b) partially functional c) closed down
 Operating at present by (UC/Othe agencies specify):
 Registration of UC (yes/no):
 Practice of public auditing by UC (yes/no):

No. of VMW trained: Female: Male:
 VMW Working at present: Female: Male:
 Monthly salary of operator at present: NPR.....
 Manament capacity of UC: a) Good b) satisfactory c) poor
 O&M fund at present: NPR

Mode of O&M fund obilized on (keeping in bank, obilized in village):

Water tariff rate/month:

4. Indicate the number of structures, pipe length/size and present status of every structure

Structure ID ¹²	Structures	Existing Condition	Gps reading				
			X	Y	z	Accu racy	Way point no
	a. Intake/cathment						
	b. Collection Chamber						
	c. Interruption Chamber						
	d. Air Valve/Washout						
	e. Distribution Chamber						
	f. Storage Tank						
	g. BPT						

¹² Existing water supply scheme code:

District id – VDC id – subcommittee id – existing water supply scheme id – **structure id (01)**

INVENTORY Existing Water Supply Project

Form-TA/03-II

Structure ID ¹³	Structures	Existing Condition	Gps reading				
			X	Y	z	Accuracy	Way point no
	h. Pipe line and crossing						
	i. other structures, specify:						

j. Tapstands:

Structure ID	Structures	Cluster names ¹⁴	Cluster codes	No. of HHs.	Existing Condition (flowing water or not)	GPS Reading				
						X	Y	Z	Accuracy	Way point no
	T1									
	T2									
	T3									
	T4									
	T5									
	T6									
	T7									
	T8									
	T9									
	T10									
	T11									

¹³ Existing water supply scheme code:

District id – VDC id – subcommittee id – existing water supply scheme id – **structure id (01)**

¹⁴ Cluster area with shared water supply systems

INVENTORY

Existing Water Supply Project

Form-TA/03-III

j. Tapstands:

Structure ID	Structu res	Cluster names ¹⁵	Cluster codes	No. of HHs.	Existing Condition (flowing water or not)	GPS Reading				
						X	Y	Z	Ac cur acy	Way point no
	T12									
	T13									
	T14									
	T15									

4. Overall Remarks:

(Write the details of the scheme history)

¹⁵ Cluster area with shared water supply systems

INVENTORY**Existing Irrigation Project**

Form-TA/04-I

1. PROJECT DESCRIPTION

Project name:

Existing Irrigation scheme code:

Type of system:

Supported by:

Operation started (year):

2. SOURCE DESCRIPTION

(Source no from form TA/02)

Source code:

Source name:

3. Service area:

VDC	Ward No.	Command area (Ropani)		Beneficiary HHs
		Summer	Winter	

VDC	Ward No.	Command area (Ropani)		Beneficiary HHs
		Summer	Winter	

4. Operation status: a) functioning well b) partially functional c) closed down

Operating at present by (UC/Othe agencies specify):

Registration of UC (yes/no):

Practice of public auditing by UC (yes/no):

5. O&M fund at present: NPR

Mode of O&M fund mobilisation (keeping in bank, mobilised in village):

.....

Water tariff rate:

Manament capacity of UC: a) Good b) satisfactory c) poor

6. Please indicate the number of structures, canal/pipe length/size and present status of every structure

Structure ID ¹⁶	Structures	Existing Condition	Gps reading				Way point no
			X	Y	Z	Accuracy	
	a. Headworks/ Weir/Intake						
	b. Disilting basin						

INVENTORY

Form-TA/04-II

¹⁶ Existing irrigation scheme code:District id – VDC id – subcommittee id – existing irrigation scheme id – **structure id (01)**

Existing Irrigation Project

Struct ure ID	Structures	Existing Condition	Gps reading				
			X	Y	Z	Accu racy	Way point no
	c. Aqueduct/ Super passage/ Siphon						
	d. Retaining structures						
	e. Main canal/pipe : (line/earthen)						
	f. Distribution canal						
	g. Other structures • Sluice Gates • Off-takes						
						

4. Overall Remarks:

INVENTORY

Existing Micro hydro project

Form-TA/05-I

1. PROJECT DESCRIPTION

Project name:
 Existing hydropower project code:
 Type of system (micro-hydro, traditional water water mills, turbine mills):
 Supported by:
 Operation started (year):

2. SOURCE DESCRIPTION
 (form TA/02)

Source code:
 Source name:

3. Coverage by electricity facilities:

VDC	Ward	Cluster name & ID	Beneficiary HHs

VDC	Ward	Cluster name & ID	Beneficiary HHs

4. Ownership (private/community/other agencies):

Design power output (kW): Present power output (kW):
 Gross Head (m): Design flow (lps):
 Available flow in the river during dry season: Turbine type used:
 Generator type used: Project cost:

5. Operation status: a) functioning well b) partially functional c) closed down

Operating at present by (UC/Other agencies specify):

Registration of UC (yes/no): Practice of public auditing by UC (yes/no):

No. of operator trained: Female: Male:
 Operator working at present: Female: Male:
 Monthly salary of operator at present: NPR.....
 No. of operator available now in the village:
 Practice of public auditing by UC (yes/no):

6. Use of electricity:

Lighting (kWh/year): Productive purposes (kWh/year):
 Tariff rate: For Lighting: For productive uses:
 Loan received: NPR..... Name of bank:
 Remaining Loan at present : Remaining Principle: Remaining Interest:
 O&M fund at present: NPR

Management capacity of UC: a) Good b) satisfactory c) poor

INVENTORY

Existing hydropower project

Form-TA/05-II

Existing hydropower project code:

7. Indicate the number of structures, pipe length/size (if used) and present status of every structure

Structure ID ¹⁷	STRUCTURES	EXISTING CONDITION	Gps reading					
			X	Y	Z	Accuracy	Way point no	
	a. Headwork/ Weir/Intake							
	b. Desilting basin							
	c. Headrace							
	d. Forebay tank							
	e. Penstock pipe							
	f. Power house							
	g. Tailrace							
	i. Main							
	j. transformer 1							
	k. transformer 2							
	l. Distribution line							

8. Technical and management issues:

9. Overall Remarks:

¹⁷ Existing hydropower scheme code:

District id – VDC id – subcommittee id – existing hydropower scheme id – **structure id (01)**

INVENTORY

Existing Miscellaneous Project

Form-TA/06-I

<p>1. PROJECT DESCRIPTION</p> <p>Project name:</p> <p>Existing project code:</p> <p>Type of system:</p> <p>Supported by:</p> <p>Operation started (year):</p>
--

<p>2. SOURCE DESCRIPTION (Source no from form TA/02)</p> <p>Source code:</p> <p>Source name:</p>

3. Coverage by facilities:

VDC	Ward	Cluster name & ID	Beneficiary HHs

VDC	Ward	Cluster name & ID	Beneficiary HHs

4. Indicate the number of structures, pipe length/size (if used) and present status of every structure

Structure ID ¹⁸	STRUCTURES	EXISTING CONDITION	Gps reading					
			X	Y	Z	Accuracy	Way point no	

¹⁸ Existing scheme code:
 District id – VDC id – subcommittee id – existing scheme id – **structure id (01)**

PROPOSAL
WATER SUPPLY PROJECT (GRAVITY)
 (New/Repair/Maintenance)

Form-TA/07-I

WS project Proposal ID²⁰:

No. of Sub-Projects:

VDC:

Sub-committee:

WN:

Project Name:

1. General information (Total of all sub Project)

Present population:

Projected population:

No. of HH : Total

Dalit:

Janjati:

Others:

Level of feasibility:

Informant's Name:

2. SOURCE DESCRIPTION

(from form TA/02)

Sources code:

Sources name:

3. Proposed area:

District	VDC	Cluster code	Cluster	Beneficiary HHs	Population

PROPOSAL

Form-TA/07-II

²⁰ Water supply project proposal code:District id – VDC id – subcommittee id – **proposed wss scheme id (PW01)**

WATER SUPPLY PROJECT (GRAVITY)

(New/Repair/Maintenance)

WS project Proposal ID:

No. of Sub-Projects:

VDC:

Sub-committee:

WN:

Project Name:

4. DETAILS OF EACH SUBPROJECT

Name of sub-project:

WS Sub-Project Proposal ID²¹:**4.1 General information**

Present population:

Projected population:

No. of HH : Total

Dalit:

Janjati:

Others:

Level of feasibility:

Informant's Name:

2. SOURCE DESCRIPTION

(from form TA/02)

Source code:

Source name:

4.2. Proposed area:

District	VDC	Cluster code	Cluster	Beneficiary HHs	Population

4.3 TECHNICAL COMPONENTS AND COST

Structure ID ²²	Proposed structure / PL	Quantity	Unit	Approximate cost per unit	Total cost (Rs)
	Intake and catchment				
	Collection chamber				
	Reservoir				
	Distribution chamber				
	BPT				
	IC				
	Tapstand				
	HDPE pipe line				
	GI pipe line				
	Others, if any (Source/catchment protection, etc)				
	Transportation of non local materials (means)				
	Grand Total				

²¹ Water supply Sub-project proposal code:District id – VDC id – subcommittee id – **proposed wss sub-scheme id (SUBPW01A)**

PROPOSAL
WATER SUPPLY PROJECT (GRAVITY)
(New/Repair/Maintenance)

Form-TA/07-IV

WS project Proposal ID:

No. of Sub-Projects:

VDC:

Sub-committee:

WN:

Project Name:

DETAILS OF EACH SUBPROJECT

Name of sub-project:

WS Sub-Project Proposal ID:

6. Layout Plan of the Project

(Please indicate the location of source & proposed structures with elevation, settlement of HHs with respect to tap stand, pipe length)
Layout shall be prepared on the topomap background with contours and tentative location of taps/outlets. When available, imagery/orthophoto should be added as a background.

7. Remarks:

PROPOSAL
ALTERNATIVE WATER SUPPLY PROJECT (Other than gravity)
 (can be rainwater, fog harvesting, lift etc)

Form-TA/8-I

WS project Proposal ID²³:

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

Type of water supply (rainwater/ fogwater/lift):

New/Repair/maintenance:

1. General information

Present population:
 Projected population:
 No. of HH : Total:
 Dalit: Janjati: Others:
 Level of feasibility:
 Informant's Name:

2. SOURCE DESCRIPTION
(from form TA/02)

Source code:
 Source name:

3. Proposed area:

Cluster code	Cluster	Beneficiary HHs	Population

Cluster code	Cluster	Beneficiary HHs	Population

3. TECHNICAL COMPONENTS AND COST

SN	Proposed structure / PL	Quantity	Unit	Approximate cost per unit	Total cost (Rs)
1					
2					
3					
4					
5					
7					
8					
9					
10					
11					
	Grand Total				

²³ Water supply project proposal code:District id – VDC id – subcommittee id – **proposed wss scheme id (PW01)**

PROPOSAL
ALTERNATIVE WATER SUPPLY PROJECT (Other than gravity)
(can be rainwater, fog harvesting, lift etc)

Form-TA/8-III

WS project Proposal ID:

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

6. Layout Plan of the Project

(Please indicate the location of source & proposed structures with elevation, settlement of HHs with respect to tap stand, pipe length)

7. Remarks:

PROPOSAL
IRRIGATION PROJECT (Conventional)
 (New/Repair/Maintenance)

Form-TA/09-I

Irrigation Project Proposal ID²⁵:

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

1. PROJECT FEATURES

Type of system:

No of HH benefited: Total:

Dalit: Janjati: Other:

Length of main canal/pipe(m):

Available head(m):

Major crops grown:

Informant's name:

2. SOURCE DESCRIPTION
(from form TA/02)

Source code:

Source name:

3. Service area:

VDC	Ward No.	Command area (Ropani)		Beneficiary HHs
		Summer	Winter	

VDC	Ward No.	Command area (Ropani)		Beneficiary HHs
		Summer	Winter	

4. TECHNICAL COMPONENTS AND COST

SN	Work Proposed	Quantity	Unit	Approximate cost per unit	Total cost (Rs.)
1	Intake /Headwork				
2					
3	Main canal -Lined -Earthen -Piped				
4	Distr. Canal -Lined -Earthen -Piped				
5	Major Crossings: -				
6	Cross-drainage work				
7	Spill way				
8	Other structures -Off-taking -Sluice Gates -Retaining Wall				
9	Grand Total				

PROPOSAL²⁵ Irrigation project proposal code:District id – VDC id – subcommittee id – **proposed irrigation scheme id (PI01)**

PROPOSAL
IRRIGATION PROJECT (Conventional)
(New/Repair/Maintenance)

Form-A/09-III

Irrigation Project Proposal ID:

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

6. Layout Plan of the Project

(Please indicate the location and elevation of proposed structures, elevation of command area with main canal/pipe length, etc)
Approximate layout of future schemes should be prepared on the topo map background with contours and tentative location of taps/outlets. When available satellite imagery downloaded from Google Earth should be added as a background.

7. Remarks:

PROPOSAL
FOR IRRIGATION PROJECT (Non-Conventional)
(Sprinkler, drip, etc)

Form-TA/10-I

Irrigation Project Proposal ID²⁷:

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

1. PROJECT FEATURES

Type of system:

HH benefited: Total:

Dalit: Janjati: Other:

Length of main canal/pipe(m):

Available head(m):

Major crops grown:

Informant's name:

2. SOURCE DESCRIPTION
(form TA/02)

Source code:

Source name:

3. Service area:

VDC	Ward No.	Command area (Ropani)		Beneficiary HHs
		Summer	Winter	

VDC	Ward No.	Command area (Ropani)		Beneficiary HHs
		Summer	Winter	

3. TECHNICAL COMPONENTS AND COST

SN	Work Proposed	Quantity	Unit	Rough cost per unit	Total cost (Rs.)
1					
2					
3					
4					
5					
6					
7					
8					
9	Grand Total				

²⁷ Irrigation project proposal code:

District id – VDC id – subcommittee id – **proposed irrigation scheme id (PI01)**

PROPOSAL
IRRIGATION PROJECT (Non-Conventional)
(sprinkler, drip, etc)

Form-A/10-III

Irrigation Project Proposal ID:

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

6. Layout Plan of the Project

(Please indicate the location and elevation of proposed structures, elevation of command area with main canal/pipe length, etc)
Approximate layout of future schemes should be prepared on the topo map background with contours and tentative location of taps/outlets. When available satellite imagery downloaded from Google Earth should be added as a background.

7. Remarks:

PROPOSAL
HYDROPOWER PROJECT
(New/Repair/Maintenance)

Form-TA/11-II

Hydropower project proposal ID:

VDC:

Sub-committee:

WN:

Project Name:

b) Head-race canal (pipe) including crossing and drop structures, if any:

c) Fore-bay tank including rack:

d) Penstock (-----dia. HDPE pipe) including support pier and anchor blocks:

e) Power House and electro-mechanical equipments in powerhouse

f) Tailrace canal:

g) Transmission line including poles and cables

h) Protection and safety systems:

i) Miscellaneous:

PROPOSAL
HYDROPOWER PROJECT
 (New/Repair/Maintenance)

Form-TA/11-III

Hydropower project proposal ID:

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

5. GPS Location of the proposed hydropower project:

Structure ID ³⁰	Name of Structure	VDC	Ward No.	Name of place	GPS Reading				
					X	Y	Z	Accuracy	Way point no
	Intake and headworks								
	Desilting basin								
	Forebay								
	Powerhouse								
	End of Transmission main 1								
	End of Transmission main 2								
	End of distribution lines 1								
	End of distribution lines 2								
	End of distribution lines 3								

PROPOSAL

³⁰ Structure code for proposed hydropower projects:

District id – VDC id – subcommittee id – existing hydropower scheme id – **structure id (01)**

HYDROPOWER PROJECT

(New/Repair/Maintenance)

Form-TA/11-IV

Hydropower project proposal ID:

VDC:

Sub-committee:

WN:

Project Name:

6. Layout Plan of the Project

(Please, indicate the location and elevation of proposed structures, length of headrace canal, length of penstock pipe etc.)
Approximate layout of future schemes should be prepared on the topo map background with contours and tentative location of taps/outlets. When available satellite imagery downloaded from Google Earth should be added as a background.

Remarks:**PROPOSAL**

MULTIPLE USE SYSTEMS APPLICATIONS (MUSA)

New/Repair/maintenance:

MUSA project proposal ID³¹:

Form-TA/12

VDC: Sub-committee: WN: Project Name:

Type of MUSA project:

1. General information

Present population:

Projected population:

No. of HH : Total

Dalit:

Janjati:

Others:

Level of feasibility:

Informant's Name:

2. SOURCE DESCRIPTION

Source no from form TA/02:

Source code:

Source name:

3. Service Area

District	VDC	Scheme Type	Cluster code	Cluster	Beneficiary HHs	Population	Command Area (Ropani) only for Irrigation	
							Winter	Summer

4. For Microhydro only

Ownership (private/community/other agencies):

Design power output (kW):

Gross Head (m):

Available flow in the river during dry season(lps):

Design flow (lps):

Turbine type:

Length of headrace (m):

Length of transmission main (m):

Length of distribution line (m):

Level of feasibility:

Project cost:

Tariff rate proposed (paying capacity of community): For Lighting (Rs/watt/month):

Productive uses (Rs/kWh):

PROPOSAL³¹ MUSA project proposal code: District id – VDC id – subcommittee id – proposed MUSA scheme id (PM01)

MULTIPLE USE SYSTEMS APPLICATIONS (MUSA)

New/Repair/maintenance:

MUSA project proposal ID

Form-TA/12

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

4. TECHNICAL COMPONENTS AND COST

SN	Scheme Type	Proposed Structures	Quantity	Unit	Approximate cost per unit	Total cost (Rs)
		Grand Total				

**PROPOSAL
MULTIPLE USE SYSTEMS APPLICATIONS (MUSA)**

MUSA project proposal ID

Form-TA/12

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

7. Layout Plan of the Project

(Please indicate the location and elevation of proposed structures, elevation of command area with main canal/pipe length, etc)

Remarks:

**PROPOSAL
MISCELLANEOUS PROJECTS**
(Environment conservation, source conservation, river conservation, etc)

Miscellaneous Project Proposal ID³³:

VDC:	Sub-committee:	WN:	Project Name:
------	----------------	-----	---------------

1. Project Features:			
Project name:			
Location:			
Cluster names:			
No. of HHs.: Total:			
Dalit:		Janjati:	
		Other:	
Level of feasibility:			

2. Source description (from form TA/02)	
Source code:	
Source name:	

3. Service Area

District	VDC	Cluster code	Cluster	Beneficiary HHs	Population

4. TECHNICAL COMPONENTS AND COST

SN	Work Proposed	Quantity	Unit	Tentative cost per unit	Total cost (Rs.)
1					
2					
3					
4					
5					
6					
7					

³³ Miscellaneous other project proposal code:District id – VDC id – subcommittee id – **proposed other scheme id (PO01)**

PROPOSAL MISCELLANEOUS PROJECT

(Environment conservation, source conservation, river conservation, others)

Form-TA/13-II

Miscellaneous Project Proposal ID:

VDC: _____ Sub-committee: _____ WN: _____ Project Name: _____

5. GPS Location of the proposed water supply project:

Structure ID ³⁴	Site of Structure/work	VDC	Ward No.	Name of place	GPS Reading				
					X	Y	Z	Accuracy	Way point no

³⁴ Structure code for proposed irrigation projects:
District id – VDC id – subcommittee id – proposed irrigation scheme id – **structure id (01)**

PROPOSAL
MISCELLANEOUS PROJECT

(Environment conservation, source conservation, river conservation, others)

Miscellaneous Project Proposal ID:

Form-TA/13-III

VDC:

Sub-committee:

WN:

Project Name:

6. Layout Plan of the Project

(Please indicate the location and elevation of proposed structures, elevation of command area with main canal/pipe length, etc)
Approximate layout of future schemes should be prepared on the topo map background with contours and tentative location of taps/outlets. When available satellite imagery downloaded from Google Earth should be added as a background.

7. Remarks:

ANNEX 6

Table of Contents of Reports (ToC)

LIST OF WUMP REPORTS

A) Executive Summary (English and Nepali) -In Leaflet

B) VDC Level Report

1. Volume 1: Main Report (English and Nepali)
2. Volume 2: Appendices (strap of all subcommittee level volume 2 report (English only))
3. Volume 3: Maps (English only)

C) Subcommittee Level Report

1. Volume 1: Main Report (Nepali only)
Some relevant map (Planned and existing water projects in A4 paper) attached with report
2. Volume 2: Appendices (English only)

D) Data Base: E-copy (English only)

Acknowledgement:

By Chairperson WRMC

By VDC

Foreword:

By DDC

Contents of the leaflet

(Executive summary: Leaflet will be of size equivalent to 3 No of A4 paper)

WATER USE MASTER PLAN BELAPUR VDC

BACKGROUND

SOCIOECONOMIC CHARACTERISTIC

EXISTING WATER RESOURCES

DRINKING WATER SUPPLY SITUATION

HEALTH AND SANITATION SITUATION

IRRIGATION SITUATION

HYDROPOWER SITUATION

WATER USE MASTER PLAN

Cover page for English Report- VDC level

**WATER USE MASTER PLAN
BELAPUR VDC
(VOLUME I)
MAIN REPORT**

*Main map: VDC Map which reflects ward division,
subcommittee division and water resources
(Springs, streams, lake, pond etc.)*

*Index map at bottom right corner: showing the VDC
in district map*

OCTOBER 2007

**WATER RESOURCES MANAGEMENT COMMITTEE BELAPUR,
DADELDHURA**

Cover page for Nepali Report- VDC level

जलउपयोग गुरुयोजना
बेलापुर गा.वि.स.
(भाग - १)
मुख्य प्रतिवेदन

मुख्य नक्शा: वडा सिमाना, उपसमिति सिमाना सहित
पानीका श्रोतहरु (मुल, खोला, ताल, पोखरी आदी)
भल्कने गा.वि.स. नक्शा

इन्डेक्स नक्शा: गा.वि.स. देखाउने जिल्लाको नक्शा

आश्विन २०६४

जलश्रोत व्यवस्थापन समिति
बेलापुर, डडेल्धुर

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 - 1.1.1 Integrated Water Resources Management (IWRM)
 - 1.1.2 Water Resources Management and Water Use Master Plan
 - 1.1.3 Water Resources Sector Policies, Legal Provisions and Regulations (Reference Books)
- 1.2 OBJECTIVES AND SCOPE
- 1.3 METHODOLOGY
 - 1.3.1 Conceptual Framework
 - 1.3.2 Institutional Arrangement (Sub committee, main committee formation etc)
 - 1.3.3 Social Assessment
 - 1.3.4 Technical Assessment
 - 1.3.5 Field Survey and Data Collection
 - 1.3.6 Analysis of Data
 - 1.3.7 The Water Use Master Planning (SC level and VDC level)
- 1.4 LIMITATIONS OF THE PLAN
- 1.5 ORGANIZATION OF THE PLAN

CHAPTER II- THE VDC PROFILE

- 2.1 GENERAL FEATURES
- 2.2 LOCATION AND ACCESSIBILITY
- 2.3 PHYSICAL FEATURES (TOPOGRAPHY, LAND USE)
- 2.4 CLIMATE
- 2.5 HYDROLOGY, RIVER SYSTEM AND WATER RESOURCES
- 2.6 SUBCOMMITTEE DIVISION AND AREA COVERED
- 2.7 SOCIOECONOMIC CHARACTERISTICS
 - 2.7.1 Demography
 - 2.7.2 Ethnicity
 - 2.7.3 Culture
 - 2.7.4 Education
 - 2.7.5 Occupation and seasonal migration
 - 2.7.6 Agriculture and Live stock
 - 2.7.7 Seasonal Calendar
 - 2.7.8 Economy and Well Being Ranking
 - 2.7.9 Local Human Resources(*Skilled labor*)
 - 2.7.10 Availability of Local Construction Material
 - 2.7.11 Gender and Social Inclusion

- 2.8 SERVICE CENTERS AND FACILITIES
 - 2.8.1 Health
 - 2.8.2 Education
 - 2.8.3 Other Facilities (other services and facilities shall be illustrated by maps, etc and can be analyzed in graphs)
- 2.9 DEVELOPMENT ACTIVITIES
 - 2.9.1 Government Activities
 - 2.9.2 I/NGO Sector and its Activities
 - 2.9.3 Local Community Organization

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 - 3.1.2 Water Resources Analysis
 - 3.1.2.1 Source by Discharge
 - 3.1.2.1 Source by Location
 - 3.1.2.3 Source by Quality
 - 3.1.2.4 Source by Existing Use
 - 3.1.2.5 Source by Potential Use
 - 3.1.2.6 Source Disputes
 - 3.1.2.7 Water Resources Balance and Demand Analysis
- 3.2 WATER SUPPLY
 - 3.2.1 Water Supply Coverage
 - 3.2.2 Existing and On-going Water Supply Schemes
 - 3.2.3 Service Level and Hardship
 - 3.2.4 Water Quantity Available Vs Consumption
 - 3.2.5 Sustainability, Operation and Maintenance
 - 3.2.6 Issues in Drinking Water Supply
- 3.3 SANITATION
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 - 3.3.2 Household Sanitation and Latrine
 - 3.3.3 Environmental Sanitation
 - 3.3.3.1 Open Defecation and effects
 - 3.3.3.2 Carcass and solid waste disposal
 - 3.3.3.3 Cremation area and effects
 - 3.3.4 Issues in Sanitation
- 3.4 IRRIGATION
 - 3.4.1 Land use Pattern
 - 3.4.1.1 Agricultural Land
 - Irrigated Land
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- 3.4.1.2 Forest Land
- 3.4.1.3 Grazing Land / Marginal Land
- 3.4.2 Existing Irrigation Situation
- 3.4.3 Issues in Irrigation Development
- 3.5 HYDRO POWER
 - 3.5.1 Energy Consumption and Requirement
 - 3.5.2 Existing Hydro Energy and Micro-Hydropower (*Including Water Mill, Ghatta*)
- 3.6 ENVIRONMENT AND ECOLOGY
- 3.7 OTHERS

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- 4.1 PLANNING AND DEVELOPMENT STRATEGY
 - 4.1.1 IWRM Approach
 - 4.1.1.1 Conservation and Protection of Water Resources
 - 4.1.1.2 Multiple Use of Water
 - 4.1.1.3 Balanced use of water
 - 4.1.1.4 Productive use of water
 - 4.1.1.5 Efficient use of water
 - 4.1.2 Water Resources Use Conflicts
 - 4.1.3 Gender and Social Inclusion
 - 4.1.4 Prioritization of Usage

CHAPTER V- WATER USE MASTER PLAN (WUMP)

5.1 SUB COMMITTEE LEVEL WUMP

- 5.1.1 Proposed Water Supply and Sanitation Schemes (*New and Rehabilitation*)
 - 5.1.1.1 Gravity/Pumping Water supply Schemes
 - 5.1.1.2 Point Sources Improvement Schemes
 - 5.1.1.3 Rain/Fog Water Harvesting Schemes
 - 5.1.1.4 Sanitation Schemes
- 5.1.2 Proposed Irrigation Schemes
- 5.1.3 Proposed Hydro-Energy & Micro-hydro Schemes
- 5.1.4 Proposed Multiple Use System Application (MUSA) Scheme
- 5.1.5 Proposed Environment and Ecology Schemes (*activities to increase quantity and quality of water resources in the area - including conservation of water resources, watershed management, bioengineering in landslide area, etc*)

5.2 VDC LEVEL WUMP

5.2.1 Debate and Prioritization of Proposed Schemes at VDC Level

5.2.2 Investment Plan in terms of Five Year Action Plan

5.2.3 Formulation of First Year Detailed Action Plan

5.2.4 Monitoring Action Plan

CHAPTER VI - WUMP IMPLEMENTATION, MOBILISATION & UPDATING

6.1 WUMP IMPLEMENTATION (*Application of WUMP for selection of schemes as per the prioritization*)

6.2 WUMP MOBILISATION (*Approach to GON/NGO/donors for funding the schemes, information dissemination, etc*)

6.2 WUMP UPDATING (*Monitoring situation of water resources facilities and activities, information collection mechanism and updating WUMP database and report*)

LIST OF TABLES

LIST OF FIGURES

LIST OF MAPS

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WATER USE MASTER PLAN

BELAPUR VDC

(VOLUME II)

APPENDICES

*Main map: VDC Map which reflects ward division,
subcommittee division and water resources
(springs, streams, lake, pond etc.)*

*Index map at bottom right corner: showing the VDC
in district map*

OCTOBER 2007

WATER RESOURCES MANAGEMENT COMMITTEE BELAPUR,
DADELDHURA

Volume 2: Appendices – Table of contents

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APPENDIX-II	PROPOSAL FOR WATER SUPPLY PROJECT (RWH/FOGWATER, LIFT ETC)
APPENDIX-III	PROPOSAL FOR IRRIGATION PROJECTS
APPENDIX-IV	PROPOSAL FOR MICRO HYDRO PROJECT
APPENDIX-V	PROPOSAL FOR MUSA PROJECT
APPENDIX-VI	PROPOSAL FOR MISCELLENEOUS PROJECT
APPENDIX-VII	SUBCOMMITTEE PROFILE
APPENDIX-VIII	SOURCE DESCRIPTION
APPENDIX-IX	DWS SERVICE LEVEL ASSESSMENT
APPENDIX-X	FETCHING TIME, QUANTITY AVAILABLE AND CONSUPTION PATTERN
APPENDIX-XI	INVENTORY- EXISTING WATER SUPPLY PROJECTS
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APPENDIX-XIII	INVENTORY-EXISTING MICRO HYDRO PROJECT
APPENDIX-XIV	INVENTORY MISCELLENEOUS PROJECT
APPENDIX-XV	NEED IDENTIFICATION AND SUBCOMMITTEE LEVEL PLANNING
APPENDIX-XVI	WRMC MEMBER DETAIL
APPENDIX-XVII	WRMSC MEMBER DETAIL
APPENDIX-XVIII	COODING FOR DATABASE

WATER USE MASTER PLAN
BELAPUR VDC
(VOLUME III)

MAPS

*Main map: VDC Map which reflects ward division,
subcommittee division and water resources
(springs, streams, lake, pond etc.)*

*Index map at bottom right corner: showing the VDC
in district map*

OCTOBER 2007

WATER RESOURCES MANAGEMENT COMMITTEE BELAPUR,
DADEL DHURA

Volume III: Maps – Guidelines, contents and lists of maps

LIST OF MAPS

GIS Map - Digital and Prints:

Formats:

All the elements describe hereafter have to be produced as a hard copy, a shp file in standard UTM coordinate and a PDF file ready for A4 printing unless specified otherwise.

Each map should have a unique reference number, a scale and a coordinate grid in standard UTM.

MAP-I: General Location Map:

Based on digitized topo map reducing the nbr of details for easy perception, Inclusion of ward boundaries and villages (settlement) names, Toponymy should be verified with locals. An index map should be incorporated showing the location in Nepal and district.

Printing size A3 color

MAP-II: VDC MAP SHOWING SUBCOMMTTE POLYGON BY BACKGROUND DIFFERENT BACKGROUND COLOUR WITH WARD BOUNDARY, RIVER AND TRAIL AND SETTLEMENTS

MAP-III: VDC LEVEL LOCATION OF SOURCES, EXISTING WATER BODIES AND FLOW MEASUREMENT POINTS OF STREAMS

Based on GPS surveys, map ALL the water sources considered in the inventory, all the water bodies, flow measurement points of the streams. Using GPS survey, also map all the clusters (by shared use of water tapping points) in the villages. Indicate source, flow measurement point in map by last three digit code (eg. 305: 3 for Ward id + 05 for water source id)

For clarity, includes roads, rivers and streams, settlement names (if settlement names differ from the topo map establish a table of correspondence), major landmarks

Printing size A3 color

MAP-IV: EXISTING, ONGOING AND PLANNED WATER SUPPLY PROJECT

MAP-V: EXISTING, ONGOING AND PLANNED IRRIGATION PROJECT

MAP-VI: EXISTING, ONGOING AND PLANNED MICROHYPOWER PROJECT

(Guideline for MAP IV, V and VI)

Based on GPS surveys, map the existing, under-construction and proposed individual schemes water supply, Irrigation and Hydropower (microhydro, traditional water mills, turbine mills, etc). Parallel elements of different schemes should be shown on each map.

Contours, roads, rivers, landmarks, spot levels from the topo map should be added. Use standardized symbols for water supply, irrigation, micro-hydro, water mills and turbine mills.

When available use downloaded satellite imagery from Google Earth as background.

Households' location should be approximated with digital topo map layer or with GPS survey if new settlements have emerged since the topo map establishment.

Approximate layout of future schemes should be prepared on the topo map background with contours .When available satellite imagery downloaded from Google Earth should be added as a background.

MAP-VII: Water Supply Served and Unserved Map

MAP- VIII: Irrigation Served and Unserved Map

MAP IX: Hydropower Served and Unserved Map

(Guideline for MAP VII, VIII and IX)

Covering the whole VDC, an analysis of area served well, satisfactorily, unsatisfactorily and not served by any scheme should be prepared. Irrigation service, water supply and hydropower service should be separated.

Water supply service level map should show service level of cluster by colour points and hardship score of sub-committee by colour ranges - <100, 101-150, 150-200, >200.

Covering sub-committee, an analysis map of the area with existing service levels of water supply facilities shall be produced. For the purpose, GPS location of cluster with shared water supply systems shall be analysed. Refer Format TA/01-I: Sub-committee profile.

Approximate layout of future scheme should be added on this served/unserved background
Printing size A1 color

MAP-X: Defecation, cremation, carcass disposal/solid waste disposal area

A map evaluating the area where the population without toilet most frequently defecates should be prepared. Rivers, path and sources should be mapped as background. Additionally cremation, carcass disposal and solid /liquid waste disposal area shall be equally mapped.

MAP-XI: Catchment of river/stream used or planned for irrigation, micro-hydro, traditional water mills and turbine mills

A map of the catchments of the rivers/streams presently used or planned for irrigation, micro-hydro, traditional water mills and turbine mills should be prepared.

Presence of irrigation systems, micro-hydro projects, traditional water mills and turbine mills using the same rivers/streams downstream or upstream outside the programme VDC should be investigated with local informants.

Approximate location of these intakes outside the programme VDC should be mapped.
Printing size A3 color

MAP- XII: HOLISTIC PLAN

A map showing existing, ongoing and proposed all project (DWS, irrigation, hydropower, MUSA and others with water sources, water bodies), settlements, road trail and other relevant things . Printing size A1

Cover page for Nepali Report- Sub-committee level

जलउपयोग गुरुयोजना
उपसमिति - १
बेलापुर गा.वि.स.
(भाग १)
मुख्य प्रतिवेदन

मुख्य नक्शा: गा.वि.स. उपसमिति नक्शामा
वार्ड सिमाना सहित पानीका श्रोतहरु (मुल, खोला, ताल,
पोखरी आदी) भल्कने नक्शा

इन्डेक्स नक्शा: उप समिति देखाउने गा.वि.स.को नक्शा

जलश्रोत व्यवस्थापन समिति
बेलापुर, डडेल्धुरा

बिषय-सुची

प्रतिवेदन सारांश

परिच्छेद एक: परिचय

जलश्रोत व्यवस्थापन तथा जलउपयोग गूरुयोजना

परिच्छेद दूई: उपसमितीको पार्श्वचित्र

२.१ परिचय

२.२ उपसमितीको सामाजिक तथा आर्थिक बिबरण

२.२.१ जनसख्या तथा घरधूरी

२.२.२ शैक्षिक बिबरण

२.२.३ कृषि तथा पशूपालन

२.२.४ घर परिवारको आर्थिक स्थिती

२.२.५ स्थानिय जनशक्ति

२.२.६ मौसमी पात्रो

२.२.७ बिकास निर्माणका कृयाकलापहरु

परिच्छेद तीन: बिद्यमान जलश्रोतको अबस्था

३.१ परिचय

३.१.१ जलश्रोत र बर्गिकरण

३.१.२ जलश्रोतको बिश्लेषण

३.१.२.१ क्षमता

- ३.१.२.२ अवस्थिती
- ३.१.२.३ गूणस्तर
- ३.१.२.४ बिद्यमान उपयोग
- ३.१.२.५ संभावित उपयोग
- ३.१.२.६ श्रोत बिबाद
- ३.२ खानेपानी
 - ३.२.१ खानेपानी सूबिधा
 - ३.२.२ बिद्यमान र निर्माणाधिन खानेपानी योजनाहरु
 - ३.२.३ सूबिधा र कठीनता स्तर बर्गिकरण
 - ३.२.४ खानेपानीको उपलब्धता र खपत
- ३.३ सरसफाई
 - ३.३.१ स्वास्थ्य र सरसफाईको अवस्था
 - ३.३.२ घरायसी सरसफाई र शौचालयहरुको अवस्था
 - ३.३.३ बाताबरणीय सरसफाईको अवस्था
 - ३.३.३.१ खुल्ला दिसा पिसाब गर्ने क्षेत्रहरु र असर
 - ३.३.३.२ फोहर मैला ब्यवस्थापन
 - ३.३.३.३ घाट/चिहान क्षेत्रहरु र असर
- ३.४ सिंचाइको अवस्था
- ३.५ बिद्यमान जलशक्तिको अवस्था
- ३.६ बाताबरणीय तथा पर्यावरणीय अवस्था

परिच्छेद चार: जलउपयोग गूरु योजना

- ४.१ गूरु योजना तर्जुमा
 - ४.१.१ प्रस्तावित खानेपानी तथा सरसफाई योजनाहरु
 - ४.१.१.१ पाइप लाइन ढन्चबखप्तथणखानेपानी योजनाहरु
 - ४.१.१.२ श्रोत सूधारका योजनाहरु

- ४.१.१.३ बर्षातको पानी संकलन योजनाहरु
- ४.१.१.४ सरसफाई योजनाहरु

- ४.१.२ प्रस्तावित सिंचाई योजनाहरु
- ४.१.३ प्रस्तावित जलबिद्युत तथा जल शक्ति योजनाहरु
- ४.१.४ प्रस्तावित बहू उपयोगी योजनाहरु
- ४.१.५ प्रस्तावित बाताबरणीय तथा पर्यावरणीय योजनाहरु
- ४.१.६ पाच बर्षे कार्य योजना
- ४.१.७ एक बर्षे कार्य योजना

परिच्छेद पांच: गूरुयोजना कार्यान्वयन परिचालन र
अध्यावधिक

Others

1. Descriptions of WUMP Reports in all reports Front Cover Page Inside

WUMP Reports	
Leaflet:	Executive Summary
VDC Level Report	
Volume 1:	Main Report
Volume 2:	Appendices
Volume 3:	Maps
Subcommittee Level Report	
Volume 1:	Main Report
Volume 2:	Appendices
Data Base: E-copy	

2. Some Relevant Photograph in back cover inside
Photograph taken during Social and Technical Assessment
(Minimum 4, Maximum 6 Nos.)

3. Cover page Colour
Use different colour cover page for different reports

VDC level Report

- Volume 1: Main Report: abc.. colour for all VDC (English and Nepali)
- Volume 2: Appendices: bcd.. colour for all VDC (English)
- Volume 3: Map: cde.. colour for all VDC (English)

Sub Committee Level Report

- Volume 1: Main Report: def.. colour for all VDC (English and Nepali)
- Volume 2: Appendices: fgh.. colour for all VDC (English)

जलउपयोग गूरुयोजना

उपसमिति स्तरीय बिषयसुची

प्रतिवेदन सारांश

परिच्छेद एक परिचय

जलश्रोत ब्यवस्थापन तथा जलउपयोग गूरुयोजना

परिच्छेद दूई उपसमितीको पार्श्वचित्र

२।१ परिचय

२।२ उपसमितीको सामाजिक तथा आर्थिक बिबरण

२।२।१ जनसख्या तथा घरधूरी

२।२।२ शैक्षिक बिबरण

२।२।३ कृषि तथा पशूपालन

२।२।४ घर परिवारको आर्थिक स्थिती

२।२।५ स्थानिय जनशक्ति

२।२।६ मौसमी पात्रो

२।२।७ बिकास निर्माणका कृयाकलापहरु

परिच्छेद तीन बिद्यमान जलश्रोतको अबस्था

३।१ परिचय

३।१।१ जलश्रोत र बर्गिकरण

३।१।२ जलश्रोतको बिश्लेषण

- ३१।२।१ क्षमता
- ३१।२।२ अवस्थिती
- ३१।२।३ गूणस्तर
- ३१।२।४ बिद्यमान उपयोग
- ३१।२।५ संभावित उपयोग
- ३१।२।६ श्रोत बिबाद

३।२ खानेपानी

- ३।२।१ खानेपानी सूबिधा
- ३।२।२ बिद्यमान र निर्माणाधिन खानेपानी योजनाहरु
- ३।२।३ सूबिधा र कठीनता स्तर बर्गिकरण
- ३।२।४ खानेपानीको उपलब्धता र खपत

३।३ सरसफाई

- ३।३।१ स्वास्थ्य र सरसफाईको अवस्था
- ३।३।२ घरायसी सरसफाई र शौचालयहरुको अवस्था
- ३।३।३ बाताबरणीय सरसफाईको अवस्था
 - ३।३।३।१ खुल्ला दिसा पिसाब गर्ने क्षेत्रहरु र असर
 - ३।३।३।२ फोहर मैला ब्यवस्थापन
 - ३।३।३।३ घाट/चिहान क्षेत्रहरु र असर

३।४ सिंचाइको अवस्था

३।५ बिद्यमान जलशक्तिको अवस्था

३।६ बाताबरणीय तथा पर्यावरणीय अवस्था

परिच्छेद चार जलउपयोग गूरु योजना

४।१ गूरु योजना तर्जुमा

४।१।१ प्रस्तावित खानेपानी तथा सरसफाई योजनाहरु

४।१।१।१ पाइप लाइन ढन्चबखप्तथणखानेपानी योजनाहरु

४।१।१।२ श्रोत सूधारका योजनाहरु
४।१।१।३ वर्षातको पानी संकलन योजनाहरु
४।१।१।४ सरसफाई योजनाहरु

४।१।२ प्रस्तावित सिंचाई योजनाहरु
४।१।३ प्रस्तावित जलबिद्युत तथा जल शक्ति योजनाहरु
४।१।४ प्रस्तावित बहू उपयोगी योजनाहरु
४।१।५ प्रस्तावित बाताबरणीय तथा पर्यावरणीय योजनाहरु
४।१।६ पाच बर्षे कार्य योजना
४।१।७ एक बर्षे कार्य योजना

परिच्छेद पाच गूरुयोजना कार्यान्वयन परिचालन र
अध्यावधिक

ANNEX 7

Monitoring Formats

MONITORING OF WATER USE MASTER PLAN PREPARATION

District: VDC:

1 Workplan mass meeting at VDC level:

Table 1.1: Participation of people in workplan mass meeting /rapport building meeting at VDC level

Events	Date	Total No. of HH	Participation								
			Total		Dalit		Janajati		Other		
			Female	Male	Female	Male	Female	Male	Female	Male	
Mass meeting at VDC level											

Table 1.2 Area covered by Sub-committee

Sub-committee No.	Covered ward	No. of Villages	Village name
1			
2			
3			
4			
5			
6			
7			
8			
9			

2 Formation of WRMSC and WRMC:

Table 2.1: Participation of people in formation of sub-committees and main committee

Events	Date	Total No. of HH	Participation							
			Total		Dalit		Janajati		Other	
			Female	Male	Female	Male	Female	Male	Female	Male
SC1 formation										
SC2 formation										
SC3 formation										
SC4 formation										
SC5 formation										
SC6 formation										
SC7 formation										
SC8 formation										
SC9 formation										
WRMC formation										
Total										

Table 2.2: Composition in WRMSC and WRMC

WRMSC / WRMC	Composition							
	Total		Dalit		Janajati		Other	
	Female	Male	Female	Male	Female	Male	Female	Male
SC1								
SC2								
SC3								
SC4								
SC5								
SC6								
SC7								
SC8								
SC9								
WRMC								
Total								

Table 3.4: Identified water resources (in numbers)

	SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8	SC9			
Mul												
Kholsi												
Khola												
Pokhari, Tal, etc												
Total												

Corrections in Topomaps:

Are the topomaps verified and corrected including the following parameters?

Ward boundary:

.....

.....

.....

Villages (names and location):

.....

.....

.....

Other:

.....

.....

.....

4. Need identification

Table 4.1: No. of participants in need identification workshop

Sub-committee (SC)	Participation							
	Total		Dalit		Janajati		Other	
	Female	Male	Female	Male	Female	Male	Female	Male
SC1								
SC2								
SC3								
SC4								
SC5								
SC6								
SC7								
SC8								
SC9								
Total								

5. Planning

Table 5.1: No. of participants in planning workshop at sub-committee level and VDC/WRMC level

Sub-committee (SC)	Participation							
	Total		Dalit		Janajati		Other	
	Female	Male	Female	Male	Female	Male	Female	Male
SC1								
SC2								
SC3								
SC4								
SC5								
SC6								
SC7								
SC8								
SC9								
WRMC								
Total								

Table 5.2: Time taken for planning at sub-committee level

Planning workshop	Sub-committee											WRMC
	SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8	SC9			
1. Workshop at WRMSC level												
1.1 Days taken												
1.2 Total time taken (hours)												
2. Workshop at WRMC level												
2.1 Days taken												
2.2 Total time taken (hours)												

5.1 Planning by using focus groups at village level (if any):

.....

.....

.....

.....

.....

.....

Table 5.4: No. of facilitators involved in **planning workshop** at sub-committee level and VDC/WRMC level

	SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8	SC9			WRMC
District Coordinator												
Social coordinator												
Enumerator												
Engineer												
Overseer												
Other												
Total												

5.1 Time taken for planning at VDC/WRMC level workshop

Total time taken (hours): Days taken:

5.2 Involvement of stakeholders at VDC level workshop

1. Political parties:
2. VDC bodies/secretary:
3. Others (Local NGOs, CBOs, Teachers):
4. DDC:

5.3 Water resources inventory

- No. of spring sources (Mul) measured:
- No. of spring fed stream sources measured:
- No. of stream sources measured:
- No. of measured points in streams:

Table 5.4 Involvement of community people during source measurement

Sub-committee (SC)	Participation							
	Total		Dalit		Janajati		Other	
	Female	Male	Female	Male	Female	Male	Female	Male
SC1								
SC2								
SC3								
SC4								
SC5								
SC6								
SC7								
SC8								
SC9								
Total								

Table 5.5: Source inventory and measurement (number)

	SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8	SC9			Total
1. Source identified by resource mapping												
2. Additional resource identified by technical team												
3. Could not found by technical team												
4. Net water resources (1+2-3)												
4. Measured by technical team												
Total												

5.4 Team members of consultants involved in the field for facilitating people on WUMP preparation

Table 5.6: Proposed team as per TOR:

SN	Position	Number	Qualification	Experience
A	Field Staff:			
1	District coordinator	1	Engineer	
2	Social coordinator	1	Bachelor	
3	Overseer	1	Sub-Engineer	
4	Enumerator	1	SLC	
B	Support team members:			
1	Team leader	1	Engineer	
2	Central backstopping	1	Representative of consulting firm	
3	GIS expert	1	Expertise in GIS	
4	Computer operator	1	Expertise in database	

Table 5.7: Actual working team:

SN	Name	Position	Ethnicity	Gender	Experience on WUMP (Year)	Experience on water sector (Year)
1		District coordinator				
2		Social coordinator				
3		Overseer				
4		Enumerator				

7. Assessment of data quality

7.1 Focus group discussion with sub-committee members

Sample study with focus group with members of a sub-committee to verify reliability/data quality of water resources inventory and planning done in their sub-committee (sample of one sub-committee area will be taken for this focus group discussion).

Inventory:

1. No. of water resources identified during social mapping:
2. No. of additional water resources identified during source measurement:
3. In addition to the above, do you think there are more water resources in the area?
Yes/No
4. If yes, how many and where?
.....
5. Are technical team measured those additional water sources? Yes/No
6. Reasons for not including those water resources in social mapping?
.....
.....
7. Quality verification of social data of the sub-committee
8. Verification of topomap of the sub-committee (including ward boundary, village name & location, etc)
9. Present situation of water facilities (present condition of existing systems and service level, etc)

Planning:

Explore level of involvement and understanding of sub-committee members in the following steps of WUMP preparation process. Appropriateness, data reliability and level of comprehensiveness of following steps planning have to be verified as well from this focus group.

1. Involvement of sub-committee members in their WUMP preparation activities.
2. Understanding about WUMP preparation processes.
3. Planned use of water resources (appropriateness and balanced use of water)
4. Planned activities to increase availability of water resources in the area throughout the year (environment conservation and watershed management activities)
5. Other planned activities in the WUMP
6. Priority of the planned activities in their sub-committee

