# OPERATIONS MANUAL

## FOR

# UTTARAKHAND RURAL WATER SUPPLY & SANITATION PROJECT

# (SECTOR PROGRAM)

**April, 2007**

# PROJECT MANAGEMENT UNIT

**Mussoorie Diversion Road, Makkawala, Post Box: 154,**
**Dehradun-248001**
**Telephone: 91-135-2733380/2733455, Fax: 91-135-2733381**
**E-mail: pmu_uttaranchal@rediffmail.com**
**pmu_uttaranchal@yahoo.com**

## ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| APL | Above Poverty Line |
| AG | Auditor General |
| ARWSP | Accelerated Rural Water Supply Program |
| BPL | Below Poverty Line |
| CAG | Comptroller and Auditor General |
| CAP | Community Action Plan |
| CAS | Country Assistance Strategy |
| CAT | Catchment Area Treatment |
| CB | Capacity Building |
| DPMU | District Program Management Unit |
| DPR | Detailed Project Report |
| DDW | Department of Drinking Water |
| DWSM | District Water and Sanitation Mission |
| EA | Environmental Assessment |
| ECOP | Environmental Code of Practices |
| EMF | Environmental Management Framework |
| FC | Habitation categorized as “fully covered”by water supply services |
| FM | Financial Management |
| GOI | Government of India |
| GoUA | Government of Uttarakhand |
| GP | Gram Panchayat |
| HESA | Hygiene and Environmental Sanitation Awareness |
| ICB | International Competitive Bidding |
| ICR | Implementation Completion Report |
| IDA | International Development Association |
| IEC | Information Education Communication |

| | |
|---|---|
| M&E | Monitoring and Evaluation |
| MTDP | Medium Term Development Program |
| MIS | Management Information System |
| MoU | Memorandum of Understanding |
| MTP | Medium Term Program |
| MVS | Multi Village Scheme |
| MVSLC | Multi Village Scheme Level Committee |
| NC | Habitation categorized as “not covered”by water supply services |
| NCB | National Competitive Bidding |
| NGO | Non Governmental Organization |
| O&M | Operation and Maintenance |
| PC | Habitations categorized as “partially covered” by water supply services |
| PMU | Program Management Unit |
| PRA | Participatory Rural Appraisal |
| PRI | Panchayati Raj Institution |
| RV | Revenue Village |
| RWSS | Rural Water and Sanitation Sector |
| SA | Service Agency |
| SARAR | Self-esteem, Associative Strength, Resourcefulness, Action plan, Responsibility |
| SEE | Sustainability Evaluation Exercise |
| SO | Support Organization |
| SVS | Single Village Scheme |
| SWAp | Sector Wide Approach |
| SWSM | State Water and Sanitation Mission |
| TOR | Terms of Reference |
| TSC | Total Sanitation Campaign |
| UJN | Uttarakhand Peyjal Nigam |
| UJS | Uttarakhand Jal Sansthan |
| UWSSC | User Water and Sanitation Sub Committee |
| VWSC | Village Water and Sanitation Committee |

# CONTENTS

# List of Annexures

# Executive Summary

The objective of this Operations Manual is to describe the Sector Wide Approach (SWAp) (referred as Sector Program) being followed by Government of Uttranchal for implementation of its Rural Water Supply and Sanitation activities, and explain in detail the operations involved in its implementation. This manual is a collection of reference material for implementation of the Sector Program and should be used for assessing the propriety of procedures in its implementation and also for understanding how the basic tenets of demand driven approach will be realized in the sector.

This manual is also linked to various other manuals which provide complete information on specific related aspects. Such linkages are explained where necessary. The manual is divided into various chapters, which highlight various aspects of the Program as listed below.

***Preface*** explains briefly the scope of the manual, the various elements of the Sector Program and their inter-linkages, how to use the manual and how to update the manual on a regular basis.

***Chapter 1 Introduction*** is primarily about the introductory details of the state of Uttarakhand. The relevant details of the state are placed in the Annexure-1.

***Chapter 2 Existing Scenario and Issues of Water Supply and Sanitation Sector in Uttarakhand*** deals with the existing scenario and issues of Water Supply and Sanitation Sector in Uttarakhand. The latest status of the water supply coverage of the rural habitations as per the Rajiv Gandhi National Drinking Water Mission (RGNDWM) Survey of Habitations 2003 has been provided in the Annexure-2. The existing modalities of implementation and maintenance of water supply schemes including the Uttarakhand Rural Water Supply & Environmental Sanitation Project (Swajal Phase- I) and the on going programs like the GoI funded Sector Reform Project, Swajaldhara Program and the Total Sanitation Campaign have also been briefed**.** The need for change in the water and sanitation sector in Uttarakhand to implement the community driven model in the sector, across the state for Single Village Schemes and Multi Village Schemes has also been reflected in the chapter.

***Chapter 3 Concept of Sector Wide Approach (SWAp) and Sector Program*** details the concept of the Sector Wide Approach (SWAp). SWAp essentially represents an approach wherein *"most significant public funding for the sector supports a single sector policy and expenditure program, under government leadership, adopting common approaches across the sector, and progressing towards relying on government procedures to disburse and account for all public expenditure, however funded."* The Chapter also dwells upon the Government's water and sanitation policy to implement the sector Program. The Uttarakhand RWSS Sector Medium Term Development Program, preparation of the Annual Plans and the Sector Implementation Program has also been detailed in the Chapter.

***Chapter 4 Social Assessment*** covers the beneficiary assessment which primarily aimed at developing socio-economic profiles at state, district and village levels; stakeholder analysis, which includes identification of stakeholders at GP, Block, District and State levels & mapping their key expectations as well as issues & concerns with special

reference to water supply and sanitation services; Social Impact Assessment and the Risks Analysis which provided an insight into the major social risks and management measures to address them.

***Chapter 5 Institutional Arrangements for Sector Program for Uttarakhand*** gives a overall structure of the institutional arrangements for the sector Program for Uttarakhand. The existing set up of the WATSAN sector in the state and the composition of the boards of Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan and the society of the Swajal Directorate have been provided in this chapter. The present structure of these organisations with their functions and manpower details has been detailed. The proposed roles and responsibilities of these organisations for the implementation of the sector Program have also been highlighted. The implementation arrangements for the sector Program at the state level, district level and the Gram Panchayat/users level have also been described.

The Apex Committee under the Chairmanship of Hon'ble Chief Minister shall perform the functions of the State Water and Sanitation Mission. The Apex Committee shall develop policy guidelines for the entire water supply and sanitation sector. The committee shall issue directions for coordination between various departments in the state.

A separate cell will be established at the Department of Drinking Water, GoUA which shall act as the Secretariat of SWSM. To begin with, this cell may be headed by Additional Secretary, Drinking Water, GoUA and shall comprise dedicated, full time, senior officers not below the rank of Superintending Engineer from Uttarakhand Peyjal Nigam & Uttarakhand Jal Sansthan, one senior level Finance Officer from the State Finance Services. The cell will be assigned responsibility for overseeing the progress of reform principles in the activities of Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and RWSES society (PMU).The cell will have a predominant role in the implementation of the sector Program.

District Water & Sanitation Mission (DWSM) headed by the Zilla Panchayat Chairperson at district level shall implement the policy decisions for the sector Program as per the policy decisions of the state Govt. and State Water & Sanitation Mission .District Water & Sanitation Committee (DWSC) headed by Chief Executive Officer of Zilla Panchayat/Chief Development Officer will assist the DWSM at the district level for the day to day activities.

Gram Panchayats will setup separate User Water Supply and Sanitation Sub-Committees (UWSSCs) within its area of jurisdiction depending on the number of drinking water schemes in the area. The UWSSC has been declared as sub-committee of Jal Prabandhan Committee of Gram Panchayat. Multi Village Scheme Level Committee (MVSLC) will be formed for Multi Village Schemes which will serve more than one Gram Panchayat. This committee shall be responsible for the coordination with the sector institutions and the various UWSSCs.
The various organograms for the institutional arrangements for the implementation of the sector Program have been provided at the end of the Chapter.

***Chapter 6 Implementation Modalities of the Sector Program*** details the implementation arrangements for the sector Program. The investment guidelines and the project cycle for the various categories of the schemes to be undertaken are included in this chapter.

***Chapter 7 Operational procedures for implementation of the sector Program*** provides the details of the operational procedures for the implementation of the sector Program

including functional procedures at SWSM level, DWSM level and procedure for implementation of SVS and MVS.

***Chapter 8 Capacity Building*** *Plan* describes the detailed capacity building Program and strategies for the various stakeholders for the sector Program. All stakeholders involved in the implementation of the Sector Program and in RWSES strengthening, can be classified into four broad categories - stakeholders at the apex level, strategic level, intermediary level and grass root level. On the basis of the recommendations of the study titled 'Roles and Responsibilities of Sector Institutions and PRIs' and other concurrent studies, the critical stakeholders have been identified, as well as their specific capacity building needs on the basis of gaps in their present capacities.

***Chapter 9 Communication Strategy*** covers all aspects of communication for the sector program including – planning and implementation strategy, interaction among program functionaries, interaction between the target communities and the program functionaries, selection and execution of schemes and sub-programs activities, gender sensitivity among program functionaries, training of various program functionaries, media outreach and involvement of external stakeholders in this program.

***Chapter 10 Financial Management Guidelines*** gives the details of the Financial Management System for the Sector Program. The existing fund flow and accounting arrangements along with the proposed fund flow and accounting arrangements for all the stakeholders of the sector Program have been provided in the chapter.

***Chapter 11 Procurement System for the Sector Program*** deals with the procurement aspects of the sector Program. The aim of procurement is to obtain right quality of works, goods or services at reasonable and competitive prices giving equal opportunities to those individual/companies/ firms/manufacturers/builders who are capable to deliver the goods works and services. The chapter also details the various methods of procurement along with the Procurement plan/schedule mentioning the description of work for goods, works and services with their value involved consistent with technically and administratively approved estimates

***Chapter 12 Catchment Area Conservation and Management Program*** pertains to the catchment area conservation and management program within the Sector Program. Source protection and its sustainability have been identified as a priority area of intervention under the environment component of the proposed Program. Various interventions have already been demonstrated in Swajal project's micro-catchment treatment options for source protection and recharge of the local aquifer. In the sector Program, it is intended to upscale similar type of interventions. The sources include perennial spring water, stream water and uncontaminated shallow and deep aquifers that can be tapped for single/ multi village based piped water supply schemes.

***Chapter 13 Environment Management Framework*** elaborates upon the Environment Management Framework (EMF) for the Sector Program. EMF is a roadmap, which shows how the key environmental issues would be identified, assessed, managed and monitored by the Program Implementing Agencies for incorporation of environmental management measures into the main program planning, execution, operation & maintenance. It lays down a step-by-step methodology for activities that have to be undertaken parallel to the engineering and institutional intervention measures of the main program. It contains

relevant matrix and checklists to be utilized for the above-mentioned works. It also elaborates the framework and action plans, for various environmental key issues like water quantity, water quality, environmental sanitation, institutional arrangements, fund-flow mechanism, screening processes and environmental monitoring that need to be addressed.

***Chapter 14 M&E System for Sector Program*** describes the proposed Monitoring and Evaluation (M&E) system for the Sector Program. The proposed M&E system has the following four components:

- Computer-based MIS
- Periodic Review
- Sustainability monitoring and evaluation
- Community monitoring

The results-framework analysis of the Sector Program has been provided in Annexure-35.

# Preface

This Preface covers:

- Scope of the Manual
- Various elements of the Sector Program and their inter-linkages
- How to use the manual, and
- Process of updating the manual

**Scope of the Manual:** Operations Manual for the Sector Program has been prepared on the basis of policies and guidelines of the Government of Uttarakhand for the water and sanitation sector and it follows the Sector Wide Approach (SWAp). The Manual shall serve as a ready reference tool for the various implementation aspects of the sector Program. This manual has been prepared for the implementation of the Program in well planned and organised manner.

The manual describes the existing scenario and issues of Water Supply and Sanitation Sector in Uttarakhand and details the concept of the Sector Wide Approach (SWAp). It also gives a detailed insight into the existing and the proposed institutional arrangements at the state, district and the village level for the implementation of the sector Program. It provides information on detailed implementation modalities.

This manual is basically a collection of reference material for implementation of the Program and should be used for assessing the propriety of procedures in implementation an also for understanding how the basic tenets of demand driven approach will be realized in the sector.

***Various elements of the Sector Program and their linkages***

The Sector Program includes three components. The Operation Manual gives general description of the various issues and Program components. Detailed information on particular aspects is provided in the Annexes.

The program implementation also requires reference to various related issues such as Technical, Financial, Procurement, Environmental and Monitoring and Evaluation.

As a part of the preparation of the Program, the following manuals were prepared:

**Technical Manual**
**Financial Management Manual**
**Procurement Manual**
**Environment Manual**
**M&E Manual**

Besides these manuals, following other documents have also been prepared for practical guidance on various issues-

**Social Assessment Report**
**Capacity Building Plan**
**Communication Strategy**
**Sanitation and Hygiene Promotion Strategy**
**Catchment Area Treatment Plan**

In the manual, linkages are provided where required to the information available elsewhere.

***How to Use the Manual***

The above manuals and documents have to be referred constantly during the implementation of the sector Program. This Operations Manual shall provide the platform for establishing the linkages among the various manuals and documents prepared for guidance during implementation of sector Program.

***Updating the Manual***

New experiences will come across as we go for the implementation of this program and many times the institutional, financial and procedural systems may need attention for achievement of greater goals of the program. The requisite changes as a result of field experiences and the feedback received from the various stakeholders shall have to be constantly incorporated in this document to sustain its utility for the effective implementation of the Sector Program. In such situation, changes may be done in this manual by appropriate authorities so that the Program is implemented effectively and the main target is achieved.

# Chapter 1

# Introduction

## 1. Introduction about Uttarakhand state

### 1.1 General

The State of Uttarakhand was carved out of Uttar Pradesh and established in November 2000 AD as a separate state having Capital at Dehradun. The state geographically lies between longitudes $77^0$ 34' and $81^0$ 02'E and between latitudes $28^0$ 43' and $31^0$ 27' N. The state is predominantly a mountainous sector of Central Himalayan zone. It covers a total area of 53484 sq km of which almost 63% is under forest cover. The state comprises 13 administrative districts viz Almora, Nainital, Pithoragarh, Bageshwar, Champawat and Udham Singh Nagar in Kumaon division and Chamoli, Pauri, Tehri Garhwal, Uttarkashi, Haridwar, Dehradun and Rudraprayag in Garhwal division. These administrative district units are further divided into 49 Tehsils and 95 development blocks.

### 1.2 Physiography /Climate

There is a great geographical and topographic diversity in Uttarakhand. 88% of the land area is hilly and the rest comes under Bhabar and Tarai region, in the south. The elevation of this region ranges between 300 to 7000 meters above sea level. The temperatures in this area range between 0 to 40 degrees Celsius. However, temperature goes below freezing in many parts of this region during winters. The average annual rainfall for the region is around 1500 mm.

### 1.3 Demography

Uttarakhand has a population of 84,89,349 as enunciated under 2001 Census Operation. Out of these 63,10,275 live in rural areas spread over 16623 revenue villages which are settled in 39,967 habitations. The habitations population is located in a scattered manner between small gadhera and rivers and spread over 20 to 70 degree slopes of Himalayan and lesser Himalayan region.

### 1.4 Literacy Levels

The state has an overall literacy rate of 72.7 per cent, which marks a significant improvement from 57.7% in 1991. Among males, literacy rates are as high as 84 per cent while the corresponding percentage is 60 per cent in the case of females. In rural areas overall literacy rate is 68.1% while the male and female literacy rates for the rural population stand at 81.8% and 54.7% respectively.

The relevant details of Uttarakhand State have been provided in **Annexure-1.**

# Chapter 2

# Existing Scenario and Issues of Water Supply and Sanitation Sector in Uttarakhand

## 2.1 Status of Water Supply in the State

As per the Rajiv Gandhi National Drinking Water Mission, the rural habitations have been classified under following three categories:-

**2.1.1 Not Covered (NC)** : In this category, the drinking water source/point does not exist within 1.6 km of the habitations in plains or 100 meter elevation in hilly areas. The source/point may either be public or private in nature.

**2.1.2 Partially Covered (PC)** : Habitations which have a safe drinking water source/point (either private or public) within 1.6 km. in plains and 100 meter elevation in hill areas but the capacity of the system ranges between 10 lpcd to 40 lpcd, the habitations could be categorized as "Partially Covered (PC)".

**2.1.3 Fully Covered (FC) :** Habitations which have a safe drinking water source/point (either private or public) within 1.6 km. in plains and 100 meter elevation in hill areas and the capacity of the system is 40 lpcd and above, the habitations could be categorized as "Fully Covered (FC)".

The latest status of the water supply coverage of the rural habitations as per the Rajiv Gandhi National Drinking Water Mission (RGNDWM) Survey of Habitations 2003 is shown in the **Table 2.1** below

| Classification of Habitations | No. of Habitations |
|---|---|
| Fully Covered (FC) | 20739 |
| Partially Covered (PC) | 13899 |
| Uncovered (NC) | 4542 |
| Uninhabitated (NN) | 787 |
| Total | 39967 |

**Table 2.1 : Classification of Habitations**

In the above survey, rural habitation under a revenue village has been defined as a permanently settled population of five households or 25 persons whichever is more
These 39967 rural habitations are settled in 16623 revenue villages, spreading over 7562 Gram Panchayats.
The district wise details of the various categories of habitations as per the RGNDWM Survey 2003 are placed in **Annexure-2.**

## 2.2 Status of Rural Water Supply and Sanitation in Institutions

The present status of coverage of the rural institutions in the State is given in the **Table 2.2**

| S. No. | Institution | Total No. | Covered | Balance to be covered |
|---|---|---|---|---|
| 1. | School Buildings | 12758 | 6134 | 6624 |
| 2. | Primary Health Centers and Sub Centers | 902 | 405 | 497 |
| 3. | Anganwadis/Balwadis | 1724 | 533 | 1191 |
| 4. | Panchayat Ghar/ Offices | 2608 | 700 | 1908 |
| 5. | Market Places (Shanty) | 837 | 380 | 457 |
| | **Total** | **18829** | **8152** | **10677** |

**Table 2.2 : Rural Water Supply & Sanitation in Institutions**

## 2.3 Status of Rural Sanitation

The status of rural sanitation is given in the **Table 2.3**

| | | |
|---|---|---|
| Total Rural Population (2001 Census) | : | **6429308** |
| Total Rural Households (@ 5 persons/HH) | : | 1285862 |
| Total Households with latrines | : | 267707 |
| Sanitation Coverage | : | **21%** |
| Total Households to be Covered | : | **1018155** |

**Table 2.3: Rural Sanitation**

## 2.4 Existing Modalities of Implementation and Maintenance of Water Supply Schemes

Presently, there are three departments concerned directly with Rural Water Supply, Sanitation & Health education. Uttarakhand Peyjal Nigam (UJN) is responsible for planning, design and implementation of the government funded urban and rural water supply and urban sewerage systems in the state as well as for receipt and management of investment funds. The Uttarakhand Jal Sansthan (UJS) another Government Agency is responsible for operation and maintenance of water supply in rural and urban areas. The state has also benefited from the initiatives in involving communities in developing and managing their water supply and sanitation facilities through the World Bank assisted Swajal Project in 857 villages, completed in 2003. The Swajal Project had also covered hygiene awareness aspects in an integrated manner with Rural Water Supply and Sanitation. The Swajal Project continues to function as one of the RWSS agency for the proposed Sector Program (with World Bank's assistance) as well for implementation of the central government sponsored Swajaldhara II and TSC Programs.

In addition, the Gram Panchayats (GPs), in case of some single village schemes, and the Village Water Supply and Sanitation Committees (VWSC) in case of the Swajal Project, operate and maintain their water supply schemes. Many rural water supply schemes, which have not yet been handed over by the UJN to the concerned maintenance agencies (UJS/ GPs), are being maintained by UJN.

At present, there are 10,276 rural water supply scheme of which there 6399 SVS and 3877 MVS being operated by the Sector Institutions and the GPs / UWSSCs. The proportions of the SVS and MVS rural water supply schemes currently being operated by various sector institutions and the GPs are presented in the **Table 2.4**

**Rural Water Supply Schemes: SVS & MVS Operated by Sector Institutions (As on 10 March, 2005)**

| Region | No. of schemes under UAJS | | | No. of scheme under UAJN | | | No. of scheme under Swajal | No. of scheme transferred to GP | Total Schemes | | Total Scheme |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Single Village | Multi Village | Sub total | Single Village | Multi Village | Sub total | Single Village | Single Village | Single Village | Multi Village | |
| Garhwal | 1313 | 1823 | **3136** | 217 | 320 | **537** | **342** | 1673 | 3542 | 2143 | **5688** |
| Kumaon | 1119 | 1551 | **2670** | 69 | 183 | **252** | **477** | 1189 | 2854 | 1734 | **4588** |
| **Total** | **2432** | **3374** | **5806** | **286** | **503** | **789** | **819** | **2862** | **6396** | **3877** | **10276** |

**Table 2.4**

**2.4.1 Swajal-I:** The Uttarakhand Rural Water Supply & Environmental Sanitation (Swajal) Project (Phase- I) was initiated as an innovative experiment in the Rural Drinking Water and Environmental Sanitation (RWSS) Sector in 1996 in the state of Uttarakhand. Demand responsive approach, community participation and decision making, capital cost sharing, community ownership of water supply and sanitation schemes and 100% responsibility of operation and maintenance of schemes by the community were the main principles of the project. Water Supply schemes and community empowerment activities were implemented in 857 villages in 12 districts of the State during this phase

## 2.4.2 On Going Demand Driven Programs:

**2.4.2.1 Sector Reform Project**: The GoI funded Sector Reform Project based on demand responsive approach, community participation and decision making, capital and O&M cost sharing was launched in the district, Haridwar. Under the project, in 89 GPs and 2 forest villages, a total of 103 water supply schemes were completed. The schemes are successfully being operated and maintained by the User Water and Sanitation Committees.

**2.4.2.2 Swajaldhara:** Swajaldhara Program has been launched by GoI on the principles of community participation and decision making regarding water supply schemes. In Uttarakhand 13 water supply schemes have been completed by the User Water and Sanitation Sub Committees. 6 water supply schemes are under progress as per the latest report of November, 2005.

**2.4.2.3 Total Sanitation Campaign (TSC)**: Total Sanitation Campaign has been **launched** state wide in Uttarakhand in 2003. TSC emphasizes more on Information, Education and Communication (IEC), Human Resource Development, Capacity Development activities to increase awareness and demand generation for sanitary facilities. The incentive money for Individual Household Sanitary Latrines is Rs. 1200- for the BPL households only. This program is being implemented under directions of Government of India (Department of Drinking Water Supply, Ministry of Rural Development). As per the latest reports available till November, 2006, more than 70404 Individual Household Sanitary Latrines have been constructed in the state.

### 2.4.3 GoI assisted supply driven programs

a. Accelerated Rural Water Supply Program (ARWSP).
b. Prime Minister GramodayaYojna (PMGY).
c. Bharat Nirman Yojana

### 2.4.4 State Government assisted supply driven programs

a. Minimum Need Program (MNP) - Special Component Plan (SCP)
b. Tribal Sub Plan (TSP)
c. Augmentation, reorganization and strengthening of Rural Water Supply.
d. Hand pump

## 2.5 Need for Change:

Uttarakhand state has had the experience of implementing community driven Single Village Schemes through the Swajal Project and recently involving the Gram Panchayats and User Water and Sanitation Committees in the Sector Reform Project in Haridwar district. The stage is all set to implement the community driven model in the water and sanitation sector across the state for Single Village Schemes and Multi Village Schemes. This will also augment, to a large the effective implementation of the 73$^{rd}$ Constitutional Amendment Act which envisages the devolution of the responsibilities of 29 departments to the Panchayati Raj Institutions.

# Chapter 3

# Concept of Sector Wide Approach (SWAp) and Sector Program

## 3.1 Sector Wide Approach (SWAp)

The GoUA has prioritized RWSS as a key area of its development agenda in its Tenth Plan (FY 2002-07). The GoUA has conceived **VISION 2012** for the Rural Drinking Water & Sanitation Sector: ***"The rural local government in partnership with rural communities; shall plan, design, construct, operate and maintain their water supply and sanitation schemes; so that they get potable water and attain health and hygiene benefits; the Government of Uttarakhand and its sector institutions shall act as supporter, facilitator and co-financier and as per need shall provide technical assistance, training and cater for bigger construction works and sectoral contingencies".*** For achieving the vision of the State Government, concept of SWAp has been developed and for achieveing the long term goals of sector wide approach institutional and operational changes will be done in a steady and gradual manner in guidance os State Water and Sanitation Mission.

## 3.2 SWAp : Context and Definitions

After detailed deliberations of the Project Management Unit with the GoUA and keeping in view the World Bank's revised guidelines for engagement in the Rural Water Supply and Sanitation Sector, the follow-on project has taken the shape of sector wide program. The program is based on a **"Sector Wide Approach (SWAp)"** rather than a project specific basis. SWAp essentially represents an approach wherein *"most significant public funding for the sector supports a uniform sector policy and expenditure program, under government leadership, adopting common approaches across the sector, and progressing towards relying on government procedures to disburse and account for all public expenditure, however funded."* To put it explicitly, SWAp means a state investment program to achieve the vision goals for RWSS for the next 5 years. All funds including the WB loan will be under the same policy framework as well as operational rules for project cycle, procurement and disbursement.

The GoUA is committed to implementing the sector reforms principles including the SWAp to the RWSS sector. The GoUA feels that the sector reform in the State has to come gradually and surely. This gradual approach is required because the institutional capacity building at the PRIs level will take time. This is also to ensure that the sector reform principles in the state get progressively but firmly embedded to the entire process of the sector management, as soon as possible. Therefore, keeping in view the current sector status, PRIs institutional capacity vis-à-vis the delegated management responsibilities for 14 subjects of the Minimum Need Program (MNP) that the GoUA has till now delegated to the PRIs (out of the 29 mandatory duties that the Govt. of India has instructed the states to earmark for PRIs) as well as overall practicality of implementation of the SWAp over a definite time frame, the GoUA has decided to adopt this in a realistically phased manner; initially starting with the single village rural water supply schemes (SVS), environmental sanitation Programs, and catchment area conservation and management Programs. However, considering the potential complexity involved in the management of the multi-village schemes (MVS), the SWAp to the same will initially include Simple MVS together with MVS, taken in a phased manner and ultimately will cover the whole sector by the end of the medium term development programme.

Accordingly, all the funds including those from the central government, state government, the Word Bank and other sources, if any, would be spent in a common policy framework excluding out side SWAp basket in the begning.

## 3.3 Medium Term Development Program

The Medium Term Development Program document presents the RWSS sector investment program and implementation action plan for realising the goals of the GoUA VISION 2012 for the Sector by 2012. It would serve as a financial action plan channelising the investment funds and other resources for integrated rural water supply and sanitation development in the state for the program period.

The MTDP would promote the programme approach to RWSS sector development where a state prepares a comprehensive sector investment programme to meet its medium goals and targets. The programme approach allows for medium term commitment of the stakeholders and facilitates the attainment of medium term goals as envisaged under the MTDP. The added advantage of this approach is that it ensures consistency, state ownership and reduces duplicated efforts.

### 3.3.1 Status of RWSS Coverage – SVS vs MVS

The state is divided into 13 districts comprising a total of 39967 habitations in 16623 revenue villages under 7227 Gram Panchayats (GPs). In terms of water supply coverage, there are 51% fully covered (FC) habitations, 35 % partially covered (PC) habitation and 14% non-covered (NC) habitations. In comparison to rural water supply, sanitation coverage is pretty low and currently stands at abysmal 20 %. The RWSS coverage of public institutions is 43 %.
There are mainly three types of the water supply technologies – gravity, pumping, and hand pumps. Some villages have mixed systems comprising two or more technologies. Very few habitations have rainwater harvesting systems. About 75% of the habitations are based on surface water gravity schemes (mainly comprising spring tapped chambers, traditional sources etc.), except in U. S. Nagar where mostly India mark II hand pumps are installed. There are only 23 private sources with public accessibility, mainly in Pithoragarh & Tehri Garhwal.

As per the data provided by the UA Peyjal Nigam and UA Jal Sansthan, almost 70% of the rural population of Uttarakhand is served through MVS and remaining 30% of the rural population depends on SVS. Marked differences in capital and O&M costs as well as operational issues in MVS vis-a-vis SVS are evident. While a MVS requires high capital investment cost, the same is typically low for a SVS. However, the choice does not just depend on the cost aspect only. The fact is that, the villages/habitations in the State of Uttarakhand are quite dispersed and the source of water might not lie exactly near the village/habitation. This necessitates providing water supply to a number of habitations through multi village water supply scheme from one water source or a number of sources. On the basis of the above, some of the critical areas that require rethinking in the context of Uttarakhand as regards to institutionalization of sector reforms are listed below:

The problem of high cost of lifting water in case of pumping schemes;
Non-availability of springs and other surface water sources in the vicinity of a large number of habitations which necessitates carrying water to long distances up to the end user point;

Large number of habitations which are thinly populated and widely dispersed;
Even if the water is lifted by pumping, recurring cost of electricity is too high and thus the operation and maintenance cost becomes so high that the community cannot raise it fully through self contributory tariff;
Low paying capacity of the rural community;
Frequent system breakages due to natural calamity such as heavy storm, floods, and land slides.

Due to above reasons even if the ownership of water supply is transferred to the communities, they would not be in a position to implement, operate and maintain the schemes without government support. Besides this, the highly technical nature of multi stage pumping schemes makes them out of reach of the community as regards technical know-how.

Other important aspect that needs to be considered is the capacity of Gram Panchayat which is yet to be developed to prepare them to handle water supply schemes successfully. It is also not out of place to mention that till now the agencies responsible for providing water supply i.e. Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan are presently working on supply driven mode with none or little emphasis on community participation.

### 3.3.2 The Challenge

In order to meet the Vision 2012 targets of 100% access to safe rural water supply and sanitation, a total of approximately 3 million rural people (50 % of the State's population) will need to be provided with access to improved water supply and about 5 million (80 % of the State's population) to sanitation. Based on the analysis of the historical trend of annual rate of coverage and investment into the sector, it will require doubling the rate at which additional people have been gaining access in the last decade in order to achieve these targets. New approaches will be needed to face the challenges. The major challenge would be mobilising sufficient resources to provide access to RWSS services. Additional challenges include policy and institutional strengthening to plan, design, construct and operate rural water supply and sanitation systems. This will require human resource development at all levels to enable PRIs and Sector Institutions utilise and manage the increased level of anticipated investments in the sector.

### 3.3.3 Financial Status of Uttarakhand RWSS Sector

The financial status of the rural water supply sector in the state during the last four years is presented in the following Table.

**Financial Status of Rural Water Supply**

| Financial Year | Capital Works (Rs. in crore) | No. of Schemes | O & M Expenditure by Uttarakhand Jal Sansthan (Rs. in crore) | Tariff Revenue (Rs. in crore) | Govt. Grant (Rs. in crore) | Total funds aval. for O&M (Rs. in crore) | Remarks |
|---|---|---|---|---|---|---|---|
| 2001-02 | 133.76 | 875 | 31.68 | 10.37 | 12.34 | 22.71 | The O&M expenditure was cross subsidized |
| 2002-03 | 148.94 | 1694 | 33.64 | 11.46 | 9.23 | 20.69 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2003-04 | 107.21 | 1542 | 35.51 | 14.17 | 6.47 | 20.64 | from urban revenues |
| 2004-05 | 158.34 | 1788 | 39.36 | 17.57 | 7.79 | 25.36 | |

**Source: Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan, SWSM, PMU of Swajal Project.**

### 3.3.4 Resource Requirements

Resource requirements and financial flows would need to be significantly increased to meet the requirements for implementing the MTDP. Using the basic level of service and technology, the 2012 targets could be attained with the total capital investment of Rs. 3100 crore (US $ 721 Million) or an annual investment of about Rs. 516 crores (US $ 120 Million) over next 6 years. During the tenure of the MTDP, the total availability of capital investment funds would be about Rs. 1249 crore (US $ 291 Million) or an annual availability of about Rs. 208 crore (US $ 48 Million). This shall mean an extra annual investment funds requirement of about Rs. 308 Crores ((US $ 72 Million).

The World Bank would leverage its financial resources to these requirements in conjunction with other donors, governments and communities as the IDA grant to implement the MTDP. The Bank funds would be provided directly to the State Government (back to back loan). Other sources of funds include but are not limited to the following:

GoI assistance

d. Accelerated Rural Water Supply Program (ARWSP).
e. Prime Minister Gramoday Yojna (PMGY).
f. Swajaldhara
g. Bharat Nirman Yojana

State Sector

h. Minimum Need Program (MNP) - earmarked funds under MNP for district sector plans.
i. Special Component Plan (SCP)
j. Tribal Sub Plan (TSP)
k. Augmentation, reorganization and strengthening of Rural Water Supply.
l. Hand pump
m. NABARD loan.

### 3.3.5 Implementation Plan

The implementation framework proposes a number of measures to accelerate planning, programming, preparation and implementation of investments as well as human resource capacity building activities under the MTDP. The following measures would enable accelerated investments while ensuring long-term sustainability:

Sector Wide Approach (SWAp): The “Sector Wide Approach to planning (SWAp)” essentially represents an approach wherein “most significant public funding for the sector supports a single sector policy and expenditure program, under government leadership, adopting common approaches across the sector, and progressing towards relying on

government procedures to disburse and account for all public expenditure, however funded." To put it explicitly, SWAp means a state investment program to achieve the vision goals for RWSS for the next 6 years that follows a uniform policy framework as well as operational rules for project cycle including the planning, design, implementation, operation and maintenance, monitoring and evaluation, procurement, and disbursement.

The GoUA is committed to implementing the sector reforms principles including the SWAp to the RWSS sector. The GoUA feels that the sector reform in the State has to come surely and certainly but slowly. This is required because the institutional capacity building at the PRIs level will take time. This is also to ensure that the sector reform principles in the state get progressively but firmly embedded to the entire process of the sector management, as soon as possible. Therefore, keeping in view the current sector status, PRIs institutional capacity vis-à-vis the delegated management responsibilities for 14 subjects of the Minimum Need Programme (MNP) that the GoUA has till now delegated to the PRIs (out of the 29 mandatory duties that the Govt. of India has instructed the states to earmark for PRIs) as well as overall practicality of implementation of the SWAp over a definite time frame, the GoUA has decided to adopt this in a realistically phased manner; initially starting with the single village rural water supply schemes (SVS), environmental sanitation programmes, and catchment area conservation and management programmes.

In Multi Village Schemes, keeping in view the technical and functional complexity involved in the management and implementation, the SWAp will be applied in a gradual manner. Community participation principles will also be applicable for MVS. User Water and Sanitation Sub Committees will be formed in beneficiary villages. Keeping in view the complexities of MVS, the decisions regarding planning and technical options will be jointly taken up by the user groups, UWSSCs, Panchayati Raj Institutions (PRIs) with the assistance of sector institutions. The construction of MVS will continue to be done by the sector institutions. The Operation & Maintenance of bulk water supply assets to the entry point of the villages will continue to be done by the sector institutions and the O&M of the intra village water supply assets will be done by UWSSCs.

Accordingly, all the funds including those from the central government, state government, the Word Bank and other sources, if any, would be pooled together and would follow a uniform policy framework as well as operational rules for project cycle, procurement and disbursement.

**Multi-Pronged Implementation Approaches:** The RWSS programmes would be implemented using several implementation mechanisms (central assistance / state sector RWSS programmes) and lending instruments (World Bank assistance and NABARD loan) including stand-alone programmes, multi-sector projects and special component plan, as mentioned above. The MTDP may also support NGOs to implement RWSS projects where it is advantageous to do so. This multi-faceted approach has the advantage of taking every available opportunity to invest in RWSS using appropriate mechanisms, thus increasing the rate of investments.

**Appropriate Implementation Procedures**: The implementation of sub-programmes under the MTDP would take advantage of appropriate World Bank and government procedures that are simple, fast and flexible. These include procedures for procurement and disbursement of funds that lend themselves to decentralised community-driven

development programmes such as national competitive bidding, local and international shopping, direct purchase and community procurement. In view of the greater fiduciary responsibilities given to SWSM and PRIs, appropriate control mechanisms shall be instituted to ensure correct use of resources.

**Community Participation and Demand-Driven Approaches**: Programmes would be implemented using demand-responsive, decentralised implementation and management approaches that have the advantage of fast and efficient sub-project cycles implemented by communities and local government structures. Community participation in programme implementation would enhance sustainability of RWSS investments.

### 3.3.6 Scope of MTDP

The scope of the physical activities during the MTDP period is summarized in the following Table:

| Year | Activity |
|---|---|
| 2006 to 2011 (End of SWAp Program) | Completion of ongoing schemes identified till 31st March, 2006 |
| 2006 to 2011 (End of SWAp Program) | Phasing out of Single Village Schemes to GPs after capacity building of PRIs and rehabilitation/rejuvenation/repair of schemes |
| 2006 to 2011 (End of SWAp Program) | Coverage of 8471 NC/PC habitations with the provision of water supply through SVS (65%)<br>Coverage of 5271 NC/PC habitations through MVS (70%)<br>The above habitations will also be covered with catchment area treatment works wherever necessary. Apart from this the construction of individual household latrines will also be taken up.<br>The public institutions numbering 7835 will also be provided with water supply and sanitation facilities. |
| 2011 to 2012 | Coverage of remaining NC/PC habitations (5083) and public institutions by water supply and sanitation services. |

In addition to the above physical activities, other software activities include, but not limited to, the following:

- Transfer of SVS and Simple MVS to PRIs
- IEC and Capacity Building of Sector Institutions and PRIs
- Program Implementation and M &E support to Sector Institutions and PRIs

### 3.3.7 Operation and Maintenance Considerations

"Water is an economic and social good, and this service has to be paid for since it involves costs". This is the key assumption on which sector program has been designed. With the

adoption of the RWSS sector reforms, new investments in the sector will be carried out using participatory demand led approaches that would emphasize capacity building of PRIs & 100% O&M financing by users for the O&M of complete scheme in case of single village scheme and for O&M of intra-village assets in case of multi village scheme.

A wide variation in the O&M cost is expected across villages depending on the typology of water supply schemes, size of habitations, distance of water source from the habitation etc. The O&M cost of the proposed facility shall take into consideration cost of existing assets to be utilized in the scheme, salaries, chemicals, cost of minor repairs and maintenance. A detailed proposal of implementation and recovery of water tariff will be part of respective detailed project reports (DPRs) of each scheme. The community shall decide the number of households which will be provided with individual water connection and households to be fed through standposts / handpumps. An appropriate tariff so as to run the schemes on sustainable basis should be proposed by the community, wherever feasible. The state Govt. may provide scheme based direct/indirect subsidy when there are big repairs or replacements to pay for. While designing the tariff main principles-equity affordability and willingness to pay shall be taken into consideration. O&M costs can only be recovered from users if they are both able and willing to pay for a water supply. An appropriate technology selection is a key factor in sustainable cost recovery. Therefore a technology even with higher capital costs could be chosen by the community because of lower O&M costs.

A detailed analysis of the year wise self generated revenue and O&M expenditure for Uttarakhand Jal Sansthan during 2001-05 shows that the cost recovery percentage on the basis of user charges varied between 33% to 44%, excluding govt. grants and to 58% to 72% including govt. grants. However, the O&M expenditure was based on only breakdown maintenance expenses. The optimum maintenance expenditure will be much more than the current O&M expenses if preventive & schedule maintenance is put to use.

### 3.3.8 Operational Considerations

**Resources**

The anticipated Bank supported investments in the rural water supply and sanitation sector in the state as a result of the MTDP would be about US$ 40 million per year. Initial indications are that the Sector Institutions would require significant increase in human resources in order to take on the increased workload in the short to medium term. The actual number of additional staff required and the skill mix need careful assessment. The increased operational activities would also necessitate increased budgetary resource allocation.

### 3.3.9 Managing the MTDP

The Department of Drinking Water, GoUA through State Water and Sanitation Mission (SWSM) and with the active involvement of UA Peyjal Nigam and UA Jal Sansthan and respective PRIs will manage the implementation of the MTDP. The State Water and Sanitation Mission (SWSM) will function as the Task Force to co-ordinate activities and monitor the implementation of the MTDP.

### 3.3.10 Proposed Implementation Arrangements

It is essential to first broadly delineate the implementation arrangements and the envisaged

roles and responsibilities of the sector institutions and PRIs for implementation of the MTDP, before the MTDP is elaborated upon.

Considering the existing institutional framework, GoUA commitments to sector reform principles, decentralization of the RWSS services, and the requirements of the medium term sector investment program, the Department of Drinking Water, GoUA will be the nodal department, the SWSM will be the apex body for implementation of the MTDP. The envisaged broad institutional arrangements for implementation of the MTDP for SVS and MVS are outlined below.

## Single Village Schemes (SVS), Environmental Sanitation and Catchment Area Treatment:

The Institutional arrangements for implementation of the SIP for Single Village Schemes, sanitation and catchment area treatment under the SWAp would take into account the following aspects:

- The GoUA would take active steps to enable the Panchayati Raj Institutions of the appropriate level to plan, design, execute, operate, maintain and monitor the rural drinking water supply and sanitation schemes. Towards this end, the GoUA has committed to transfer in phased manner adequate funds, functions and functionaries to the Panchayati Raj Institutions.
- The GoUA would make available to the Panchayati Raj Institutions requisite funds for paying in full the salaries, including D.A., of government staff transferred to the Panchayati Raj Institutions.
- All transferred staff shall be under the full administrative control of the Panchayati Raj Institutions.
- The Panchayati Raj Institutions / VWSCs shall be empowered to charge for the service provided. This includes the powers to fix and collect water charges from the users.

## Multi Village Schemes (MVS):

In MVS, Users Water and Sanitation Sub Committee (UWSSC) will be formed in beneficiary villages. The decisions regarding planning and technical options will be jointly taken up by the UWSSCs, PRIs with the assistance of sector institutions. The construction of MVS will continue to be done by the sector institutions. The O&M of bulk water supply assets up to the entry point of the villages (CWR) will continue to be done by the sector institution and O&M of the intra village water supply assets will be done by UWSSCs. The appraisal and approval of MVS, depending upon their capital cost is proposed at various levels. Schemes costing up to Rs. 50/- lakhs shall be appraised and approved by the concerned DWSM. Schemes costing more than Rs. 50/- lakhs and up to Rs. 100/- lakhs shall be appraised and approved by the SWSM. Schemes costing more than Rs. 100/- lakhs and up to Rs. 500/- lakhs shall be appraised and approved at the government level by Department of Drinking Water. Schemes costing more than Rs. 500/- lakhs shall be appraised and approved by the finance expenditure committee and thereafter by the state government.

### 3.3.11 Catchment Area Conservation and Management Programme (CACMP):

These activities will be implemented and maintained by the PRIs with the technical and management support from the Sector Institutions / Watershed Management Directorate.

### 3.3.12 Capacity Building and Information, Education and Communication (IEC)

The Capacity Building and Information, Education and Communication (IEC) interventions will be undertaken in an integrated manner with all hardware activities of the RWSS programmes / projects. The State Water and Sanitation Mission (SWSM) will be the co-ordinating agency with Department of Drinking Water, GoUA as the nodal agency.

### 3.3.13 Role of the Department of Drinking Water (DoDW) as the Nodal Department

In order to ensure the effective implementation of the MTDP, the Department of Drinking Water, GoUA will act as the Nodal Department.

### 3.3.14 Pricing Strategy

Water is a unique product often obscures the different ways in which water services are perceived by individuals, groups, communities and societies. The appropriate principles of charging for water services depends on, whether water is viewed as a 'social' or 'economic' good. Viewing water as a social good, for example, leads to an emphasis on health benefits and access as a basic right for all people. In contrast, the emphasis to provide better services in continual basis compels the provider to consider water as economic good and needs to be charged to attain financial sustainability. While both the principles stand correct, the consultant followed the demand responsive approach to work out price for water in the following manner.

- Upfront users' contribution to capital cost of the scheme;
- Price for the water at door step i.e; service charge for house connection; and
- Monthly water charge (tariff) to retain regularity in supplying water.

Considering the unique socio-economic condition of the state and continued government subsidy to RWSS services, a pricing strategy should be developed based on a comprehensive state-wide Willingness and Affordability To Pay (WATP) survey. However, based on the primary survey conducted by the Consultants in the sample 40 GPs, the recommended threshold capital costs and O&M costs sharing by users are as below:

**Capital Cost Sharing**: 10% community contribution comprising 2% in cash and 8% in cash/labour or composite (to be decided by the user communities). For SC / ST population, contribution will be 5%.

**Minimum O&M tariff**: The current water tariff ranges between Rs. 41-100, depending on type of technology and no. of household taps, with a built in provision of 7.5% escalation per annum. The recommend tariff figures are: Rs. 5 per household per month for hand pumps, Rs. 10 per household per month for public stand post and Rs. 45 per household per month for individual house connections.

## 3.4 Proposed GoUA's Policy for Water and Sanitation Sector

- All the Single Village water supply schemes (SVS) identified up to 31$^{st}$ March, 2006 and Multi Village Schemes (MVS identified up to 30$^{th}$ November, 2006) will be implemented as per the previous norms. Schemes identified pertain to those schemes whose administrative and financial sanction has been accorded prior to 01.04.2006 for

SVS and 1.12.2006 for MVS. Sector Wide Approach for new schemes and schemes needing reorganization shall be applicable in the next financial year 2006-07.

- Villages where new capital investments will be invested shall carry out the works of water supply, environmental sanitation, health & hygiene Program, water source conservation and recharge, in an integrated manner.
- User Water and Sanitation Sub Committees (UWSSCs) will be formed for each user group for all new investment for SVS and MVS. "User Group" mean all the adult members of the families to be benefited by the water supply scheme.
- For SVS, Gram Panchayats in partnership with UWSSCs will have control over resources and responsibility for decision making regarding planning, implementation and operation & maintenance.
- SVS will be appraised and approved by the District Water and Sanitation Mission.
- MVS will be constructed only when SVS construction is not feasible from technical and economic point of view.
- Community participation principles will also be applicable for MVS. User Water and Sanitation Sub Committees will be formed in beneficiary villages. Keeping in view the complexities of MVS, the decisions regarding planning and technical options will be jointly taken up by the user groups, UWSSCs, Panchayati Raj Institutions (PRIs) with the assistance of sector institutions. The construction of MVS upto Clear Water Reserviour (CWR) will continue to be done by the sector institutions, ofcourse, after following the participatory approach which includes formation of UWSSCs and scheme level committee. The Operation & Maintenance of bulk water supply assets to the entry point of the villages will continue to be done by the sector institutions and the O&M of the intra village water supply assets will be done by UWSSCs.
- For SVS, the funds shall be channelled at the state level through SWSM to DWSM at the district level. For SVS, DWSM will provide the funds to Gram Panchayats/UWSSCs and for MVS the funds will be allocated to DWSCs directly by SWSM for the schemes costing upto Rs 20.00 lakhs. For the scheme costing more than Rs. 20.00 lakhs SWSM will provide funds to sector institutions.
- Cost Sharing principles for New Capital Investments**:** (a) Communities will bear 10% of the cost of all new investments, which should not exceed the affordable ceiling (cap) as defined by the affordability analysis. (b) O&M for all new investments will be fully recovered from user charges, except for high cost schemes which are not affordable. The O&M requirements in excess of the affordable contributions (for high cost schemes) shall be provided through State subsidy in a transparent manner.

Affordable ceilings will be defined separately for charges from stand-post users (shared connections) and users with household connections. The ceilings will only be imposed if they are applied simultaneously for both service levels (stand-post and household connections). In case these ceilings need to be applied to MVS, to the extent possible this will be done through adjusting the bulk water supply tariff. [The cost sharing arrangements will be revisited to reflect any agreed changes between GOI, GoUA and the World Bank.

- Policies for SVS: Community contribution towards capital cost shall be 10% of the capital cost against the service level of 40 lpcd, subject to a maximum of Rs 600 (cap) for private connections and Rs 300 (cap) for stand posts. This contribution may be 2%

cash and remaining in the form of cash or labor, as decided by the user communities. The community contribution for the Scheduled Caste (SC) / Scheduled Tribe (ST) households shall be 5%, subject to a maximum of Rs 300 (cap) for private connections and Rs 150 (cap) for standposts, out of which 1% shall be in cash and the remaining in the form of cash or labor, as decided by the communities. Water charges in all the SVS under UJS, UJN, or GPs shall be a minimum of Rs 5 per household per month for hand pump and for stand posts and Rs 45 per household per month for private connections, subject to a maximum (cap) of Rs 10 for handpumps /standposts, and Rs 55 for private connections. The water charges collected by the GPs/UWSSCs shall be deposited in the bank accounts and used as and when required.

- Policies for MVS: Community contribution for capital investments will follow SVS guidelines for 'intra-village' water supply works. Although the principle of 10% capital cost contribution holds for high cost MVS, it may be difficult to collect them on the lines of the SVS. The beneficiary contribution should be first used for meeting the capital cost of the 'intra-village' scheme, and the balance should be used to meet the capital cost of the bulk water supply system, subject to a maximum of Rs 600 (Rs 300 for SC/ST) contribution by a household. The capital cost contribution to be collected from the beneficiaries of MVS should maintain parity with the SVS. As for the O&M costs, the ceiling (cap) levels recommended above also applies to the MVS. The revenue collected from inhabitants of a village belonging to a MVS should first meet the 'intra-village' O&M cost and the balance should be used to meet the O&M cost of the bulk water system, subject to a maximum of Rs 55 per month per household for both intra-village and bulk water supply. For high cost MVS, the O&M requirements in excess of the affordable level by the communities should be transparently provided through State subsidy.

.

## 3.5 Sector Program Components

The Uttarakhand RWSS Sector Medium Term Development Program has been developed in close consultation with the Sector Institutions. The finalized version, with the concurrence of the World Bank is placed at **Annexure–3.** The summary of the Uttarakhand RWSS Sector Medium Term Development Program is shown in **Table 3.1**

### 3.5.1 Component A: RWSS Sector Development

The objective of the Sector Development Component is to support the State's sector reform process by enhancing its institutional capacity to manage such process and by helping establish the capacity to undertake and sustain the MTP. The component aims at building the capacity of state level institutions (DWD, SWSM, Jal Nigam and Jal Sansthan) and to help them accommodate to the new policy and institutional framework, as well as the PRI level.

Key elements of the sector reform include further decentralization to giving the PRIs full responsibility for water and sanitation planning implementation and operation for the provision of W&S services, while the sector institutions would remain as facilitators, providers of technical assistance, and construction and operation of complex large schemes. The state level will also improve its general sector planning, programming and follow-up.

The component therefore aims at supporting the consolidation of this framework, by providing capacity building to all participating institutions, establishing sector information

system, communication strategy and campaigns, providing resources including office, computer and communication equipment, preparing methodologies procedures manuals to assist in carrying out duties and carrying out sector studies and supporting monitoring programs for water sources and water quality. This component includes the following subcomponents:

### 3.5.1.1 Sub-component A1: Capacity Building and Strengthening Programs

This sub-component would support capacity building and institutional strengthening programs for the sector stakeholders. Proposed activities derive from a comprehensive capacity building plan, to be adopted by GoUA, which includes Program detailed training modules for all stakeholders. While covering the MTP period, the plan details only the first year (2006-2007) with updates expected to be provided each year.

#### a) State Water and Sanitation Mission and Program Management Unit

Support will be provided to SWSM in strengthening of state capacity for policy, planning and sector monitoring functions. In order to implement the policy decisions taken by SWSM, and to manage the sector program, capacity of PMU would be strengthened through training programs in sector planning, project management, policy implementation, skill development, motivational, procurement, financial management, etc.

#### b) District Water and Sanitation Missions and District Program Management Unit

In the renewed institutional framework DWSMs and DPMUs have a new and key role in water and sanitation scheme planning and implementation, implying new functions and therefore the need to build their capacity. Also, prior to program initiation there were only nine functional DWSMs and DPMUs (out of thirteen), the four remaining DWSMs and DPMUs need to be established, staffed, and strengthened urgently. The specific capacity strengthening activities at the district level would include financial and accounts management, procurement, community development, health and hygiene, RWSS engineering, and project management.

#### c) Change Management for Jal Nigam and Jal Sansthan

UJN and UJS require a shift in their mindset to move away from the traditional supply driven mode to a demand driven community participatory approach to RWSS service delivery, and to effectively establish and consolidate their new role as providers of technical assistance and service providers according to demand. The subcomponent includes training programs in community mobilization, health and hygiene education, and other software activities would be required for these two sector institutions.

#### d) General Training Activities for PRIs

General training activities, including financial management and procurement would be supported by this sub component, and be done in coordination with the training programs prepared and planned by the Panchayati Raj Department. Coordination will also be ensured with the Accountant General’s office and the Bank financed Decentralized Watershed Development Project.

Community development activities directly related to the physical infrastructure, including the grass roots level health and hygiene awareness programs etc. are excluded from this sub component, but would be included in Component B.

**e) Training of regional training institutions (RTI), Support Organizations (SOs) and Support Agencies (SAs)**

GoUA plans to engage two regional training institutions, one for social trainings and the other for engineering trainings, for each of the two regions. Separate training programs have been designed for social RTIs and engineering RTIs keeping in view the needs emerging out of their envisaged roles. RTIs will provide training to SOs, DPMU, sector institutions, and SAs.

**3.5.1.2 Sub-Component A2: Information, Education, and Communications (IEC)**

This subcomponent aims at supporting and facilitating the sector program by disseminating its relevant information amongst all stakeholders. Under this sub-component, a communication strategy will be developed and implemented, including activities such as Radio, TV, mass media events, materials, equipment, evaluation studies etc. The following main activities will be implemented;

- IEC dedicated to promoting behavioural changes among all stakeholders towards improved sanitation and hygiene practices
- Institutional strengthening IEC aimed at empowering the rural poor in their interactions with partnering institutions in the development process under a decentralized environment.
- Development of manuals, hand books, field books etc. on scheme cycles and non-negotiables, incorporating lessons learned from earlier batches.
- Biannual newsletter will be produced in Hindi and English to report the program activities in the villages to all stakeholders and annual water and sanitation fairs will be organized.

**3.5.1.3 Sub-component A3: Sector Information System, and Water Quality, and Water Source Monitoring Programs**

**a) Sector Information System**

A computerized sector management information system would be developed for monitoring of sector status including physical aspects of schemes, the service provision, water quality, and other indicators and parameters of all schemes in the state. This would help GoUA to always have accurate and current information on the existing schemes, and to better develop future investment programs based on the real investment requirements. The system is also intended to benefit sector institutions at all levels. A benchmarking system to allow comparisons amongst districts, GPs and schemes will also be developed. The component will finance all system development, including software and hardware, as well as system implementation and first years of operation.

**b) Water Quality Monitoring Program**

A state level water quality monitoring program would be developed to ensure safe water to the population of Uttarakhand, and include the following activities;

- State-wide orthotolidine testing of all drinking water sources and subsequent follow-up measures.
- Public health laboratories at the district level equipped for testing physical, chemical, and biological parameters of water quality.

In addition, user-friendly water quality testing kits and training programs would be developed to provide to schools, Mahila Mangal Dals and UWSSC members at the GP level to check the residual chlorine in water samples on a daily basis.

**c) Source Discharge Measurement Program**

A state level source discharge measurement program would be developed to measure the discharge of water source twice a year, in May and November to assess the trend of depletion of water sources.

#### 3.5.1.4 Sub-component A4: Establishment of E-Procurement at State Level

This includes a comprehensive plan to introduce e-procurement system to sector institutions as pilot project, which can then be rolled out to other procurement entities of the state. It also includes consultancy assignments for carrying out studies, preparation of standard bidding documents, provision of necessary equipment and training needs etc. of the key state entities with a view to strengthening the capacity in procurement processes of state institutions and agencies. The component, amongst others, covers development of M&E systems for Procurement for the state's various programs and schemes and to meet its MIS needs for effective implementation and financial controls.

#### 3.5.1.5 Sub-component A5: Sector Studies

This includes technical and economical sector studies intended to better support the state level efforts towards sector development.
- Time saving studies
- Cost effectiveness indicators
- Appropriate technologies
- Institutional models for service provision
- Other studies (tbd)

### 3.5.2 Component B: Rural Infrastructure Investments

The component aims to improve access to W&S services to rural communities by financing water and sanitation infrastructure and services. The water supply investments would be made in an integrated manner, with catchment area management, health and hygiene awareness promotion, and incentives for construction of individual household latrines. It would support building or rehabilitating water supply facilities including source strengthening measures, which the communities plan, implement, and manage by themselves. In the case of MVS, O&M responsibility of the communities would be only for the intra-village distribution and inter-village facilities would be constructed by UJN and operated by UJS under agreement with a scheme level committee.

Expenditures eligible for reimbursement would comprise works, goods and services for:
(i) All new investments in water supply schemes, including rehabilitation and re-organization of existing schemes, both for SVS and MVS, WSS to rural public institutions, and micro catchment areas protection;
(ii) Community mobilization and community development activities, and
(iii) Sanitation programs,
The new investments would include building or rehabilitating water supply facilities including source strengthening measures, which the communities plan, implement, and manage by themselves. In the case of large MVS, O&M responsibility of the communities would be only for intra-village distribution. The inter-village facilities would be constructed by UJN and operated by UJS according to the MOU signed by the multi-village scheme level committee (SLC), sector institution, and the relevant implementing agency.

#### 3.5.2.1 Sub-component B1: Water Supply Schemes and Catchment Area Protection works

The SWAp basket would include all new investments that could be grouped into four main categories; (i) SVS and simple MVS to be carried out under SWSM/DWSM, (ii) large MVS to be carried out by Jal Nigam, (iii) devolution of existing SVS currently under Uttarakhand Jal Sansthan, Uttarakhand Peyjal Nigam to the PRI, and (iv) catchment area protection.

Simple MVS is defined as a technically feasible gravity scheme covering up to three GPs/villages/ habitations, which can be handled by the respective GPs / UWSSCs collectively with mutual consent. Other MVS besides these simple MVS will be designated as large MVS.

Given the hilly geography of the state, most of the schemes are expected to be gravity piped water systems with spring/stream sources. A typical village piped water system would have an intake structure, a roughing filter, a transmission main with break pressure tanks, valve and valve chambers, a reservoir, distribution mains, and public stand posts and/or private connections.

Water supply schemes would also include micro catchment area protection (larger catchment area work will be coordinated with other governmental departments, including the Forest Department) for the water schemes. This is particularly needed given the scarcity of water source and decreasing discharge levels, Specific activities would include preventing contamination from surface pollutants, potentially recharging the source and preventing erosion and siltation in surface sources. The subcomponent will finance studies for initial assessments and preparation of remedial and protection programs, community mobilization and training, and implementation of the plans, normally including works (check dams, fences, protection measures to prevent erosion, siltation in surface sources, and contamination) plantation of special vegetation and other services.

The program will be implementing a demand responsive approach, and within an institutional framework designed to have PRIs with a deciding role for planning, implementation, assisted as needed by support organizations and sector institutions.

#### 3.5.2.2 Sub-component B2: Community development

This component will support the establishment and capacity building of UWSSC and Scheme Level Committees (SLC). A UWSSC will be formed for any new water supply scheme in SVS. In the case of MVS, in addition to the UWSSCs each village, a SLC will be formed. Forming and operationalizing these committees require undertaking significant community organization/mobilization activities. These include a series of small workshop, group discussions, information campaigns, participatory community action planning training to enable users to organize and elect a representative and responsive committee. The UWSSC will have at least 30% women and will represent other minority groups such as the scheduled castes and scheduled tribes. Community development will also include hygiene promotion through similar means as described above.

#### 3.5.2.3 Sub-component B3: Sanitation

This sub-component will contribute to the existing GOI initiated TSC program for the state. As described earlier, sanitation activities will be carried out simultaneously with water supply in an integrated manner. In accordance with the TSC guidelines, the program would focus on creating awareness and demand on health, hygiene, and sanitation at the community level, and on motivating the communities, rather than the individual households, to attain open defecation free status. This subcomponent will finance the IEC at the village level, subsidies of Rs 1200 for BPL beneficiaries to be provided through the community, and monetary rewards to habitations and GPs that attain zero open defecation status. The program envisages to achieve at least 50% open defecation free GPs and habitations by the end of the five year period

### 3.5.3 Component C: Program Management Support and M&E for the Program

#### 3.5.3.1 Sub-component C1: Program Management Support

This component includes program implementation costs for the period 2006-2011. It would finance operational and administrative costs associated with the SWSM/PMU and DWSMs/DPMUs. These would include staff compensation, PMU/ DPMU offices, equipment, vehicle rental, and travelling allowances. Compensation would include salaries and benefits for a total of XX staff and local consultants for PMU and thirteen DPMUs. Other related expenses would include costs of audit to be carried out by government auditors, private auditors, technical auditors, and financial auditors.

PMU would consist of a qualified Director and seven unit coordinators, including sanitation & hygiene, finance & administration, human resource development, engineering, social development, M&E, and environment. In total, there will be about 160 staff in PMU. There will be thirteen DPMUs (currently nine in existence).

#### Sub-component C2: Sector Monitoring and Evaluation (M&E)

This subcomponent will support the development, establishment and operation of the financial management system and the M&E system for the sector program. The financial management system would be for administering all funds and expenses of the program and M&E system would be linked to the sector information system supported under component A and will be used for monitoring the achievement of sector goals and objectives, as well as impact of sector program. M&E of the sector program will also be

carried out through; (i) periodic review; (ii) sustainability monitoring and evaluation exercise; (iii) and community monitoring.

(i) Periodic review will be carried out through targeted process and impact evaluation to learn from field experience and suggest strategic inputs for further strengthening of the program design and strategies, for effective delivery of inputs at the GP level. This would include audits by independent financial and technical auditors of the schemes, as well as studies aimed at following up on the project impact in general as well as some of its main components. Main studies included are listed below:

- Process monitoring in planning and implementation phase
- Impact evaluation studies
- Catchment works impact influences study

(ii) Sustainability monitoring and evaluation would be based on the formats developed under Swajal I and track the long-term technical, financial, institutional, social, and environmental sustainability prospects of schemes and assets created during the project life cycle of sample schemes.

(iii) Community monitoring would help community members to track the progress of their schemes in all the phases of the project, for continuous use after scheme completion. The system would contain a set of suggested participatory monitoring tools and be presented to the UWSSCs as part of the community development activities under component B.

This sub-component will fund the above consultant services, software and computer equipment as well as audit expenses incurred at the state (SWSM), district (DWSM, sub-divisional committees), and the community level (GPs and UWSSCs).

**Schemes outside the SWAP basket:** All the Single Village water supply schemes (SVS) identified up to 31st March, 2006 and Multi Village Schemes (MVS identified up to 30th November, 2006) will be implemented as per the previous norms and will be the schemes out side the SWAp basket. These schemes pertain to those schemes whose administrative and financial sanction has been accorded prior to 01.04.2006 for SVS and 1.12.2006 for MVS.

**Table 3.1 -Summary of Uttarakhand RWSS Sector Medium Term Development Program**

**(Rs. in Lakh)**

| Sl. No. | Years | End of SWAp Program (Jan 2007-Dec 11) (Rs. in Lakh) | in US Million $ | Total Beyond F.Y. 2011-12 (Rs. in Lakh) | in US Million $ |
|---|---|---|---|---|---|
| **1** | **Schemes outside the SWAp basket** | | | | |
| | Uttarakhand Peyjal nigam | 48354 | 112.45 | 48354 | 112.45 |
| | Uttarakhand Jal Sansthan | 5861 | 13.63 | 6186 | 14.39 |
| | **Total (outside the SWAp basket) in INR** | **54215** | **126.08** | **54540** | **126.84** |
| **2.0** | **New Capital Investment** | **0** | **0.00** | **0** | **0.00** |
| 2.1 | Gram Panchayat ((no. of schemes) | 16740 | 38.93 | 16740 | 38.93 |

| | | | | | |
|---|---|---|---|---|---|
| 2.2 | Coverage of slipped back (NC/PC) habitations | 49440 | 114.98 | 116400 | 270.70 |
| 2.3 | Catchment Area Conservation and Management Program | 1638 | 3.81 | 4444 | 10.33 |
| 2.4 | Water Supply and Sanitation to Public Institutions @ Rs. 2.0 Lakhs per institution | 6252 | 14.54 | 6252 | 14.54 |
| 2.5 | Rural Sanitation | 6437 | 14.97 | 6437 | 14.97 |
| 2.6 | Capacity building and Support Organizations Cost | 6437 | 14.97 | 7514 | 17.47 |
| 2.7 | Project Management Cost | 6454 | 15.01 | 14826 | 34.48 |
| 2.8 | Cost Estimate for Audit Fees, M&E and FMM | 3044 | 7.08 | 3500 | 8.14 |
| | **Total New Capital Investment in INR** | **96443** | **224.29** | **176113** | **409.56** |
| | **Total New Capital Investment in US $ Million** | **224** | **0.52** | **410** | **0.95** |
| | **Total requirement of funds for inside & outside SWAP basket in INR** | **150658** | **350.37** | **230653** | **536.40** |
| | **Total requirement of funds for inside & outside SWAP basket in US $ million** | **350** | **0.81** | **536** | **1.25** |
| 3 | Sanitation Programme for households outside the programme | 4648 | 10.81 | 4648 | 10.81 |
| | **Total Requirement of Capital Investment Funds** | **155307** | **361.18** | **235301** | **547.21** |
| **4** | ***Availability of Capital Investment Funds*** | **0** | **0.00** | **0** | **0.00** |
| a | State Govt. Funded RWSS Programmes | 49149 | 114.30 | 97146 | 225.92 |
| b | Govt. of India funds under Bharat Nirman & ARWSP | 92806 | 215.83 | 124804 | 290.24 |
| c | GoI TSC Funds | 4648 | 10.81 | 4648 | 10.81 |
| d | GoI funds for public institutions | 6252 | 14.54 | 6252 | 14.54 |
| e | *Community Contribution* | 2451 | 5.70 | 2451 | 5.70 |
| | **Sub Total of Availability of funds** | **155307** | **361.18** | **235301** | **547.21** |
| | **World Bank reimbersiable Funds in INR** | **51600** | **120** | **51600** | **120** |

The assumptions for the sector program are placed at **Annexure-4**

### 3.6 Sector Program Initiation and Implementation Schedule

The Sector Program would be initiated with reference to the Sector Implementation Program (which defines the work quantum for each implementing agency), which is derived from the MTDP. The key steps for initiating the program are: annual fund allocations by the state to the districts, and preparation of annual plans by the districts. These steps are described below. Detailed implementation steps for each of the Sector Program components are described in Chapter 6, which has a linkage with Chapter-5:

Institutional Arrangements. The overall program implementation in various batches is shown in para 3.5.4 below.

### 3.6.1 Fund Allocations from State Level to the Districts

***Resource Allocation at State Level***

**1.** The broad principles for resource allocation as under:
- First priority to Not Covered (NC) Habitations
- Second priority to Partially Covered (PC) Habitations

*This priority shall be guided by the existing ground realities.*

***2.*** Initially the SWSM cell shall allocate funds to districts based on the on the existing number of NC and PC habitations in the various districts. This approach will be reviewed after the start of the Sector Program implementation for the second/ third years, after due consultation with DWSM/UJN/UJS.

**3.** The Districts shall allocate the received funds from the states to the various concerned GPs based on the existing number of NC and PC habitations in the district.

### 3.6.2 Preparation of Annual Plans

The yearly physical coverage of NC/PC habitations by SVS and MVS and the yearly financial phasing has been detailed in the Uttarakhand RWSS Sector Implementation Program which is detailed in the **Annexure-5.** The annual plans shall be prepared by the DWSM based on these projected physical coverage and financial outlays.

### 3.6.3 Sector Implementation Program (SIP):

Keeping the Medium Term Development Plan as the base reference, the Sector Implementation Program has been developed which clearly specifies the quantum of the GPs/Habitations to be covered by each of the implementing agencies.
The sector investment program is proposed for the following types of category of schemes for the various implementing agencies.

Category-1: SVSs and simple MVSs that are technically and institutionally feasible to be carried out by DWSM

Category-2: Larger MVSs to be carried out by UJN and some MVSs requiring reorganization by UJS

Category 3: Devolution of existing schemes (mostly SVS) currently under UJS and UJN to the PRI

It is proposed to carry out the water supply works in habitations in integration with sanitation, catchment area protection and capacity building activities including water supply and sanitation to public institutions.

## 3.6.4 Implementation Schedule and Batches

There would be three facilitating/implementing agencies viz Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and Program Management Unit for the implementation of the various components and sub components of the sector program to achieve the vision 2012 set by the GoUA. The SVS are proposed to be covered in the four batches with the batch-1 starting in May, 2006 while the MVS are proposed to be coveredd in three batches with the batch-1 starting in May, 2006. The batch wise and agency wise Summary of coverage of schemes is as below: -

| Batch | Batch Phasing | | PMU-SVS | | | UJS-SVS | | | UJN-SVS | | | UJN-MVS | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From | To | No. of schemes | No. of habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs |
| Batch-1 | Dec-06 | Nov-08 | 422 | 844 | 159 | 122 | 243 | 46 | 15 | 29 | 6 | 39 | 386 | 74 | **598** | **1502** | **285** |
| Batch-2 | Dec-07 | Nov-09 | 1266 | 2531 | 478 | 730 | 1459 | 275 | 86 | 172 | 32 | 193 | 1932 | 364 | **2275** | **6094** | **1149** |
| Batch-3 | Dec-08 | Nov-10 | 1477 | 2953 | 557 | 973 | 1946 | 367 | 114 | 228 | 43 | 154 | 1547 | 291 | **2718** | **6674** | **1258** |
| Batch-4 | Dec-09 | Nov-11 | 1056 | 2112 | 398 | 608 | 1216 | 230 | 72 | 143 | 27 | | | | **1736** | **3471** | **655** |
| **Total** | | | **4221** | **8440** | **1592** | **2433** | **4864** | **918** | **287** | **572** | **108** | **386** | **3865** | **729** | **7327** | **17741** | **3347** |

**Legends :**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | PMU: | Project Management Unit, Swajal | UJN: | Uttarakhand Peyjal Nigam | UJS | Uttarakhand Jal Sansthan | | |
| | SVS: | Single Village Scheme | MVS: | Multi Village Schemes | GP: | Gram Panchayat | | |

The **agency wise** and **category wise** type of schemes details are as under: -

## Category 1 : SVS Devolution Batch Wise Proposed coverage of schemes by PMU

| Batch | Batch Phasing | | Proposed % of coverage of schemes | Coverage by SVS | | | Coverage by SVS Per District DPMU | | |
|---|---|---|---|---|---|---|---|---|---|
| | From | To | | No. of schemes | No. of habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs |
| Batch-1 | Dec-06 | Nov-08 | 422 | 844 | 159 | 122 | 243 | 46 | 15 |
| Batch-2 | Dec-07 | Nov-09 | 1266 | 2531 | 478 | 730 | 1459 | 275 | 86 |
| Batch-3 | Dec-08 | Nov-10 | 1477 | 2953 | 557 | 973 | 1946 | 367 | 114 |
| Batch-4 | Dec-09 | Nov-11 | 1056 | 2112 | 398 | 608 | 1216 | 230 | 72 |
| **Total** | | | **4221** | **8440** | **1592** | **2433** | **4864** | **918** | **287** |

## Category 1 : SVS Slipped Back Batch Wise Proposed coverage of schemes by PMU

| Batch | Batch Phasing | | Proposed % of coverage of schemes | Coverage by SVS | | | Coverage by SVS Per District DPMU | | |
|---|---|---|---|---|---|---|---|---|---|
| | From | To | | No. of schemes | No. of habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs |
| Batch-1 | Dec-06 | Nov-08 | 10% | 136 | 272 | 51 | 11 | 21 | 4 |
| Batch-2 | Dec-07 | Nov-09 | 30% | 407 | 814 | 154 | 31 | 63 | 12 |
| Batch-3 | Dec-08 | Nov-10 | 35% | 475 | 950 | 179 | 37 | 73 | 14 |
| Batch-4 | Dec-09 | Nov-11 | 25% | 340 | 680 | 128 | 26 | 52 | 10 |
| **Total** | | | **100%** | **1358** | **2716** | **512** | **105** | **209** | **39** |

**Category 2 : MVS Slipped Back Batch Wise Proposed coverage of Habitations/GPs by UJN/UJS**

| Batch | Batch Phasing | | Proposed % of coverage of schemes | Coverage by MVS | | | Coverage by MVS Per District Division | | |
|---|---|---|---|---|---|---|---|---|---|
| | From | To | | No. of schemes | No. of habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs |
| Batch-1 | Dec-06 | Nov-08 | 10% | 39 | 386 | 73 | 3 | 30 | 6 |
| Batch-2 | Dec-07 | Nov-09 | 50% | 193 | 1932 | 365 | 15 | 149 | 28 |
| Batch-3 | Dec-08 | Nov-10 | 40% | 155 | 1546 | 292 | 12 | 119 | 22 |
| **Total** | | | **100%** | **386** | **3865** | **729** | **30** | **298** | **56** |

**Category 3 : SVS Devolution Batch Wise Proposed coverage of Habitations/GPs by UJS**

| Batch | Batch Phasing | | Proposed % of coverage of schemes | Coverage by SVS | | | Coverage by SVS Per District Division | | |
|---|---|---|---|---|---|---|---|---|---|
| | From | To | | No. of schemes | No. of habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs |
| Batch-1 | Dec-06 | Nov-08 | 5% | 122 | 243 | 46 | 9 | 19 | 4 |
| Batch-2 | Dec-07 | Nov-09 | 30% | 730 | 1459 | 275 | 56 | 112 | 21 |
| Batch-3 | Dec-08 | Nov-10 | 40% | 973 | 1946 | 367 | 75 | 150 | 28 |
| Batch-4 | Dec-09 | Nov-11 | 25% | 608 | 1216 | 229 | 47 | 94 | 18 |
| **Total** | | | **100%** | **2432** | **4864** | **918** | **187** | **375** | **71** |

**Category 3 : SVS Devolution Batch Wise Proposed coverage of Habitations/GPs by UJN**

| Batch | Batch Phasing | | Proposed % of coverage of schemes | Coverage by SVS | | | Coverage by SVS Per District Division | | |
|---|---|---|---|---|---|---|---|---|---|
| | From | To | | No. of schemes | No. of habitations | No. of GPs | No. of Schemes | No. of Habitations | No. of GPs |
| Batch-1 | Dec-06 | Nov-08 | 5% | 14 | 29 | 5 | 1 | 2 | 0.4 |
| Batch-2 | Dec-07 | Nov-09 | 30% | 86 | 172 | 32 | 7 | 13 | 2 |
| Batch-3 | Dec-08 | Nov-10 | 40% | 114 | 229 | 43 | 9 | 18 | 3 |
| Batch-4 | Dec-09 | Nov-11 | 25% | 72 | 143 | 27 | 6 | 11 | 2 |
| **Total** | | | **100%** | **286** | **572** | **108** | **22** | **44** | **8** |

### 3.7 Monitoring and Evaluation of the Sector Program

**3.7.1** Four types of M&E will be carried out during the sector program implementation;

(i) **Sector M&E** system that consolidates sector data at the state level to monitor the progress of the performance indicators with regards to sector policy implementation and program outcomes. This will be linked to the SIS developed under the TA component;

(ii) **Periodic review,** through targeted process and impact evaluation to learn from the field experience and suggest strategic inputs for further strengthening of the program design and strategies, for effective delivery of inputs at the GP level. This would include audits by independent financial and technical auditors of randomly selected schemes;

(iii) **Sustainability monitoring and evaluation** to track the long-term technical, financial, institutional, social, and environmental sustainability prospects of the schemes and assets created during the project life cycle of sample schemes; and

(iv) **Community monitoring** to help community members track the progress of their schemes in all the phases of the project, for continuous use after scheme completion. The system would contain a set of suggested participatory monitoring tools.

1. In addition to using the results of the habitation coverage survey conducted in 2003 by Rajiv Gandhi Drinking Water Mission of GOI, village level and scheme wise baseline information will be collected as soon as the GPs are identified in the pre-planning phase of the project cycle. Specific indicators and monitoring framework have been developed.

2. The Secretariat of SWSM will be responsible for monitoring the sector program and to undertake sector M&E not only for the SWAp program, but also to use the information in making future policy decisions and investment planning. The thirteen DWSMs and their Secretariats will be responsible for the periodic review and sustainability M&E of their respective districts. DWSMs will also provide physical and financial data inputs to the state level sector database managed by SWSM.

3. Significant capacity building would be required for the SWSM, DWSM, and PRI institutions to undertake data collection, consolidation, and management. Such capacity building needs are taken into account in the sector development component A.

4. The Bank would carry out three major reviews, the first at the end of the first year of program implementation, the second at mid term review, and the third at project completion. Milestones and target indicators will be set for each review period to monitor and evaluate the progress of the program.

The details of M&E of the sector program are placed at Chapter 14 of this manual.

# Chapter 4

# Social Assessment-Addressing Social Issues

In Uttarakhand about 70%-80% of rural populations are marginal farmers having less than 1 Ha of agricultural land. Besides practicing agriculture and livestock, the rural population has the option for tourism-based activities. As per the 1997 BPL survey and census data, the number of rural households below poverty line was 376502 (36%). Further analysis across districts has revealed that the districts of Uttarkashi, Tehri and Chamoli have maximum number of BPL families ranging from 50% to 65%, while Haridwar has the least (17.5%). In Uttarakhand 63.1% of total population is unemployed and 9.6% is marginally employed**.** Paying capacity of the rural community for facilities like drinking water and toilets are very low. The per capita income in Uttarakhand is Rs.13000.00. These features call for special attention while implementing WATSAN program in the State.

The state has a cattle population of 4.6 million animals with decadal growth rate of 1.84%. Average cattle population per village is nearly 315 cattle units/village or an average of 4.19 cattle units per household (HH). Livestock is a source of income for the rural households followed by agriculture. Therefore, it is an integral part of their livelihood system. The high cattle population leads to degradation of catchment area because of which the water sources are getting dwindled. Further the cattle also need water for which there is hardly any provision in the existing water supply schemes. This aspect needs to be borne in mind while designing water supply schemes for a particular area.

The household income level is lower in hills as compared to foothills. Survey also indicates that foothills have better irrigation facilities due to favorable geographical conditions. The rural families maintain nearly 3-4 cattle per family. In addition to these, there are some tribal pockets in the State. All these social facts demand for sympathetic approach at the time of collecting community contribution for capital as well as OM cost.

## 4.1 Stakeholders Analysis

Stakeholders have been identified on the basis prevailing situation in the State, proposed institutional arrangements and Swajal Project experiences. The list of stakeholders has been presented in the matrix given below:-

**List of Stakeholders for the RWSES Program**

| Levels | Sub-Level | Stakeholders |
|---|---|---|
| **Grass Root Level** | UWSSCs & GP | Gram Pradhan, Panchayat & UWSSC Members, Panchayat Secretary, School Teachers & Angan Wadi Worker, ANMs etc. |
| | Village Community | Men, Women & Children, CBOs, Village Maintenance Worker like Masons, etc. |
| **Intermediate Level** | District Level and Block Level | Zilla Panchayat, Block Panchayat, District Program Management Unit, District Level NGO, Training Institutions & Individual Consultants |
| **Strategic Level** | SWSM | Program Management Unit, DPMU |
| | Sector Institutions | Uttarakhand Jal Nigam & Uttarakhand Jal Sansthan |

| | | |
|---|---|---|
| | Other Departments | Panchayati Raj Department, Rural Development, Health, Forest, Watershed Management Department etc. |
| **Policy Makers** | GOI | Ministry of Rural Development Dept. of Drinking Water |
| | GoUA | Dept. of Drinking Water |
| | Media | Electronic & Print Media |

All these stakeholders have their own set of roles and responsibilities, expectations, concerns, difficulties and limitations, which will have bearing on the program design. Before program designing, stakeholders' mapping in the category of direct, indirect beneficiaries and pressure, threatened groups has to be taken into account because the entire set of stakeholders have their own expectations, issues, concerns and impacts. The mapping is given in the matrix below:-.

**Stakeholders Mapping**
**(Direct & Indirect beneficiaries, Pressure & Threatened Groups**

| Level | *Direct* | Indirect | Pressure | Threatened |
|---|---|---|---|---|
| **Village** | • Women<br>• Girl Child<br>• Hamlets<br>• Unemployed Literates<br>• Whole Community | • SHGs<br>• Mahila Mangal Dals<br>• Youth Groups<br>• VMW<br>• Labour<br>• Shopkeeper (Local materials) | • School Teachers<br>• Anganwadi Worker<br>• ANMs<br>• SHGs<br>• Children' group | • SC/ST or Minority Groups<br>• Poorest amongst the poor<br>• |
| **GP** | • Gram Pradhan<br>• Elected Members<br>• Panchayat Secretary | • Material Supplier<br>• Contractors (for big OHT schemes)<br>• NGOs | • GP Members<br>• Teachers<br>• Block Members<br>• Health Worker | • Ex GP Members<br>• Ex Gram Pradhan<br>• Members of opposite parties<br>• Contractors (Petty) |
| **District Level** | • Zilla Panchayat,<br>• District Program Management Unit<br>• District Administrative | • NGOs<br>• Training Institutes<br>• Material Suppliers | • Officials from other departments<br>• Media | • JN/JS Engineers<br>• Ex Panchayat Members<br>• Other Developmental Depts. |
| **State Level** | • Dept. of Drinking Water, SWSM, PMU | • Other Departments | • Media<br>• Politicians | • Other Development Departments |
| **National Level** | • GoI, RGNDWM | • Other State Govts | • Media | |

### 4.2 Stakeholders' Expectations, Issues and Concerns

#### 4.2.1Community Level Issues/Concerns

The proposed program will be participatory in nature. The community shall take all the decisions regarding planning, construction, procurement, operation and maintenance. The GP along with the UWSSC shall be the implementing agency at the Panchayat level. The village communities have certain issues and concerns regarding the program, which need to be addessed when implementing the program ae as follows:-

i. Generally women have limited role in decision making. They are apprehensive that the water supply is an issue closely related to them. They would like to express their problems & concerns in the program designing.
ii. The SC/STs feel, that since they form a minority group, whether they would be able to participate in the program processes.
iii. The functioning of the GP has always been, beyond the knowledge of the village communities. It is a general perception that the GP may be more interested in just utilization of funds while the water user committee may be actually left without any say in the process.
iv. The coordination between the GP and the different users groups is also a major concern due to local social and political issues.
v. Seasonal migration is a common phenomenon in some of the hill districts. Water supply and sanitation facilities have always been a problem with such villages. In this program also, it would be hard to decide, how water supply to these migratory people would be provided.
vi. The rural households have fixed income sources and small savings. The proposed program has an important component of community contribution in capital cost as well as O&M charges. The rural communities are apprehensive whether the cash contribution would be within their reach. The labour contribution is also a source of concern. In order to contribute free labour, they will have to forgo their daily routine work, which also means cash for them.
vii. The community does not have any idea about the O&M charges for the water supply schemes. In case of high O&M charges, families may not be able to pay regularly.
viii. The community feels that if some how, their cash income can be increased, they would be able to cope up with the program strategy.

### 4.2.2 GP Level Issues & Concerns

i. The GP may find it difficult to collect the capital cost as well as O&M contribution. The program must also include activities for convincing people for their contributions.
ii. There may be lack of coordination between the GP and UWSSCs due to community disputes and local political scenario.
iii. The GP may not be able to cope up with workload, particularly the paper work. They think that some additional resources should be provided to work efficiently.
iv. The latrines constructed during the program implementation phase may not be used later, as it happened in other government schemes.
v. The user committees may not be able to manage the funds, the O&M collection and other technical problems.
vi. If there are defaulters within the community, what actions are required to be taken by the GP? Stern actions only generate public anger and create ill opinion about them.

## 4.3 Program Arrangements

The program arrangements for the proposed program have been framed on the basis of the key issues and concerns, identified as a result of social assessment.

### 4.3.1 Design Features of the Program to Address the Key Issues and Concerns

The proposed Program is demand driven and participatory in nature. The participation of all the stakeholders has to be ensured for the SWAp based implementation. The stakeholders will be able to participate with full enthusiasm only when, all the issues and concerns are addressed or taken care off in the program design. Some of the design features which would necessarily find place in program straegy for its success implementation and sustainability are as given below.

**4.3.1.1 Representation, Awareness & Skill Development:** The program would emphasis the representation and participation of all the vulnerable and marginalized groups, particularly scheduled castes, scheduled tribes and women. For this, the design would provide (i) reserved representation to the SC/STs and women in the user's group committee, (ii) provision for the decisions to be taken in a community wide meeting with maximum representation of the community members, (iii) documentation of the meetings would be put into practice (iv) to increase confidence level and decision-making power of these groups awareness, knowledge and capacity building exercises would be organized (v) encouraging women for income generation activities in saved time and formation of self-help groups & (vi) safeguarding women against forced labour contribution.

**4.3.1.2 Transparency:** Program would make provisions for keeping the program implementation transparent by maintaining coordination among the three tiers of the PRIs especially Gram Panchayat and the user's committee which would require the following:-

a) Clear guidelines for the village level institutional setup, with details like constitution, membership, tenure & relationships.
b) User's Groups to have their own by-laws, which are duly ratified by the GP.
c) The finances are jointly controlled by Gram Pradhan (ex-officio chairman of UWSSC), treasurer of UWSSC and Panchayat Secretary. All the records of fund transactions are maintained and shared during community wide meetings. The final accounts to be displayed through wall writings.
d) Program to organize trainings in documentation and accounting so as to enable the office bearers to document the proceedings and maintain record of accounts.

**4.3.1.3 Equity:** Program would aim at providing equitable amount of water and sanitation services to all the sections of the society irrespective of their economic status, caste and religion. For this the program would adopt the following:-

a) All the water supply schemes are designed for providing at least 40 liters per capita day to all the households.
b) The cash and labor contribution are the same for all the households. Concessions may be given to SC/ST habitations.
c) The cash contributions are calculated according to the households in any habitation so that every HH has equal share to contribute in capital cost and O&M charges, for availing the same facilities.
d) The distance of the stand post water supply is same from a cluster of households, sharing the stand post, considering the feasibility for its installation. However the program would promote private connections for all the HH, which will further reduce time, and labor for fetching water; depending upon technical feasibility.
e) Program may provide incentives for HHs and community for adopting reforms.

**4.3.1.4 Accountability:** Program design would have inbuilt structure for establishing accountability of all the stakeholders during each step of its implementation. For this, following activities would be done:

a) Roles and responsibilities of all the stakeholders would be defined and details shared.
b) The information about the SWAp in the sector would be disseminated through effective communication campaign so that every one is aware about the roles & responsibilities and there are no confusions.

c) Providing finances to program management units, GPs, UWSSCs, SOs & SAs would be performance based.

**4.3.1.5 Decentralized decision making**- The program may evolve a system of decentralized decision making where all the decision related to the water supply scheme and sanitation services in a GP would be taken by the GP members and the water user's group. At the District level, the decisions regarding village selection, NGO selection and program implementation would be taken by the District Program Management Unit with consent of DWSM.

**4.3.1.6 Demand Responsiveness**- In case of demand for the program, the authorities would respond promptly. However, as the program is of limited time period and fixed budget, it would not be possible to cover all the Gram Panchayats. Only selected single/ multi village schemes would be considered, depending upon the demand, willingness to pay, technical feasibility & financial viability. In case of villages having all the above parameters but no capacity to pay may also be considered and provisions for interventions made accordingly.

**4.3.1.7 Quality**- Work quality would not be compromised at any point of time during the program implementation. Efforts to maintain good quality in respect of the following would be ensured:-

**Material Quality**

1. The Program Management Unit would prepare guidelines for the standards of the materials to be purchased. The district units would train all the support organizations, Gram Panchayats and user's committee, regarding the material standards. The actual procurement would be done by the purchase committee, which would have representation from GP and user's committee. The district units shall then collect the sample of the purchased material and the quality would be checked with the assistance of selected technical institution/ agencies.

**Construction Quality**

2. While the construction work is in progress, its quality may be checked through technical institutes/ agencies. This may be reinforced by regular visits of state and district level units.

**Water Quality**

**3.** The program would encourage and train the user's committee to adopt chlorination practice for ensuring safe drinking water. The VMW may be given adequate training and incentive, to continue the process and take up minor repairs without any external assistance.

**Quality of Services**

4. Besides water, the program would also focus on other service like environmental sanitation, health and hygiene awareness and women development. All these activities would be accompanied with adequate capacity building inputs. This is essential to ensure the sustainability of the assets created during the program.

**4.3.1.8 Sustainability**- The over all objective of the program is to ensure the sustainability of the investment. The sustainability of the following would be ensured for long term sustainability of the water supply schemes and achieving the program objectives:-

**(a) Water Supply Sources**

The program functionaries would assist the community to prepare a Catchment Area Treatment Plan for sustainability of the source discharge. Sources free from dispute would be selected and no objection certificate obtained from the concerned. The program would define criteria for selection of sustainable water sources.

**(b) Structures**

All efforts would be made to ensure standard quality construction of the water supply structures. To cope with natural calamities, the community may be encouraged to take up insurance plan for the scheme. The program may also assist the community by sharing the premium of the insurance during initial years, to prove its worth.

**(c) Institutions**

The institutions related to the program like the Gram Panchayats, user's committee, women groups etc would be provide adequate orientation, exposure and training so that they realize the importance of their institutional strength and continue functioning even after the program withdrawal. Besides capacity building inputs, the program may provide assistance to these institutions for establishing by-laws, proper documentation of records, development of informative literatures and the like.

**(d)Financial**

The program would assist the user's committee in fixation of the O&M charges for their water supply schemes. It would highlight the importance of regular payment by the community. Measure of social pressure like displaying the name of defaulter's publicly or disconnection of water supply may be used by the user committee. The user committee treasurer would be adequately trained to handle the funds properly. The amount collected would be regularly deposited in bank account.

## 4.4 Capacity Building (Awareness, Exposure &Trainings)

The capacity building program would be an integral part of the program implementation process. Various capacity building measures have already been mainstreamed during the Swajal Project. However, under the Sector Wide Approach, the program would require technical, financial, institutional and community mobilization exercises for all the listed stakeholders. These training would be imparted through specialized agencies and by other line departments who are already involved in development activities. The finalization of the training schedule for different districts would be the responsibility of the DPMU/DUPN/DUJS with active support from the PMU/UPN/UJS.

The key issues and concerns and design features of the program to address the key issues and concerns that require capacity building including training, communication and exposure have been dealt with, separately in Technical (water supply engineering, catchment treatment, environmental sanitation), Communication, Capacity Building and Community Development Plan/manuals, which can be referred for details.

### 4.4.1 Women's Development Initiatives (WDI)

The women being most vulnerable group of the society which is affected by adverse WATSAN scenario should be given special attention during the program period. The village women lack the sources of income because of which viability of demand driven schemes is likely to be threatened and hence efforts for augmentation of their earning through various income generation activities will be done as and where required.

### 4.4.2 Hygiene and Environmental Sanitation Awareness (HESA)

The benefits of improved water supply and sanitation facilities will be effective only when the women folk are made aware of the personal hygiene and enviromental sanitation concept.This is more so because of tough living conditions in the villages and also lack of suitable habits.The adequate number of village level hygiene workers will be engaged in the program villages.

### 4.4.3 Catchment Area Management

Most of the water sources in the state are sensitive to land resource management practices.Therefore,proper management plan will be drawn and implemented for protection and conservation of these resources. The details are given in the respective chapter in this manual.

### 4.5 Ensuring participation by tribal population/marginalised groups

Keeping in view the low income level of tribal population and their adverse geographical conditions,the tribal families will have to contribute only 5% of the capital cost.This conribution may either be fully as labour or as a mix of labour and cash,depending on the option given by such families.The tribal villages and scheduled caste villages will be taken up on priority basis in development blocks where the program is being implemented.

# Chapter 5

# Institutional Arrangements for Sector Program for Uttarakhand

## 5.1 Existing setup of WATSAN Sector in the State:

The Department of Drinking Water in Uttarakhand has three main institutions namely Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and the Swajal Directorate or Project Management Unit (PMU). Both Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan are autonomous bodies created under Sections 3 & 18 of the Act named "The Uttarakhand (The Uttar Pradesh Water Supply and Sewerage Act, 1975) Adaptation and Modification Order, 2002" respectively. Both the sector institutions have independent Boards chaired by the Secretary, Department of Drinking Water, Government of Uttarakhand and have following members:

| S. No. | | Uttarakhand Peyjal Nigam | Uttarakhand Jal Sansthan |
|---|---|---|---|
| 1. | Chairman | Secretary, Drinking Water, GoUA | Secretary, Drinking Water, GoUA |
| 1. | Member | Managing Director | Chief General Manager |
| 2. | Member | Secretary, Finance, GoUA | Secretary, Finance, GoUA |
| 3. | Member | Secretary, Planning, GoUA | Secretary, Planning, GoUA |
| 4. | Member | Secretary, Urban Development, GoUA | Secretary, Urban Development, GoUA |
| 5. | Member | Director General, Medical & Health Services | Director General, Medical & Health Services |
| 6. | Member | Director, Finance | Director, Finance |
| 7,8, 9&10. | Member | Four elected heads of local bodies including one Nagar Nigam's to be nominated by the State Government | Four elected heads of local bodies including one Nagar Nigam's to be nominated by the State Government |
| 11. | Member | Chief General Manager, Uttarakhand Jal Sansthan | Managing Director, Uttarakhand Peyjal Nigam |

**Swajal Directorate** is a society registered under Societies Registration Act, 1860 with Chief Secretary, Government of Uttarakhand as its Chairman and Secretary, Department of Drinking Water as Vice Chairman and following member:

| | | |
|---|---|---|
| 1. | Chairman | Chief Secretary, GoUA |
| 2. | Vice Chairman | Secretary, Drinking Water, GoUA |
| 3. | Member | Secretary, Rural Development & Panchayati Raj, GoUA or representative not below the rank of Joint Secretary |
| 4. | Member | Secretary, Finance, GoUA or representative not below the rank of Joint Secretary |
| 5. | Member | Secretary, Planning, GoUA or representative not below the rank of Joint Secretary |
| 6. | Member | Managing Director, Uttarakhand Peyjal Nigam |
| 7. | Member | Chief General Manager, Uttarakhand Jal Sansthan. |
| 8. | Member | Secretary, Forest GoUA or representative not below the rank of Joint Secretary |

| | | |
|---|---|---|
| 9. | Member | Commissioner/ Director, Rural Development & Panchayati Raj, State of Uttarakhand |
| 10. | Member | Director General Health, Uttarakhand |
| 11. | Member/ Executive Secretary | Director SWSM, Uttarakhand |

## 5.2 Present functions

Uttarakhand Peyjal Nigam is primarily engaged in the construction of new schemes of drinking water both in rural and urban areas and new sewage schemes in urban areas. Whereas, Uttarakhand Jal Sansthan is primarily carrying out the functions of operation and maintenance of these drinking water and sewage schemes, which have been handed over to them by Uttarakhand Peyjal Nigam. The Swajal Directorate is presently implementing Swajaldhara Program and the Total Sanitation Campaign (TSC) apart from preparing the project for sector Program loan.

## 5.3 Present Structure

The present structure of Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and Swajal Directorate is as follows:

**5.3.1 Uttarakhand Peyjal Nigam:** The Headquarter of Uttarakhand Peyjal Nigam is located in Dehradun headed by the Managing Director who is Chief Executive Officer of Uttarakhand Peyjal Nigam. Managing Director is also a member of the board. At the Headquarter, they have one Project Appraisal Unit, one Construction & Design Services Wing headed by General Manager, one Administrative Unit headed by Personnel Officer, one Central Store Division headed by Executive Engineer, Law Officer and one Chief Engineer Headquarter. There is also one Finance Unit at the headquarter headed by the Director, Finance who is on deputation from Department of Finance. In each functional division of the State i.e. Kumaon and Garhwal, they have Zonal Chief Engineers and below them in every district they have one Superintending Engineer and below Superintending Engineer they have Executive Engineers. Executive Engineer is the last functional unit. Generally each district has three to four Executive Engineers depending upon the quantity of work. At the moment, there are 44 Executive Engineer divisions including Ganga Action Plan (40 civil & 4 E&M) in the State.

**5.3.2 Uttarakhand Jal Sansthan:** The Headquarter of Uttarakhand Jal Sansthan is located in Dehradun headed by the Chief General Manager who is Chief Executive Officer of Uttarakhand Jal Sansthan. Chief General Manager is also a member of the board. At the Headquarter, they have one Finance Division headed by the Director, Finance who is on deputation from Department of Finance. At the headquarter there is one appraisal unit headed by Secretary (Appraisal), one administrative unit headed by Secretary, Administration , one materials procurement unit headed by Superintending Engineer, and one Electrical Mechanical wing headed by Superintending Engineer. In each functional division of the State i.e. Kumaon and Garhwal they have General Managers and under them almost in each district they have one Superintending Engineer and then below them they have Executive Engineer. There are 28 Divisions in the State. Thus, both Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan have by and large similar organizational structure.

**5.3.3 Swajal Directorate:** The Headquarter of Swajal Directorate is located in Dehradun headed by the Director who is Chief Executive Officer of the Project Management Unit, Swajal Project. Director is also a member cum executive secretary of the Executive Committee. At the Headquarter, Monitoring and Evaluation Unit is headed by Additional Director. Finance Division is headed by the Finance Controller who is on deputation from Department of Finance. There are five other Units namely, Engineering, Environment, Social, Health & Hygiene and Human Resource Development, which are headed by Unit Coordinators. There are nine district level offices which are headed by the Project Managers. In each district office, there is one Finance Unit which is headed by Finance Officer/Manager (Accounts). In addition, Consultants in each district and headquarter are placed as per quantum of work. These Consultants have been taken from open market. Apart from this, support staff has been taken on contract.

## 5.4 Manpower

The summary of the present sanctioned strength, positions occupied and positions vacant in Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and Swajal Directorate is as follows:

| S. No. | Name of Institution | Sanctioned posts (no.) | Filled Posts | Vacant posts |
|---|---|---|---|---|
| 1 | *Uttarakhand Peyjal Nigam* | 1619 | 1637 | -18 |
| 2 | *Uttarakhand Jal Sansthan* | 4194 | 3233 | 961 |
| 3 | *Swajal Directorate* | 166 | 122 | 44 |
| | ***Total*** | **5979** | **4992** | **987** |

*The details of manpower are placed at* ***Annexure-6.***

It is noteworthy that while Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan have their own permanent cadres of employees, the Swajal Directorate on the other hand is manned by officers who are either on deputation from different departments namely Department of Education, Department of Social Welfare, Department of Medical & Health, Department of Tourism or Consultants and Engineers who have been taken on contract. Thus, the important difference between sector institutions and the PMU or Swajal Directorate is that whereas the sector institutions are primarily manned by permanently placed Water Works Engineer while the Swajal Directorate is being manned by people who have come on deputation for a certain period of time and who are largely non-engineering background. This difference has to be understood in the historical perspective that the PMU was created as a Special Purpose Vehicle (SPV) for the implementation of Swajal Phase-I project funded by the World Bank and since it was decided by the then Government of Uttar Pradesh that instead of anchoring the Swajal Project in the Ministry of Urban Development and Water Supply, it should be anchored in the Department of Rural Development and a separate Society was formed for that under the Chairmanship of the Agriculture Production Commissioner, Government of Uttar Pradesh and since the Society had no

formal structural affiliations with the sector institutions i.e. Peyjal Nigam and Jal Sansthan most of the people in the Society were taken largely through deputation or open market contract recruitment and that is how the structure came into being and had continued like that in the State of Uttarakhand also. While there were many advantages of creating this Special Purpose Vehicle in the form of Rural Water Supply and Environmental Sanitation Society (Swajal), the noteworthy being the flexibility in choosing appropriate officers and adopting a much more flexible and speedy procedures and in not creating a permanent body and in picking up Consultants from open market having requisite qualifications. It had a great disadvantage of creating a divide and complete disconnect between the sector institutions/line departments dealing with drinking water sector and Swajal project. With the result, the sector institutions have remained largely "un initiated" with the demand driven participatory decentralized mode of service delivery in the rural water supply and sanitation sector. With the result, the sector reforms principles could not be adopted and internalized by the sector institutions, which are the main vehicle of service delivery in the State. Lest, this be repeated, we must carefully work out such an institutional arrangement for the follow-on sector loan Program which must not only involve these sector institutions at every level but eventually sector institutions should convert or transform themselves into the reform oriented and decentralized participatory compatible institutions of State Water and Sanitation Mission (SWSM) as well as District Water and Sanitation Mission (DWSM). Thus, by the end of the sector Program it is visualized that the SWSM and DWSM would be fully internalized and manned by the sector institutions.

## 5.5 Proposed Institutional Arrangements for Sector Program

It is proposed that under the new institutional setup, the State Water and Sanitation Mission will be the highest policy making body in water supply and sanitation sector. SWSM will be chaired by the Hon'ble Chief Minister and the Minister in-charge of department of drinking water will be the Vice Chairman with all concerned senior Secretaries as its members.

The main functions of the Secretariat of SWSM would include the implementation of decisions taken by SWSM, through sector institutions and Swajal Directorate, monitor fund flow, financial management monitoring, ensuring that the funds are utilized as per the Sector Wide Approach (SWAp) and also processing and generating the reimbursement claims. The Secretariat may be anchored in the Swajal Directorate but it has to be headed by a senior person. To begin with, it would be headed by Additional Secretary, Department of Drinking Water, Government of Uttarakhand and the technical experts can come from sector institutions on deputations. Eventually, the whole of the secretariat along with DWSM can be manned by senior people from the sector institutions. *The proposed Organogram for Sector Program is provided in* ***Annexure-7.***

The main advantages of the structure will be as follows:

1. Mainstreaming of sector institutions with reform principles.
2. The disconnection and divide between SWSM/DWSM and sector institutions will be abolished.
3. The ownership of the sector Program by the sector institutions.
4. The resistance to change management and acceptability of reforms will be made easier. Even the integration of the two sector institutions will take place at the functional level.

Eventually the complete manning of SWSM and DWSM will take place by sector institutions or to put it in other words sector institutions will transform themselves into SWSM/ DWSM and present departmental system of Chief Engineer, Superintending Engineer and Executive Engineer will give way to new structure compatible with decentralized participatory structure of SWSM and DWSM.

## 5.6 Implementation Arrangements at the Apex and District level for the implementation of Medium Term Development Program

The implementation arrangements will include policy formation and overall steering Apex Body headed by Hon'ble Chief Minister of state. All the sector institutions including Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan & Uttarakhand Rural Water Supply and Sanitation Society (Swajal) will work under the policy guidelines of the Apex Body. At state level the headquarters of respective organizations will be responsible for facilitating physical, financial and procedural progress of the sector Program. At district level, District Water and Sanitation Mission will be the decision making body for implementation of the Program under which DPMUs and respective district offices of the sector institution will function for implementation of the Program.

### 5.6.1 Implementation Arrangements at the Apex level:

### 5.6.1.1 Apex Committee – State level institutional arrangements for adoption of Sector Wide Approach (SWAp) in Water Supply & Sanitation Sector:

The devolution of administrative, financial and executive functions to three tier Panchayati Raj Institutions (PRIs) in the water supply sector requires identification of an appropriate arrangement at the state level which shall facilitate and monitor the progress of implementation of devolution as per the spirit of the 73rd Constitutional Amendment. In addition to above, the state level apex committee is necessary for formulation of an integrated implementation policy for the works being implemented by the sector institutions viz Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and Project Management Unit, Swajal Project and for uniform policy formulation on subjects such as planning, policy formation, monitoring and evaluation, implementation of community participatory and demand driven water supply schemes in rural and urban areas, environmental sanitation, sewerage system etc.

In view of the above, the existing State Water and Sanitation Mission (SWSM) has been reorganized.

**The Apex Committee under the Chairmanship of Hon'ble Chief Minister shall perform the functions of the State Water and Sanitation Mission.**
**The Apex Committee is constituted as follows: -**

| | | |
|---|---|---|
| 1. | Hon'ble Chief Minister | Chairman |
| 2. | Hon'ble Minister for Drinking Water | Vice Chairman |
| 3 & 4 | Two Hon'ble ZP Chairman nominated by Hon'ble Chairperson | Member |
| 5 & 6 | Two Hon'ble MLAs nominated by Hon'ble Chairperson | Member |
| 7. | Chief Secretary, Government of Uttarakhand. | Member |
| 8. | Principal Secretary, Finance, Government of Uttarakhand | Member |
| 9. | Principal Secretary, Social Welfare, Government of Uttarakhand | Member |

| | | |
|---|---|---|
| 10. | Principal Secretary, Forest and Commissioner Rural Development (FRDC), Government of Uttarakhand | Member |
| 11. | Principal Secretary, Medical and Health, Government of Uttarakhand | Member |
| 12. | Secretary, Drinking water, Government of Uttarakhand | Member Secretary |
| 13. | Secretary, Education, Government of Uttarakhand | Member |
| 14. | Secretary, Rural Development & Panchayati Raj, Government of Uttarakhand | Member |
| 15. | Secretary, Irrigation, Government of Uttarakhand | Member |
| 16. | Secretary, Minor Irrigation, Government of Uttarakhand | Member |
| 17. | Secretary, Urban Development, Government of Uttarakhand | Member |
| 18. | Secretary, Planning, Government of Uttarakhand | Member |
| 19. | Director General Health and Medical Services, Uttarakhand | Member |
| 20. | Director, Project Management Unit, Swajal Project, Uttarakhand | Member |
| 21. | Managing Director, Uttarakhand Pey Jal Nigam | Member |
| 22. | Chief General Manager, Uttarakhand Jal Sansthan. | Member |
| 23. | Director, Information and Public Relation, Uttarakhand | Member |
| 24. | Director, Education, Uttarakhand | Member |
| 25. | Representative of Rajiv Gandhi National Drinking Water Mission, Ministry of Rural Development Government Of India | Member |
| 26 | Member Secretary, Pollution Control Board, Uttarakhand | Member |
| 27-28. | Two representatives of Support Organizations (SO) working in the Project | Member |

### 5.6.1.2 Roles and responsibilities of the Apex Committee for the Implementation of Medium Term Development Program

The Apex Committee shall develop policy guidelines for the entire water supply and sanitation sector. The committee shall issue directions for coordination between various departments in the state. The committee shall take policy decision for planning, designing, implementation and operation and maintenance of works as per the principles of sector reforms in the water supply and sanitation sector.

The Apex Committee shall meet at least once in a year.

### 5.6.1.3 Secretariat of SWSM (Apex Committee)

A separate cell will be established at the Department of Drinking Water, GoUA which shall act as the Secretariat of SWSM. To begin with, this cell may be headed by Additional Secretary, Drinking Water, GoUA and shall comprise dedicated, full time, senior officers not below the rank of Superintending Engineer from Uttarakhand Peyjal Nigam & Uttarakhand Jal Sansthan, one senior level Finance Officer from the State Finance Services. The cell will be assigned responsibility for overseeing the progress of reform principles in the activities of Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and RWSES society(PMU).**The cell will have its predominant role in implementation of sector wide approach especially on the following aspects:-**

1. Overseeing the implementation of the policy decisions by SWSM, dessimation of the policy decisions of the SWSM and monitoring of the implementation of the policy decisions by various Program partners.
2. Organize meetings of the SWSM as per the norms and whenever needed
3. Implementation of the Uttarakhand Rural Water Supply & Sanitation Medium Term Development Program (2005-2012)
4. Monitoring of the physical and financial progress of the various schemes as per the Medium Term Development Program (2005-2012).
5. Facilitating applications of reform principles in the whole sector gradually and ensuring progressively switch over from the existing supply driven mode of functioning to demand driven approach.
6. Monitoring the fund flow arrangements for the Sector Program and the various Programs as per the Medium Term Development Program.
7. Collecting the fiscal data of the Program and utilization certificates from the various Sector Program partners and send those to the Govt. of India.
8. Submitting the reimbursement claims to the World Bank.

The Project Management Unit-Swajal Project, Uttarakhand Jal Sansthan and Uttarakhand Peyjal Nigam shall work as **per the policy guidelines of the Apex Committee**.

### 5.6.1.4 Roles and Responsibilities of Program Management Unit (PMU) for the

Implementation of Medium Term Development Program

The existing society of Project Management Unit shall be redesignated and reoriented as the Program Management Unit (PMU) and shall be responsible for the following works in the Medium Term Development Program: -

I. The PMU shall facilitate the coordination and implementation of the New Capital Investment for the Sector Program for Single Village Schemes **(SVS)** along with Jal Nigam and Jal Sansthan by adopting the demand responsive approach as per the Medium Term Development Program in all the districts of the State

II. Act as the interface for the World Bank regarding the Implementation of the Sector Program and provide reports to the World Bank as per the agreed formats regarding the Sector Program and provide the World Bank's feedback to the various partners.
III. The PMU shall be the implementing agency for Total Sanitation Campaign (TSC) in all the districts/blocks except the regions/villages allotted to Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan where the SVS and MVS shall be implemented by them, and coordination of TSC in all the districts of the state.
IV. The PMU shall ensure participation of Panchayati Raj institutions (PRIs) along with village communities for the implementation of Information, Education and Communication (IEC) Programs in water supply and sanitation sector and implement the works of Communication and Capacity Development Unit (CCDU).
V. The PMU shall also implement few Multi Village Schemes in at least four districts spread over whole of the State for learnings of Community Participation approach in Multi Village Schemes.
VI. The PMU shall be responsible for implementation of the capacity building Program including the trainings, cross visits and Human Resource Development activities for the various Program partners, through the Capacity and Communication Development Unit (CCDU).
VII. The PMU shall prepare and implement the action plan for recharge of water sources in coordination with various departments.
VIII. The PMU shall be responsible for providing technical inputs regarding the Catchment Area Protection works to the Sector Institutions and PRIs.
IX. The PMU shall prepare the budgetary plan for the schemes/Programs to be taken up within the SWAp basket.
X. The PMU shall ensure the audit of schemes/Programs to be taken up within the SWAp basket.

The Program Management Unit (PMU) shall be assisted by District Program Management Units (DPMUs) at each district. The DPMUs shall work as the extended arms of the PMU in the field. The PMU shall provide detailed guidelines to the DPMUs for the implementation of the Medium Term Development Program- Criteria for selection of support organization, support agencies, project cycle and its components, technical support, capacity building of Program partners regarding community development activities and technical works, trainings, approval of DPRs beyond the limit of DWSMs, audit of individual DPMUs, compilation of monthly physical & financial progress from the DPMUs and sending it to the Secretariat of the SWSM etc.

### 5.6.1.5 Roles and Responsibilities of Uttarakhand Peyjal Nigam for the Implementation of Medium Term Development Program

Uttarakhand Peyjal Nigam shall be responsible for performing its functions as per the U.P. Water Supply and Sewerage Act, 1975. Besides this, under the sector Program, Peyjal Nigam will be responsible for the following works in the Medium Term Development Program: -

**Schemes outside the SWAp basket**

These schemes shall not be covered under the SWAp basket i.e. the principles of the sector wide approach will not be applicable to these schemes and will continue to be implemented as per the existing implementation mechanisms. This is imperative as the following categories of the schemes are under various stages of construction and have different funding sources, implementation and monitoring mechanisms.

a. Completion of continuing Schemes

b. Schemes for CAP '99' balance habitations which shall be listed before 31st March 2006.
c. Schemes which have been identified and administratively sanctioned for which the financial sanction will be issued before 30th November, 2006
d. Schemes recommended by District Planning Committee up to 30th November, 2006 for inclusion in the Budget 2006-07.
e. The head office of Uttarakhand Peyjal Nigam shall provide the requisite assistance as per the prevailing norms to its district units for the implementation of the Programs outside the SWAp basket.

**New Capital Investment**

Under this category of investment, the principles of the sector wide approach –a uniform policy framework as well as operational rules for project cycle including the planning, design, implementation, operation and maintenance, monitoring and evaluation, procurement, and disbursement, shall be applicable. Following are the various heads under this category.

a. Facilitation and technical support to PRIs for the construction of Single Village Scheme as per the agreed principles of the Sector Program.
b. Construction of Multi Village Scheme as per the agreed principles of the Sector Program.
c. Rural Sanitation in the villages being covered by Jal Nigam (within the SWAp basket as well as outside the SWAp basket) – This will include the construction of Individual Household latrines, school latrines, Community sanitary Complex, setting up of Production Centres, Rural Sanitary Marts etc.
d. Water Supply and Sanitation to public institutions – Water Supply schemes shall be constructed for government schools in villages where these facilities do not exist.

For this purpose a SWAp cell will be opened in the headquater of the Uttarakhand Peyjal Nigam. At the state level, the M.D. office of Uttarakhand Peyjal Nigam shall be the interface for the SWSM cell and shall be primarily responsible for furnishing the Monthly Physical & Financial progress reports. At the district level, there will be one nodal officer of Jal Nigam who will be the ex-officio member of DWSM and DWSC. This nodal officer will coordinate with the DPMU for the implementation of the sector Program and shall submit the Utilization Certificates and Reimbursement Claims.

### 5.6.1.6 Roles and Responsibilities of Uttarakhand Jal Sansthan for the Implementation of Medium Term Development Program

Uttarakhand Jal Sansthan shall be responsible for performing its functions as per the U.P. Water Supply and Sewerage Act, 1975. Besides this, under the sector Program, Jal Sansthan will be responsible for the following works in the Medium Term Development Program: -

**Schemes outside the SWAP basket**

These schemes shall not be covered under the SWAp basket i.e. the principles of the sector wide approach will not be applicable to these schemes and will continue to be implemented as per the existing implementation mechanisms. This is imperative as the following categories of the schemes are under various stages of construction and have different funding sources, implementation and monitoring mechanisms.

a) Continuing Schemes (SVS&MVS) under reorganization/Rejuvenation- These schemes shall pertain to schemes which have been identified and currently are in different stages of implementation.

b) Schemes (SVS&MVS) recommended by District Planning committee for inclusion in the Budget 2006-07 – The schemes which shall be identified by 31st of March 2006 shall be taken up.

c) Rehabilitation/Repair of damaged schemes due to natural calamity – As per the experience, 5-10% of schemes get damaged due to natural calamities like earthquakes, flash floods, cloud bursts etc. These shall be implemented on case wise basis.

d) The head office of Uttarakhand Jal Sansthan shall provide the requisite assistance as per the prevailing norms to its district units for the implementation of the Programs outside the SWAp basket.

**New Capital Investment**

a. Facilitation and technical support to PRIs for the construction of Single Village Scheme as per the agreed principles of the Sector Program.

b. Reorganization/augmentation of existing Water Supply Schemes with Uttarakhand Jal Sansthan as and when required as per the agreed principles of the Sector Program.

c. Rural Sanitation in the villages being covered by Jal Sansthan (within the SWAp basket as well as outside the SWAp basket). This will include the construction of Individual Household latrines, school latrines, Community sanitary Complex, setting up of Production Centres, Rural Sanitary Marts etc.

d. Water Supply and Sanitation to public institutions - Water Supply schemes shall be constructed for government schools in villages where these facilities do not exist.

e. Transfer of Single Village Schemes to GPs.

At the state level, the C.G.M. office of Uttarakhand Jal Sansthan shall be the interface for the SWSM cell and shall be primarily responsible for furnishing the Monthly Physical & Financial progress reports. For this purpose a SWAp cell will be opened in the headquater of the Uttarakhand Jal Sansthan. At the district level, there will be one nodal officer of Jal Sansthan who will be the ex-officio member of DWSM and DWSC. This nodal officer will coordinate with the DPMU for the implementation of the sector Program and shall submit the Utilization Certificates and Reimbursement Claims.

## 5.7 District level Institutional Arrangements:

### 5.7.1 District Water & Sanitation Mission (DWSM)

District Water & Sanitation Mission (DWSM) headed by the Zilla Panchayat Chairperson at district level shall be as under:-

| | |
|---|---|
| 1. Zilla Panchayat Chairman | Ex. Officio Chairman |
| 2. Hon'ble Member of Parliament | Member |
| 3. Hon'ble MLAs | Member |
| 4. Three members of the Zilla Panchayat nominated by the Zilla Panchayat Chairman by rotation. | Member |
| 5. Three Block Panchayat Chairman nominated by the Zilla Panchayat Chairman by rotation. | Member |
| 6. Chief Development Officer | Member |
| 7. Superintendent Engineer/Executive Engineer. | Member |

| | |
|---|---|
| Uttarakhand Peyjal Nigam. | |
| 8. Superintendent Engineer/Executive Engineer. | Member |
| Uttarakhand Jal Sansthan. | |
| 9. District Education Officer | |
| 10. District Panchayati Raj Officer | Member |
| 11. Chief medical Officer of the District | Member |
| 12. District Social Welfare Officer | Member |
| 13. Deputy Project Officer | Member |
| Water Shed Project. | |
| 14. District Project Manager DPMU | Member Secretary |
| (Swajal Project) | |
| 15. Divisional Forest Officer | Member |
| 16. Executive Engineer, Irrigation | Member |
| 17. Executive Engineer, Minor Irrigation | Member |

#### 5.7.1.2 Responsibilities of District Water & Sanitation Mission (DWSM) for the implementation of the Medium Term Development Program

1. Implementation of the policy decisions for the sector Program as per the policy decisions of the state Govt. and State water & sanitation mission (SWSM).
2. Guiding the District water & Sanitation Committee (Steering Committees) for planning, designing implementation, operation & maintenance of water supply schemes as per the sector Program and the medium term development Program at the district level.
3. Approval of the annual budget related to Water Supply & Sanitation proposed for district Divisions of Uttarakhand Jal Nigam and Uttarakhand Jal Sansthan and District Program Management Unit (DPMU) & Review of the program & expenditures.
4. Review the progress of the implementation after the technical Review of the water supply schemes.
5. Providing support to the Gram Panchayat, User Water & Sanitation Sub Committee in water supply & Sanitation Works. The support shall include the identification of the sources, menu of technical options, Detailed Project Report preparation, Capacity Building interventions, project implementation etc.
6. Providing effective dispute resolution mechanism regarding the Water supply & Sanitation schemes related disputes of Gram Panchayats.
7. District Water & Sanitation Mission (DWSM) shall meet twice in a year & DPMU shall act as the secretariat of DWSM.

#### 5.7.1.3 District Water & Sanitation Committee (Steering Committees)

District water & Sanitation Committee headed by Chief Executive Officer of Zilla Panchayat/Chief Development Officer will assist the DWSM at the district level. The constitution of the Committee shall be as follows:-

| | | |
|---|---|---|
| 1. | Chief Executive Officer of Zilla Panchayat /Chief Development Officer | Chairman |
| 2. | Chief medical Officer of the District | Member |
| 3. | District Development Officer | Member |
| 4. | District Education Officer | Member |
| 5. | Additional Chief Officer of Zilla Panchayat | Member |
| 6. | District Panchayati Raj Officer | |
| 7. | Executive Engineer, District Project Cell Uttarakhand Peyjal Nigam | Member |
| 8. | Executive Engineer, District Project Cell Uttarakhand Jal Sansthan | Member |
| 9. | District Project Manager DPMU (Swajal Project) | Convener/Secretary Member |
| 10. | Divisional Forest Officer | Member |
| 11. | Executive Officer Irrigation | Member |
| 12. | Executive Officer Minor Irrigation | Member |

**5.7.1.4 Responsibilities of District Water & Sanitation Committees for the implementation of the Medium Term Development Program**

1. Implementation of Water supply & sanitation Schemes as per the policy decision by the State Water and Sanitation Mission & District Water & Sanitation Mission.
2. Selection of GPs for the Swajaldhara & TSC, approval and review of the schemes proposed by the Gram Panchayat & User Groups.
3. Selection process for NGOs & CBOs for Swajaldhara & Total Sanitation Campaign & provide recommendation to the State Water & Sanitation Mission
4. Effective monitoring & supervision of Works under Swajaldhara & TSC.

   The above committee shall function according to the polices decided by the Govt. of India, State Govt. and under the guidance of SWSM. Apart form this it shall also furnish various information, description of physical& financial progress desired by the SWSM.
5. Supervision & evaluation of the actual financial transaction & management in the water supply & sanitation project.
6. Providing assistance to District Water and Sanitation Mission for obtaining budget for drinking water & sanitation related works at the district level.
7. Providing guidance & support to the Gram Panchayat user water & Sanitation sub committee's construction & ensure Quality of the works under construction.

   The District steering committee shall meet at least once in three months.

### 5.7.1.5 Roles & Responsibilities of District Program Management Unit (DPMU) for the implementation of the Medium Term Development Program

The Program Management Unit (PMU) shall be assisted by the District Program Management Unit (DPMU) at each district. Presently, 9 DPMUs are functional, 4 more are to be established. The DPMU headed by Project Manager shall be the secretariat of the DWSM/DWSC. The Project Manager is the Member Secretary in the Executive Committee and General Body of DWSM. The Project Manager shall be a Senior Executive Engineer from Uttarakhand Jal Nigam/Uttarakhand Jal Sansthan or Officers having experience of implementing community driven water supply projects from various organizations. The Project Manager shall be assisted by a Deputy Project Manager, Manager (Accounts), consultants in the area of Health and Hygiene, community development, finance and support staff.

The DPMU shall perform the following functions:

i. Day-to-day management, responsibility for project implementation and undertaking all activities necessary for implementation of the project;

ii. Carry out regular monitoring and evaluation through appropriate mechanisms (and report the same to GOI, SWSM, DWSM as necessary);

iii. Carry out policy directives of DWSM;

iv. Provide technical advice and guidance on engineering, community development and sanitation activities to SO, GPs, UWSSC;

v. Advise DWSM on sector (water supply and sanitation) policies;

vi. Ensure proper accounting and financial management system for the DWSM;

vii. Ensure capacity building of all stakeholders;

viii. Design and implement IEC campaigns;

ix. Perform secretariat functions for DWSM e.g. prepare agenda of the meeting and document minutes of the meeting;

x. Evaluate the plans submitted by UWSSC and GPs, prepare appraisal notes for administrative and technical sanctions;

xi. Maintain a database consisting of base line information on water and sanitation sector and important hydro-geological aspects in the district;

xii. Co-ordinate network with institutions, agencies and individuals relating to water supply and sanitation activities including water quality monitoring;

xiii. Collect, collate and publish data and information on project implementation; and

xiv. Prepare the annual reports and accounts of the project and other periodical reports.

### 5.7.1.6 Roles & Responsibilities of District Units of Uttarakhand Peyjal Nigam for the implementation of the Medium Term Development Program

The various works specified in the Medium Term Development Program which are outside the SWAp basket shall be executed by the respective district units of Uttarakhand Peyjal Nigam.

For the implementation of works inside the SWAp basket, Uttarakhand Peyjal Nigam will provide Engineers to the District Program Management Unit. These engineers shall provide technical guidance and assistance to the user groups regarding community mobilization,

formation of the user groups, User Water and Sanitation Subcommittees, the selection of the technology regarding water supply, sanitation, catchment area protection , collection of community contribution, Detailed Project Report preparation, construction & procurement These district divisions will also carry out the works of the devolution of SVS to the Gram Panchayats and the construction of the MVS as per the Medium Term Program.

#### 5.7.1.7 Roles & Responsibilities of District Units of Uttarakhand Jal Sansthan for the implementation of the Medium Term Development Program

The various works specified in the Medium Term Development Program which are outside the SWAp basket shall be executed by the respective district units of Uttarakhand Jal Sansthan.
For the implementation of works inside the SWAp basket, Uttarakhand Jal Sansthan will provide Engineers to the District Program Management Unit. These engineers shall provide technical guidance and assistance to the user groups regarding community mobilization, formation of the user groups, User Water and Sanitation Subcommittees, the selection of the technology regarding water supply, sanitation, catchment area protection , collection of community contribution, Detailed Project Report preparation, construction & procurement etc.
These district divisions will also carry out the works of the devolution of SVS to the Gram Panchayats and the reorganisation of the MVS as per the Medium Term Program.

## 5.8 Village level Institutional arrangements for the implementation of the Sector Program

State Government has made provisions for formation of users based User Water and Sanitation Sub Committees (UWSSCs) in the State. This arrangement is essential for implementation of the following fundamental reform principles of the Swajaldhara Program of Government of India:

i. Adoption of demand responsive approach of the community.
ii. Ensuring full participation of the communities by involving them in the selection, planning, design, and implementation, control of finances and management arrangements of the drinking water schemes.
iii. Full ownership of drinking water assets with appropriate levels of Panchayats.
iv. Operation and Maintenance of the water supply schemes and fixation of appropriate tariff by Panchayats/communities.
v. Integration of health, sanitation and source conservation Program with water supply schemes.

The user driven system has been successful in Swajal -I project and in Swajaldhara Program. Therefore, under the proposed arrangement, Gram Panchayats will setup separate User Water Supply and Sanitation Sub-Committees (UWSSC) within its area of jurisdiction depending on the number of drinking water schemes in the area. The UWSSC shall be declared as sub-committee of Jal Prabandhan Committee of Gram Panchayat. Therefore, The Governor of Uttarakhand in exercise of powers conferred by sub section (3) of section 29 of UP Panchayati Raj Act 1947 (as applicable in state of Uttarakhand) has accorded permission for formation of User Water and Sanitation Sub-Committee/Sub-Committees as Sub-Committee/Sub-Committees of Jal Prabandhan Committee of Gram Panchayat. This Committee/these Committees will be named as User Water and Sanitation Sub-Committee.

### 5.8.1 Formation of User Water and Sanitation Sub-Committee

i. The User Group, which is beneficiary of any water supply scheme, shall/will elect Chairman, Treasurer and Members of their User Water and Sanitation Sub-Committee. User Group

means the adult members of the families, which are beneficiaries of the water supply schemes.

ii. The User Water and Sanitation Sub-Committee will have minimum seven (7) and maximum twelve (12) members. The elected ward members to District Panchayat, Block Panchayat and Gram Panchayat member from the concerned User Water and Sanitation Subcommittee will be ex-officio members of the Sub-Committee. The Gram Pradhan will be the ex-officio Chairman of all the User Water and Sanitation Subcommittees. The subcommittee will elect the Treasurer from amongst the members of the subcommittee. The User Water and Sanitation Sub-Committee will have at least 30% female members and 20% SC/ST representation as per the norms. For decision making by the subcommittee, 50% of the members of the Sub-Committee will constitute the quorum of meetings.

### 5.8.2 Roles and responsibilities of User Water and Sanitation Sub-Committee

i. The User Water and Sanitation Sub-Committee/Sub-Committees will collect voluntary contribution (cash or labour) from the village community for capital cost of construction works of the schemes (Drinking water supply, sullage drain, individual house hold latrine, soak pit, compost pit etc.) and also for operation and maintenance of the schemes. The Sub-Committees will make efforts for spreading awareness regarding sanitation and hygiene among the villagers. This Sub-Committee shall deliberate on technical alternatives of construction works and adopt the same so that the schemes being constructed are according to the expectations of the villagers.
ii. To plan, design, implement, operate and maintain water supply and sanitation schemes.
iii. To collect user charges from the users of the drinking water schemes for maintenance of the schemes and to take appropriate action in case of non-payment of charges.
iv. To procure construction material as per rules and to ensure quality of the material procured.
v. To receive capital investment amount from Gram Panchayat and to deposit the same in the capital cost account of the User Water and Sanitation Sub-Committee and to incur expenditure as per planning of the scheme.
vi. To maintain details of capital cost investment
vii. To fix user charges for operation and maintenance of water supply and sanitation schemes.
viii. To furnish monthly financial progress report to Project Implementing Agency.
viii. To ensure coordination with Jal Prabandhan Committee of Gram Panchayat and with Gram Panchayat.

### 5.8.3 Operation and maintenance of accounts of UWSSC

i. User Water and Sanitation Sub-Committees shall open two separate accounts. The Sub-Committee will maintain two separate accounts for “Capital Cost” and “Operation and Maintenance”. The audit of these accounts will be the carried out by the User Water and Sanitation Sub-Committee.
ii. These accounts of User Water and Sanitation Sub-Committee will be operated and maintained by the Chairman and Treasurer of the said Sub-Committee. The Assistant Accountant at Gram Panchayat level provided by the project shall also assist the UWSSC in the maintenance of the accounts and auditing.
iii. The planning, implementation, operation and maintenance of drinking water and sanitation schemes will be done by User Water and Sanitation Sub-Committee and the same will be got approved by Gram Panchayat in its open meeting. The crosschecking of technical works examination of corresponding sector claims and ensuring adherence to environmental safeguard guidelines will be got done by Project Implementing Agency through subject specialists of the project.

### 5.8.4 Roles & Responsibilities of Gram Panchayats.

i. To approve the schemes prepared by User Water and Sanitation Sub-Committees and submitted through Jal Prabandhan Committee.
ii. The Gram Panchayat will receive the funds from the Project Implementing Agency and manage the funds received for drinking water schemes and will transfer the amount received in Gram Nidhi by cheque to the User Water and Sanitation Sub-Committees within 15 days. Separate ledgers will be maintained for different User Water and Sanitation Sub-Committees.
iii. The maintenance of accounts of the funds received for drinking water and sanitation scheme will be done at the level of Gram Panchayat according to the proforma/formats prescribed by the Accountant General.
iv. The Gram Panchayat will ensure auditing of Gram Nidhi account and the User Water and Sanitation Sub-Committees will ensure auditing of the account of the Sub-committee.
v. An account for drinking water and sanitation works will be opened at Gram Panchayat level and will be operated by Gram Pradhan and Secretary of Gram Panchayat. However, if Gram Panchayat Secretary is not available, in that situation, the Project may nominate a worker as Co-Secretary. An Assistant Accountant shall be made available for maintenance of such accounts by the project.
vi. Gram Panchayat will make efforts for resolving disputes relating to drinking water at Gram Panchayat level.
vii. The Jal Prabandhan Committee of the Gram Panchayat will assist on the above-mentioned responsibilities of Gram Panchayat.

### 5.8.5 For Multi Village Schemes:

Separate User Water and Sanitation Sub Committees (UWSSCs) will be formed for each user group formed under a multi village scheme. Multi Village Scheme Level Committee (MVSLC) will be formed under the Block Panchayat for coordination between various UWSSC, for which the following arrangements have been proposed:

### 5.8.6 Formation of User Water and Sanitation Sub Committees (UWSSCs):

Notification of GoUA no.308/86 (16)/2005 dated 19 May, 2005 has provision for formation of User Water and Sanitation Sub Committees (UWSSCs) . These committees will be formed at users' level as per the notification 308/86 (16)/ 2005 dated 19 May, 2005 and will have similar responsibilities. The Gram Panchayats will form separate User Water and Sanitation Sub Committees (UWSSCs), within its jurisdiction, depending upon number of water supply schemes. The User Water and Sanitation Sub Committees (UWSSCs) will be declared as sub committees of Jal Prabandhan Samiti.

User Water and Sanitation Sub Committees formed for MVS will have additional roles and responsibilities, besides as listed in the notification no.308/86 (16)/2005 dated 19 May, 2005 **(Annexure- 8).**These additional roles and responsibilities are as follows:

i) Planning, Design, Implementation, Operation and Maintenance of intra village/habitation distribution network, being fed by multi village scheme.
ii) Collection of community contribution of capital cost of intra village/habitation distribution network, and on bulk water supply works as fixed by the government and as per the affordability of the users.
iii) Collection of water tariff from users within the habitations.
iv) Collection of bulk water supply charges as per the affordability of the users
v) Maintenance of accounts related documents and audit by a chartered accountant.

### 5.8.7 Formation of Multi Village Scheme Level Committee (MVSLC)

Multi Village Scheme Level Committee (MVSLC) will be formed for schemes which will serve more than one Gram Panchayat. This committee shall address the following issues of the MVS:

i) Coordination between Gram Pradhans and Block Panchayat Chairpersons for multi village schemes covering GPs spread over two or more Blocks.
ii) Arrangements for unhindered, uniform water distribution among the habitations/villages covered under the various Gram Panchayats and Block Panchayat,.
iii) Availability of land for construction of w/s scheme on mutual consensus basis, and support and assistance to the agency responsible for water supply design, implementation, and maintenance of water supply scheme.
iv) Collection of operation & maintenance tariff.
v) Organization of community meetings, transparency in matters related to meetings, necessary action on proceedings, procurement of materials for w/s scheme and maintenance of expenditure records etc.

The formation of Multi Village Scheme Level Committee (MVSLC) is proposed as below:

(i) Separate User Water and Sanitation Sub Committees would be formed for all the covered villages/ habitations on the basis of the user groups
(ii) The Multi Village Scheme Level Committee (MVSLC) would consist of minimum 9 members and maximum as required. There would be 30% representation of women and 20% of people belonging to the schedule castes and tribes. In the Multi Village Scheme Level Committee, the chairman of the concerned UWSSCs, elected members of the Gram Panchayat, Block Panchayat and Zilla Panchayat of the beneficiary villages and one member each nominated by the Gram Pradhans concerned with the UWSSCs would be the members of the subcommittee. The chairman of this Multi Village Scheme Level Committee would be the Block Panchayat Chairman for MVS in a single development block while for MVS covering more than one development block; the chairman shall be elected from amongst the concerned Block Panchayat Chairmen. The treasurer would be elected by the members of the committee. For resolution in a meeting, the committee shall have a quorum of 50% members of the committee

(iii) A working committee shall be formed for the Multi Village Scheme Level Committee (MVSLC) for day to day functioning of the MVSLC. For this, elections would be held for.

### 5.8.8 The roles and responsibilities of the Multi Village Scheme Level Committee (MVSLC) shall be as follows:-

(i) The Multi Village Scheme Level Committee shall hold discussions and take necessary action for the proper supply of drinking water at the multi village scheme level.
(ii) The committee shall consult all user groups for the selection of technical options available and construction works to be done under the scheme, so that the constructed scheme is in accordance with the expectation of the consumers.
(iii) The committee shall facilitate the implementation, operation and maintenance activities of the MVS.
(iv) Shall get the no objection certificate regarding the source to be tapped for the drinking water supply scheme.
(v) Shall make land available depending upon the requirement, keeping in view the relevant social and environment aspects.
(vi) Shall provide support to the department concerned with the water supply from the main supply line to the entire village.

(vii) Shall fix the rates to be paid by the users for the operation and maintenance of the drinking water supply and sanitation schemes
(viii) Resolve all disputes arising between villages covered under the scheme.
(ix) Shall appropriately allocate funds for user water charges to be collected by sector institutions against bulk water supply as per standards/norms fixed by UWSSC.
(x) Procure good quality construction materials according to the rules
(xi) Make available monthly financial progress details to the project implementation agency.
(xii) Organize regular meetings of the committee and to inform all concerned members 15 days prior to any meeting.
(xiii) Document all decisions taken during the meetings and to inform all members about them.
(xiv) Guide user water and sanitation sub committees about proper management of the water supply scheme and provide list of technical people to them.

### 5.8.9 Management and maintenance of accounts of Multi Village Scheme Level Committee (MVSLC)

(i) The Multi Village Scheme Level Committee shall open an account and shall spend money from this account for carrying out its day to day work. The audit of the accounts will be done by the committee.
(ii) The source of income of this committee would be voluntary contribution by the user groups of user water and sanitation sub committees and all discussions related to this would be done by the Multi Village Scheme Level Committee.
(iii) The account will be operated and maintained by the Chairman and Treasurer of the committee. The assistant accountant appointed by the committee will assist in the maintenance and auditing of the accounts.

## 5.9 Staffing

### 5.9.1 SWSM Secretariat

The organogram for the SWSM Secretariat is placed at **Annexure – 9.**

### 5.9.2 PMU

The organogram for the PMU is placed at **Annexure – 10.**

### 5.9.3 UJN/UJS

The organograms for the head offices of UJN/UJS are placed at **Annexure – 11 & Annexure -12** respectively.

### 5.9.4 DPMU

The organogram for the DPMU is placed at **Annexure - 13**

### 5.9.5 District Division of UJN/UJS

The organograms for the District Division of UJN/UJS are placed at **Annexure -14**

## 5.10 Support Organizations and Service Agencies:

Non Governmental Organisations and Community based organisations shall be involved in the sector Program as a link between the beneficiary communities and the district implementing agencies. Acting as catalysts in the process, they shall be involved in the scheme cycle activities in motivating and mobilising the communities and building their capacities towards their envisaged

roles and responsibilities in the management of their WATSAN schemes. Their main roles as per the different phases of the scheme cycle shall be as follows:

**Planning Phase:**

The major activities to be conducted by the Support Organisation shall be as follows: -

- Mobilization of communities, participatory planning and use of ASARADAR Tools, Problem investigation and analysis.
- Identification of User Groups depending on the number of the water supply schemes to be implemented in the GP and formation of the User Water and Sanitation Sub Committees (UWSSCs).
- Trainings on community development, health, feasibility and design of Water Supply Schemes , catchment area protection, accounting etc. for GP/UWSSCs members
- Identifying technology options, conducting feasibility analysis and Agree-To-Do meeting for separate User Groups.
- Preparation of Detailed Project Reports (DPR) and Community Action Plans (CAP) for each of the UWSSCs
- Collecting 50% upfront cash contribution and 50% annual O&M community contribution for water supply, sanitation and catchment area protection works.
- Preparation of implementation phase proposals.

**Implementation Phase**

The major activities to be conducted by the Support Organisation shall be as follows: -

- Collecting balance cash/labour and O&M community contribution for water supply, sanitation and catchment area protection works.
- Trainings on community development, health, women's development initiatives, book keeping, operation and maintenance (technical, institutional, financial) etc. for GP/UWSSCs members.

Besides the support organisations, Service Agencies shall be hired by the district implementing agencies, whenever the need arises for hiring skilled manpower for a limited duration. The Service Agencies shall be involved essentially for the following:

For conducting the prefeasibility assessment of the Gram Panchayats for their prioritisation and inclusion in the Sector Program.

For conducting initial IEC campaign and awareness creation amongst communities regarding the sector Program – its principles and implementation approach, objectives, scope, roles and responsibilities of various Program partners and mobilization, wall writings, slogans etc. This phase shall be conducted within a maximum period of one month in the start of the planning phase.

For third party construction supervision in the implementation phase.

## 5.11 Post Program Sector Institutional Vision (2011)

1. GoUA's sector vision aims to transform the role of the state government and its sector institutions from service provider to a supporter, facilitator, and co-financier and as per need,

provider of technical assistance, training, and catering for bigger construction works and sectoral contingencies. At the end of the SWAp program, UJN and UJS will have transferred the local government–level functionaries to the PRIs to facilitate them in carrying out the responsibilities of planning, designing, constructing, operating, and maintaining RWSS schemes. Significant capacity building will be carried out for all three tiers of the PRIs for exposure and awareness regarding policies, implementation arrangements, fund flow and procurement procedures, O&M, roles and responsibilities, etc. While most SVSs and simple MVSs are envisaged to be fully taken over by the PRIs and the UWSSCs, the high-cost pumping schemes and complex water supply schemes are expected to continue with UJN and UJS, following SWAp principles.

2. At the beginning of the SWAp program, the SWSM will be supported by a PMU and each of the DWSMs will be supported by a DPMU comprising of staff on deputation from the UJN and the UJS, but reporting directly to the concerned DWSMs. This institutional arrangement is mainly to assist the PRIs in implementing the sector program. A percentage of the staff of UJN and UJS will progressively come under supervision and administrative control of the respective PRI Institutions, and the transition will be completed by the end of the program (2012). It is envisaged that by 2012, PMU will be merged with SWSM cell and DPMUs will work under the overall administrative, financial, and technical directions of the DWSM/DWSC. The salaries of such staff will be routed through DWSM/DWSC (with financial support from GoUA). At the village level, UJS staff on contract, related to SVSs, will be transferred to the GPs (if the latter so desire), to facilitate water and sanitation activities. The GP will be responsible for meeting the salary and administrative costs of the staff from funding sources like water tariffs, grants from state government, grant from Finance Commission, etc.

**Identifiable Milestones to Observe Sector Institutional Vision and Goal**

***1. At the State and District Sector Institutions level:***

a. **At the start of SWAp program (2007):**

i. The SWSM cell will be manned by senior officers recruited from the sector institutions.
ii. The program will be initiated with the existing structure of PMUs and DPMUs.
iii. The capacity development program for the sector institution staff shall be initiated regarding their changing roles and responsibilities for implementing demand-responsive RWSS schemes.

**b. By the third year of SWAp program (2009–10):**

i. 50 percent of the DPMUs will be headed by senior engineers of the sector institutions. These DPMUs will also be manned by the employees of sector institutions.
ii. The capacity of at least 50 percent of the engineering staff shall be built on the principles of demand-responsive and community-managed RWSS systems.

**c. By the end of the SWAp program (2012):**

i. All the DPMUs will be totally manned by staff recruited from sector institutions.
ii. SWSM will be fully manned by officers recruited from sector institutions.
iii. The capacity of all the engineering and non-engineering staff shall be built up on the principles of demand-responsive and community-managed RWSS systems. The refresher trainings shall continue for sustainability of the developed human resource.
iv. The entity of PMU and the DPMUs will be merged with the SWSM and DWSMs, respectively.

*2. At the Panchayati Raj Institutions (PRIs) level:*

**a. At the start of the SWAp program (2007):**

i. The transfer of sector institution staff to the appropriate level of PRIs shall be initiated. The capacity-development program for this transferred staff shall be initiated.
ii. UWSSCs shall be formed for all SVSs under consideration.
iii. The capacity-development program for the PRI staff shall be initiated regarding their perceived roles and responsibilities in the RWSS sector.

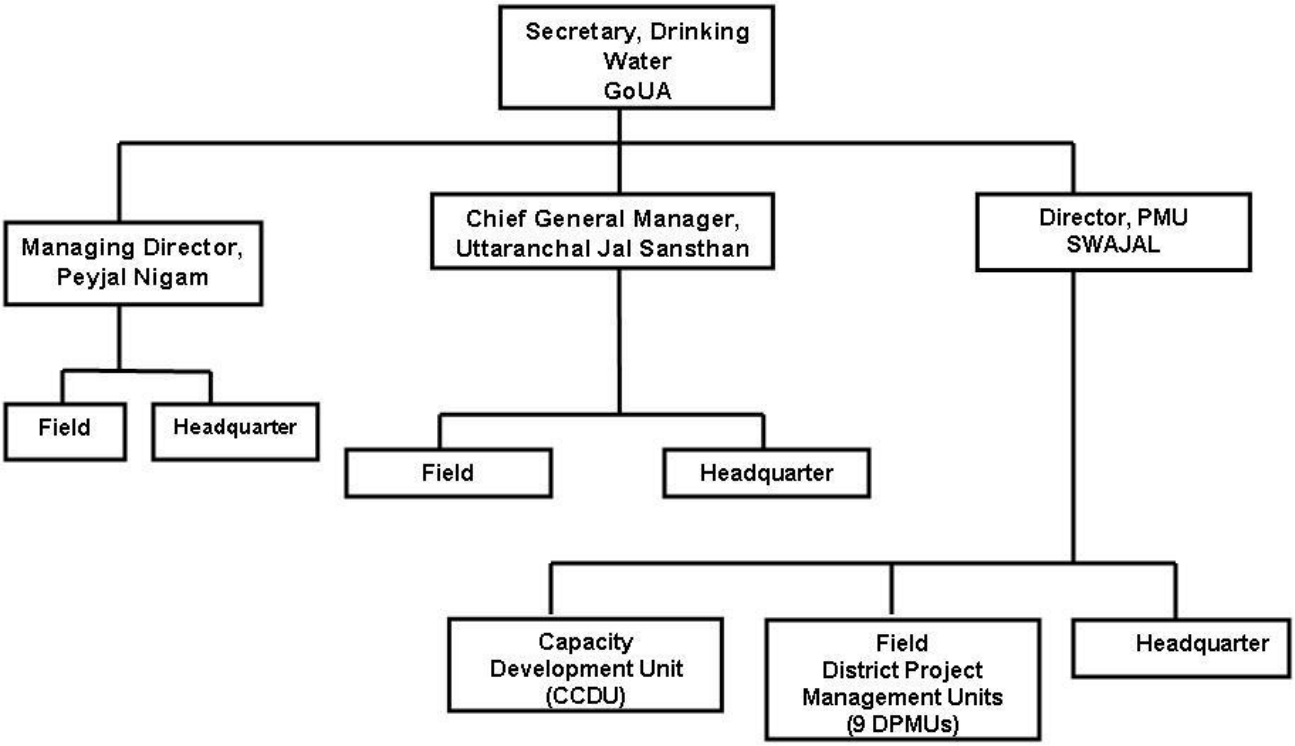
**b. By mid-SWAp program (2009–10):**

iv. Transfer of 50 percent of sector institution staff to the appropriate level of PRIs shall be done, after appropriate training to this staff.
v. The capacity-development program for the PRI staff will be continued as per the numbers of GPs taken up in the sector program.

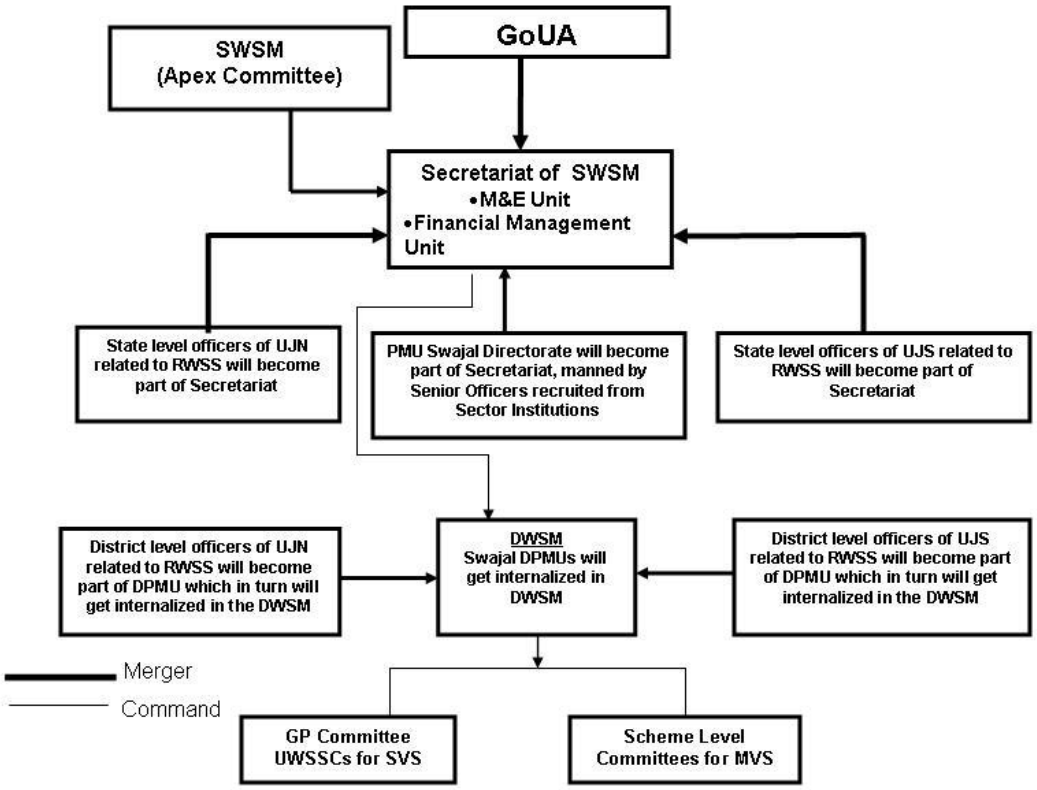
**c. By the end of the SWAp program (2012):**

vi. The complete transfer of sector institution staff to the appropriate level of PRIs shall be done, after appropriate training to this staff.
vii. The capacity-development program for the PRI staff will be continued as per the numbers of GPs taken up in the sector program.
viii. Uniform sector policy will be applied in the state and all the functionaries in the RWSS sector will work in participatory mode with the PRIs.

## Existing RWSS Institutional Arrangements



## Post Program RWSS Implementation Arrangements (2011-12)



# Chapter 6

# Implementation Modalities of the Sector Program

This chapter explains the implementation modalities for each component of the Program in detail.

## 6.1 SWAp Components

The SWAp program includes the following three components.

A. RWSS Sector Development
B. New Rural Water supply & Sanitation investments
C. Program Management and Monitoring & Evaluation

The Project Implementing Entity (GoUA) shall implement the Project through RWSS sector reform principles:

***(a) Arrangements at the state level:***

(i) SWSM is: (A) chaired by the Chief Minister; and (B) supported by a cell established under the DDW, which cell shall serve as the Secretariat of the SWSM and be responsible for overseeing the progress of the RWSS sector reform activities carried out by the DPMU's, UJN, UJS, and the PMU;
(ii) DDW serves as the nodal agency for the RWSS sector, and coordinates MTP activities with the sector stakeholders;
(iii) PMU is assisted by DPMUs at the district level, and coordinates the implementation of single-village investment schemes and small multi-village investment schemes; and
(iv) UJN and UJS, through their respective district-level agencies, carry out their respective sector mandates in respect of SWAp Basket activities.

***(b) Arrangements at the district level:***

(i) DWSMs: (A) Chaired by the Zilla Panchayat Chair person and (B) supported by DWSC and DPMU.

***(c) Arrangements at the Habitation and GP levels:***

(i) the UWSSCs for Single Village Schemes (SVS) ; and
(ii) the UWSSCs and MVSLCs for Multi Village Schemes

## 6.2 Implementation Arrangements for Component – A

The Project Implementing Entity (GoUA) shall carry out component A of the Project through the DDW, PMU and SWSM, UJN and UJS and shall provide promptly as needed the funds, facilities, services and other resources required for the Project.

## 6.3 Implementation Arrangements for Component – B

The Project Implementing Entity (GoUA) shall carry Part B of the Project through the PMU, SWSM, DPMUs, the DWSMs, UJN, and UJS and shall provide promptly as needed the funds, facilities, services and other resources required for the Project.

**Basic Principle**

The basic principle governing implementation of this component is to provide sustainable, technically feasible solutions, meeting the needs of the community; providing least cost solution for a given service level and situation; providing MVS only when SVS is not feasible and providing an integrated water supply, sanitation and catchment area protection service
The various issues to be addressed include -

- Exploring various technological options
- Selection of technically feasible, economic and sustainable option.
- Making proper choice of SVS/MVS – initially through a district level Technical Review Committee and finally agreed by the community
- To meet desired service levels of the community based on feasibility
- Analysis of appropriate O&M options and implications which are to be understood by the community
- Following the implementation procedure of Pre-feasibility, Feasibility analysis, Implementation, O&M and Post-Implementation activities. The details are covered in the Technical Manual.

### 6.3.1 Key Concepts

The new investments would include building or rehabilitating water supply facilities including source strengthening measures, which the communities plan, implement, and manage by themselves. In the case of large MVS, O&M responsibility of the communities would be only for intra-village distribution. The inter-village facilities would be constructed by UJN and operated by UJS according to the MOU signed amongst the multi-village scheme level committee (MVSLC), sector institution (UJN/UJS), and the DWSM.
The devolution of SVS to GPs signifies that the SVS within a GP is first made fully functional – either thorough reorganization or rehabilitation or even a new SVS and the capacity of the users and the GP adequately built up so that the SVS is effectively and efficiently managed by the users and GP, for the design period of SVS.

**Single Village Schemes**

The definition of Single Village Scheme as per the GO No. 2427/Twenty Nine/ 04 -02 (22 Pey)/ 2004 dated 31st May 2005 regarding the policy arrangements at the state level for adopting the Sector Wide Approach (SWAp) for reforms in the Water Supply and Sanitation Sector is as follows:-

**"In general, the scheme constructed within a revenue village or in the habitations within a revenue village shall be defined as Single Village Scheme (SVS). If within a Gram Panchayat, the scheme for more than one Revenue Village can be managed by the User Group, with the agreement of GP, the scheme shall also be included in the definition of Single Village Scheme."**

**Multi Village Schemes (MVS)**

In the above context of the definition of Single Village Schemes, the Multi Village Scheme shall relate to the case of the scheme covering more than one revenue village in more than one GP.

**Simple MVS**

Simple MVS is defined as a technically feasible gravity scheme covering up to three GPs/villages/ habitations, which can be handled by the respective GPs / UWSSCs collectively with mutual consent. Other MVS besides these simple MVS will be designated as large MVS.

**Integration of Swajaldhara and TSC in the Sector Program**

**Swajaldhara –**The ongoing schemes taken up under Swajaldhara will be completed as per the GoI guidelines. Swajaldhara being a community centred model, its implementation is as per the Sector Wide approach. The next batches of Swajaldhara have already been integrated in the sector program. The funds allocated under Swajaldhara shall be treated as GoI share.

**Total Sanitation Campaign –** For the habitations to be covered under the SWAp Program, TSC works will be carried out in integration with water supply works and catchment area protection works by the concerned implementation agency.
Habitations to be covered under the ongoing schemes shall be taken up under the TSC Program by Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan, as per the case.
The fully covered habitations shall be taken up for the TSC works by PMU

**Ongoing Schemes:** All the Single Village water supply schemes (SVS) identified up to 31st March, 2006 and Multi Village Schemes (MVS identified up to 30th November, 2006) will be implemented as per the previous norms and will be the defined as **ongoing schemes**. These schemes pertain to those schemes whose administrative and financial sanction has been accorded prior to 01.04.2006 for SVS and 1.12.2006 for MVS.

## 6.3.2 Investment Guidelines

The investment guidelines for the new investments under SWAp in the rural water supply and sanitation program shall follow the below mentioned steps:-

- **Preparatory Steps**: This includes dissemination of the Sector Program in the state and compilation of existing water sources database, and institutional mobilization to implement the program.
- **Scheme Selection**: Schemes to be covered under various categories are identified and pre-feasibility to collect basic data of the schemes is collected
- **Agreement by the constituting GPs**: The GPs constituting an SVS/MVS confirm to go ahead with either of the scheme.
- **Project Cycle**: Planning and Implementation of the schemes, following a set of defined activities and involving the community
- **Post-Implementation Support**: Support to the GPs post-implementation to monitor sustainability

Monitoring and Evaluation would be part of all these steps.

The detailed processes for each step are listed below:

## 6.3.3 Process for Each Step

## 6.3.3.1 Preparatory Steps

**Dissemination of Sector Program:** The first activity shall focus on the dissemination of the Sector Program at the state, district and block levels. Workshops at each level regarding the sector program details shall be conducted by the District Program Management Units (DPMUs) to make the functionaries at all levels – PRIs and Government Institutions aware about the sector program, the principles to be followed and the roles and responsibilities of the program partners. Various Information, Education and Communication (IEC) tools shall be utilized in this process.

[The PMU would hire a Service Agency for carrying out the dessimination of the Sector Program at the state, district and the block levels.The ToR of the service agency for this job is provided at **Annexure-15**

**Water Resources Database**: Using the existing information regarding the water sources, the water resources database shall be compiled. The critical areas with source depletion shall be demarcated on district wise basis by the SWSM cell.

**Maintenance of Database for water supply schemes**
For effective monitoring of SWAp, the SWSM Cell will maintain the data regarding status of water supply and sanitation scenario in the State. The SWSM cell will maintain the data regarding progress of coverage of the habitations by water supply and sanitation facilities. It will also ensure collection of information regarding physical and financial progress of the Program.

**Constitution of district level Technical Review Committee (TRC)**: A district level Technical Review Committee (TRC) shall be constituted comprising engineers from UJN/UJS/PMU and representatives of PRIs. The following shall be the constitution of the Technical Review Committee:

| | | |
|---|---|---|
| 1. Chief Development Officer | - | Chairman |
| 2. Superintending Engineer, UJN and UJS (Two) | - | Members |
| 3. Executive Engineer of the district, UJN (One) | - | Member |
| 4. Executive Engineer of the district, UJS (One) | - | Member |
| 5. DPMU Engineer | - | Member |
| 6. Project Manager, DPMU | - | Member Secretary |
| 7. Representatives of PRIs (4 nos - one each from ZPand BPs; two from GPs) | - | to be nominated by Chairman, ZP |

**Roles of TRC:**

The basic responsibility of the Technical Review Committee shall be to ensure promotion of demand driven approach in the sector and to see that construction of community managed schemes is given priority.The MVS will be recommended only when there is no way out for construction of SVS. The committee will record reasons for not constructing SVS for any habitation/GP which should be supported by the prefeasibility data of the village. The main roles of the TRC shall include

- Review of the technological options proposed by the various User Groups.
- Analysis for justification of SVS/MVS
- Finalization of the Scheme Identification Plan for SVS/MVS
- Appraisal of DPRs for SVS/MVS
- Technical Sanction for SVSs

**District Schedule of Rates:** The district schedule of rates for various engineering items/works/materials (local and non-local) shall be prepared by the concerned implementing agency based on the existing analysis of rates and shall be approved by the DWSM. This schedule of rates shall be updated on yearly basis or as and when needed.There shall be a single set of schedule of rates for each district and for all the implementing agencies.
**Staff Mobilization:** The requisite staff of PMU/UJN /UJS for carrying out the various activities as per the sector Program shall be deployed. UJN / UJS would establish their district units with staff strength as required.The details of the staffing requirement are placed at **Annexure-16**

**Selection of Support Organizations**: Support Organizations would help the GPs/UJN/UJS in planning and implementation of the SVS/MVS. The SO selection process shall be initiated at the DWSM level through advertisement in the newspapers.The Project Manager, DPMU shall be responsible for this activity. A shortlist of eligible SOs based on desk review would be prepared by DPMU at the district level. The SO eligibility criteria are placed at **Annexure-17**. The SO intake form and SO evaluation form are placed at **Annexures 18 & 19** respectively. Teams comprising members from the district units of PMU/UJN /UJS shall carry out the field assessment of the short listed SOs.The DPMU shall rank them and submit to DWSM for its approval. DWSM would approve the final list of the SOs.

## 6.3.3.2 Scheme Selection

The broad principles for resource allocation are as under:

- First priority to Not Covered(NC) Habitations
- Second priority to Partially Covered(PC) Habitations

This priority shall be guided by the existing ground realities.

**Following are the categories for the various investment planning under SWAp**

Category-1: SVSs and simple MVSs that are technically and institutionally feasible to be carried out by DWSM
Category-2: Larger MVSs to be carried out by UJN and some MVSs requiring reorganization by UJS
Category 3: Devolution of existing schemes (mostly SVS) currently under UJS and UJN to the PRI

**Procedure for categories 1 & 2:**

**1.** The DWSC shall prioritize GPs based on Rajiv Gandhi Survey 2003 information of habitations and using local knowledge/existing database of GP proposals, initially. 20 % more GPs than proposed for the year/batch shall be considering to account for the drop-outs GPs. For subsequent Batches, the process would be refined, including exploring seeking Expression of Interest from GPs.

In parallel, the UJN/UJS would identify the existing large MVSs that need to be rehabilitated under the program, using NC/PC criteria.

**2** The Pre-feasibility of these prioritized/short listed GPs/existing large MVSs shall be carried out by the DWSC through pre identified local resouce persons/Support Agencies selected at the district level.The prefeasibility format in the Technical Manual shall be used for this purpose.The outcome of the pre-feasibility would be the final selection of the GPs to be taken for a

particular batch. The GPs shall be ranked based on actual observations and the Prioritization /Selection criteria of GPs for Sector Program as per **Annexure- 20.** As part of pre-feasibility, the Support Agency shall collect the information about the existing large MVSs, further clustering possibilities, and the feasibility of any GP of the MVS to have a SVS.

⇨ **Output: Pre-feasibility Report of the GPs**

**3** For the GPs so ranked, and for the existing MVSs selected, the district level Technical Review Committee (TRC) shall examine the possibilities of the implementation of the SVS and whether MVS could be proposed for a clustering of habitations/ GPs to be covered. Any small MVS categories would also be identified.

Based on the information collected, the district level Technical Review Committee (TRC) examines the possibilities of the implementation of the type of scheme- SVS and MVS as well as the selection of the technological options, for the habitations to be covered, based on pre-feasibility. The committee shall examine and review the tentative maps of the SVS/MVS, showing the source, habitations covered, respective GPs, main supply lines, off-takes to the habitations; and give a justification why SVS/MVS is chosen. A detailed proposal shall be prepared with this justification, along with the map. This note shall be called **Scheme Identification Plan** for each GP in case of SVS; or for a cluster of GPs in case of MVS. The Service Agency which has conducted the pre-feasibility will also participate in this process as the agency will be in a better position to express the felt needs of the community.

⇨ **Output: Scheme Identification Plan**

The Scheme Identification Plan shall consist of Prioritization / Selection criteria and process of the concerned GP/GPs and the details of the scheme proposed.

**4** The final GPs/SVS/MVS scheme identification shall be approved by DWSM.The DWSM shall meet as and when required.The annual target of the GPs to be covered shall be fixed by DWSM

⇨ **Output: List of SVS/MVS to be covered in a particular batch**

**Procedure for category 3:**

The SVS currently under maintenance by UJN/UJS would be devolved to the GPs following a certain process. The following requirements are to be met in this process.

**Requirements:**

**1.** The water supply scheme in the GP/village will be made fully functional by the existing maintenance agency after following procedure of demand driven approach.

**2.** The inventory of the water supply assets shall be checked and finalized before handing over to the GP by the existing maintenance agency.

**3**. User Water and Sanitation Sub Committee (UWSSC) will be formed corresponding to each scheme as per the UWSSC notification no 308/86(16)/2005 dated 19th May, 2005 of GoUA. This committee will plan, design, implement and operate & maintain the schemes with technical assistance from sector institutions.

**4.** UWSSC will be properly and adequately trained in managing the scheme in technical, institutional and financial matters. The training of Village Maintenance Worker (VMW) and the UWSSC Treasurer will be more focused with emphasis on practical hands on training.

**Implementation Steps:**

**1** Update the list of all existing SVS, which presently are under O&M by UJS and UJN.

**2** The existing database of all the above SVS will be updated on district wise basis by the existing staff of UJS/UJN.If needed, service agency may be engaged. This will necessarily include the remaining design period of the scheme and the status of the habitations covered (NC/PC/FC) by the scheme as per Rajiv Gandhi National Drinking Water Mission Survey-2003.

UJS /UJN shall prioritize the schemes/GPs to be covered under a Batch, based on NC/PC Criteria and using local knowledge/existing database initially or, if needed be carrying out prefeasibility of the schemes through a Service Agency. The GPs shall be ranked based on actual observations and the Prioritization / Selection criteria of GPs for Sector Program as per **Annexure- 20 .** Preliminary Plans shall be prepared by the district divisions of UJN/UJS for implementation of activities as per the following heads, in a report "Devolution – Identification Plan":

- Whether new scheme is required
- Major re-organization is required
- Minor repairs will be sufficient.

⇨ **Output: Devolution - Identification Plan**

The Devolution - Identification Plan shall consist of Prioritization / Selection criteria and process of the concerned GP/GPs and the details of the scheme proposed.

**4.** The final GP/schemes identification for devolution shall be approved by DWSM. The annual target of the GPs to be covered shall be fixed by DWSM.

⇨ **Output: List of SVS to be devolved**

## 6.3.3.3 Agreement by GPs of SVS/GPs of MVS to participate in Sector Program

After the selection of the GPs/schemes at the district level, the selected Service Agency/Consultant shall immediately conduct initial IEC campaign and awareness creation amongst communities regarding the project – its principles and implementation approach, objectives, scope, roles and responsibilities of various project partners and mobilization, wall writings, slogans etc. This phase shall be conducted within a maximum period of one month.
Following the awareness raising activities, the interested / participating GPs in all the above category works shall give an undertaking for participation in a sector Program on the principles of demand responsive approach and community sharing in capital and O&M cost. The format for the undertaking by the GPs to participate in the Program is placed at **Annexure – 21** and the format for Joint Undertaking note for Gram Panchayats (GPs) for implementing Multi Village Scheme (MVS) is placed at **Annexure- 22.**

⇨ **Output: Signing of Agreements by the GPs**

## 6.3.4 Project Cycle

The project cycle specifies the activities right from the selection of the scheme/GP to the completion of the Operation and Maintenance support period to the users/GP. This clause explains the Project Cycle for each of the three categories of investments listed under Clause 6.3.3.2 above.

The Pre-planning phase activities described below are already part of Scheme Identification process described in the clauses above. They are repeated for the purpose of reckoning the overall time required.

A support Organization would be hired at the district level for a single / a cluster of GPs to implement the activities of project cycle in planning and implementation. The planning phase agreement between the SO and the DWSM is placed at **Annexure-23.** This SO, besides the community mobilisation and software activities will also conduct the feasibility assessment including technical options analysis and detailed design of the selected technical option.

A separate Independent third party Support Agency (SA) shall be hired for construction supervision and facilitation & monitoring by DWSM/ SWSM.

The project cycle period for various categories of new investments, corresponding to the various implementing agencies is as below:-

| **Category** | **Implementing Agency** | **Project Cycle Period** |
|---|---|---|
| 1) SVSs and simple MVSs that are technically and institutionally feasible to be carried out by DWSM | PMU/DPMUs | 18 to 30 months (average 24 months) |
| 2) Larger MVSs to be carried out by UJN and some MVSs requiring reorganization by UJS | UJN/UJS | 24-42 months ( average 30 months) |
| 3) Devolution of existing schemes (mostly SVS) currently under UJS and UJN to the PRI | | |
| a) those under UJN | UJN | 12 months |
| b) those under UJS | UJS | 18 months |

### 6.3.4.1 Project Cycle for Category-1

The project cycle for SVSs and simple MVSs that are technically and institutionally feasible to be carried out by DWSM shall comprise the following phases:-

| | | |
|---|---|---|
| **1. Pre Planning Phase** | **-** | **2 months** |
| **2. Planning Phase** | **-** | **6 months** |
| **3. Implementation Phase** | **-** | **6 to 18 months depending on the type of chosen technology** |
| **4. Operation and Maintenance Phase** | **-** | **4 months** |
| ***Total*** | **-** | ***18 to 30 months*** |

For schemes needing reorganization (which may be the case for partially functioning scheme), lesser implementation time would be needed. For schemes like Tube Well and Overhead Tank technology chosen by the communities and for scattered, higher population villages where the source entails a longer gravity or supply main, the implementation period will be more and may exceed 12 months.

**Pre Planning Phase (2 months)**

The major out puts of the Pre Planning Phase shall be the following: -

- Selection of Service Agency/Consultant for initial IEC in the Program villages (at DWSM/SWSM level).
- Selection of the Support Organizations (at DWSM level).The SO intake form is placed at **Annexure -18**
- SA selection (at DWSM/SWSM level).
- Prioritization/Selection of the GPs (at DWSM/SWSM level).*The prefeasibility format for the selection of GPs are placed at* **Annexure-24**
- Preparation of "Devolution – Identification Plan".

After the selection of the GPs , the selected Service Agency/Consultant shall immediately conduct initial IEC campaign and awareness creation amongst communities regarding the project – its principles and implementation approach, objectives, scope, roles and responsibilities of various project partners and mobilization, wall writings, slogans etc. This phase shall be conducted within a maximum period of one month. The participating GPs would then confirm to Devolution Identification Plan.

**Planning Phase: (6 months)**

The major activities and outcomes of the Planning Phase shall be as follows.

**Planning**

- Mobilization of communities, participatory planning and use of ASARADAR Tools, Problem investigation and analysis.
- Hygiene and Environmental Sanitation Awareness (HESA) - specific limited modules.
- Identification of User Groups depending on the number of the water supply schemes to be implemented in the GP and formation of the User Water and Sanitation Sub Committees (UWSSCs).
- Trainings on community development, health, feasibility and design of Water Supply Schemes , catchment area protection, accounting etc. for SO/GP/UWSSCs members-specific limited modules.
- Identifying technology options, conducting feasibility analysis and Agree-To-Do meeting for separate User Groups. *The Feasibility format details are available in the Feasibility Section of the "Technical Manual".*
- Preparation of Detailed Project Reports (DPR) and Community Action Plans (CAP) for each of the UWSSCs. *The DPR format details are available in the Design Section of the "Technical Manual".*
- Collecting 50% upfront cash and 50% cash O&M community contribution for water supply, sanitation and catchment area protection works by the end of the planning phase
- Preparation of implementation phase proposals and Implementation Phase Quadruple Agreement (IPQA). The Implementation Phase Quadruple Agreement is placed at **Annexure-25.**

  Note: The environmental sanitation activities shall start in the planning phase and shall continue up to the operation and maintenance phase. Sanitation activities shall be planned along with the water supply activities in the planning phase. Both the Feasibility Reports and the DPR shall include sanitation works and also Catchment area Conservation Works,

if required. The process of planning such works is indicated in the Chapter XII of the Catchment Area Conservation and Management Program in this Manual.

**Outputs of Planning Phase:**

- **Approved Feasibility Report and DPR**
- **Implementation Phase proposals**

**Appraisal and Sanction**

The process of Appraisal and Sanction of Schemes is given in Clause 6.3.6. Once Schemes are sanctioned, funds would be released.The funds release process is mentioned in Chapter - 10 titled Financial Management Guildelines of this manual.

**Implementation Phase (6- 18 months)**

**The SO engaged in the planning phase will continue in the implementation phase, subject to its satisfactory performance in the planning phase.The SO shall be engaged for trainings and software activities.**

The major activities and outcomes of the Implementation Phase shall be as follows

- Construction of water supply schemes, environmental sanitation works and catchment area protection works by GP/UWSSC through Community Engineer procured by DWSM.
- Independent third party construction supervision by Service Agency (SA) and facilitation & monitoring by SWSM/DWSM.
- Collecting balance 50% cash contribution,besides the labour contribution towards capital cost sharing and 50% cash O&M community contribution for water supply, sanitation and catchment area protection works by the end of the implementation phase
- Trainings on community development, health, women's development initiatives, book keeping, operation and maintenance (technical, institutional, financial) etc. for GP/UWSSCs members. These activities shall be carried out by the Support Organization of the planning phase.
- Preparation of the Implementation Phase Completion Reports (IPCRs).The IPCR format is provided in the Technical Manual

⇨ **Outputs of Implementation Phase: IPCR**

**Operation and Maintenance phase (4 months)**

The environmental sanitation and Catchment area activities shall continue in the operation and maintenance phase.

PMU/DPMUs shall provide technical assistance during the 4 months period to the UWSSCs after commissioning of the water supply schemes to place the O&M system in order.SO will not be hired for this phase. Trainings at the GP/UWSSC level will be conducted by DPMUs. The O&M system shall comprise the technical, financial and the institutional systems. After establishing O&M system in place and completing all the activities stipulated in the agreement, the DPMUs shall formally exit from the GP.The Exit strategy is placed at **Annexure-26.**

## 6.3.4.2 Project Cycle for Category-2

The project cycle for larger MVSs to be carried out by UJN and some MVSs requiring reorganization by UJS shall comprise the following phases:-

| | | |
|---|---|---|
| **1. Pre Planning Phase** | **-** | **2 months** |
| **2. Planning Phase** | **-** | **6 months** |
| **3. Implementation Phase** | **-** | **12 to 30 months depending on the type of chosen technology** |
| **4. Operation and Maintenance Phase** | **-** | **4 months** |
| ***Total*** | **-** | ***24 to 42 months*** |

The implementation phase shall be dependant upon the technology of the MVS, the number, extent and the coverage of the various habitations and the quantum of work and investment needed to make the existing scheme functional. This shall entail the following categories: -

- A new MVS is required
- Major re-organization is required
- Minor repairs will be sufficient.

For schemes needing minor repairs (which may be the case for partially functioning scheme), a period of 6 months would be sufficient. For schemes like Tube Well and Overhead Tank technology chosen by the communities and for scattered, higher population and more numbers of villages where the source entails a longer gravity or supply main, the implementation period will be more

**Pre Planning Phase (2 months)**

The major out puts of the Pre Planning Phase shall be the following: -

- Selection of Service Agency/Consultant for initial IEC in the project villages (at DWSM/SWSM level).
- Selection of the Support Organizations (at DIA/DWSM level). The SO intake form is placed at **Annexure - 18**
- Selection of SA (at DWSM/SWSM level).
- Prioritization/Selection of the GPs (at DWSM/SWSM level). *The prefeasibility format for the selection of GPs are placed at* **Annexure-24**
- Finalization of the clustering of the habitations/GPs for the Multi Village Scheme

After the selection of the GPs, the selected Service Agency/Consultant shall immediately conduct initial IEC campaign and awareness creation amongst communities of all the concerned GPs to be covered under the MVS regarding the project – its principles and implementation approach, objectives, scope, roles and responsibilities of various project partners and mobilization, wall writings, slogans etc. This phase shall be conducted within a maximum period of two months.

**Planning Phase: (6 months)**

The major activities and outcomes of the Planning Phase shall be as follows: -

Mobilization of communities, participatory planning and use of ASARADAR (Hindi Acronym of SARAR tool- Self Esteem (A- Atma Samman), Associative Strength (SA - Samudayik

Shakti), Resourcefulness (RA- Rachnatakmakta), Action Planning (R - Ran-Niti)and Responsibility( DA - Dayitiva)) Tools, Problem investigation and analysis-for all participating GPs to be covered under MVS.

- Hygiene and Environmental Sanitation Awareness (HESA) - specific limited modules.
- Identification of User Groups within each GP and formation of the User Water and Sanitation Sub Committees (UWSSCs).
- Formation of Multi Village Scheme Level Committee (MVSLC) of the various UWSSCs for overall coordination amongst individual UWSSCs and management of the MVS.
- Trainings on community development, health, feasibility and design of Multi Village Water Supply Scheme, catchment area protection, accounting etc. for SO/GP/UWSSCs /federation of UWSSC members- specific limited modules.
- Identifying technology options, conducting feasibility analysis and Agree-To-Do meeting for separate User Groups and Federation of UWSSCs. The Feasibility format details are available in the Feasibility Section of the "Technical Manual*"*
- Preparation of Detailed Project Reports (DPR) and Community Action Plans (CAP) –this shall entail the overall DPR for the entire MVS and separate DPRs for the intra village distribution for each of the UWSSCs. The DPR format details are available in the Design Section of the "Technical Manual".
- Collection of 50% upfront cash contribution and 50% annual O&M community contribution for water supply, sanitation and catchment area protection works from the concerned users through UWSSCs by the federation of UWSSCs.
- Preparation of implementation phase proposals and Implementation Phase Quadruple Agreement (IPQA). The Implementation Phase Quadruple Agreement is placed at **Annexure-25.**

Note: The environmental sanitation activities shall start in the planning phase and shall continue up to the operation and maintenance phase. Sanitation activities shall be planned along with the water supply activities in the planning phase. Both the Feasibility Reports and the DPR shall include sanitation works and also Catchment area Conservation Works, if required. The process of planning such works is indicated in the Chapter XII of the Catchment Area Conservation and Management Program in this Manual.

**Appraisal and Sanction**

The process of Appraisal and Sanction of Schemes is given in Clause 6.3.6. Once Schemes are sanctioned, funds would be released.The funds release process is mentioned in Chapter - 10 titled Financial Management Guildelines of this manual.

**Outputs of Planning Phase:**

- **Approved Feasibility Report and DPR**
- **Implementation Phase proposals**

**Implementation Phase (12- 30 months)**

**The SO engaged in the planning phase will continue in the implementation phase, subject to its satisfactory performance in the planning phase.The SO shall be engaged for trainings and software activities.**

The major activities and outcomes of the Implementation Phase shall be as follows: -

- Signing of Memorandum of Understanding (MoU) among Uttarakhand Peyjal Nigam, Multi Village Scheme Level Committee and District Water and Sanitation Committee regarding the construction of the common assets of MVS-head works, supply mains, distribution mains up till the head of each covered village. The proposed MoU is placed at **Annexure-27**
- Construction of intra village water supply schemes, environmental sanitation works and catchment area protection works by GP/UWSSCs through Community Engineer.
- Collection of balance cash/labour and O&M community contribution for water supply, sanitation and catchment area protection works by the individual UWSSCs.
- Trainings on community development, health, women's development initiatives, book keeping, operation and maintenance (technical, institutional, financial) etc. for federation/ GP/UWSSCs members. These activities shall be carried out by the Support Organization of the planning phase.
- Preparation of the Implementation Phase Completion Reports (IPCRs).

**Operation and maintenance phase (4 months)**

The environmental sanitation activities shall continue in the operation and maintenance phase.

The Sector Institutions shall provide technical assistance to the MVSLC/UWSSCs after commissioning of the water supply schemes to place the O&M system in order. SO will not be hired for this phase. Trainings at the MVSLC/GP/UWSSC level will be conducted by Sector Institutions. The O&M system shall comprise the technical, financial and the institutional systems. After establishing O&M system in place and completing all the activities stipulated in the agreement, the UJN shall handover the bulk water supply assets to UJS and formally exit from the concerned GPs .The Exit strategy is placed at **Annexure-26.** The individual UWSSCs shall collect the O&M charges from their respective users groups. A part of this revenue collected will be given by the MVSLC to UJS for managing the common assets of MVS while the balance will be utilized by the UWSSCs for the O&M of their respective intra village water supply works.

After the Operation & Maintenance phase, a Memorandum of Understanding (MoU) shall be signed among Uttarakhand Jal Sansthan, Multi Village Scheme Level Committee and District Water and Sanitation Committee regarding the Operation and Maintenance of the common assets of MVS-head works, supply mains, distribution mains up till the head of each covered village. The proposed MoU is placed at **Annexure-28.**

### 6.3.4.3 Project Cycle for Category-3

The project cycle for devolution of existing schemes (mostly SVS) currently under UJS and UJN to the PRI for Sector Program shall comprise the following phases:-

| | | By UJS | By UJN |
|---|---|---|---|
| **1. Pre Planning Phase** | **-** | **2 months** | **2 months** |
| **2. Planning Phase** | **-** | **6 months** | **3 months** |
| **3. Implementation Phase** | **-** | **6 months** | **3 months** |
| **4. Operation and Maintenance Phase** | **-** | **4 months** | **4 months** |
| ***Total*** | **-** | ***18 months*** | ***12 months*** |

For the schemes under the Operation & Maintenance of Uttarakhand Jal Sansthan, the department is aware about the status of these schemes and the extent of reorganization/rehabilitation in these schemes, thereby the pre-planning phase could be suitably reduced.

For the schemes under the Operation & Maintenance of Uttarakhand Peyjal Nigam, as per the information of Uttarakhand Peyjal Nigam, these schemes are relatively new and need minimum amount of investments in order to make them fully functional, therefore the scheme cycle duration has been accordingly reduced.

**Pre Planning Phase (2 months)**

The major out puts of the Pre Planning Phase shall be the following: -

- Selection of Service Agency/Consultant for initial IEC in the Program villages (at DWSM/SWSM level).
- Selection of the Support Organizations (at DWSM level). The SO intake form is placed at **Annexure -18**
- SA selection (at DWSM/SWSM level).
- Prioritization/Selection of the GPs (at DWSM/SWSM level). *The prefeasibility format for the selection of GPs are placed at* **Annexure-24**

After the selection of the GPs, the selected Service Agency/Consultant shall immediately conduct initial IEC campaign and awareness creation amongst communities regarding the project – its principles and implementation approach, objectives, scope, roles and responsibilities of various project partners and mobilization, wall writings, slogans etc. This phase shall be conducted within a maximum period of one month.

**Planning Phase: (6 months)**

The major activities and outcomes of the Planning Phase shall be as follows: -

- Mobilization of communities, participatory planning and use of ASARADAR Tools, Problem investigation and analysis.
- Hygiene and Environmental Sanitation Awareness (HESA) - specific limited modules.
- Identification of User Groups depending on the number of the water supply schemes to be implemented in the GP and formation of the User Water and Sanitation Sub Committees (UWSSCs).
- Trainings on community development, health, feasibility and design of Water Supply Schemes , catchment area protection, accounting etc. for SO/GP/UWSSCs members-specific limited modules.

- Identifying technology options, conducting feasibility analysis and Agree-To-Do meeting for separate User Groups. *The Feasibility format details are available in the Feasibility Section of the "Technical Manual".*
- Preparation of Detailed Project Reports (DPR) and Community Action Plans (CAP) for each of the UWSSCs. *The DPR format details are available in the Design Section of the "Technical Manual".*
- Collecting 50% upfront cash contribution and 50% annual O&M community contribution for water supply, sanitation and catchment area protection works.
- Preparation of implementation phase proposals and Implementation Phase Quadruple Agreement (IPQA). The Implementation Phase Quadruple Agreement is placed at **Annexure-25.**

Note: The environmental sanitation activities shall start in the planning phase and shall continue up to the operation and maintenance phase. Sanitation activities shall be planned along with the water supply activities in the planning phase. Both the Feasibility Reports and the DPR shall include sanitation works and also Catchment area Conservation Works, if required. The process of planning such works is indicated in the Chapter XII of the Catchment Area Conservation and Management Program in this Manual.

**Outputs of Planning Phase:**

- **Approved Feasibility Report and DPR**
- **Implementation Phase proposals**

**Appraisal and Sanction**

The process of Appraisal and Sanction of Schemes is given in **Clause 6.3.6**. Once Schemes are sanctioned, funds would be released.The funds release process is mentioned in Chapter -10 titled Financial Management Guildelines of this manual.

**Implementation Phase (6 months)**

**The SO engaged in the planning phase will continue in the implementation phase, subject to its satisfactory performance in the planning phase.The SO shall be engaged for trainings and software activities.**

The major activities and outcomes of the Implementation Phase shall be as follows: -

- Reorganization / rehabilitation of water supply schemes, environmental sanitation works and catchment area protection works by GP/UWSSC through Community Engineer procured by DWSM.
- Collecting balance cash/labour and O&M community for water supply, sanitation and catchment area protection works.
- Trainings on community development, health, women's development initiatives, book keeping, operation and maintenance (technical, institutional, financial) etc. for GP/UWSSCs members. These activities shall be carried out by the Support Organization of the planning phase.
- Preparation of the Implementation Phase Completion Reports (IPCRs).

**Operation and Maintenance phase (4 months)**

The environmental sanitation activities shall continue in the operation and maintenance phase.

The district division of Uttarakhand Jal Sansthan shall provide technical assistance to the UWSSCs after commissioning of the water supply schemes to place the O&M system in order. SO will not be hired for this phase Trainings at the GP/UWSSC level will be conducted by DPMUs. The O&M system shall comprise the technical, financial and the institutional systems. After establishing O&M system in place and completing all the activities stipulated in the agreement, the UJS shall formally exit from the GP. The Exit strategy is placed at **Annexure-26.**

### 6.3.5 Post Implementation Support

The DPMUs/District Divisions of UJN & UJS shall provide technical assistance to the UWSSCs as and when required by them, especially in the case of emergencies.

### 6.3.6 Appraisal and Sanction of Schemes

The process of appraisal is designed to ensure that all relevant factors affecting the sustainability of the schemes are considered and community involvement is adequate.

**Non-negotiable conditions**

The non-negotiables for appraisal of the schemes shall be as follows:-

1. Capital cost sharing according to the GoUA policy
2. 100% O&M for SVS and partial O&M cost sharing for MVS according to the GoUA policy
3. Integration of water supply, sanitation, and catchment
4. Commitment to Open Defecation Free Villages
5. UWSSC formation for SVS/UWSSC and MVSLC formation for MVS
6. Renovation of existing water supply scheme, if technically feasible.
7. Proposed sources are undisputed, perennial etc.

**Intermediate Appraisal Milestones**

The following intermediate milestones are to be ensured by the implementing agency and appraised by the Appraisal agency.

***Planning Phase***

1. Formation of user groups. Ensure that UWSSCs/MVSLC is formed on representative basis, based on technological options, and as per institutional requirements.
2. "Agree to Do" meeting on Detailed Project Report (DPR), ratified by GP in an open community wide meeting.
3. The DPR is prepared as per the design criteria laid down in the Technical Manual.
4. Ensure that the DPR includes integrated planning for water supply, sanitation and catchment protection, health and hygiene; plans proposed are based on investment guidelines; check whether community participation is satisfactory.
5. Community has collected 50% of upfront cash contribution, and 50% of the annual O&M cost.

***Implementation Phase***

1. Construction of water supply schemes, environmental sanitation works and catchment area protection works as per the DPR**.**
2. Compliance of the comments of the Independent third party construction supervision Service Agency.
3. Balance 50% community cash contribution collection, besides the labour contribution towards capital cost sharing and 50% cash O&M community contribution for water supply, sanitation and catchment area protection works by the end of the implementation phase.
4. Completion of the trainings on community development, health, women's development initiatives, book keeping, operation and maintenance (technical, institutional, financial) etc. for GP/UWSSCs/MVSLC members.
5. Preparation of the Implementation Phase Completion Reports (IPCRs).

***Operation and Maintenance Phase***

1. Conduction of Sustainability Evaluation Exercise (SEE) in the GPs and providing feedback to the GP/UWSSCs/MVSLC members.
2. Preventive and scheduled maintenance is carried out as per the guidelines.
3. Regular chlorination is carried out by the Village Maintenance Worker
4. The sources taken for the schemes are tested for their water quality on a regular basis.
5. Regular billing and collection of consumer receivables is being done.
6. Regular, scheduled meetings of GP/UWSSCs/MVSLC members are being held and the minutes of the meetings are properly recorded and necessary followup done.

The relevant technical issues are placed at **Annexure-29.**

**Appraisal and Sanction Process**

As basically two types of schemes would be undertaken – SVS and MVS, irrespective of the fact that the habitations are under the slipped back category or are to be devolved to the GPs, the appraisal and sanctioned process would be as follows: -

**For Single Village Schemes :**
Based on the feasibility studies and the Agree to do meeting, the water supply technological option for the concerned UWSSC shall be finalized. The Detailed Project Report (DPR) shall be prepared for this selected technical option by the Support Organization (SO) / Facilitating Agency – DPMU, District Division of UJN and UJS.

The district level Technical Review Committee (TRC) will appraise these DPRs and accord technical sanction. The administrative and financial sanction shall thereafter be given by the DWSC/DWSM depending upon the availability of the funds for that year.
All Single Village Schemes (SVS) irrespective of the facilitating agency and the cost of the schemes shall be appraised and approved at the district level.

**For Multi Village Schemes:**

Based on the feasibility studies and the "Agree to do meeting", the water supply technological option for the concerned GPs/UWSSCs shall be finalized. The Detailed Project Report (DPR) shall

be prepared for this selected technical option by the Facilitating Agency –District Division of UJN and UJS.

The district level Technical Review Committee (TRC) will appraise these DPRs. The technical, administrative and financial sanction shall thereafter be given at various levels depending upon the availability of the funds and the capital cost of the MVS as follows.

Schemes costing up to Rs. 50 lakhs shall be administratively and financially sanctioned by the concerned DWSC/DWSM. Schemes costing more than Rs. 50 lakhs and up to Rs. 100 lakhs shall be technically, administratively and financially sanctioned by the SWSM. Schemes costing more than Rs. 100 lakhs and up to Rs. 500 lakhs shall be technically, administratively and financially sanctioned at the government level by Department of Drinking Water and Department of Finance. Schemes costing more than Rs. 500 lakhs shall be technically, administratively and financially sanctioned by the Finance Expenditure Committee.

### 6.3.7 Post- O&M Phase activities

The DPMUs/District Divisions of UJN & UJS shall provide technical assistance to the UWSSCs as and when required by them, especially in the case of emergencies.

### 6.3.8 Impementation modalities for sanitation component

The sanitation programme will be implemented following TSC guidelins and various Government Orders issued by GoI from time to time. As a thum rule the agency providing water supply to a particular village will also be responsible for implementation of TSC programme in that particular village. However, for better attainment of the goals GoUA may make suitable arrangements for implementation.

## 6.4 Implementation Arrangements for Component – C

The Project Implementing Entity (GoUA) shall carry out component C of the Project through the DDW, PMU and SWSM, UJN and UJS and shall provide promptly as needed the funds, facilities, services and other resources required for the Project.

# Chapter 7

# Procedures for selection and planning of water supply schemes

### 7.1 Background:

The State Government have taken a decision to devolve roles and responsibilities pertaining to water and sanitation sector to the Panchayati Raj Institutions (PRIs). Presently, the State Government through its sector institutions namely, Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan have been ensuring supply of drinking water to the rural habitations with least participation from the villagers. The switch over from the present system to the envisaged system is bound to be gradual. As an exception, 857 villages were covered under demand driven schemes in Swajal-I and 89 Gram Panchayats (GPs) and 2 Forest Villages were covered under Sector Reform project in district Haridwar. Besides, 19 habitations were covered by Swajaldhara schemes in the year 2004-05. These pilot projects have enriched our learnings and encouraged us to replicate the community driven model in the delivery of water supply and sanitation services.

### 7.1.1 Scaling up Demand Driven Approach:

Public participation in the WATSAN sector has been initiated to some extent in the State. To replicate the community driven model, the capacities of the various stakeholders especially the PRIs will have to be developed. The earlier attempts of demand driven approach have been done in an isolated manner, independent of the involvement of the sector institutions and PRIs. At the time of beginning of this sector Program, most of the areas continue to be covered by supply driven approach, which will require all-round steady efforts for bringing in the change. With introduction of Sector Wide Approach (SWAp), the whole sector needs to be perceived in totality and water supply, sanitation, water sources conservation, health and hygiene practices and women's role in these activities need to be integrated by involving all the stakeholders of the sector which means beneficiaries as well as facilitators.

Keeping SWAp principles in view, the State Government have already developed the institutional arrangements, which have been described in Chapter 5. The State Government realizes that because of peculiar geographical condition of the State, construction of Multi Village Schemes (MVS) is a necessity in many rural areas especially because of absence of adequate potable water sources near the villages. Nevertheless, the State Government have also realized that the water supply schemes should be manageable by PRIs and efforts should be made to scale up number of Single Village Schemes (SVSs) wherever possible, so that this responsibility is easily handled by the PRIs. In SVS, the DPMUs and the sector institutions will act as facilitators and in case of MVS, execution and facilitation will be done by the Jal Nigam/Jal Sansthan. The procedure for implementation of the sector Program envisages modalities, which will facilitate to put these principles into practice. These modalities are described in following paragraphs:

### 7.2 Functional procedures at State Water & Sanitation Mission (SWSM) level

### 7.2.1 Assisting Implementing Agencies

The SWSM with the support of SWSM Cell and PMU will steer implementation of the Medium Term Development Program (MTDP) in such a way that the basic tenets of demand driven approach are followed by the District Water and Sanitation Missions (DWSM) and by facilitators as well as by the beneficiaries at the district level. The SWSM will take policy decisions for the implementation of MTDP. It will ensure adequate financial provisions for the implementation of the sector Program. The SWSM will help all the sector institutions in performance of their duties with a view to meet the goals of the Program.

The roles and the responsibilities of the PMU and SWSM Cell have already been described in the Chapter 4. However, it needs to be added that the SWSM will draw a plan in consultation with DWSM so that sector goals and annual targets are achieved in timely manner.

### 7.2.2 Capacity development of PRIs

The PMU will prepare an implementation plan for carrying out capacity development, training, workshops and cross visits of PRIs. For this purpose, Capacity and Communication Development Unit (CCDU) in the PMU will organize these activities. The GPs and block panchayats taken for implementation of the sector Program will be imparted training on priority basis. The CCDU will also train the trainers for the DPMUs. The functions of CCDU will also be required for training the new incumbents of PRIs whenever periodic elections take place. The CCDU may also help the UWSSCs, GPs and other two levels of PRIs in problem resolution as and when desired by following a consultation method.

## 7.3 Functional procedures at DWSM level

The DWSM will be responsible for conducting the Program at district level. It will ensure implementation of the principles of SWAp and will coordinate activities of different Program Implementation Agencies (PIAs). The DWSM will function with the assistance of District Water and Sanitation Committees (DWSC), DPMUs and the concerned units of sector institutions. The main functions of the DWSM are to organize activities namely, conducting awareness and IEC campaign at district level, identification and implementation of water supply schemes, execution of sanitation campaign, identifying and implementing water sources conservation schemes, health-hygiene and women development initiatives. The activities at district level will be organized in following manner for effective and speedy implementation of the Program:

### 7.3.1 Identification of habitations for implementing different project components.

All public participatory Programs can be successful only when there are sincere and wide spread efforts for spreading the message among the communities. The progress of this Program will also depend on the manner and effectiveness of carrying out awareness and IEC Program in the State. To begin with, the DPMUs with guidance or support from PMU will conduct awareness campaigns in the meetings of Zila Panchayat and Block Panchayat. These meetings are conducted as a routine matter by the Zila Panchayats and Block Panchayats. However, if necessary separate meeting for this purpose may be organized by the DPMU to disseminate the ingredients of the basic principles of the Program among the GP level and other PRIs. This meeting will also be utilized for collection of information about water supply and sanitation facilities etc. in the rural areas. The PMU through newspapers will launch sector development Program and will solicit applications from Gram Panchayats for water supply and sanitation facilities. The State have already collected data regarding Not Covered (NC) and Partially Covered (PC) status of water supply as well as sanitation facilities. The Forest Department and Jal Sansthan have done appreciable efforts for enlisting the existing water sources in their respective domain. Further, all the sector institutions have the information about their existing schemes and planned ongoing schemes. All these information will be pooled together in a informal DPMU level exercise which will be got coordinated through the Chairman of the DWSCs. The officers from Peyjal Nigam and Jal Sansthan must contribute in this exercise. A support organization may also be deputed for collection of information if felt necessary in bigger districts. The data will be tabulated block-wise and preferably will be drawn on a thematic map. The goal of the sector Program is to cover all the NC/PC villages by the year 2012. At the same time, The SVSs being operated and maintained by Jal Sansthan also need to be handed over to the GPs after proper renovation. These will also be included in the proposed annual plan. The sector Program also visualizes coverage of the 80% of

the households in all the villages by individual household sanitary latrines by the year 2012. The DPMU will prepare an annual and a medium term plan for covering all the habitations by water supply schemes and sanitation facilities. The water scarce areas will also be identified after consultations with PRIs and respective technical departments. The catchment area treatment plan and water-harvesting plan will be proposed for the water scarce areas. The proposals prepared by DWSC will be put up to the DWSM meeting and the SVSs and MVSs will be identified in the meeting. While identifying new SVS and new MVS, the habitations already proposed to be covered by ongoing schemes of the Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan will be excluded. Thereafter, a list of those villages where suitable water sources for SVS are available will be prepared. The MVS will be taken up only if suitable water source is not available nearby any habitation. The DWSM after identifying the habitations for SVSs and MVSs will hand over the responsibility to the DWSC for the SVS and to the Peyjal Nigam for MVS and renovation of the old SVSs to the Jal Sansthan. The SWSM will make efforts for identifying all the schemes after following investment guidelines. The investment guidelines will be utilized at two stages, first, while identifying the schemes at the SWSM level and second, by the respective organization after formation of UWSSCs. These organizations will take further action for implementation of the Program. The catchment area and sanitation works will be done by the User Water and Sanitation Committees (UWSC) with the assistance of DPMUs. Sanitation Program will be implemented by the respective organization which will take up the particular village for providing water supply schemes. The Total Sanitation Campaign (TSC) activities in such villages where no new schemes is being constructed or renovated will be the responsibility of the DPMU.

### 7.3.2 Procedure for implementation of SVSs

Support organization deputed by the PMU for creating awareness and dissemination of the Program information will conduct the village level meeting in the villages identified for construction of SVS. As per the Notification No 308/86(16)/2005 dated 19th May, 2005, User Water and Sanitation Committee (UWSC) will be formed in each habitation which will prepare a tentative plan for the drinking water supply and for providing sanitation facilities. UWSSCs will sign collective Memorandum of Understanding (MoU) with the GPs, DPMU and the implementation phase support organization. In case the habitations are having a water source which is likely to reduce its water discharge because of poor land management then the catchment area protection plan will also be drawn for the specific source. The DPMUs will depute support organizations for implementation of the Program that will assist the UWSSCs in preparation of the Detailed Project Reports (DPRs) and will also facilitate in estimation of the cost. The DPRs thus prepared will be submitted to the GPs who will give their recommendation for approval of the DPR to the DPMU/DWSM.

Once the pre-feasibility activities are successful and a favourable feasibility report is received it will be verified by the DPMU and sanction for implementation of the scheme will be given by the DPMU or PMU as the case may be depending upon their sanctioning authority. The schemes will be implemented in a phased manner, which include pre-planning, planning, implementation phase and will conclude with proper implementation completion procedure. During all phases of implementation, information will be provided to the DPMUs and in return to
the PMU by the UWSSCs. If during pre-feasibility it is found that the water sources available in the village are not suitable for construction of viable SVS in that case construction of SVS schemes may be dropped and the village should be identified for coverage by MVS which should be decided after referring the matter to the SWSM. Detailed monitoring and evaluation system has been described in the relevant chapter.

In case of those SVSs where more than one habitations are existing within one GP and the schemes can be implemented by these habitations collectively, then a separate UWSC for each habitation or a combined UWSC may be formed depending on the majority decision taken in the community wide meeting of the GP/revenue village.

### 7.3.3 Implementation procedure for MVS

The cluster of the villages identified by the DWSM for construction of MVSs will be visited by the officers from Peyjal Nigam. They will identify the source to cover these villages and will prepare a pre-feasibility report after reconnaissance survey. Thereafter the Peyjal Nigam will conduct meetings in these villages to find out whether the suitable water sources for construction of SVS is available there or not. The Peyjal Nigam will make all efforts to follow investment guidelines given in this operation manual. If the community is of the view that water source is existing near their village which can be utilized for SVS then the community will be advised to get the water quality checked and discharge measured from the NGO deputed by the PMU. In case acceptable quality of water and sufficient discharge is found then the village should be taken up for SVS and should be removed from the list of the cluster of villages identified for the specific MVS. These SVS should be then recommended by the Peyjal Nigam to the DWSM for taking up under annual plan for SVSs.

The Peyjal Nigam will form UWSSCs in all the villages where there is no water source nearby and which need to be covered by MVSs. They will also engage one implementation phase support organization for facilitating formation of Multi Village Scheme Level Committee (MVSLC) and also assisting UWSSCs in construction of intra village schemes and for carrying out works relating to sanitation facilities.The Uttarakhand Peyjal Nigam will also have a pre-planning, planning, implementation phase. The Peyjal Nigam will keep Jal Sansthan informed about the formation, planning, designing and implementation of the scheme. For this purpose, a MoU will be signed between Uttarakhand Peyjal Nigam, Multi Village Scheme Level Committee, Uttarakhand Jal Sansthan and DWSM. All the stakeholders will ensure implementation of the scheme in such a way that demand driven approach is followed. Peyjal Nigam will also sign a MoU with the SWSM for following the demand driven principles in new MVSs. The funds will be released to Peyjal Nigam by the SWSM after ensuring compliance to the procedure decided for demand driven MVSs. The fund will be released in tranches.

## 7.4 Ensuring adherence to Environmental Management Framework (EMF)

The EMF will adhere to as per the details given in the chapter of Environmental Management Framework. The responsibilities of ensuring the EFM will be with the SWSM, DWSM, sector institutions and respective levels of the PRIs. The information received from media and the public at large, will be taken up for scrutiny to ensure EMF. If some remedial changes are called for on a particular matter that will be addressed immediately. The communications received from elected public representatives of all democratic institutions will have special importance in this matter and all levels of Program implementation agencies will take care of this aspect.

# Chapter 8

# Capacity Building Plan

All stakeholders involved in the implementation of the RWSES Sector Program can be classified into four broad categories, which are Stakeholders at (a) the apex level, (b) strategic level, (c) intermediary level and (d) grass root level. Accordingly, a detailed Capacity Building Programme for them has been designed.

## 8.1 Apex Level

The CB programme for apex level, such SWSM, elected representatives of the state (Ministers/MPs/ MLAs/ representatives of PRIs), policymakers and opinion makers including NGOs has been designed with the aim of sensitising them towards the overall approach of the sector reforms in the RWSS sector.

## 8.2 Strategic Level

The CB programme designed for the PMU, DWSM, ZP and DPMUs takes into consideration the programme orientation and implementation needs as well as other CB needs such as skill enhancement, motivational needs, experience sharing, team building and need for exposure to sector programmes at national and international level. Based on the needs assessment, the CB Programme for the sector institutions has been designed primarily from the point of view of RWSS sector strengthening.

## 8.3 Intermediate Level

The CB Programme for the KPs will follow an annual cycle and will target building the capacity of all KP Members rather than focusing on the key functionaries such as Pramukh, Up Pramukh and Block Development Officer. The proposed programme covers capacity building of KP functionaries such as Block Development Officer (BDO) and Assistant Development Officer ADO (Panchayat) in key areas of institutional arrangement, roles and responsibilities.

**Training Institutions**

The capacity building programmes of Regional Training Institute (RTI)-Social & RTI(Engineering) institutions is primarily aimed at improving their understanding of Programme objectives, Programme components, Programme implementation plan, Programme functionaries and their roles and responsibilities, implementation plan for Programme capacity building plan, modules, contents and objectives of capacity building plan to be undertaken by them and scheme cycle. Capacity building is being proposed for the delivery of training methodologies and IEC objectives, methods and implementation plan, while the Lead Training Institution (LTI)-Social and LTI (Engineering) will be responsible for the capacity building of stakeholders at the Apex and Strategic levels besides conducting training of trainers for RTIs.

## 8.4 Grass Root Level

## 8.4.1 Gram Panchayats

The CB Programme for GPs, cover the trainings for schemes to be constructed under the Programme and its sustainability. Many of these overlap with the capacity building of UWSSC and hence are taken together.

### 8.4.2 UWSSC

UWSSC is the key functional institution at the grass roots level that functions as an extended arm (Sub Committee) of the Gram Panchayat for RWSES Programme planning, implementation and O&M arrangements at habitation, village or GP level.

### 8.4.3 Community Groups

The strategy for community empowerment is based on organising the village community into three distinct groups around three different focal points.

1) Formation of Women Self-help Groups
2) Formation of Male Income Promotion Groups
3) Formation of School Children Groups

The culmination of the community mobilization, empowerment and participation activities during the planning phase will be the formulation of the "GP Action Plan" which will include community work and empowerment plans. The Community Work Plan would comprise of three sub plans namely (a) Water Supply Plan: This would include the technical plan, community cash and labour contribution plan, operation and maintenance plan as well as M&E plan for the water supply scheme, (b) Environmental Sanitation Plan: This would include the technical plan, community cash and labour contribution plan, O&M plan as well as M&E plan for environmental sanitation scheme which include latrine, compost, garbage & soak pit and (c) Catchment Area Management Plan: This would include the technical plan, community cash and labour contribution plan, O&M plan as well as M&E plan for source protection and catchment area management. The Community Empowerment Plan would comprise of three sub plans namely (a) Women Development initiative Plan, (b) Men Development Initiative Plan & (c) School children Development Initiative Plan.

### 8.5 Support Organization

Support Organisations (SOs) have a critical role in the successful implementation of the programme. They have to ensure successful completion of the CB programme at GPs, community & UWSSCs level.

### 8.6 Service Agency (SA)

The CB programme for the Service Agency primarily aims at their programme appraisal and orientation needs. It would focus on providing a common understanding of their roles and responsibilities & expectations from them.

### 8.7 Capacity Building Implementation Arrangements

The CB program implementation would ensure that, following guiding principles are followed:-

a) Retaining the Capacity Built in Stakeholders
b) Integration with Other Capacity Building Initiatives
c) Decentralisation of Training Activities
d) Continuous Assessment and Feedback Mechanism
e) Unity of CB Delivery at GP Level
f) Effective Supervision and Coordination

## 8.7.1 Program Management

The CCDU of the PMU will be responsible for overall capacity building program. Given the size of Program, the number of stakeholders to be trained is huge. Hence the management skills of the PMU and DPMUs need to be enhanced first. The organisational development, staffing and capacity building of PMU / DPMUs are likely to be a bigger task requiring dedicated resources. It is therefore proposed to dedicate a Unit (or a sub Unit) of the PMU for this task. Adequate attention to the organisational development and HR issues within the PMU / DPMU is crucial to the success of not only the entire capacity building program but also of the proposed program.

**Responsibilities of CCDU**

Since the CCDU will be responsible for overall capacity building program, it could co-opt experts from the HRD and Technical Units of the PMU along with other resource persons. It would work in close coordination with the lead training institutions. The key responsibilities of the CCDU would be as follows.

1) Finalisation of design (modules, contents, methodologies, handouts, assessment etc) of the CB programs for the regional training institutions and local trainers.
2) Coordination with the LTIs & RTIs for implementation of the CB program.
3) Design of the IEC program at the state, district and village level.
4) Finalisation of CB programs for all the stakeholders.
5) Continuous assessment of CB programs and uses the learning in future programs.
6) Engagement, procurement and regular monitoring of services procured for CB program.

### 8.7.2 Capacity Building Partners

#### 8.7.2.1 Lead Training Institutions (LTIs)

The LTIs would be responsible for anchoring overall capacity building program to be undertaken. Two LTIs would be identified and engaged at the state level; one for social and management trainings and the other for engineering trainings. The key responsibilities of these institutions will be as follows:

1) Design of training modules – contents, methodologies, training materials, handouts, and testing of finalised modules before implementation.
2) Design of TOTs for RTI and Local Trainers (SOs).
3) Delivery of TOTs to RTIs.
4) Delivery of state level trainings for stakeholders at Apex and Strategic levels including workshops of SWSM, PMU and sector institutions (UPN/UJS).
5) Planning and coordination of community CB program (coordination amongst RTI, SO, UWSSC and Community).
6) Concurrent evaluation of training activities -feedback from trainers and the recipients.

#### 8.7.2.2 Regional Training Institutions (RTIs)

RTIs are to be engaged for ToTs, to support local trainers (SOs), DPMU, functionaries of sector institutions, district levels and Service Agencies. RTIs would be trained by the LTIs and provided

with the training modules and materials for training the local trainers. RTIs key responsibilities are as follows:-

1. Delivery of ToTs to SOs, SAs, and district level functionaries & GPs.
2. Coordination of community capacity building program at district level with DPMU and GPs.
3. Concurrent evaluation of CB program at district level and feedback to LTI and SWSM.

Based on the above-proposed role for the RTI, the TOR for engagement of services of RTI (S) by CCDU has been prepared. Four RTIs will be engaged for the first batch – two each for Kumaon and Garhwal. Each region will have one RTI for social trainings and another for engineering trainings. These will be selected from amongst the NGOs and other government/semi government training institutions already present in the state. The details of such NGOs and training institutions are given separately.

### 8.7.2.3 Local Trainers (Support Organisations - SOs)

Local trainers are to be engaged for the trainings of GP, UWSSC and community members and facilitating the implementation of water supply and environmental sanitation programs. The key responsibilities of the SO would be as follows.

1) Mobilisation of community and steering the capacity building activities at GP level.
2) Facilitating preparation of GP action plans that will include community work empowerment plan & facilitating the implementation of these plans.
3) Delivery of trainings to GPs, UWSSC, differernt groups and community in general.
4) Coordination of GP level CB program with DPMUs and portfolio managers.

Considering the intensity of efforts required at the GP level, local trainers (SO) will be required to spend considerable time with the community, it is proposed to engage NGOs as local trainers (SOs).

### 8.7.2.4 Service Agencies (SAs)

SAs are to be engaged for specialized tasks, the scope of work for them are as follows:-

1. Design of IEC Material – this would comprise preparing design of entire range of IEC material constituting audio video show, video films, radio jingles, TV spots, posters, wall writings, thematic booklets, etc.
2. Site Appraisal – this would involve technical appraisal of the sites identified amongst the short listed villages for implementation of schemes. This activity would form a part of the GP selection activities.
3. Construction Supervision – this would involve supervision of construction works and activities and quality monitoring. This would be carried out by the service agencies in the selected GPs where the schemes are being implemented.
4. Water Quality Monitoring and Surveillance – This would comprise activities relating to training on water quality monitoring and surveillance for maintenance workers and UWWSC members who will be responsible for operation & maintenance of the schemes.
5. Impact Assessment Studies – these studies are to be carried out for each batch at the end of the planning and implementation phases, so that the lessons learnt can be utilized for the design of program in the next batches.

It is envisaged that private agencies would function as service agencies for the specialised tasks listed above. For some of these technical tasks, for example site appraisal, construction supervision, etc., the Sector Institutions- UPN&UJS can be engaged as service agencies.

## 8.8 Training Strategy & Methodology

The success of the program rests on effective capacity building of various stakeholders, especially at the grass root level like UWSSC, community groups and the community. To enable SOs to perform their role, the training methodology for various levels has been clearly defined.

### 8.8.1 Planning

Efficient and thorough planning is the key to a successful training programme. The key dimensions that need planning are:

a. **Formation of Training Groups** – The formation of training groups needs to address two dimensions - size and composition. For different level of stakeholders there could be different norms for the appropriate size of the training group. However, a group larger than 30 is not considered appropriate. The composition of the groups needs to take into account gender, profile, level of current knowledge, whether members of existing or future team, etc.

b. **Selection of Venue** – Village level training could be on site or off site. Appropriate venue for training is important from the perspective of proximity of the venue to the participants, optimal use of time of the training resources and the infrastructure at the venue.

c. **Duration and Timing** – The duration of the training programme would be fixed on the basis of the absorbing capacity of the participants and the contents of the training programme. The timing of the training programme, especially those targeted at the community, needs to be fixed taking into account their working hours, especially for female members.

d. **Communication** – Communication to the target stakeholders regarding the date, time, venue, duration, topic, etc. is very essential for ensuring the attendance. Communication has to be well in advance.

e. **Incentives** – It is a good idea to plan incentives that will help bring the group together for training, as spending time for the training would mean loss of wages to many.

f. **Resource Persons** – The resource persons need to be identified and given adequate notice to prepare for the training.

g. **Logistics** – The logistics for the training programme like hiring and preparing the venue for the training, ensuring availability of all the training materials at the venue, arrangements for transport to and from the venue, if required, need to be thought through at the planning stage.

h. **Training Materials** – Planning also includes deciding on the training material required – training aids, material required for participants, etc. Manual / Handouts, appropriate for the training need to be thought through at the planning stage.

### 8.8.2 Implementation

The trainers are required to attend to the following, for successful implementation of programme.

a. Needs Assessment – Needs assessment of the participants before commencing any training programme is vital. This could be done by way of a written questionnaire, a verbal quiz or other interactive methods.

b. Time Management – Ensuring that sessions start and end on time, that breaks are provided in between sessions, etc. are important steps in implementation.

c. Sessions and Methodology – Preparation of sessions and methodology well in advance by the resource persons, time duration for each session, providing uniform messages and keeping adequate time for clarifications are important.

d. Integration – Wherever possible, integration of the training contents across programme is very useful. Even scheduling of the training programme could be integrated with training by other departments, if any.

### 8.8.3 Evaluation

The objectives of evaluation of trainings are two fold - whether the objectives of the training have been achieved and, whether the training programmes require any modification / improvements for greater effectiveness. Training evaluation would be of four types:

a. Reactive Evaluation: Participants were satisfied with the training inputs or not.

b. Learning Evaluation: Objectives of the training programme have been achieved.

c. Performance / Process Evaluations: Whether the gaps between the task requirements and trainee capabilities have been filled.

d. Results / Impact Evaluations: Ultimate success of training i.e. whether the problems have been solved.

The details of the suggested methodologies for trainings at various levels are given in the CB manual, which may be referred.

## 8.9 Capacity Building Plan

During the entire program period, nearly 2294 GPs would be covered in which about 6080 schemes would be taken up. The total cost of this would be around US$ 11.90 million. The capacity building plan for batch-I would be covering around 600 GPs in which nearly 1590 schemes would be taken up. The cost for CB program for Batch-I would be approx. US $ 3.11 million. The phase-wise training module, no. of days for training, no. of trainings, and the no. of recipients of the trainings for Batch-I, are provided in the Capacity Building Plan (Batch-I) given as **Annexure-30**. This gives the actual CB plan and its implementation. The contents provide the main trainings and CB activities envisaged.

## 8.10 Time Frames

a) The CCDU at PMU has been set and is presently operational. It has started imparting trainings to stakeholders at all the levels. Exposure visits for different levels have been organized. Strengthening of the CCDU to cope with the program requirements, within the stipulated time, would be done at the earliest.

b) DWSMs and DPMUs have been established, which would take care of the CB Plan at GP and Community levels including UWSSCs.

c) Hiring of LTIs, RTIs, SOs & SAs would be completed within the last quarter of the year 2006.

d) The number of days provided for trainings for different stakeholders during different phases of the program implementation, are based on the long discussions with the stakeholders, sector institutions, DPMUs, PMU and the World Bank Missions members

e) For details of CB implementation Plan in a Scheme Cycle, CB Manual can be referred.

**Existing Institutions in the State for Implementation of CB Plan**

The identification, listing and assessment of the capacity of training institutions in the state, whether public or private has been carried out in order to identify and shortlist the institutions that can be engaged for providing capacity building services and trainings for various stakeholders under the program; for details Capacity Building Manual can be referred.

# Chapter 9

# Communication Strategy

## 9.1 Communication Strategy

Since the program is based on demand responsive approach with full participation of community at all stages of execution, it becomes imperative to communicate complete information and right messages in a holistic manner to every village community member and program functionaries. Similarly, it is critical to receive feedback from the village communities, GPs and program functionaries to make appropriate changes to ensure maximum effectiveness and efficiency. The program has to be understood by all in its right perspective so that they may fulfill their respective roles and responsibilities to the fullest extent possible.

The communication strategy (CS) forms an integral part of the overall program implementation strategy. Its mission will be to support the realization of program objectives and bring about people-led development especially in water sector. It would cover all aspects including – planning and implementation strategy, interaction among program functionaries, the target communities and the program functionaries, selection and execution of schemes and other related activities, gender sensitivity, trainings, media outreach and involvement of all stakeholders.

### 9.1.1 Objectives

(1) Creation of an environment for the communities and GPs to take decisions by themselves, to develop plans for drinking water schemes and other related development activities

(2) Positive and correct perceptions related to this program among all target audiences such as village communities; Panchyati Raj Institutions (PRIs) with a focus on GPs; NGOs, SOs, SAs, district and state-level program functionaries, partner institutions media, public representatives and the general public.

(3) Empower GPs, target communities and program functionaries with correct and complete information about the program.

(4) Clarity of vision among program functionaries, GPs and village communities.

(5) Social mobilization and enhanced people's participation in program management.

(6) Increase participation of women, school children and other vulnerable groups to avail of opportunities by exercising their voice and choice in the program.

(7) Increase accountability of program functionaries and GPs to village communities and transparency in all processes within the program

(8) Development of suitable action plan to meet the program objectives.

(9) Attract experienced resource persons, NGOs and CBOs, technical training institutions to involve themselves in the program for effective and efficient implementation.

### 9.1.2 Key Focus Areas

(1) Clarity of concept and vision of the program among village communities, GPs and program functionaries.

(2) Detailed information on drinking water management and natural resource management to the village communities, user water and sanitation sub committees (UWSSCs) and GPs

(3) Detailed information on the process of participation in the program and associated rules and safeguards.
(4) Roles and responsibilities of each entity, especially those of village communities, GPs, DPMU, SOs, partner NGOs/ Service Agencies (SA) & sector institutions.
(5) Effective participation by the village community and GPs (which could be evaluated by their agreement to contribute time and money & carry out O&M activities for assets created)
(6) Equitable role of women at all stages, as they are the real managers and users of natural resources and most affected by any changes in natural resources scenario / management practices
(7) Effective inclusion of vulnerable groups such as scheduled castes and tribes, women-headed households and handicapped persons
(8) Inclusion of school children, parents and teachers associations
(9) Communicate success stories/experiences from earlier programs in the state and elsewhere, especially those from community-driven programs
(10) High level of synergy between communication and capacity building strategies/activities.
(11) Experience sharing among various GPs and village communities within the program.
(12) Refining of communication and program strategies based on feedback received through the monitoring and learning processes

## 9.2 State Profile & Media Scenario

### 9.2.1 The State of Uttarakhand

The State of Uttarakhand comprises of two regions viz., Garhwal Region and Kumaon Region. Garhwali and Kumaoni languages are spoken in the respective regions, but Hindi language is spoken and understood by the majority, in both the regions. Out of the total geographical area of Uttarakhand, 92.6% is hilly area and only 7.4 % is in plains. Regarding urban and rural population distribution 25.7 % is urban and 74.3% is rural. The literary rate is 60.1%; while 43.5% of the rural population is illiterate.

Agriculture, livestock and tourism related activities are the major sources of livelihood in the hills. The tourism activity is seasonal in nature and confined to about sixth months in a year. The large proportion of the male population has migrated for employment. By and large the responsibility of managing the household affairs primarily lies with woman.

The main drinking water sources in the hilly areas are- springs, streams and water supply by sector institutions. The springs and streams are seasonal in nature, which usually dries up during the summer season. Villagers have to depend upon alternate sources to meet their drinking water needs during this period. Open defecation is a common practice, particularly in rural areas.

Though drinking water supply and sanitation programmes have been in operation since long, the scarcity of safe drinking water and hygienic sanitation practices, particularly in rural areas, has been the major issues. In order to address this, it is essential to understand the village conditions and the perspectives of the village community for an effective and participatory implementation of the programme. There is also a necessity to understand the new initiatives, to increase community ownership and involvement. The socio-cultural practices and behaviours differ across different areas. The geo-physical conditions influence the type of water sources, accessibility and drainage

pattern. Efforts are needed to comprehend the issues, & concerns and to develop a strategy, to promote use of safe drinking water and hygienic sanitation practices.

### 9.2.2 Stakeholders for the SWAp based RWSES Sector Program

| S. No. | Level | Institution/ Department/ Group | Stakeholder/Functionaries |
|---|---|---|---|
| 1 | **Grass Root level** | Gram Panchayat | Gram Pradhan, Up Pradhan, GP Members, Gram Panchayat Vikas Adhikari (Panchyat Secretary) |
| | | UPN/ UJS | Field Staff |
| | | UWSSC | Chairman, Vice chairman, Treasurer and members |
| | | Community Groups | Women Cluster groups (WCGs), Male Income Promotion Groups (MIPGs) and School children Groups (SCGs) |
| | | Village Community | Gram Sabha members - beneficiary community |
| 2. | **Intermediary level** | Kshetra Panchayat | KP Pramukh, KP Members, Block Development Officer (BDO), ADO (Panchayat) |
| | | Support Organization | Technical staff, Community Development staff |
| | | Service Agencies | Technical staff, Community Development staff |
| | | Training Institutions | Resource Persons, Training coordinators |
| 3 | **Strategic Level** | SWSM, DSWSM, BSWSM | Director, Additional Director, Unit Coordinators, Consultants, District Program Manager, Deputy Program Manager, Subject Matter Experts, Portfolio Managers, Portfolio Engineers |
| | | Uttarakhand Peyjal Nigam | Managing Director, Manager (Appraisal), Dy. Manager (Appraisal), Chief Engineer, Superintending Engineer, Executive Engineer, Assistant Engineer and Junior Engineer |
| | | Uttarakhand Jal Sansthan | Chief General Manager, General Manager, Secretary, Superintending Engineer, Executive Engineer, Assistant Engineer and Junior Engineer |
| | | Zilla Panchayat | ZP Adhyaksh, ZP Members, Apar Mukhya Adhikari, Works Officer, Administrative Officer |
| | | District Water and Sanitation Mission | ZP Adhayksh, Chief Development Officer, District Development Officer, District Panchyat Raj Officer, District Program Manager, DSWSM. |
| | | Capacity Building Institutions | Resource Person, Trainers, Planners and strategy makers |

| S. No. | Level | Institution/ Department/ Group | Stakeholder/Functionaries |
|---|---|---|---|
| 4. | **Apex Level** | SWSM | Chief Minister, Minister for rural development / water supply), Secretary (water supply and sanitation), Secretary (Rural Development and PR), Secretary (Education), Secretary (Health and Family welfare), Secretary (Finance), Secretary (Information and public liaison), Director (SWSM, Swajal) and three specialist from WSS sector |

### 9.2.3 Media Scenario

The state has three All India Radio Stations which are located at (i) Najibabad, (ii) Almora and (iii) Nainital. Presently there is no Doordarshan Station, but is expected in near future. The telecast of regional programmes is done through Doordarshan Lucknow. As per the Indian Readership Survey 2005, Amar Ujala and Dainik Jagran are the two leading Hindi newspapers of the state. The total readership of Hindi dailies in the rural areas is estimated to be 45.4 million. The readership of English dailies is negligible.

### 9.2.4 Media Exposure Status

(1) Television and radio are two most common mass media in the State. Almost 63% of the villagers have access to television. The reach of television is comparatively high in plains compared to hills.

(2) Almost 75% people in plains and 66% in the hills, watch television for less than three hours a day. Nearly 54% villagers watch TV for about two hours daily from 6-8pm.

(3) The average number of hours spent for listening radio is about 1-2 hour, by the majority of the villagers (57%). The time slot preferred for this is 6-8 pm. People living in hills frequently use radio, throughout the day.

(4) There is large-scale participation in the fares and festivals.

(5) Kirtan Mandali (folk-groups) of the females, exist in many villages. These closely knit groups have the potential of communicating with the women, who are the primary target for attitudinal change.

(6) Availability of newspapers is less in the households, even though 25% of the houses in plain have access to it.

## 9.3 Situational Analysis of RWSES Sector

### 9.3.1 Drinking water

**i.** Piped water supply and hand pumps are the two most common sources for drinking water in plain areas of both Kumaon and Garhwal regions, while in the hills the most common sources are: Springs, Streams (*Gadhera*), & piped water supply.

ii. Overall only 19.4% households have the own drinking water sources within the house premises and 2.2 per cent have water pumps. Nearly 51.7% households in the plain areas have drinking source within house, whereas in hilly areas only 4.7% households have drinking water source within the house.

iii. About 62% of the households in plain areas use hand pump water for drinking. As far as the source of drinking water in the households in hills is concerned, public taps (57.3%) are the most common sources of drinking water.

iv. The distance of source of drinking water is more in hills compared to plains. Nearly 10% of households have to travel more than 200 meters to fetch drinking water.

**v.** About 42.7% HH in the hills changes the drinking water source according to the seasons compared to 4.5% in plains.

vi. Majority of villagers feel that the availability of water is declining across all regions and consider the reducing forest cover and lesser rains as the main reasons.

vii. More than half (51%) of those living in hills, feet that they do not get adequate water in all seasons. Nearly 53.4 % villagers feel that they use unsafe drinking water may, which may result in various water borne diseases. But the incidence rate for diseases in more in plains compared to hills. The spring water in hills is considered safe, while water from stream (*Gadhera*) is perceived contaminated as it is used by animals and also by the community for washing clothes. The water supplied by the Jal Sansthan is perceived as safe for drinking. However, water from shallow hand pumps, to some extent is perceived as unsafe in the plain areas.

### 9.3.2 Sanitation

Open defecation is the most common practice across all regions. Major reasons for not constructing sanitary latrines were: habituated to defecation in open, lack of resources/money and non-availability of space, particularly in the hills. It is not considered as the means for contamination of the drinking water source.

### 9.3.3 Communities Perception for SWAp based RWSES Program

The following section describes the perception and opinion of the community for SWAp based RWSES program:-

i. The community has positive attitude for the concept but are concerned about the financial management, limited participation and non availability of technical capabilities/ inputs.

ii. They feel that the programme would certainly improve the availability of drinking water in the village and would be beneficial to the community (95% community agreed to this).

iii. The willing to pay for the maintenance and upkeep of the drinking water sources is present in 96.5% villagers, provided quality and services are maintained.

## 9.4 Key messages

Some of the key messages identified, relevant for the success of the program can be grouped into two phases: Social Mobilization Phase & Program Implementation & Maintenance Phase.

**(A) Social mobilization phase**

1. Program concept, objective and processes.

2. Importance of safe water drinking water & environmental sanitation and their impact on health conditions.

3. Ownership of the program by communities and GPs; government, NGOs, SOs, SAs and other stakeholders are only facilitators.

4. Self preparation and management of water supply and related activities plan by the communities and GPs.

5. Contribution of time, cash money and labour by the communities/beneficiaries
6. Decision-making to incorporate majority voice and choice, where women & vulnerable groups have equal role and opportunities, thereby enhancing social equity.

7. Ensure capacity building, wherever and whenever required.

8. Complete transparency in the entire process of decision-making and to ensure safeguard measures.

9. Everyone to be vigilant for his/her roles and responsibilities towards the common objectives of the program.

10. Weaker sections and women can form SHGs to undertake income-generating activities.

**(B) Program Implementation & Maintenance Phase**

1. Total transparency and accountability in the program from planning to O&M.

2. Ensuring safeguard measures and seek assistance wherever and whenever required.

3. Efficient and effective use of funds, procurement procedures and maintaining transparency.

4. Maintenance of accounts, other documentation, records and book keeping as per the requirements.

5. Understanding and Application of Environmental Safeguards.

6. Strong process monitoring by the community and sensitization of community regarding post program sustainability.

7. Useful utilization of the saved time and understanding the significance proper of Time Management.

Since the program involves a number of stakeholders, the identified key messages for different stakeholders can be grouped as given in the table below:-

**Table: Key Messages for Different Stakeholders**

| S.No. | Stakeholder Group | Communication Task | Key Messages/Communication Content |
|---|---|---|---|
| **Grass root level** | | | |
| 1 | Village community | To create awareness and sensitization about the programme and concepts, health and | • Adoption of programme will improve the health and hygienic conditions in the village and it will become a place worth living.<br>• Save your women and daughters from pain |

| | | | |
|---|---|---|---|
| | | hygiene. | of travelling long distances for water.<br>• The boys will get better and educated match for marriage.<br>• Ownership of water resources is with community<br>• Don't expose your women and children to strangers and danger |
| 2 | Women | To create awareness and sensitization about the programme and concepts, health and hygiene. | • The management of water resources by community would lead to better availability of water through development of resources as per the community need and reduced response time in repair and maintenance.<br>• Contamination of water is beyond the physical appearance.<br>• The water borne diseases are increasing. You may be next victim.<br>• Sanitary latrines at home can give a lot of convenience.<br>• Having a sanitary latrine is a symbol of progressive outlook for the family.<br>• The cost of ownership of sanitary latrine is very high" needs to be put at rest. |
| 3 | Children | To create awareness about health and hygiene | • Poor hygienic practices lead to water contamination and diseases.<br>• Develop hygienic practices to become healthy and strong.<br>• Keep water sources clean.<br>• Keep the water pots in house and school clean and covered |
| 4 | Gram Panchayat | To create awareness about the programme, Roles and responsibilities | • Adoption of the programme is the need of the day and it will be implemented across all GPs in the state.<br>• GPs adopting the programme are progressive.<br>• The state government will provide all necessary support to make the progress a success.<br>• The programme will free the women and daughters of this GP from all hassles and pains associated with fetching water. |
| **Intermediate level** | | | |
| 5 | ZP and KPs | To create awareness about the program, Roles and responsibilities | •Adoption of the programme is the need of the day and it will be implemented across all GPs in the state.<br>•The PRIs adopting the program are progressive and will forward looking.<br>•The state government will provide all necessary support to make the progress a success.<br>•Promotion and adoption of Safety measures |

| | | | |
|---|---|---|---|
| | | | such as insurance, emergency fund created by the state govt. to meet exceptionally high cost can generate confidence. |
| **Strategic level** | | | |
| 6 | Sector Institutions | | • The sector institutions are here to stay and to contribute meaningfully to the sector reforms.<br>• The changes will lead to better efficiencies and deliveries to the rural people. |
| | SWSM | • Knowledge and update of the developments in water and sanitation sector within the state and outside<br>• Coordination with various departments and sector institutions<br>• Internal and external communication<br>• Coordination with SOs | • The SWSM is to play a very important role in improving the drinking water and sanitation situation in the state.<br>• The SWM will set an example for the rest of country in the area of sector reforms. |
| **Apex level** | | | |
| | Govt. Officials/ Administrators | • Current status of the RWSS sector in the state and government's vision for the state<br>• Need for the programme and its benefits | • The state is committed to sector reforms in water and sanitation sector<br>• Water and sanitation sector reforms will go a long way towards local governance. |
| | Political leadership | • Current status of the RWSS sector in the state and government's vision for the state<br>• Need for the programme and its benefits | • The programme is meant for providing good quality water to all.<br>• The programme will improve the health of our people through good quality water and better hygiene.<br>• The programme will provide more power and autonomy to the elected bodies.<br>• The programme will bring health and prosperity in the state. |
| | Media/Press | • Need & benefits of the programme | • The state is moving ahead towards local governance in the water and sanitation. Join the movement by your active participation and support, Help the cause through active participation and support. |

## 9.5 IEC Activities and Schedule

The communication needs would vary at different stages of the program for different stakeholders. These stages are as follows:-

a) Pre launch stage
b) Programme launch stage
c) Program Implementation stage

The communication strategy aims at meeting needs through adoption of an appropriate mix.

### 9.5.1 Pre-launch stage

#### 9.5.1.1 State level advocacy

**(i) Nomination of Ambassador to promote the mission:** To create an enabling environment, communication with the political leadership is very important. It is proposed to begin the communication campaign through interaction with the political leaders. They will be requested to nominate one eminent member to act as "Ambassador" for the mission, who would be oriented about the concepts and philosophy of the program. The SWSM would approach the political leaderships for the nomination of "Ambassador" for different districts.

**(ii) Advocacy Workshop:** With active support from SWSM & Ambassador, a state level advocacy workshop would be organised for MLAs/MPs and other prominent leaders of the state. The work shop would cover introduction to the program concepts and philosophies and how it would help the people of the state.

**(iii) Media Conference:** The programme would be given wide press coverage through a press conference by the SWSM. It would involve the political leadership and senior bureaucrats. The SWSM should arrange visits of media people to the model programme villages taken up in SWAJAL-I.

**(iv) Inter-Departmental Coordination Workshop**

Interdepartmental coordination workshop would be organised for SWSM, Jal Nigam, Jal Sansthan and WSS sector allied agencies, soil and water conservation department, public health department, rural development department, Panchyati Raj department, forest department and national NGOs working in water and sanitation sector. This workshop would apprise the senior and middle level bureaucrats about the changes taking place in the WATSON sector and roles envisaged for each department in the new arrangement.

**(v) State level Mass Media Campaign**

A combination of TV, Radio and Newspapers, before one month of programme launch would be used to create awareness and demand for the program. A TV serial/ drama would be telecasted on television. Bus panel would be used as a support medium at this stage.

#### 9.5.1.2 District level advocacy

**(i) Advocacy Workshop**

A workshop would be organised at the district headquarters for representatives of District and Block Panchayats to apprise them about the programme. The introductory meetings of Panchayat Heads (district & block) would provide a useful platform to familiarize the members about program. DSWSM would also participate in the meetings. The communication areas would be programme concepts, components & support to be provided by SWSM, sector institutions and other support organizations. A monthly newsletter would cover developments in the state and other parts. It would be circulated among policy makers, media and all program partners.

**(ii) District Level Media Conference**
Press conferences would be organised before the formal state wide launch of the program. It would highlight the program concepts and strategy. Visits to model villages of SWAJAL-1 would be organised for the media for wide publicity and creation of congenial environment.

**(iii) District level orientation workshops for sector institutions**
Workshops would be organised for the field level employees of sector institutions, to apprise them of the changes taking place and their new roles and responsibilities.

### 9.5.2 Programme Launch Stage
At the launch stage, the communication strategy would focus on building awareness among various stakeholder groups, to convince them to come forward for active participation in the program. The mass media campaign through TV, radio and press would continue at this stage.

### 9.5.3 Program Implementation Stage
Once the GPs for program have been selected the communication strategy would mainly focus on them and the community. The activities for this would be as follows:-

**(i) Training and Gram Pradhan & Heads of UWSC**
Trainings workshops would be organised to equip GP members for community mobilisation and successful running of the program. Training manuals would be provided for constant guidance and reference.

**(ii) School Rallies**
School rallies would be organised to educate children about health and hygiene. These programmes would be organised by the GP. Gram Pradhans would be given school campaign kits.

**(iii) Distribution of quarterly magazine**
A quarterly magazine would be published by PMU for distribution among media, sector institutions, DWSM, policy makers, ZPs, KPs and GPs etc.

**(iv) Folk Performances/Entertainment**
Folk performances would be organised in participating GPs to sensitise community about the program so that it shapes into a movement.

**(v) Mobile Communication Units**
Mobile units fitted with audiovisual communication equipments would visit the participating GPs. They would focus the lower / marginalized sections of the society, who are not reachable through any other media. Since this section is economically disadvantaged and illiterate, it does not have access to any outdoor and print media.

**(vi) Participation in fairs**
All major fairs in the state would be used as communication platforms to spread the message. Stalls would be placed in fairs and hoardings would be erected on major traffic points.

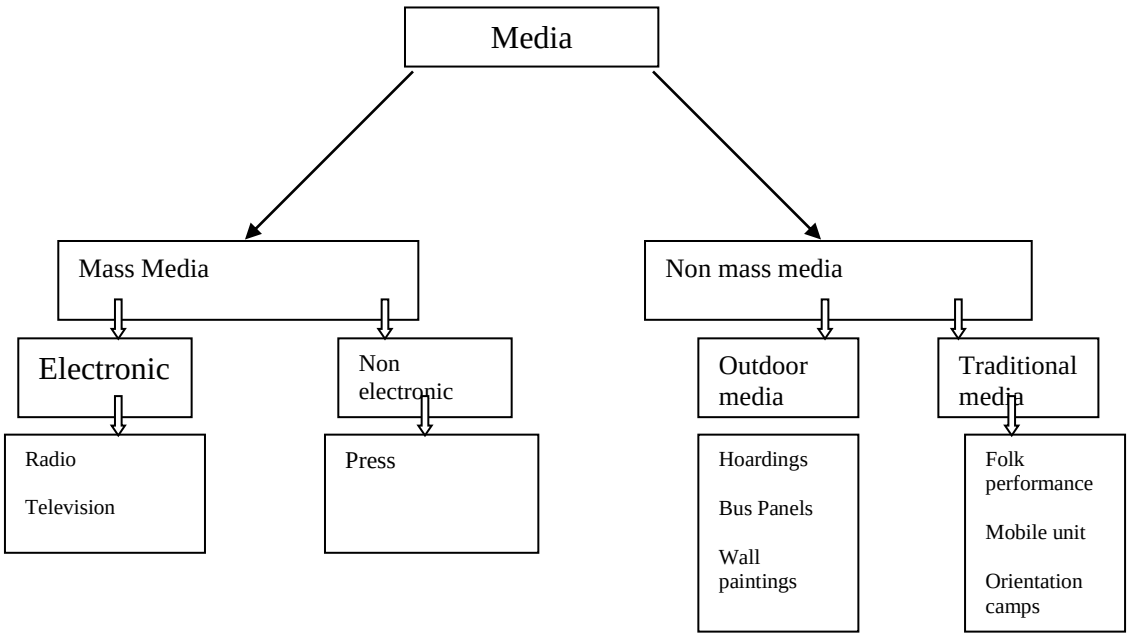
**(vii) Hoardings and Bus panels:**
Hoardings and bus panels would be used to reach the program GPs and beyond. The Mass Media advertising would be carried out at regular intervals to keep the issues alive in the minds of community. It would also encourage the PRIs and the community to come forward for

participation in the program during subsequent batches. The communication campaign should mainly focus on these selected Gram Panchayats by using of local media tools.

## 9.6 The Media Tools

The communication strategy proposes a judicious mix of local mass media both electronic and print, community media, Interpersonal Communication (IPC) and Behaviour Change Communication (BCC) tools at different stages of program implementation. The use of mass media at regular intervals would be done to spread the message across various stakeholders so as to create and sustain an enabling environment

**Chart: Media options**




### 9.6.1 Electronic Media

**(i) Spots and Jingles**

The first step for creation of favourable environment is to inform people repeatedly that development of their own rural drinking water supply system is not an uphill task now. With the support of government, rural community could develop infrastructure and maintain it. Such task could be undertaken successfully through production and dissemination of TV and Radio Spots. The key messages would be highlighted to create the demand and uplift the tempo of campaign. This would be the first initiative, which would create the atmosphere.

**(ii) Docu-drama Series Weaved with Information**

In order to educate the community about the complete procedures, production and telecast of TV Serial would be very effective. The complete procedure would be weaved in an emotionally charged docudrama serial. These serials would incorporate dramatization of success stories of Swajal Project-I.

**(iii) News Magazine for Progressive Audience**

Progressive rural population, who do not watch serials and prefer watching TV or listening Radio for news programs, would be catered through production and telecast of News Magazine series highlighting the news, related to Swajal program and its features, through AIR & Doordarshan.

**(iv) Conflict resolution and idea exchange platform**
For resolution of conflicts and problems, a series of panel discussion program, would be taken up to provide the community with a platform where they would discuss their experiences and find solution to their problems.

### 9.6.2 Print Media

**(i) Advertisement in News Paper**
Newspaper advertisement would be used, which is an effective communication tool for descriptive information dissemination and has a longer shelf life. One can cut and keep the information for future use.

**(ii) Banners**
Banners would be utilized for reminding the messages on move. The visible reminders are necessary to convert social campaign into movement. They could do better emotional conditioning of the public. Only short & crisp messages would be disseminated through them.

**(iii) Posters**
This would act as catalyst in creating awareness in rural areas.

**(iv) Leaflets**
There is a class of people those who want to know more about the program. This audience segment would be catered through leaflets.

**(v) Training Manuals**
Training manuals would be provided, which would be useful for those involved directly in the execution. They need it, as ready reckoner.

**(vi) Magazine /Periodical**
This medium would be useful to sustain the tempo among the rural masses. People can exchange their ideas of development through this medium.

### 9.6.3 Out-Door

**(i) Video Van**
In rural areas, the poor and downtrodden cannot afford radio and TV. These people would be addressed through video vans. This vehicle equipped with audio-video facilities can hold the large rural gatherings. An emotionally charged video film weaved with intended messages would be shown through them. Even feedback of the people could be recorded, which would help in deciding the future course of action.

**(ii) Tin Board/ Vinyl Board**
The Tin Board/ Vinyl Board would be used for informing about the complete procedure of Operation & maintenance. These boards are very durable.

**(iii) Bus Panel**
This medium is useful for tempo building exercise. These mobile hoardings are very cost-effective and serve the purpose well.

**(iv) Folk**
People, who prefer entertainment through local folk groups, could be addressed through this medium. Folk songs and drama weaved with messages would be developed. This has worked well during sanitation campaigns of various states.

**(v) Quiz Contest, & Rallies**

Children/ youth play an important role in creating social awareness. They could be mobilised through quiz contests and rallies. The most active child/ youth would be called as torchbearer and the most active teacher could become ambassador in every school.

**(vi) Entertainment Evenings**

In Uttarakhand rural women are fond of entertainment evenings (*sangeet sandhyas)*. These would be organised on specific theme, related to concerned issues at Gram Panchayat level. Such events would be organised at a convenient time and spacious location.

### 9.6.4 Interpersonal Communication (IPC)

IPC is an effective media tool. Various activities would be organised at different stages of the program like orientation training workshops, implementation stage, conflict resolution and problem solving stages. The following IPC tools have been listed for program villages:

1. Development of Village Resource Maps
2. Role Plays and Focus Discussions
3. Communication through posters/ story telling.
4. Interactive, sensitising games and quiz contests.
5. Case studies
6. Thematic meetings.

Together with this, promotional measures for mobilising and empowering the community through experience sharing, exposure visits and skill development would be taken up.

## 9.7 Monitoring Indicators

The indicators help in getting an assessment of the direction and extent of behavioural changes that have taken place due to interventions. The indicators would be objective and give a clear direction on the impact of the programme. The following parameters would be used as indicators for midterm and final evaluation:

1. Awareness of water and sanitation related programme
2. Participation in water and sanitation programme
3. Current source of drinking water
4. Distance of the most commonly used source of drinking water
5. Parameters used to evaluate the quality of water for drinking
6. Methods deployed for purification of drinking water
7. Usage of household sanitary latrines

## 9.8 Media Action Plan

The media action plan for four phases has been prepared, covering nearly 2294 GPs and 6080 schemes & UWSSCs. The total estimated cost is around US$1.074 million. The detailed Media Action Plan is placed as **Annexure-31**

## 9.9 Communication and Capacity Development Unit (CCDU)

The State Government has set up a State level CCDU at Dehradun, which would be responsible for implementation and monitoring of different activities to be taken up for implementation of communication strategy. The district level unit of the CCDU would be established in all the 13 districts of the State for effective implementation of the communication strategy. These units will function according to the guidelines issued by the State level CCDU.

# Chapter 10

# Financial Management Guidelines

Existing Fund Flow and Accounting Arrangements for Uttarakhand Rural Water Supply & Environmental Sanitation Program

## 10.1 Existing setup in the State

The Department of Drinking Water in Uttarakhand is having three main institutions namely Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and the Swajal Directorate or Project Management Unit (PMU) as it was known earlier. Both Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan are autonomous bodies created under Section 3 & under Section 18 of the Act named "The Uttarakhand (The Uttar Pradesh Water Supply and Sewerage Act, 1975) Adaptation and Modification Order, 2002" respectively. Swajal Directorate is a society registered under Societies Registration Act, 1860

## 10.2 Present system of fund flow arrangement

At present, the Uttarakhand Jal Sansthan and Uttarakhand Peyjal Nigam receive funds from Government of Uttarakhand and Government of India under different Programs and projects.

The GOUA transfers the funds to the Uttarakhand Jal Sansthan for reorganization of schemes and installation of hand pumps only.
The GoI transfers funds directly to Uttarakhand Peyjal Nigam headquarters under ARWSP, PMGY. The GoUA transfers the funds under the Minimum Need Program (MNP), reorganization of schemes, installation of hand pumps etc. directly to the Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan. District plan funds are transferred to concerned district units of Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan.

Swajal Directorate is the nodal institution for the GoI assisted Programs – Swajaldhara and Total Sanitation Campaign. The Swajaldhara funds are directly received at the state level office and the TSC funds are directly transferred by GoI to the district units of the Swajal Directorate. The state share of the TSC is received by the state level office of Swajal from GoUA and subsequently transferred to its districts units.
Government of India sanctions various schemes under different programs with directions and guidelines for implementation of such schemes. Formats are accordingly prescribed by GOI in order to ensure timely completion and a proper reporting mechanism thereof.

## 10.3 Existing Budgetary System

As per the existing budgetary system, the State funds are allocated to different departments by their respective administrative departments to their designated Nodal Officers/ Drawing & Disbursing Officers (DDOs). These nodal officers submit their yearly proposals for budget allocation to their administrative department. The administrative department finalizes the budgetary provisions against their proposals under different heads of expenditure. The centrally sponsored programs are funded by the GoI. The provision for centrally sponsored programs is made in the annual budget by the Planning and Finance Department of GoUA. The funds are released in tranches by GoUA to the designated Nodal Officers, against the demand, under the

allotted respective Grant Nos. of the concerned departments only after submission of Utilization Certificates.

As per Budget Manual, every DDO is fully responsible for drawal and utilization of funds with the conditions laid down in such release orders or Government Orders (GOs). For ensuring timely completion of the schemes, administrative departments at government level ensure proper utilization of funds, allocated within the sanctioned limit etc. and lay down general as well as specific conditions such as given below:

1. Name of the program, cost of the proposals, amount of installment being put at the disposal of DDO, funding source (centrally sponsored, state funded, externally aided or district plan).
2. Details of the DDO who has to draw the funds from the treasury.
3. The necessary permissions (technical or administrative) of competent authority, wherever specified, are required to be taken as per the provisions of Financial Hand Book or Budget manual. This is essential before incurring any expenditure.
4. It is also mentioned in the GO that adherence to Store Purchase Rules as mentioned in the Financial Handbook is mandatory.
5. It is clearly mentioned in the GO that physical and financial progress of scheme on monthly/quarterly basis would necessarily be made available to the government
6. Apart from above it is also mentioned in the GO that the concerned Executive Engineer or any such other officer shall be held responsible for ensuring quality and timely completion of the works.
7. It is an essential condition in the GO that funds released cannot be drawn unless the earlier released installments have been utilized.
8. Emphasis is laid on timely furnishing of utilization certificate.
9. The G.O. specifies the Grant Number, with details of expenditure. This grant number is a 15 digit code specified for all drawals from the treasury.

After the GO has been issued, the concerned DDO submits the bill in the concerned District treasury for drawal of funds. Thereafter the treasury issues the cheque of the amount mentioned in the GO.

## 10.4 Compilation of Accounts

All the treasuries of the State compile the monthly withdrawals of the districts and which are subsequently reconciled with the respective department. All the District treasuries send these compiled expenditure statement to Director, Treasury as well as to the State Govt. This system facilitates and ensures the tracking of fund flow at various level such as DDO, Treasury level, State level and Govt. level.

The above procedure is applicable to all drawals where budgetary provisions are made in the State Budget for Centrally Aided/Externally Aided/State Sector or District Sector Schemes. However, for certain centrally sponsored programs such as TSC, GoI directly releases funds to the Nodal Officers specifying the utilization conditions. Utilization certificates are submitted to the GoI on release of subsequent tranches after the initial tranch for a scheme.

In case of Externally Aided Schemes such as the World Bank assisted Swajal-I project, the state government first released budgetary allocation and the expenditure is done as per the Financial agreements thereafter the Reimbursement Claims against the amount spent are submitted to funding agency through Controller Aid, Accounts & Audit (CAAA), GoI as per the prescribed procedures laid down for it.

## 10.5 Auditing System

At present all the three sector institutions namely, Uttarakhand Peyjal Sansadhan Vikas Avam Nirman Nigam (Uttarakhand Peyjal Nigam), Uttarakhand Jal Sansthan and Rural Water Supply and Environmental Sanitation Society (Swajal) carry out auditing of their respective accounts separately. The auditing of Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan are done by Accountant General of the State while as auditing of Project Management Unit (PMU) and its district units including GPs/UWSCs is got done from the Firm of Chartered Accountants appointed as per the World Bank Procurement Guidelines for consultancy.

## 10.6 Proposed Broad considerations for preparing Financial Management System under SWAp

The funds from GoI may follow any route. It may flow through GoUA, or SWSM or PMU, or JN/JS or to any District Units of PMU/JN/JS.

The final financial reporting made by SWSM to the World Bank includes the funds that are not routed directly through SWSM. For ensuring reporting from all stakeholders, a mechanism shall be developed so that information regarding receipt and expenditure on new capital expenditure for rural water supply and sanitation services reach to SWSM. New capital expenditure means all SVS identified after 31.03.2006 will follow SWAp guidelines and all MVS identified after 30.11.2006 will follow SWAp guidelines.

It may be noted that the any district unit of Sector institution will be separately liable for the funds sanctioned to them under any program of GoI but at the same time the information shall reach to the SWSM also for overall reporting to the World bank as mentioned in above para.

There may be cases in which funds from different program are applied in the same village. For e.g. for construction of individual household latrine TSC funds and guidelines would be applied and for construction of water supply scheme Swajaldhara or World Bank or any other funds would be utilized and respective rules will be applied. At the same time for capacity building activities either the IEC share of above funds or funds from any other program would be utilised.

There will be six main components- 1. Water Supply (SVS and MVS) 2. Catchment area conservation and management program, 3.Water Supply & Sanitation Services to Public Institutions, 4 Individual Household latrines subsidy and Rewards/awards and other cost, 5. Capacity building and Support organization's cost and 6. Program Management Cost. These will be divided in three broader category (a) Sector development (b) Infrastructure development (c) Program management and monitoring & evaluation.

Considering above possibilities, Financial Management System shall ensure that all receipts and payments may be tracked by SWSM for common reporting of Uttarakhand RWSES under SWAp guidelines.

## 10.7 Proposed Fund Flow and Accounting Arrangement for Uttarakhand Rural Water Supply & Environmental Sanitation Program

### 10.7.1 Secretariat of SWSM (Apex Committee)

A separate cell will be established at the Department of Drinking Water, GoUA which shall act as the Secretariat of SWSM. To begin with, this cell may be headed by Additional Secretary,

Drinking Water, GoUA and shall comprise dedicated, full time, senior officers not below the rank of Superintending Engineer from Uttarakhand Peyjal Nigam & Uttarakhand Jal Sansthan, one senior level Finance Officer from the State Finance Services. The cell will be assigned responsibility for overseeing the progress of reform principles in the activities of Uttarakhand Peyjal Nigam, Uttarakhand Jal Sansthan and RWSES society (PMU).**The cell will have a predominant role in implementation of sector wide approach especially on the following aspects:-**

1. Overseeing the implementation of the policy decisions by SWSM, dissemination of the policy decisions of the SWSM and monitoring of the implementation of the policy decisions by various Program partners.
2. Monitoring of the physical and financial progress of the various schemes as per the Medium Term Development Program (2005-2012).
3. **Monitoring the fund flow and expenditure arrangements for the Sector Program and the various Programs as per the Medium Term Development Program.**
4. Collecting the **fiscal data** of the Program and utilization certificates from the various Sector Program partners and send those to the Govt. of India.
5. **Submitting the reimbursement claims to the World Bank.**

Thus it is evident from the above, that tracking of funds and expenditures under sector wide approach can be easily done as it will be the responsibility of the Secretariat of SWSM.

### 10.7.2 Activities to be carried out by UJN and UJN during implementation of SWAp Program

Just to mentioned the background the activities to be carried out by Uttarakhand Peyjal Nigam and Uttarakhand Jal Sansthan during implementation of SWAp Program are summarized below: -

**a) Uttarakhand Jal Sansthan**: Renovation of single village water supply schemes which are presently with the Uttarakhand Jal Sansthan in participatory mode with the Panchayati Raj Institutions (PRIs). The Uttarakhand Jal Sansthan will act as support organization for the PRIs and will provide technical assistance to PRIs. Decision of technical options, implementation etc. will be done by the PRIs. Uttarakhand Jal Sansthan will also implement the ongoing schemes which have been enlisted by them.

**b) Uttarakhand Peyjal Nigam**: Uttarakhand Peyjal Nigam will construct and maintain the Multi Village Schemes (MVSs) up to clear water reservoir (bulk water supply). Intra-village distribution system will be constructed (unless the Gram Panchayats resolves to carry it out through Sector Institution*)* and maintained by the Gram Panchayats. Uttarakhand Peyjal Nigam will also implement the ongoing schemes which have been enlisted by them.

**c) RWSS Society Swajal**: The PMU will facilitate DWSM/SPMU in in implementation of new Single Village Scheme component of the Program. The DPMUs will support Gram Panchayats and in turn UWSSCs in implementation of the SVS.

The process for tracking of funds under various programs/components as listed in the Medium Term Sector Program is as given below: -

| S. No. | Components of New Capital Investment | Fund Flow and Tracking | Reimbursement |
|---|---|---|---|
| 1. | Water supply Schemes hardware cost | | |
| 1.1 | SVS | GoUA/GoI will release funds through PMU/DPMU to GPs. | On the basis of monthly/quarterly statement from the PMU, the SWSM cell will check and forward the claims to the GoI |
| 1.2 | MVS | GoUA/GoI will release funds through State level UJN/UJS to District units of UJN/UJS | On the basis of monthly/quarterly statement from the UJN/UJS, the SWSM cell will check and forward the claims to the GoI |
| 2. | Phasing of SVS to GPs | GoUA will release funds through State level UJS to District units of UJS to GPs. | On the basis of monthly/quarterly statement from the UJS, the SWSM cell will check and forward the claims to the GoI |
| 3. | Catchment Area and Management Program | GoUA/GoI will release funds through PMU/DPMU to GPs | On the basis of monthly/quarterly statement from the implementing agencies to the PMU, the PMU will review and forward to the SWSM cell for checking and forwarding the claims to the GoI |
| 4. | Water Supply and Sanitation to Public Institutions | GoUA/GoI will release funds through State level UJN/UJS to District units of UJN/UJS | On the basis of monthly/quarterly statement from UJN/UJS, the SWSM cell will check and forward the claims to the GoI |
| 5. | Rural Sanitation cost | GoUA/GoI will release funds through PMU/DPMU to GPs | On the basis of monthly/quarterly statement from the implementing agencies to the PMU, the PMU will review and forward to the SWSM cell for checking and forwarding the claims to the GoI |
| 6. | Capacity building and Support Organizations Cost | GoUA/GoI will release funds through PMU/DPMU | On the basis of monthly/quarterly statement from the implementing agencies to the PMU, the PMU will review and forward to the SWSM cell for checking and forwarding the claims to the GoI |
| 7. | Audit | GoUA/GoI will release funds through PMU/UJN/UJS | On the basis of monthly/quarterly statement from UJN/UJS/PMU, the SWSM cell will check and forward the claims to the GoI |
| 8. | Project Management Cost | GoUA/GoI will release funds through | On the basis of monthly/quarterly statement from the implementing agencies to the |

| S. No. | Components of New Capital Investment | Fund Flow and Tracking | Reimbursement |
|---|---|---|---|
| | | PMU/DPMU | PMU, the PMU will review and forward to the SWSM cell for checking and forwarding the claims to the GoI |

(i) The Government of Uttarakhand will release funds to sector institutions and Swajal Directorate for new investments under SWAp approach through separate Government Orders (GOs). These GOs will lay down terms, conditions and procedures for incurring the expenditure. GoUA does not issue bulk financial sanctions. Instead sanctions are issued for individual schemes, in various installments. The funds are released in installments normally in the ratio of 20:30:30:20 during the course of implementation. The next installment is released only after getting utilization certificate of the previous released installment along with the certificate of adoption of satisfactory procedures by the sector institutions and Swajal Directorate.

(ii) All the release orders for the new investments will be sent to Secretariat of SWSM for tracking of the released funds. In addition, all the utilization certificates will also be copied to Secretariat of SWSM along with the GoUA. This arrangement will ensure that the funds released under SWAp approach are properly tracked and audited and whether they have been spent as per the laid down terms and conditions.

To ensure the above arrangement following system would be adopted:

1. For the purpose of reporting to the Secretariat of SWSM, common reporting formats would be developed for all the three institutions at the state level, district level and GP/UWSSC level. At the end of month, the progress reports shall be sent to the SWSM cell in the form of opening balance of bank, receipt during the period from GoI, GoUA, Bank Interest, Community Contribution in the form of labour & cash, any other receipts, head-wise payment made against the opening balance and receipt during the period and the closing balance of bank & cash. The above detail will be provided for each program separately.
2. The Secretariat of SWSM will compile all the financial information received from three institutions and report further to the State Govt., Central Govt. or any other funding agency as per the requirement.
3. Besides vertical reporting the three institutions or any of their district units will be separately liable for reporting to any funding agency as per the requirement of agreement, if any for example in case of TSC online reporting from district level is required by GoI.
4. Secretariat of SWSM will also ensure that the audit of accounts of all the three Institution down to the GP/UWSC level. External auditor will be appointed in time so that annual reports it will be available at any time during the year because payment condition from funding agency need audited report for release of next installments. It will ensure that the audit report of each financial year are made available not later than six months from the closing of financial year, i.e upto September of next financial year.
5. The above arrangement can be ensured *through reporting system.*

In case of reimbursement by the World Bank following method was applicable:

1 Under the proposed arrangement, the World Bank shall provide loan to the State Government for financing the developmental activities under this program.

2. The World Bank shall provide funds to the program by depositing money to the Special Account of the program at GoI level.

3. The Special Account is a revolving account in which World Bank deposits funds. These funds are used exclusively to cover the Bank's share of the eligible expenditure on the program. The Special Account is opened by the Government of India with the Reserve Bank of India. This account is maintained separately for each World Bank funded project in convertible foreign exchange.

4. The Special Account is operated by the Controller of Aid, Accounts and Audit (CAAA), Department of Economic Affairs, Ministry of Finance, Government of India. Based on the amount of claim raised on the World Bank in respect of the expenditure incurred on the project (as per the reimbursement claim filed by SWSM cell, the CAAA issues an advice to the Reserve Bank of India for transfer of the amount claimed from the Special Account of the project to the General Account of the Government of India.

5. The World Bank replenishes this Special Account at regular intervals through reimbursement. The amount and frequency of replenishment by the World Bank depends on the method of disbursement.

In the new system of back to back lending from Govt. of India we are not clear what would be the specific arrangement agreed to between the World Bank, DEA and State Govt. This can be clarified at the time of loan negotiations. In case the same agreement continues, we will stick to the above arrangement.

### 10.7.3 Proposed Reimbursement guidelines for SWAp Program of RWSS Uttarakhand

The World Bank will reimburse a percentage share of total audited expenditure on rural water supply schemes implemented under the agreed policy guidelines, subject to an annual cap. The reimbursement will cover the capital costs of all new investments which include construction of SVS and MVS, Phasing of SVS to GPs, Catchment Area and Management Program, Water Supply and Sanitation to Public Institutions, Rural Sanitation cost, Capacity building and Support Organizations Cost, Audit Fee and Project Management Cost.

An initial advance will be paid at the start of the project, equivalent to the Bank's share of expenditure during the first six months of the project, based on budget estimates. A second payment will be made after six months, based on a percentage reimbursement of actual program expenditure, as reported in the unaudited financial statements of the SWSM. Thereafter payments will be made six monthly based on financial statements with adjustments in respect of final audited accounts received in respect of prior periods.

GoUA may apply for retroactive funding for any investments in new schemes, including preparatory activities, which are implemented using the community driven model during FY 05/6. A separate account of all such expenditure incurred prior to the commencement of the project will be maintained by the SWSM using the same format as for other project expenditure. Reimbursement of this component will be based on the final audited account.

Actual expenditure is defined as expenditure on establishment costs, goods, works and services reported in the consolidated financial statements of the SWSM. Advances made to Gram Panchayats, sector institutions and other suppliers will only be treated as expenditure once a

utilization certificate, SOE, invoice or other evidence of actual expenditure has been provided in accordance with the guidelines set out in the FM Manual.

All expenditures under the program will be considered eligible for reimbursement at the percentage rate given in the following table. Disallowances may still be made where, in the Bank's opinion, expenditures are either not consistent with the intended purposes of the program or do not follow the GoUA's policy guidelines. Such instances may be identified either during supervision or through audit. Differences between expenditure reported in the FMRs and the final audited accounts, and other disallowances, will be adjusted against the next disbursement claim. Any disallowances identified by audit after the project has closed will be refunded to the Bank.

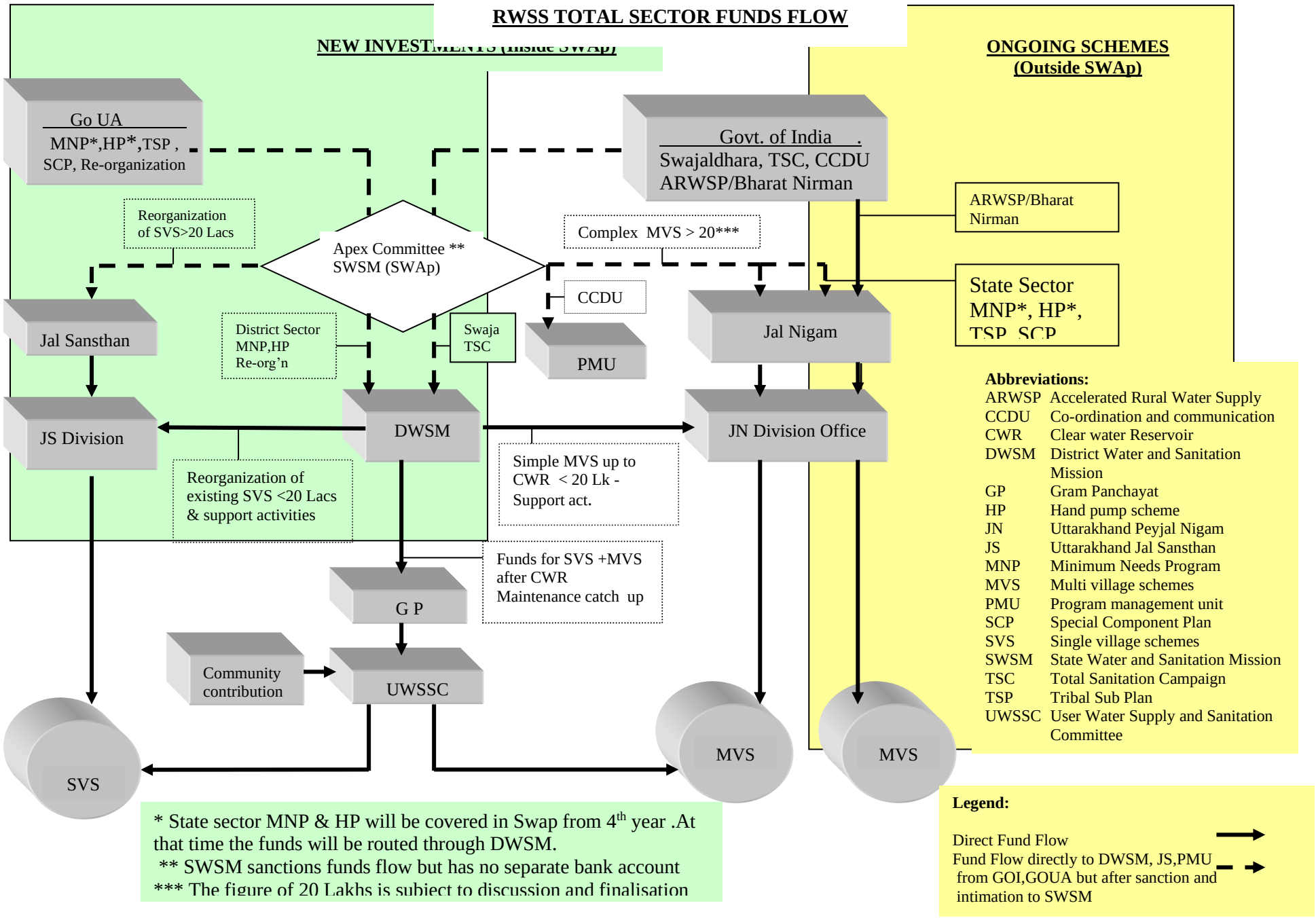
The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Financing, the allocation of the amounts of the Financing to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category:

| **Category** | **Percentage of Expenditures to be Financed** |
|---|---|
| (1) Eligible Project Activities carried out under Part A of the Project | 100% of Eligible Project Expenditures |
| (2) Eligible Project Activities under Parts B and C of the Project | 100% of Eligible Project Expenditures in Fiscal Years 20006/07 to Fiscal Year 2007/08, 90% in Fiscal Year 2008/09, 70% in Fiscal Year 2009/10, and 55% thereafter |

Six monthly reimbursement claims will be submitted by Government of Uttarakhand to the Ministry of Finance (Aid Audit and Accounts Department). The World Bank will make all payments into a Special Account operated by the Ministry of Finance. This money will then be advanced to the State Government in the form of additional ACA.

The GoUA/GoI shall initially do the funding of the program. Based on the claim filed by the GoUA/GoI the World Bank funds shall be received by GoI.

The above procedure is applicable keeping in view the present financial system. GoI provides funds under ARWSP, TSC, Bharat Nirman, Swajal Dhara, PM's Announcement etc. and formats are prescribed for each schemes separately. SWSM Cell at State Govt. level would get information of all funds released and accordingly prepare report in respect of such funds, which may be made available to any agency including World Bank. Funds provided for SVS schemes would be utilized by UWSSC and accounting system proposed for such investment envisages accounting and reporting system for it in the Financial Management Manual also.
Similarly, in case of MVS (Intra village level) funds, accounting and reporting would follow the same procedure for UWSSC as discussed above.


RWSS TOTAL SECTOR FUNDS FLOW
NEW INVESTMENTS (Inside SWAp)
ONGOING SCHEMES (Outside SWAp)
Go UA
MNP*,HP*,TSP , SCP, Re-organization
Govt. of India
Swajaldhara, TSC, CCDU ARWSP/Bharat Nirman
ARWSP/Bharat Nirman
State Sector MNP*, HP*, TSP, SCP
Reorganization of SVS>20 Lacs
Apex Committee ** SWSM (SWAp)
Complex MVS > 20***
CCDU
Jal Sansthan
District Sector MNP,HP Re-org'n
Swaja TSC
PMU
Jal Nigam
JS Division
DWSM
JN Division Office
Reorganization of existing SVS <20 Lacs & support activities
Simple MVS up to CWR < 20 Lk - Support act.
Funds for SVS +MVS after CWR Maintenance catch up
G P
Community contribution
UWSSC
SVS
MVS
MVS
Abbreviations:
ARWSP Accelerated Rural Water Supply
CCDU Co-ordination and communication
CWR Clear water Reservoir
DWSM District Water and Sanitation Mission
GP Gram Panchayat
HP Hand pump scheme
JN Uttarakhand Peyjal Nigam
JS Uttarakhand Jal Sansthan
MNP Minimum Needs Program
MVS Multi village schemes
PMU Program management unit
SCP Special Component Plan
SVS Single village schemes
SWSM State Water and Sanitation Mission
TSC Total Sanitation Campaign
TSP Tribal Sub Plan
UWSSC User Water Supply and Sanitation Committee
* State sector MNP & HP will be covered in Swap from 4th year .At that time the funds will be routed through DWSM.
** SWSM sanctions funds flow but has no separate bank account
*** The figure of 20 Lakhs is subject to discussion and finalisation
Legend:
Direct Fund Flow
Fund Flow directly to DWSM, JS,PMU from GOI,GOUA but after sanction and intimation to SWSM

# Chapter 11

# Procurement System for the Sector Program

## 11.1 General

The aim of procurement is to obtain right quality of works, goods or services at reasonable and competitive prices giving equal opportunities to those individual/companies/ firms/manufacturers/builders who are capable to deliver the goods works and services. Procurement policy need also care to give incentive and encouragement for development of national entities, consultancy firms, manufacturers, contractors etc. Following are universally accepted and followed principle:

- Need for economy and efficiency
- Need for high quality services
- Fair opportunity to all eligible bidders
- Development of domestic contracting, manufacturing and consulting firms
- Transparency in procurement process

## 11.2 Procurement Plan

Procurement plan/schedule mentioning the description of work for goods, works and services with their value involved consistent with technically and administratively approved estimate is required to be prepared for the first year and subsequent years in accordance with the budgetary provisions. There after schedule of procurement to be finalized.

## 11.3 Methods of Procurement

Following methods will be used for different value and technology:-

### 11.3.1 Goods, Works and Services (Other than Consultancy Services):

- International Competitive Bidding (ICB)
- National Competitive Bidding (NCB)
- Limited Competitive Bidding (LCB)
- Shopping for goods (including use of rate contracts) and Civil Works
- Direct Contracting

### 11.3.2 Consultancy Services

- Quality and Cost- Based Selection (QCBS)
- Quality- Based Selection [QBS]
- Selection Under Fixed a Fixed Budget (FBS)
- Least- Cost Selection [LCS]
- Selection Based on the Consultants' Qualification (CQS)
- Single Source Selection (SSS)

### 11.3.3 Labours skilled / non skilled

- On daily wages (muster roll)

### 11.3.4 Proprietary goods

- Through Direct contracting the firm owning the brand.

### 11.3.5 Community Procurement

- Through market survey (Shopping)
- Through GP/ Beneficiary committee

## 11.4 International Competitive Bidding (ICB) and selection of Consultants for services where foreign consultants are on the short list

If their will be any ICB procurement, World Bank guidelines and Standard Bidding Documents/ Standard Request for Proposal for procurement as applicable be followed.

## 11.5 Delegation of Authority

| Particulars | Value | Competent Authority |
|---|---|---|
| Appraisal & Approval of DPR | Less than Rs. 20,00,000/- | Project Manager, DPMU |
| | More than or Equal to Rs. 20,00,000/- | Director, PMU |
| Approval for variation in rates at the time of procurement of individual items in DPR | If the rates are increased upto 10% | Project Manager, DPMU |
| | If the rates are increased higher than 10% | Director, PMU |
| Limit of Value of procurement for Goods Works & Services | Upto Rs. 5,00,000/- | Project Manager, DPMU |
| | Upto Rs. 50,00,000/-. | Director, PMU |
| | More than Rs. 50,00,000/- | Finance Committee, PMU |

## 11.6 Procurement Audit

Procurement Audit refers to post auditing of procurement files and documents relating to contracts for procurement of goods, works and consultancy services. It will be conducted by an independent agency along with Financial Audit. The TOR of Financial Audit will include sufficient points to cover issues on procurement by all stakeholders. Procurement Audit is basically carried out to ascertain whether the procurement procedures were correctly and completely followed, both in letter and spirit. It brings out omissions/commissions and lapses, whether on account of poor or inadequate understanding of the procedures or wilful negligence including likely fraud/corruption evidenced during the Audit. The report and observation of procurement audit, therefore, also serve as a guide for taking remedial measures to streamline and improve the procurement system. The TOR for the Financial and procurement Audit will be required to be cleared with the World bank before hiring the agencies.

## 11.7 Misprocurement

The goods, works and services that have not been procured in accordance with the prescribed procedures outlined in the Manual or other State Government Procedures, as the case may be, shall

be treated as misprocurement. The expenditure incurred on such procurement shall not be eligible for financing from the program funds.

## 11.8 Complaint Handling Mechanism

In order to deal with the complaints received from contractors/suppliers effectively, a complaint handling mechanism is available at both the national and state level. On receipt of complaints, immediate action is initiated to redress grievances. All complaints are dealt with at levels higher than that of the level at which the procurement process is being undertaken. Complaints and the allegations made in the complaints are thoroughly enquired into and if found correct, appropriate remedial measures are taken by the appropriate authorities.

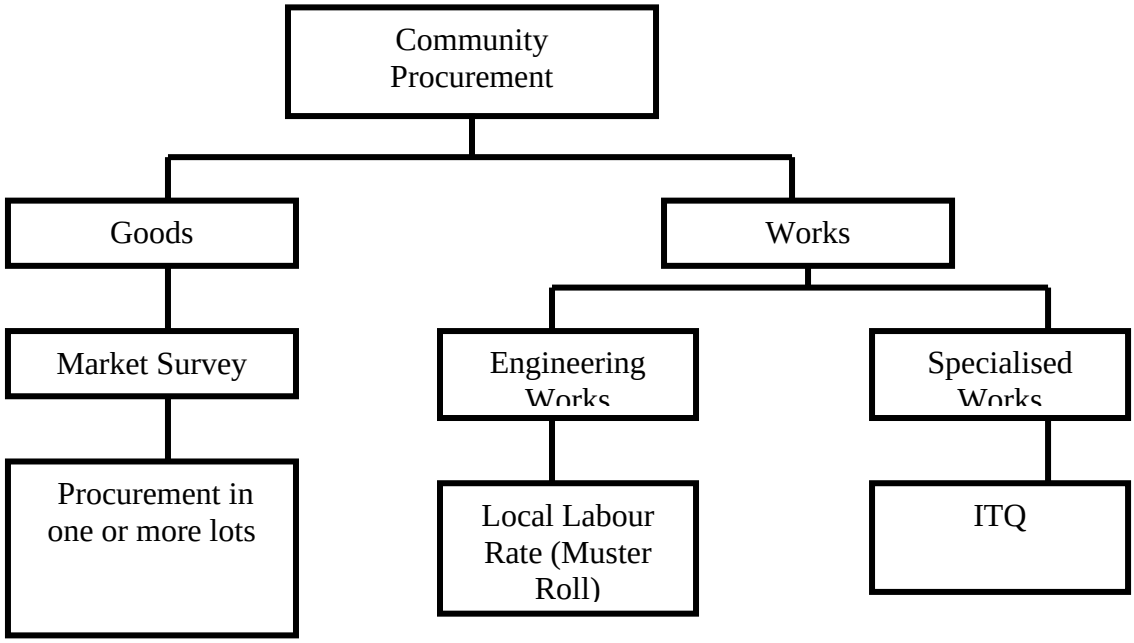
In cases where individual staff is found responsible, suitable disciplinary proceedings are to be initiated against such staff under the Civil Service Conduct Rules at national level or the Classification, Control and Appeals Rules at the State Level. The receipt of any illegal gratification by staff is to be considered as misconduct and results in disciplinary proceedings against such staff, in addition to penalties under the law.

The existing provisions under the law, the discipline and appeal rules and the powers of the Central Vigilance Commission are to be strictly followed to deal with the complaints of contractors/suppliers.

## 11.9 Community Procurement (Principles and Process Description)

The merits of this kind of procurement are: 'Ownership of the Community', 'command over the entire process', 'sharing the capital investment of the project by the community', and its 'Simplicity'. Though it is community-involved procurement, it does not compromise with the principle of competitiveness and transparency of the process. It is designed to suit to the capacity of the community in rural environment.

When implementing the Schemes by participation of community, the total requirement of procurement of goods shall preferably be done in more than one lot. Number of lots may vary from one or more lots depending upon the requirements over the next six months/1 year period and the capacity of the vendors/suppliers. Market Survey is the simplest method that should be undertaken by the community for the procurement of Goods and Materials. Procurement of 'Engineering Works' or other than specialized work would be done by hiring local labour. Specialised works such as Elevated Storage Reservoir (ESR) and Drilling will be procured through Invitation to Quote (ITQ). A schematic diagram depicting these methods is given below.




## 11.10 Procurement needs at community level:

The activities that are to be undertaken in project villages for the projects are:

- Construction of rural water supply schemes - Pumping/Gravity, Dugwell/Borewell
- Sanitation schemes
  - Construction of twin pit pour flush latrine
  - Drains
  - Compost pits
  - Soak pits
  - Garbage pits
- Construction of village roads

The project Frame Work envisages the User Community to procure goods, works and services in order to achieve the implementation of aforesaid activities. Institutional set-up for Community Procurement under the Project envisages the involvement of following entities in procurement of goods, works and services under the Project.

## 11.11 Procurement Plan

UWSSC shall prepare a Procurement Plan for the entire project cycle as stipulated in the DPR. The same may be split up into annual and quarterly plans for ease in fund allocation. The Procurement Plan for goods and works prepared in Format I and II of Procurement Manual respectively shall be approved by GP/DPMU prior to commencement of procurement processes.

## 11.12 Procedure of Procurement

### 11.12.1 Formation of Procurement Sub Committee (For Goods)

A three member Procurement Sub-Committee (PSC) shall be formed by UWSSC by nominating three of its members; one of them shall be female member, with the approval of general body of the user group in Proforma A of Procurement Manual and submit a copy of this resolution to GP and DPMU. The resolution shall also be recorded in UWSSC register. Support Organization shall

nominate one senior engineer for assisting the PSC as facilitator. Copies of such nomination shall be sent to GP, UWSSC and DPMU as per Proforma B of Procurement Manual.

## 11.13 Key Rules of Community Procurement

Transparency: All procurement procedures must be carried in an open and transparent and displaying all the details of procurement at prominent places in the villages.
Equal opportunity for all Suppliers: Equal opportunity must be given to all suppliers interested in supplying items to the UWSSC and uniform evaluation procedures must be adopted.

Accountability: Any office bearer or committee member of the UWSSC undertaking procurement function remains accountable for all decisions and actions taken. Losses, if any occurring to the UWSSC on account of the action of a member will be recovered from such member.

Ensuring Value for Money: Items procured should meet the required technical specifications and the quality standards, and the "best price"

Avoid procurement of items from Friends and Relatives: Procuring items from close relatives and friends of any of the office bearers of the UWSSC must be avoided.

No undue benefits for anyone: No members of the UWSSC shall accept directly or indirectly any undue benefits or advantage on account of a procurement action.

There should not be any distinction of wages between male and female workers (equal pay and other benefits).

## 11.14 Conflict of Interest

Enterprises of PSC members and their immediate relatives and PSC members themselves will be allowed to participate only in competitive bids. However with clear approval of PSC , single sources may be accepted from such sources only if it is only efficient source provided it is economical.

## 11.15 Authority for Procurement

Approved DPR as per prescribed procedure should be followed for procurement of goods, works and services in accordance with the Procurement Plan formulated for the entire project cycle as required and sanctioned in the Detailed Project Report. In case of any deviation from the sanctioned cost, approval of the competent authority should be obtained as described in Para. 9.5

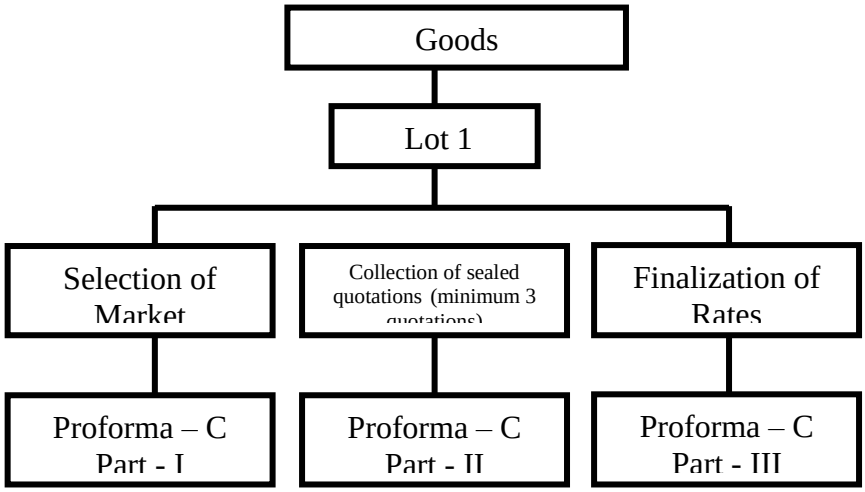
## 11.16 Procurement of Goods

Procurement of goods in appropriate amount and at the right time is essential for the completion of any project in scheduled time. Procurement at UWSSC level shall be through shopping in which the quantity of goods shall be purchased in such amount which are required immediately and minimizes the wastage due to lack of proper storage system and shall be done in following steps, for each lot :

- To obtain sealed quotations from Authorized Dealers in the selected markets (minimum 3 quotations )
- Opening of sealed quotations before UWSSC by PSC.

- Preparation of Comparison chart of rate quoted,
- Finalization of Rates and purchase order.

Steps to be followed for the purchase of Goods




## Evaluation and Comparison of Bids

The purpose of bid evaluation is to determine the cost to the UWSSC of each bid in a manner that permits a comparison on the basis of their evaluated cost. UWSSC shall determine whether the bidder whose bid has been determined to offer the lowest evaluated cost has the capability and resources to effectively carry out the contract as offered in the bid. The criteria to be met shall be set out in the bidding documents (ITQ), and if the bidder does not meet them, the bid shall be rejected. In such an event, the UWSSC shall make a similar determination for the next-lowest evaluated bidder. The bid with the lowest evaluated cost satisfying the criteria set out in the bidding documents but not necessarily the lowest submitted price, shall be selected for award.

The bid price read out at the bid opening shall be adjusted to correct any arithmetical errors. Also, for the purpose of evaluation, adjustments shall be made for any quantifiable nonmaterial deviations or reservations.

The evaluation and comparison of bids shall be on FOR (place of destination) prices and insurance to the place of destination excluding Sales tax.

The UWSSC shall prepare a detailed report on the evaluation and comparison of bids setting forth the specific reasons on which the recommendation is based for the award of the contract.

## 11.18 Resolution for Procurement of Goods

President UWSSC shall call general body meeting of the users. The recommendation of the procurement sub committee regarding purchase of materials as submitted in Proforma C-Part II of Procurement Manual shall be placed before the general body apprising the members, the details of recommendation. In accordance with the decisions taken in the general body meeting UWSSC

shall pass resolution related to purchase of materials in Proforma C (Part III) of the Procurement Manual.

## 11.19 Approval For Procurement of Goods

UWSSC shall submit all the related documents viz Market survey Proforma C part I, II & III, of Procurement Manual and all quotations to DPMU for approval and necessary action. DPMU shall examine rates quoted in quotations of materials along with resolution passed by the general body meeting of the beneficiaries and approve the procurement. If the proposed rates are unreasonable and exceeds the ceiling rates, it would be referred back to UWSSC for reconsideration. UWSSC would reconsider it in the light of objection made by DPMU and put up reconsidered/ received proposal for approval of DPMU. After approval of the procurement the DPMU shall transfer the fund to the value of purchase to UWSSC Bank account. The same procedure shall be followed for procurements of other lots of materials.

## 11.20 Procurement Order

After receipt of the comparative statement and related documents from DPMU, the UWSSC (assisted by procurement subcommittee in drafting) shall place purchase order in the form annexed with Appendix-1 of the Procurement Manual and copy of the order shall be sent to DPMU/SO.

## 11.21 Procurement of Specialized Works

Works like construction of elevated storage reservoir and drilling of tube wells require specialized technique and equipment which could only be procured through contractors having men, material, equipment expertise, skill and experience in this field. Community shall therefore procure these works as per method and threshold value given in the table.

## 11.22 Social Audit Committee

The Gram Panchayat will directly constitute a Social Audit Committee with five members for a period of two years.

The Committee members

- Should be respected in the community and on whom the poor have faith.
- Not immediately related to the GP members or UWSSC members.
- Should not be a member of any of the decision making committees
- At least three members should be from target population.

The Social audit Committee will perform the following functions:

- Ensure that all the committees follow Procurement Manual.
- Report any violation or deviation of rules to Gram Panchayat.
- Monitor the adherence of project principles and rules in selection of beneficiaries, implementation of sub projects and all decisions of UWSSC.

## 11.23 Procurement of Consultancy Services

### 11.23.1 General

Services are defined as providers of systematic organized activities that may carry out a training Program, workshop, IEC activities, feasibility studies, environmental studies, detailed design of structures, preparation of technical schemes, preparation of data, construction supervision of engineering works, advisory services etc.

Following considerations are generally followed in designing the procedures and guidelines for procurement of various services as described above.

I. Quality
II. Economy and efficiency
III. Opportunity to qualified experts
IV. Encourage and develop National/ Local Consultants
V. Transparency in selection process

The employer should first assess the need of assignment and then prepare the a Term of Reference and estimated cost consistent with objectives of the assignment so that cost of assignment may be estimated considering the fee and remuneration of specialist & support staff on man-months basis, reimbursable cost and miscellaneous expenses.

### 11.23.2 Contract Types for Procurement of Consultancy Services

Three types of contracts are currently in use for contracting services of Consultants as described below:

(a) A lump sum contract for assignments where scope of work, duration of work are clearly defined. Payment is indicated to be made upon delivery of outputs as specified. Such contracts are suitable for feasibility studies, detail design of civil structures etc.
(b) Time based: Assignments like construction supervision of engineering works, training assignments, advisory services etc. where scope of work and duration could not be defined are contracted on time-based type of contract where payment is decided to be paid at hourly, daily or monthly rate plus reimbursable expenses using actual expenses or agreed upon unit prices.
(c) Percentage contract: Architectural services, engineering services, procurement services etc are suitable to be contracted on percentage basis where payment is agreed upon with the Consultant to be paid at certain percentage of the actual cost of the project or goods as per market norm or standard practice in the industry.

### 11.23.3 Steps for Hiring Of Consultants

Steps taken for hiring of consultants under different methods are explained in the following paras and also listed in Appendix-III of Procurement Manual**.** In case of need, World Bank guidelines for procurement of consultancy services will be referred.

### 11.23.4 Procedure for procurement of consultancy services under different methods.

#### 11.23.4.1 Quality- and Cost-Based Selection (QCBS)

QCBS uses a competitive process among short-listed firms that takes into account the quality of the proposal and the cost of the services in the selection of the successful firm. Cost as a factor of selection shall be used judiciously. The relative weight to be given to the quality and cost shall be determined for each case depending on the nature of the assignment.
The selection process shall include the following steps:
(a) preparation of the TOR;
(b) preparation of cost estimate and the budget;
(c) advertising;
(d) preparation of the short list of consultants;
(e) preparation and issuance of the RFP [which should include: the Letter of Invitation (LOI); Instructions to Consultants (ITC); the TOR and the proposed draft contract];
(f) receipt of proposals;
(g) evaluation of technical proposals: consideration of quality;
(h) public opening of financial proposals;
(i) evaluation of financial proposal;
(j) final evaluation of quality and cost; and
(k) negotiations and award of the contract to the selected firm.

#### 11.23.4.2 Quality-Based Selection (QBS)

In QBS, the RFP may request submission of a technical proposal only (without the financial proposal), or request submission of both technical and financial proposals at the same time, but in separate envelopes (two-envelope system). The RFP shall provide either the estimated budget or the estimated number of key staff time, specifying that this information is given as an indication only and that consultants shall be free to propose their own estimates.

If technical proposals alone were invited, after evaluating the technical proposals using the same methodology as in QCBS, the Client shall ask the consultant with the highest ranked technical proposal to submit a detailed financial proposal. The Client and the consultant shall then negotiate the financial proposal[28] and the contract. All other aspects of the selection process shall be identical to those of QCBS, including the publication of the Award of Contract as described in above paragraphs except that only the price of the winning firm is published. If consultants were requested to provide financial proposals initially together with the technical proposals, safeguards shall be built in as in QCBS to ensure that the price proposal of only the selected firm is opened and the rest returned unopened, after the negotiations are successfully concluded.

#### 11.23.4.3 Selection under a Fixed Budget (FBS)

This method is appropriate only when the assignment is simple and can be precisely defined and when the budget is fixed. The RFP shall indicate the available budget and request the consultants to provide their best technical and financial proposals in separate envelopes, within the budget. TOR should be particularly well prepared to make sure that the budget is sufficient for the consultants to perform the expected tasks. Evaluation of all technical proposals shall be carried out first as in the QCBS method. Then the price proposals shall be opened in public and prices shall be read out aloud. Proposals that exceed the indicated budget shall be rejected. The Consultant who

has submitted the highest ranked technical proposal among the rest shall be selected and invited to negotiate a contract.

#### 11.23.4.4 Least-Cost Selection (LCS)

This method is only appropriate for selecting consultants for assignments of a standard or routine nature (audits, engineering design of noncomplex works, and so forth) where well established practices and standards exist. Under this method, a "minimum" qualifying mark for the "quality" is established. Proposals, to be submitted in two envelopes, are invited from a short list. Technical proposals are opened first and evaluated. Those securing less than the minimum qualifying mark are rejected, and the financial proposals of the rest are opened in public. The firm with the lowest price shall then be selected. Under this method, the minimum qualifying mark shall be established, understanding that all proposals above the minimum compete only on "cost." The minimum qualifying mark shall be stated in the RFP.

#### 11.23.4.5 Selection Based on the Consultants' Qualifications (CQS)

This method may be used for small assignments for which the need for preparing and evaluating competitive proposals is not justified. In such cases, the Client shall prepare the TOR, request expressions of interest and information on the consultants' experience and competence relevant to the assignment, establish a short list, and select the firm with the most appropriate qualifications and references. The selected firm shall be asked to submit a combined technical-financial proposal and then be invited to negotiate the contract.

#### 11.23.4.6 Single-Source Selection (SSS)

Single-source selection of consultants does not provide the benefits of competition in regard to quality and cost, lacks transparency in selection, and could encourage unacceptable practices. Therefore, single-source selection shall be used only in exceptional cases. The justification for single-source selection shall be examined in the context of the overall
interests of the client and the project, but economy and efficiency should ensure and provide equal opportunity to all qualified consultants.

Single-source selection may be appropriate only if it presents a clear advantage over competition: (a) for tasks that represent a natural continuation of previous work carried out by the firm (see next paragraph), (b) in emergency cases, such as in response to disasters and for consulting services required during the period of time immediately following the emergency, (c) for very small assignments (less than Rs. 10,00,000), or (d) when only one firm is qualified or has experience of exceptional worth for the assignment.

## 11.24 Procurement Of Services Of Individual Consultant

For hiring of consultant job description, qualification and experience required and terms of engagement should be finalized. The consultants for the assignment must be called through advertisement in the newspaper. Individual should meet all relevant qualifications and should be fully capable of carrying out the assignment. The qualified individuals will be called for interview/discussions prior to offering the assignment. Capability of the individual Consultant shall be assessed on the basis of academic background, experience and having appropriate knowledge of local conditions such as local language, culture, administrative system of govt. organization etc. Based on the above a list of candidates shall be prepared for each assignment separately and the top listed candidate shall be offered the job.

## 11.25 Procurement Of Services Of NGO

### SHORTLISTING OF NGOS

Short listing of NGOs shall be based on the criteria given below:

#### 11.25.1 Regulatory requirement

- NGO should be validly registered under Societies Registration Act of the Govt.
- NGO should be validly registered to work in the particular geographic locality
- NGO's Article of Association or Bye laws permit, operation in the project sector
- NGO should be non political

#### 11.25.2 Human and physical measures

- Committed leadership at the top supported by adequate service level leadership
- Existence of adequate skilled staff in relation to needs of the assignment
- NGO should have necessary physical resource base like accessible office space, vehicles, communication facilities and so on.

#### 11.25.3 Community Sensitivity

- NGO should have prior experience of community development activities and mobilization
- NGO should have sufficient understanding of local problems and are sensitive to issues concerning women and weaker sections of society
- Should have keen understanding and should be sensitive to works related to environment
- Should have excellent communication skill

#### 11.25.4 Financial Capacity

- Should have required financial strength and stability
  (Last three years turn over and audited balance sheet should be examined)

#### 11.25.5 Relevant Sectoral and operational experience

- Should have prior experience in related sectors
- Should have adequate experience in Participatory Rural Appraisal
- Must have been functioning for least three years in the similar type of assignments.

RFP should be issued to shortlisted NGOs and their bids are obtained for the concerned services. Technical and Financial Proposals are evaluated and contract agreement signed after following the same procedure as for other consultants. Where large areas are involved for conducting IEC and community mobilization the requirement of number of NGOs may fall short of their availability. In such case single source selection of methods may be resorted to as described above.

## 11.26 Procurement of Works, goods and services (Other than consultancy services) at PMU & DPMU Level

### 11.26.1 Procurement Cell

The procurement at PMU, DPMUs and UWSSCs level needs to be closely supervised and monitored at each stage of procurement. In order to ensure transparency and reasonable of procedure, timely supply of goods and services, the project within the stipulated period, established a Procurement Cell at PMU. The Procurement Cell will comprise of Director, PMU as its Chairman. He shall nominate six members, one Additional Director, one Finance Controller, one Procurement Specialist, one from engineering unit and two Project Managers from Districts. The Finance Controller shall function as Convener/Secretary of the Cell. The procurement cell will guide and monitor the process of procurement of all goods, works and services required under the Project. It will be responsible for dissemination of information and the trainings required for procurement.

### 11.26.2 Procurement Committee

PMU shall form a procurement committee at its own level for procurement comprising Director, PMU as its Chairman, Finance Controller, and two Unit Coordinators. The Finance member shall function as Convener/Secretary of the committee. The procurement committee at PMU shall process and monitor procurement of all goods, works and services including consultancy services required under the project. Procurement committee at PMU level shall have the decision making power up to Rs. 50 lacs in matters of Procurement of goods, works and services. Director PMU shall have financial power to invite tender upto Rs. 50 lacs at a time for procurement of goods, works and services in accordance with availability of funds. The Finance Committee of PMU consisting Secretary, Drinking Water as Chairman and other member as mentioned in Memorandum of Association of PMU, shall be the decision-making committee in all matters of procurement of goods, works and services exceeding Rs. 50 lacs.

### 11.26.3 Procurement Plan

Procurement Committee shall prepare a procurement plan/ schedule which will indicate contract wise procurement of goods, works and services for the year keeping in view the availability of funds in accordance with budget provision of the year and also for subsequent year consistent with future requirement. The plan shall be scheduled according to priority as fixed by the committee. The prioritized procurement schedule shall be estimated item-wise value of each contract displayed in the prescribed format (Format III and IV or use World Bank formats) The committee shall finalize the mode of procurement from its value threshold as given in the table at the end of the Chapters. If the value of procurement plan is up to Rs 50 lacs rupees, Director PMU shall invite tenders for procurement. In case the value exceeds Rs 50 lacs the list of procurement plan shall be submitted to finance committee for approval. After approval of the Finance Committee, Director PMU shall call for tender for procurement purposes.

### 11.26.4 Rate Contract

Availability of Rate Contracts of DGS&D / State Govt. may preferably be operated for speedy procurement of goods as per procedure outlined below:

### 11.26.5 Procurement at DPMU Level

Procurement at DPMU level for goods, works & services shall be carried out under delegated powers of PMU. However procurement committee shall be constituted at DPMU level consisting of project manager of DPMU as the Chairman and he shall nominate one member from accounts section and one from engineering section.

### 11.26.6 Powers for Procurement of Goods, Works And Services

Upto Rs. 5,00,000 – Project Manager DPMU
Above Rs. 5,00,000 - with approval of Director, PMU.

### 11.26.7 Power of Approval of Award Of Contract

Power for award of contract shall rest with Director PMU. DPMU shall process the tender documents and send the comparative statement alongwith all the paper s with their recommendation to Director PMU for approval of award of contract.
After approval by Director, PMU, Project Manager DPMU shall properly enter into agreement with the tenderer. The process of tendering shall be followed as per procedure outlined in Chapter IV & VI of the manual.

### 11.26.8 Threshold Values

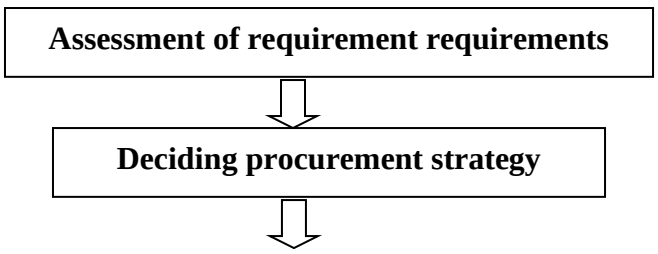
Threshold value for works and goods under different methods of procurement is given below:

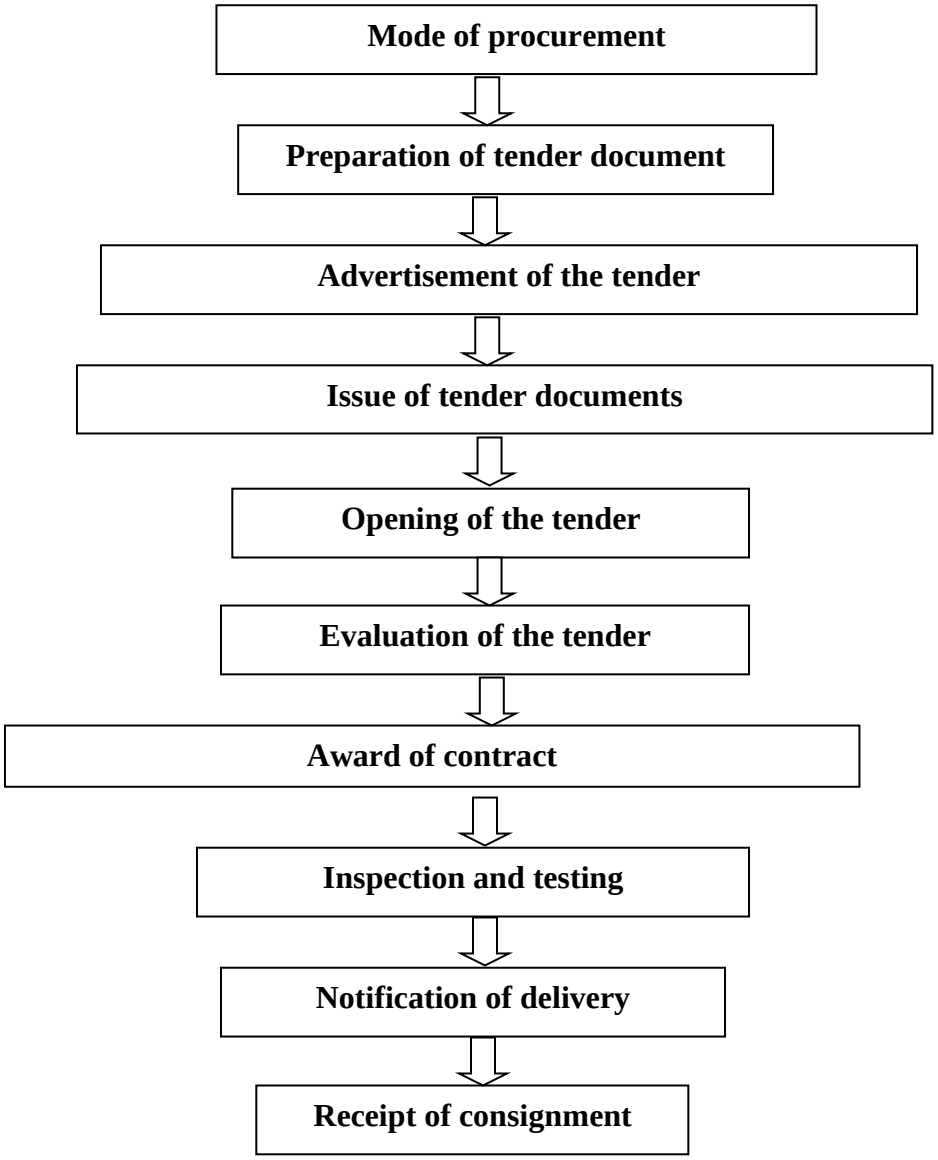
- ICB, contracts above US $ 10 million (INR 45 crore approx) for works and US $ 200,000(INR 90 lakhs approx) for goods in each case.
- NCB, contracts up to US $ 10 million (INR 45 crore approx) for works and up to US $ 200,000 (INR 90 lakhs approx) for goods in each case.
- Limited Competitive Bidding/Shopping, contracts up to US $ 100,000 (INR Rs 45 lakhs approx) for works and goods in each case.
- Direct Contracting, proprietary items, such as spare parts, software, books, periodicals etc. up to US $ 10,000 (INR 4.5 lakhs)equivalent per contract meeting requirements stated in the Procurement Manual and petty items costing up to US $ 1,000 (INR 45000) per contract may be procured through direct contracting.

## 11.27 Procurement Steps

The procurement procedure broadly consists of the following Steps:

**PROCUREMENT STEPS**






## 11.28 Procurement Policy And Procedures In The Water Supply Sector For Uttarakhand Pey Jal Nigam & Uttarakhand Jal Sansthan

An organized system exists in the Uttarakhand Peyjal Nigam & Uttarakhand Jal Santhan for the procurement of goods, works & services based on rules and regulations of the state government as enunciated in the financial hand books of the state of U .P. (Adopted also by GoUA) as modified from time to time by GOs' on the relevant subjects. The procedures followed are more or less the same as that of the state Public Works Department. Sector Institutions will follow their existing procurement procedures, as applicable for procurement of goods, works and services (other than the Consultancy services) under the program, subject to following provisions for new investments (SWAp basket) in the Rural Water Supply and Sanitation sector:

1. Equal opportunity to all eligible bidders without regional preferences and all the bidders have the same information to compete in providing goods and works. Foreign bidders will not be precluded from bidding against NCBs issued. NCBs for procurement of works may require the bidders to offer bid prices in local currency.

2. No preference shall be given to any bidder other than domestic preference in case of ICB. The Sector Institutions shall select the most appropriate method for the specific procurement as given below::

   - ICB, contracts above US $ 10 million (INR 45 crore approx) for works and US $ 200,000(INR 90 lakhs approx) for goods in each case.
   - NCB, contracts up to US $ 10 million (INR 45 crore approx) for works and up to US $ 200,000 (INR 90 lakhs approx) for goods in each case.
   - Limited Competitive Bidding/Shopping, contracts up to US $ 100,000 (INR Rs 45 lakhs approx) for works and goods in each case.
   - Direct Contracting, proprietary items, such as spare parts, software, books, periodicals etc. up to US $ 10,000 (INR 4.5 lakhs)equivalent per contract meeting requirements stated in the Procurement Manual and petty items costing up to US $ 1,000 (INR 45000) per contract may be procured through direct contracting.
   - Community Driven Procurement, the procedures are described in the Procurement Manual.

3. Bids will not be rejected at the sole discretion of any authority. Reason of rejection must be disclosed to the bidders.

4. There will be no requirement of registration with State Departments/ Sector Institutions beyond the Limited Competitive Bidding (LCB)/ Shopping limit of Rs 45.00 lakhs for works and goods. However sector institutions will ensure that the process of registration is open and only the firms that meet the criteria shall be registered for Limited Competitive Bidding.

5. Award of contract shall be made to the lowest evaluated responsive bidder, who is qualified and capable to perform and not necessarily to the lowest bidder.

6. The result of bidding process shall be disclosed to all bidders, through details placed on the website. Reason for rejection of bids shall be given to the bidders.

7. Bidding documents shall state either that (a) bid prices will be fixed or (b) that price adjustments will be made to reflect any changes (upwards or downwards) in major cost components of the contract, such as labor, equipment, materials, and fuel. Price adjustment provisions are usually not necessary in simple contracts involving delivery of goods or completion of works within eighteen months, but shall be included in contracts, which extend beyond eighteen months. Prices may be adjusted by the use of a prescribed formula (or formulae) which breaks down the total price into components that are adjusted by price indices specified for each component provided by the supplier or contractor. The method to be used, the formula (if applicable), and the base date for application shall be clearly defined in the bidding documents. If the payment currency is different from the source of the input and corresponding index, a correction factor shall be applied in the formula, to avoid incorrect adjustment. The Sector Institutions will be required to prepare and finalize the sample bidding documents for NCB, after review of the draft by the Bank, so as to ensure appropriate incorporation of the observations contained in this Chapter. The possibility of use of banks' standard bidding document will be explored.

8. No exemption will be given to any organization, from submission of Earnest Money or Bid Security Deposit, as this, amounts to unfair advantage to the beneficiary of such exception.

9. Works contracts shall be awarded to competent and capable contractors and the contractor shall be responsible for supply of all materials. No materials shall be transferred by the employer either on free issue or on issue rate basis. Contractor will not be forced to procure materials from any specified firms or agencies. For this purpose, Sector Institutions will include in the Bidding Documents, clear and elaborate Specifications and provisions relating to Inspection for the purpose of ensuring Quality Control and Testing Facilities for compliance with the Specifications. .

10. The following provisions shall also apply and shall be suitably incorporated in the Bidding Documents for bids invited on NCB basis:

    i) Invitations to bids shall be advertised in at least one widely circulated national daily newspaper, at least 30 days prior to the deadline for the submission of the bids.
    ii) No special preference will be accorded to any bidder either for price or for other terms and conditions when competing with foreign bidders, State owned enterprises, small-scale enterprises or enterprises from any given State.
    iii) There shall be no negotiation of price with the bidders, not even with the lowest evaluated bidder without prior clearance of the Bank.
    iv) Re-bidding, if required for reasons whatsoever, will be resorted to only after prior clearance of the Bank.

11. For the purpose of engaging services of consultants, the procedure, as outlined in the Chapter III of the Procurement Manual, shall be followed.

12. The Multi Village Schemes (MVS) may be divided into components of works by their nature and specifications which can be given as separate contracts to different contractors based on technical parameters.

# Chapter 12

# Catchment Area Conservation and Management Program

## 12.1 Management Measures for Source Protection and its Sustainability

Source protection and its sustainability have been identified as a priority area of intervention under the environment component of the proposed project. Various interventions have already been demonstrated in Swajal project's micro-catchment treatment options for source protection and recharge of the local aquifer. The PMU intends to upscale similar type of interventions under the proposed project. The sources include perennial spring water, stream water and uncontaminated shallow and deep aquifers that can be tapped for single/ multi village based piped water supply schemes.

According to the environmental analysis study, every village in Uttarakhand hills has few perennial water sources in the form of natural springs. Therefore, most sub-projects are likely to tap only spring water as the key water supply source for the single/ multi village schemes. Given the fact that 75% of rural population in the state depends on spring water sources for drinking and cooking, the project needs to develop systematic/controlled spring water management norms within the community – so that the very purpose of this source protection is not defeated. A detailed plan for forest land transfer **(Annexure 32)** and cost for source centered treatment works is stated in the **Annexure-33**. However, the following steps are some of the key steps required for planning and execution for source protection and its sustainability:-

**Step-1:** The source centered Catchment Area Plan is to be implemented in phases involving identification and assessment of source catchment, creating a baseline database for the source catchment, delineation of zones for treatment within the source catchment and prioritization of issues and interventions. The planning and execution will involve three stages of interventions; 1) technical intervention plan, 2) cost estimation plan, 3) and a monitoring plan. While the SO, GP and other resource agency will provide technical support for developing and finalizing these plans, the management and implementation remains the responsibility of the UWSSC.

**Step-2:** A Planning phase agreement will be signed between Support Organization/GP, DPMU and UWSSC. The agreement will clearly define the description of activities to be performed during the planning phase. The agreement will have provisions for source catchment assessment, problem identification, catchment area identification and zonation. The provision for the manpower and cost required for the various activities to be performed will also be part of the planning phase agreement. The outcome of the planning phase will be the Detailed Environmental Project Report (DEPR). The Plan Formulation and Source Centered Catchment Area Conservation and Management Program will be depicted in the DEPR.

**Step-3:** The ES of the DPMU will ensure that the UWSSCs and SOs selected for implementing the sub-project activities follow the guidelines developed under the environmental mitigation plan. It will also ensure that the source protection work start before the onset of monsoon. As part of the implementation process, the UWSSC in coordination with the local SO will need to submit a technical and a financial report (stating key activities expected to be undertaken by UWSSC for source catchment treatment). The technical report should include all environmental concerns: availability of water sources, measures for source protection, technical support required from GP and DPMU, type of support required from the line departments during the construction and

operation of the catchment treatment plan for source protection, water quality monitoring strategy and emergency (contingency) plan for any environmental crisis during the operation. This activity can also be clubbed with water supply scheme plan.

**Step-4:** Based on the technical report, the ES at the DPMU will undertake a quick appraisal of the proposed environmental management plan (EMP) validating the technical report. Based on ES report, the DPMU will directly release the budget to the UWSC for implementing the EMP. The DEPR will be implemented through provisions of the Implementation Phase Quadrapule Agreement (IPQA), signed between the DPMU, SO and the UWSSC. The DEPR will be the integral part of the IPQA. The outcome of the IPQA will be the successful implementation of the DEPR.

**Step-5**: An external independent service agency will be placed to supervise the progress of the implementation. The Agency will be required to monitor the monthly progress and provide technical support and guidance to the GP/UWSSC. The agency will be also responsible for the quality of the work under implementation.

## 12.2 Management of Large scale degradation in mini-catchment areas

In view of the large-scale degradation of the catchment, the project has made a conscious attempt to ensure that each sub-project is adequately supported by a small micro-mini-catchment treatment plan. This includes contour/terrace-bunding, creation of percolation tanks, plantation/grass land development on village forest and reserve forestland including percolation/recharge pits and drainage treatments. While the catchment area for recharging any spring/stream sources would require a larger intervention in a micro-catchment, the project intervention would focus on a limited scale (focus on micro-mini-catchment) and the remaining watershed interventions would be dovetailed with other line department activities. Catchment treatment to be carried out at the sub project level is expected to include treatment of an average of 5 Ha of forest/community/private land around the source as part of the source protection measures (detailed cost and technical specifications for different catchment treatment interventions are provided at Annex-2). However, for long-term sustainability of the schemes located in critical watershed areas, the PMU shall coordinate with the Forest Department & Watershed Management Department of GoUA to implement larger interventions in these areas. Key management steps required to treat a mini-catchment of the source, include the following, for which ECOPs for Identification of Sources of Water Supply; Protecting Surface Water Supply Source and Ensuring Sustainability; and Protecting Ground Water Supply Sources and in Ensuring Sustainability may be referred. **(Refer ECOPs)**

1. Protecting the catchment area from grazing animals.
2. Rotational Grass cutting (for fodder) may be permitted in line of rangeland management as appropriate in the catchments.
3. Check-daming and gully plugging would be done in gully formations of micro-mini-catchments.
4. Staggered contour trenches with grasses would be made around source for its protection.
5. Locally suitable plants and useful brushwood (as Rhus, Carissa, Debregeasia etc.) would be planted in each trench.
6. Plantation of multipurpose trees (1000 trees/ ha.) will be encouraged - mainly locally suitable broad leaved species as Oak, Horse chestnut, walnut, mulberry etc.

## 12.3 Management of Uncontrolled and over grazing in catchments

Another perceived environmental risk for source protection includes the grazing and fuel wood extraction pressure on the source catchment. Considering that the livestock has been an integral part of the existing livelihood system, the sub-project will encourage stall-feeding practices and reduce grazing pressure on the catchment areas through various community mobilization interventions.

Over grazing can be controlled by encouraging people to keep few high-yielding variety of cattle. Proper grazing management activities would be encouraged in line of close and open rangeland management practices. Besides this, the carrying capacity of grazing land can also be improved by promoting plantation of good quality of grasses, legumes of higher fodder value and making staggered contour trenches to improve the moisture regime. This would also include encouraging people to use crop residue as fodder through a collective effort at the village level. The project plans to have extensive community mobilization action by using support agencies for creating such awareness activities.

## 12.4 Management for Fuel wood pressure

A preliminary assessment suggests that fuel wood is primarily collected from the catchments that are having rich biomass base and are also having the sources for water supply schemes. In light of this, the project has made provision for creating awareness for alternative energy campaign (promoting LPG) for cooking and stall-feeding for livestock. While the program does not intend to undertake any capital intensive hardware intervention, software intervention in the form of campaign advocacy for reducing fuel wood pressure includes the following steps.

1. Promotional camps for LPG in coordination with private companies would be undertaken in each sub-project areas.
2. Encouraging/promoting biogas plants in sub-project areas.
3. The project would be promoting wood saving devices (Priyagni Angethi, Smokeless Chullah) and alternate source of energy (solar) in collaboration with other line departments.

## 12.5 Institutional Arrangements for Catchment Area Works

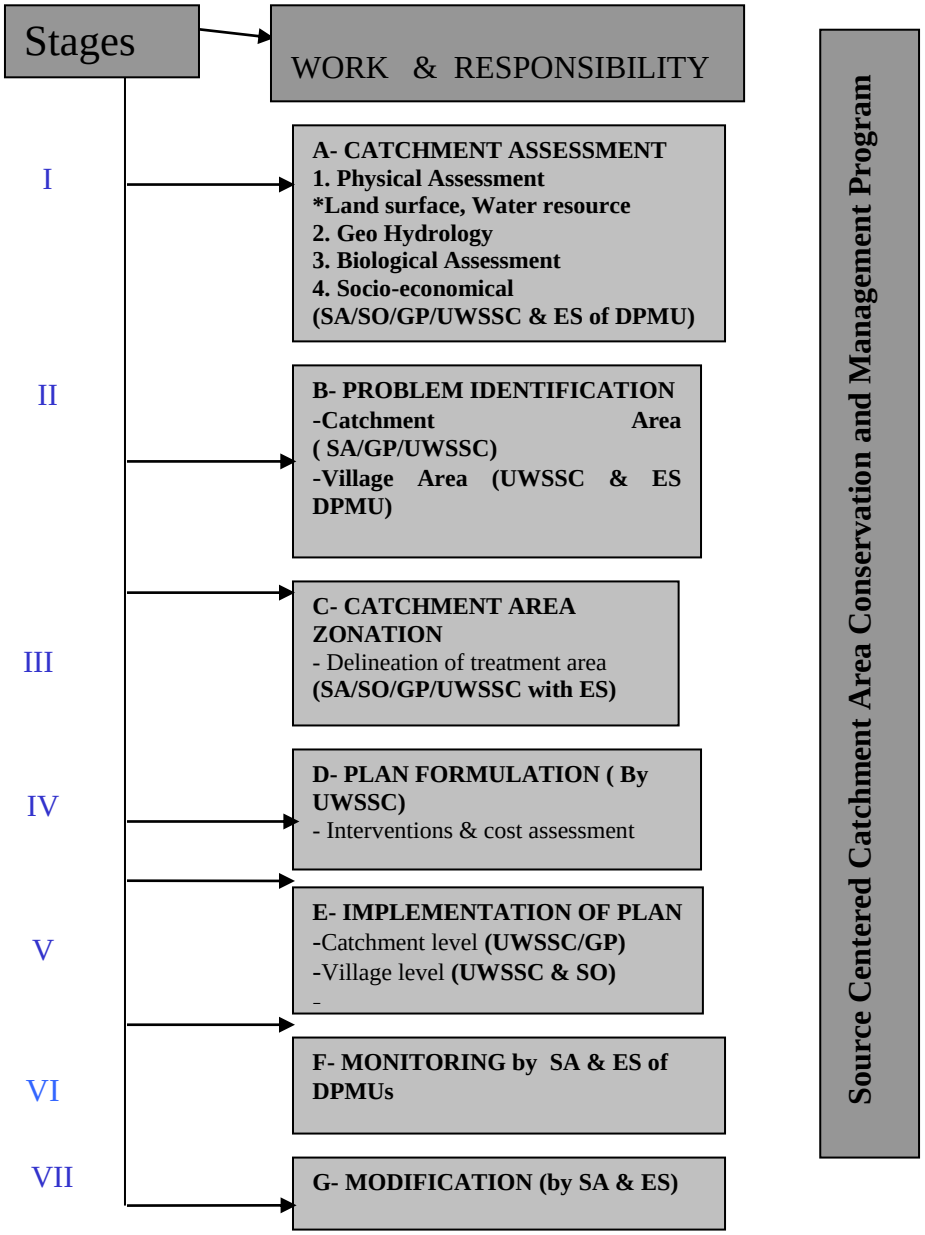
Under this project, the State Water and Sanitation Mission (SWSM) is the implementing agency with the overall project management support provided by the PMU. The PMU will consist of resource people from different disciplines and government departments and will be responsible for managing the entire project. They will be supported by the District Project Management Units (DPMUs) at the district level. The PMU will nominate one of its members as “Environment Coordinator” (EC) for being exclusively responsible for ensuring the implementation of EMF in all the single/multiple village water supply schemes. S/he shall be the overall in-charge of implementing and coordinating the activities under the EMF of the project. An Environment Specialist (ES) at PMU level will support the EC at the state level. The DPMU as the district nodal agency will decide on the allocation of the core responsibility and ensure coordination between the Gram Panchayat (GP) and the User Water and Sanitation Sub Committee (UWSSC) for better environmental management and mitigation of the adverse impacts. An Environment Specialist will be appointed at the district level for proving regular technical and monitoring support to each of the schemes. At the village level, the UWSSC will be implementing the project

with support from a local support organization (SO). The SOs could be an NGO/CBO, a technical institution or individuals having necessary technical skills. The Roles and Responsibility of various Stakeholders for the management of Environmental Issues are given in the table below:-

**Roles and Responsibility Of Stakeholders For Management of Environmental Issues**

| Key Responsibility | Planning Stage | Implementation Stage |
|---|---|---|
| **PMU** | ▪ Overall environmental planning for state in line of EMF<br>▪ Coordination with line department for micro-catchment development<br>▪ Developing advocacy and communication strategy for promoting LPG and stall feeding | ▪ Timely release of fund for DPMU<br>▪ Ensure that line departments take timely supportive action in the micro-catchments for source protection is needed<br>▪ Integrate environmental monitoring result into common MIS of the project |
| **DPMU** | ▪ ES will coordinate with GP, SO and UWSSC for finalizing interventions required for source protection<br>▪ Ensure timely release of fund to the UWSSC, validate technical proposal for source protection<br>▪ ES of DPMU will help in finalizing the work plan agreement between UWSSC, GP, SO and DPMU | ▪ Help preparing district's environmental monitoring report.<br>▪ Continuous monitoring and supervision<br>▪ ensure that the interventions needed for source protection must start before the onset of monsoon |
| **GP** | ▪ Helps UWSSC in preparing the environmental plan at the village level.<br>▪ Help UWSSC in identifying credible SO for planning of the source protection work | ▪ Coordinate with UWSSC for financial management and finalizing cost contribution mechanism for source protection work<br>▪ Help UWSSC in LPG and environmental sanitation campaign work |
| **SO** | ▪ Help UWSSC in planning the entire source protection and sustainability work | ▪ Help UWSSC in implementing source protection work<br>▪ Provide technical input to UWSSC while executing the source protection work<br>▪ Coordinate with, UWSSC, GP and ES for monitoring the entire source protection work |
| **UWSSC** | ▪ Assess the environmental risk in village meeting<br>▪ Plan the mitigation measure with the help of SO and GP | ▪ Implement the environmental mitigation measures<br>▪ Ensure cast-sharing norms are implemented for source protection work<br>▪ Monitor the entire process and give continuous feed back GP and ES |
| **Line** | ▪ Coordinate with PMU once Water | ▪ Ensure timely implementation of |

| Key Responsibility | Planning Stage | Implementation Stage |
|---|---|---|
| **Departments (Forest & Watershed)** | schemes are finalized (particularly for catchment treatment work) | the catchment treatment interventions in conjunction with the Project work |



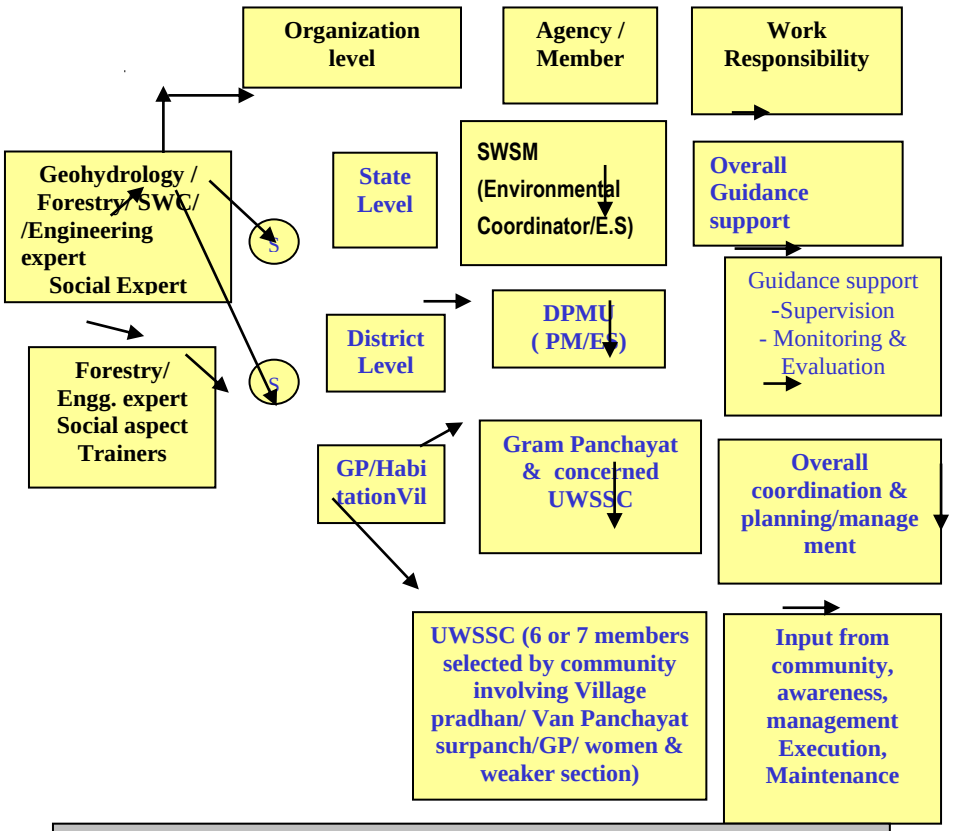

## 12.6 Monitoring and Performance Tracking of Source Centered Catchment Area Conservation and Management Program

In order to evaluate the efficiency of mitigation measures the monitoring will focus on the two types of observations in the sub-project areas; 1) visual observation of overall environmental conditions and, 2) monitoring specific environmental quantitative/qualitative parameters. Project design is purposefully flexible to encourage a variety of approaches. It was agreed that the project design will need to allow for rapid learning and replication. At the same time, it is important to learn as systematically as possible from these interventions. The M&E component would be designed accordingly. The M&E system will permit to learn from the variety of approaches

adopted during proposed project so that the lessons learned can subsequently be fed back into the project.

The objective of the monitoring Program is to assess the efficiency of mitigation and enhancement measures suggested in the EMF and adoption of additional mitigation measures if necessary, for improving the environmental conditions in the project area, particularly, for improving source g. Source centered catchment area conservation and management plan requires a balanced approach with integration of various biological, engineering and social components in the three tiers Panchayati Raj system. The catchment area also involves active participation of different stakeholders in planning, execution, supervision and monitoring. The proposed monitoring flow chart **(below with indicators**) is developed with the objective of effective monitoring and evaluation at different stages of program by involving the state level, district level and GP level organizations, which will be supported by service agencies and SOs. The monitoring plan will facilitate phase wise monitoring of activities by different agencies involved in plan execution.

MONITORING PLAN




***Environmental Monitoring Indicators***

1. Source Discharge (lpm).
2. Natural Regeneration in the area (No/ha).
3. Plant survival rate/regeneration in percentage.
4. Households adopting stall feeding practices.
5. Number of Households using LPG/other sources for cooking & heating.

## 12.7 Fund flow arrangements for the implementing/mitigating source centered catchment area treatment work :

The fund flow and accounting arrangements for new investments under the SWAp basket will be as per the Financial management manual.

# Chapter 13

# Environment Management Framework

## 13. Environment Management Framework (EMF)

Environment Management Framework (EMF) is a roadmap, which shows how the key environmental issues would be identified, assessed, managed and monitored by the Program Implementing Agencies for incorporation of environmental management measures into the main program planning, execution, operation & maintenance. It lays down a step-by-step methodology for activities that have to be undertaken parallel to the engineering and institutional intervention measures of the main program. It contains relevant matrix and checklists to be utilized for the above-mentioned works. It also elaborates framework and action plans, for various environmental key issues like water quantity, water quality, environmental sanitation, institutional arrangements, fund-flow mechanism, screening processes and environmental monitoring that need to be addressed.

For EMF preparation, various studies undertaken by the Project Management Unit have been consulted. Public disclosure of the Environmental Management Framework (EMF) in context of Sector Wide Approach in RWSES sector, was done in two workshops held on 17th May,2005 and 17th June,2005.

## 13.1 Major Environmental Issues

In Uttarakhand, sustainable development of water resource is full of complexities. The problem of water in the state can be summarized as *"**Water an abundant, yet scarce resource**"*. Though the state gets abundant rainfall, yet complex topography, geology, high seasonal variations in precipitation and runoff, steep & inaccessible slopes, changing land use in the watersheds, population pressure, degradation of land & forests, are some of the factors, which place tremendous constraints on the development of water resources. In addition, non-availability of time-series data of different watersheds of the region, pose a major problem. All these combined together make, sustainable management of water resources, a challenging task, in hilly areas.

The environmental issues that are significant for rural water supply sector and the proposed program (based on SWAp) are, water quantity, water quality and environmental sanitation. Together with this, the program specific issues are (i) Impact on down stream ecosystem and settlements, (ii) Impact on ecological resources, (iii) Impacts on land-use and topography & (iv) Impact due to inadequate environmental sanitation.

The sector-wide issue of water quantity can be managed by controlling the factors like degradation, uncontrolled & over grazing as well as increasing fuel-wood pressure on the Catchment Areas. The issue of water quality, to a great extent, is manageable through promotion of environmental sanitation concepts and regular water quality monitoring programs at state, district and village levels.

The procedure for tackling the sector issue of water quantity would involve the participation of line departments like Forest, Watershed Management, Soil & Water Conservation, Rural Development and Panchyati Raj, which are presently taking up forestation, soil & water conservation activities on a large scale through different programs and funding agencies.

Community participation is mandatory, in all these activities. In the proposed program, Catchment area treatment works, involving local communities, are been proposed in mini- catchments of nearly 5 hectare area only, especially for protection of water supply structures and awareness creation. The issue of water quality at the sector level would be tackled through a separate program, being planned for the State. For the proposed program, easy and cost-effective water quality testing methods would be propagated along with awareness program. For effective implementation of the project in a sustainable manner, inter-departmental support will be essential. The details of various environmental issues are given. The support structure for major environmental issues is given in the **Table 13.1** below: -

**Table 13.1 - SUPPORT STRUCTURE FOR MAJOR ENVIRONMENTAL ISSUES**

| S. No | Environmental Issue | Issue Details | Recommended Management Measures | Supportive Agency |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1 | Water Quantity | ▪ Problem of water shortage during summer due to reduced water discharge | ▪ Search to tap new sources (Hydro-geological studies will help)<br>▪ Non-drinking water needs can be met by minor irrigation channels or streams flowing near-by<br>▪ Rain water harvesting<br>▪ Promote source sustainability by improving water recharge activities in the catchment area by engineering (check dams, trenches etc.) and biological (planting etc.) measures | GP/ GD<br>FD/ PMU/WSM |
| 2 | Water Quality | ▪ Water quality, specially coliform infestation in monsoon | ▪ Test by H2S strip (Water testing by laboratories will help)<br>▪ Boil water for drinking purposes or use chlorine treatment | PHC/ GP/ PMU/PCB |
| 3 | Environmental Sanitation | ▪ Lack of household/ community latrines, non-availability of adequate water supply to promote individual/ community latrines and incorrect/ improper use and proper maintenance of existing latrines | ▪ Effective and sustained training Programs to generate demand for household latrines/ ownership based group latrines/ community latrines and their proper and regular use and maintenance | PJN/ GP/ PHC |
| 4 | Solid Waste Management | ▪ Accumulated Biodegradable waste, animal dung | ▪ Make and use compost pits<br>▪ Vermiculture/ organic farming be promoted<br>▪ Biogas units be installed | PJN/ GP AD |

| S. No | Environmental Issue | Issue Details | Recommended Management Measures | Supportive Agency |
|---|---|---|---|---|
| | | ▪ Accumulated non-biodegradable waste | ▪ Make and collect in garbage pit<br>▪ Sort and sell it to the garbage collector<br>▪ Non-metallic waste can be incinerated | PJN/ GP/DPMU |
| 5 | Drainage System | ▪ Stagnation of household waste water creating water logging | ▪ Paving of village roads and laying of drains for effective disposal of sullage and storm water<br>▪ Community participation in village cleanliness activity be encouraged | GP/ RED/DPMU |
| 6 | Catchment Area Protection | ▪ Over grazing | ▪ Stall feeding<br>▪ Pasture improvement and management be encouraged | AHD/FD/DPMU |
| | | ▪ Over exploitation of fuel wood | ▪ Promote LPG/ Kerosene/ Biogas<br>▪ Increase vegetative cover | DSO/ RED GP/ FD/PMU |

## 13.2 Water Quantity Issue

Though the state receives surplus precipitation every year, yet there are few pockets which show signs of reduction in rainfall. For instance, in Doon Valley, the average decrease in monsoon rainfall has been 206 mm/year. Together with this, the mean rainfall in the period 1901-64 was 2109±343 mm (mean ± Stand. dev.), while it was 1778±416 mm. for the period 1965-89. Since over 85% of the rainfall occurs in nearly three monsoon months, accessing that water for drinking and irrigation purposes has been a major challenge for the state. The undulating terrain and geology of the area, does not support the long-term retention of water on hills.

Water crisis in Uttarakhand is viewed as a cumulative effect of various factors, causing environmental degradation. Reduced vegetation cover due to depleting forest areas, over-grazing by live-stock, erosion of top soil due to faulty/intensive agricultural practices and other developmental activities (such as road construction, mining, urbanization etc.) have resulted into gradual reduction of recharging capacity of the aquifers in the hills.

In nutshell, the main causes of depleting water sources are large-scale deforestation, forest fires, intensive grazing pressure, fuel wood pressure on catchments and fragmented land holdings. These factors severely affect catchment area treatment activities, which in turn, affect the sustainability of water sources for drinking water supply.

### 13.2.1 Large scale degradation of macro-micro catchment

The state has an area of 53483 sq. km. This entire area, is the catchment of one or the other river. Out of this, 30.27% area has been classified as wasteland. Besides this, nearly 30.94% of the area, which is classified as forest area, is degraded and devoid of tree cover. The moisture retention capacity of these degraded areas, directly influence the recharging capacity of the local aquifers.

Most of the drinking water supply sources are situated in these areas. The findings of the environment analysis study clearly suggest that silt load on rivers and run-off water along the catchments, has significantly made many water supply sources unstable and unsustainable. Catchment treatment has primarily been the responsibility of Forest, Agriculture and Watershed Management Departments. Clearly, the interventions from these line departments have not been adequate. In light of this, the state government has recently made catchment treatment a mandate of many line departments and is trying to revive these catchments through a collective effort (i) GO No: 677/29-2 (05Pey)/2005 dated April 16th 2005 and (ii) GO No: 1023/29/-2 (05Pey)/2005, dated April 16th 2005). The project intends to dovetail catchment treatment efforts in their expected sub-project/water-supply-scheme areas.

### 13.2.2 Uncontrolled and over grazing on catchments

About 70%-80% of rural populations are marginal farmers having less than 1 Ha of agricultural land. Livestock is the second source of income for the rural households (HHs) followed by agriculture. Therefore, livestock is an integral part of the livelihood system in the state. At present, the state has 2.4 million cattle more than the fodder supply capacity of the forests in the State. According to the environment analysis study, each HH has an average of 4.19 livestock. The fodder requirements for the livestock are essentially collected from the catchments, which are already degraded due to various factors. Therefore, development of source protection (for water supply schemes) in any catchment has to address, the grazing pressure in terms of its optimal production capacity.

### 13.2.3 Fuelwood pressure on catchments

Apart from the grazing pressure, the villagers are heavily dependent on catchment for fuel wood supply. According to the environmental analysis study, the existing fuel wood requirement is nearly 48 times the state average annual reported production. While there is a large variation in fuel wood consumption (depending upon the altitude and seasons), the average fuel wood consumption in the state is about 3.6 metric tonnes/household/year. Increasing demand of wood for fuel and heating in rural areas has substantially reduced the regeneration capacity of the community/reserve forest areas. The remedial measures are not sufficient to check this quantum of degradation.

## 13.3 Water Quality Issues

Increasing levels of water contamination due to anthropogenic activities is slowly becoming an area of concern. Open defecation, lack of means to dispose animal waste and garbage are major contaminating factors in the state. Available information suggests that only 16% rural HHs have access to proper sanitation facilities and less than 2.2% of rural HHs have garbage/compost pits. Frequent flash floods and storm water also carry residues posing environmental risks for water storage of the piped water supply schemes. According to the EA study, the cattle generate about 1600 kg dung/ village/day and most of the villagers do not have cattle shed. Therefore, livestock residues are generally carried by run-off water, polluting the downstream water sources.

The general trend of the water quality results from raw water obtained from different sources is within the BIS norms for drinking water. Overall water quality in the state of Uttarakhand, especially in rural areas, does not appear to be a major concern, except at places, where bacteriological contamination is found on the surface sources. Most of this bacteriological contamination is in monsoon periods. Shallow wells in plains, at places, have water quality problems.

At present, the State Pollution Control Board (SPCB) has two water testing laboratories at Haldwani and Dehradun. They have provision to test water samples on payment basis. However, there is no comprehensive water quality strategy existing in the state. Most of the water sample analysis is undertaken on a random sample basis. Besides SPCB, health department also undertakes water quality surveillance. Every year, the health department distributes chlorine tablets in the state to the local communities for disinfecting the drinking water. The same department has undertaken over 32 thousand Ortho-Toludine tests for water quality. Besides this, the Swajal Project-I encouraged local people to use $H_2S$ strip test for checking bacteriological contamination. As part of this, extensive training was imparted to UWSSCs and SOs on how to use $H_2S$ at the village level.

## 13.4 Program Specific Other Issues

The issues described in the previous sections are the ones that are associated with the sector as a whole requiring larger policy interventions and programs to address them at a state level. The proposed project is scattered in nature and comprises construction of smaller water supply schemes mostly of single village and multi village types (called sub projects). The project specific environmental issues are the ones originating from the implementation of the project activities, especially linked to construction and operation of the water supply and sanitation schemes. The adverse environmental impacts have been analyzed with respect to the different water supply and sanitation options that could be used under this project.

### 13.4.1 Possible impact on down stream ecosystem and settlements

One of the direct adverse impacts of the individual water supply schemes is anticipated to be the impact on down stream ecosystem and downstream human settlements that depend upon the same water sources. The waste (both solid and liquid) discharge of uphill villages affect the down hill villages in different ways. The waste of uphill villages is drained out in the streams going to downhill villages. The waste also contaminates subsoil water going down hill. Therefore, the waste (solid and liquid) of uphill villages must be discharged/ managed properly so that they do not contaminate directly or indirectly water sources of down hill villages. While tapping the drinking water sources, care must be taken that up-hill villages are not tapping the source. It should have enough water to fulfill the water requirement of all the villages, especially in summers. The left over discharge after tapping by different source should be such that some water is still left in the stream especially in lean periods to maintain stream ecology.

### 13.4.2 Possible impact on ecological resources

The state of Uttarakhand is well known for its rich bio-diversity providing favorable niche for different habitats, flora and fauna. The ecological impacts of the project activities are anticipated to be of two types – (i) one arising from reduced discharge (due to tapping of water by the proposed water supply scheme) to support down stream, and (ii) the other one pertains to damaging of ecological resources such as the forests in the sub project area due to the construction activities envisaged in the water supply schemes.

### 13.4.3 Possible impacts on land-use and topography

As stated above, the project will roughly consist of 5900 schemes in various villages. A preliminary review of the sub-project area suggests that the distances between the source and the tail end distribution network will be minimal (may be less than one kilometer). Laying the trunk

line will involve excavating a trench of at least 0.5 m width for a distance of one kilometer of alignment. These earthwork activities will not have any significant impact on the topography of the area. The UWSSC will ensure that the earthwork activities are completed as soon as possible. The DPMU will coordinate with the SOs for monitoring the work and ensuring that the earthwork activities are undertaken either before the rainy season or after it.

The impact on soil due to the project will be in terms of localized topsoil erosion along the alignment, and due to construction activities, which will be insignificant. Since the alignment may pass through some agricultural lands (in some cases), topsoil loss will have an impact on future agricultural yield. Given the small size of the sub- project, the yield loss may not be significant. However, the UWSSC may face some local resistance on this issue. The ES of DPMU and local SO will need to coordinate to resolve the issues in presence of GP members.

## 13.5 Possible impact due to inadequate environmental sanitation

The proposed alignment of the main trunk line is expected along the existing roads and does not encroach or pollute any surface water bodies in the rural areas. However, bacteriological contamination may pose a threat to the sub-project. Each gravity-based sub-project/scheme will have one source collection point, RF/slow sand filter and a storage tank from which the individual household connection and common stand-post will receive water supply. According to the government reports only 16% of rural households (HHs) have access to toilet facilities. Open defecation has been a common practice in the rural areas. Considering that most rural areas in Uttarakhand are not having any sewerage systems, the run off water (during raining season) carries most of the solid and liquid residues along the slope posing water quality risks for the main-storage and source collection tanks under this gravity based water supply schemes/sub-projects. Therefore, sub-projects need to undertake adequate measures ensuring that no-solid and liquid wastes are allowed to affect the above three structures in terms of seepage or any form of intrusion. Regular advocacy and communication strategy has been developed under the project for ensuring proper fencing of these three structures to ensure both safety and quality.

According to the Government report, only 2.2% of the rural HHs have garbage and compost pits. Hence collection and disposal of the solid and liquid waste will be a critical factor to avoid pollution of main storage water in the sub-project areas. The UWSSC (User Water and Sanitation Sub-Committee) in consultation with the GP and SO will develop a local-specific plan to avoid the entry of such sewage water into the storage tank. The ES will facilitate the entire process and provide any catalytic support.

## 13.6 Environmental Management Measures

The management measures for the various environmental issues that are discussed, fall into two distinct categories – the ones that require larger policy and program interventions as their scope is much wider compared to the proposed program, and the ones that can be reasonably addressed through this program. This section attempts to describe the management measures for the latter category, though relevant reference has been made to the larger interventions that are required for the sector-wide approach. The **Table 13.6** at the end of the chapter gives the brief of the Environmental issues, related opportunities, concerns, management/ mitigation measures and monitoring indicators.

**Table 13.6**

| Tables 13.6: showing Environmental issues, related opportunities, concerns, management/ mitigation measures and monitoring indicators | | | | | |
|---|---|---|---|---|---|
| **Activity** | **Environmental Issue** | **Opportunities** | **Potential Concerns** | **Mitigation/ Mitigation Measures** | **Monitoring Indicators** |
| **1** | **2** | **3** | **4** | **5** | **6** |
| **Water Supply** | **Water Quantity** | ▪ Waste water tapped | ▪ Depletion in ground/surface water level | ▪ Augment supply though rehabilitation/ upgrading of existing system wherever feasible | * W/S schemes Constructed & managed by GP |
| | | ▪ Free running water may be eroding areas and creating swamps and becoming breeding ground of vectors | ▪ Risk of hydraulic interference in aquifers | ▪ Identify new sources (local/distant) of good quality and yield | * Schemes with CAC&MP |
| | | ▪ Availability of increased/ demanded level of safe drinking water on a sustainable basis | ▪ Local hydrology disturbed | ▪ Protect the source by fencing<br>▪ | * RWH Unit commissioned |
| | | ▪ Labour, time and cost saving in fetching water | ▪ Increased ground/ surface water abstraction | ▪ Dual water supply | *No. of UWSSC managing W/S |
| | | ▪ Improvement in quality of ground water through dilution due to recharge | ▪ Disturb the stream ecology, its flora & fauna | ▪ Blending of water from existing sources | *NC/PC habitation covered |
| | | ▪ Animals may also get easy access to water for drinking | ▪ Traditional practices may be changed | ▪ Catchment treatment | *Tribal habitation covered |
| | | ▪ Catchment area treatment has positive spin-offs | ▪ Lesser water for downstream villages | ▪ Spring protection | * Catchment area covered by Project |
| | | ▪ Will improve water quantity and quality | ▪ Downstream cropping pattern may have to be changed | ▪ Spring sanctuary (Source catchment protection) | * Catchment area covered by others |

| Tables 13.6: showing Environmental issues, related opportunities, concerns, management/ mitigation measures and monitoring indicators | | | | | |
|---|---|---|---|---|---|
| **Activity** | **Environmental Issue** | **Opportunities** | **Potential Concerns** | **Mitigation/ Mitigation Measures** | **Monitoring Indicators** |
| **1** | **2** | **3** | **4** | **5** | **6** |
| | | ▪ Reduction in water and sanitation related diseases, improved personal/ family health and hygiene leading to improved quality of life of the people | ▪ More polluted water for down stream villages | ▪ Sub soil water recharge | * periodic source discharge measurement |
| | | ▪ Women labour saved from the water fetching work | ▪ Water stagnation at spill over areas | ▪ Managed grazing | * Source disputes resolved |
| | | ▪ Women getting more time to undertake some income generating activities and home management | ▪ Financial burden on the community and the GP | ▪ Planting by perennial crops (Silvi-pasture) | * Use of source for other use |
| | | ▪ Increase in value of property | ▪ Increased generation of sullage | ▪ Augment water availability by Rainwater harvesting | * Land status of the source point |
| | | | ▪ Possibility Malaria/ Filaria etc. diseases if water stagnates | ▪ Proper designing of water use/ drawl system/ drainage system wll help | * CACMP trainings imparted |

**Table 13.6 (conti..)**

| Activity | Environmental Issue | Opportunities | Potential Concerns | Management/ Mitigation Measures | Monitoring Indicators |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Water Supply** | **Water Quality** | ▪ Quality monitored water is healthier water | ▪ Diseases/ infection spread may increase if water quality is not of proper level | ▪ Regular monitoring | * Existing W/testing facilities at State/District/GP level |
| | | ▪ Choice of right source can be made | ▪ Concentrated source can infect larger population | ▪ Identify alternate/ distant sources | * Reduction in no. of Diarrhea cases |
| | | ▪ Timely remedial measures can be taken | | ▪ Continuous chlorination of water supply to ensure a minimum residual chlorine of 0.5 mg/liter | * HH expenditure for treating illness |
| | | ▪ Lesser diseases and sickness | | ▪ Preventive and corrective maintenance of water distribution system | * Other programs related to health by the government |
| | | ▪ Healthier people | | ▪ Constant training and maintenance backup | *Frequency of Water Testing by the community by H2S Strips |
| | | ▪ Higher productivity | | ▪ Water Filtration | * Water being stored in closed pots |
| | | ▪ Less absenteeism in school/ works | | | |

| Activity | Environmental Issue | Opportunities | Potential Concerns | Management/ Mitigation Measures | Monitoring Indicators |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Environmental Sanitation** | **Construction of household/ group/ community/ institutional latrines** | ▪ Hygienic | ▪ Risk of down slope village water contamination | ▪ Sustained training Programs with focus on women to generate demand for household/group/ community latrines | * No of toilets constructed & used |
| | | ▪ Convenient- women need not go far | ▪ Lack of space for household latrine | ▪ Install 'safe' sanitation systems to suit local soil type. | * Types of toilets constructed |
| | | ▪ Reduction in soil and surface water contamination | ▪ Keeping clean can be problem | ▪ Proper placing of toilets be done | * No. of garbage pits constructed |
| | | ▪ Reduction in water and sanitation related diseases, improved personal/ family health and hygiene | ▪ Can breed disease if not well-kept | ▪ Construct sullage drains and provide low cost treatment/ disposal/ re-use system for sullage | * No. of compost pits constructed |
| | | ▪ Improved Social status | ▪ Risk of ground water contamination from sanitation systems where the ground water table is high or due to | ▪ Safe disposal of waste grey and black water | *Rural sanitary marts established |

| Activity | Environmental Issue | Opportunities | Potential Concerns | Management/ Mitigation Measures | Monitoring Indicators |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | | rocky bottom (Shallow soil depth) | | |
| | | ▪ Dignity, safety and convenience of household | ▪ Concentration of sewage disposal | | * No. of Village clean up campaigns |
| | | ▪ Inculcating desirable healthy practices amongst children who can serve as catalyst to promote household hygiene | ▪ More water will be required specially for wet toilets | | * No. of soak pits constructed |
| | | ▪ Improvement in general health status of people | ▪ Safe disposal of water can be problem if whole village has not got proper drains | | * No. of Schools & Anganwari covered by sanitation facilities |
| | | ▪ Enhanced environmental sanitation and hygiene status and general aesthetics of village | | | * Existing drainage system & provided |
| | **Sanitary disposal of sullage** | ▪ Improved aesthetics and reduction in breeding places for mosquitoes | | | |
| | | ▪ Increase in | | | |

| Activity | Environmental Issue | Opportunities | Potential Concerns | Management/ Mitigation Measures | Monitoring Indicators |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | property value | | | |

**Table 13.6 (conti..)**

| Activity | Environmental Issue | Opportunities | Potential Concerns | Management/ Mitigation Measures | Monitoring Indicators |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Environmental Sanitation** | Safe disposal of water | ▪ Less erosion | ▪ High erosion can cause slips and land slides | ▪ Safe water disposal by construction of low gradient channels | *Drainage system |
| | | ▪ Less land loss | ▪ Can damage agriculture fields | ▪ Water be left out only in existing natural "gaderas" Extend drains up to natural Gadera | |
| | | ▪ Safe | ▪ Even can damage houses etc. | ▪ Side drain be made in steps on steep gradient | |
| | | ▪ Healthier | ▪ Unmanaged fast running water can form gullies | ▪ Make stilling tanks after some distances | |
| | | | ▪ Can contaminate agricultural crops and fields if not properly led out of village. | ▪ Try to make stilling tanks/ check dams to let sludge to settle down | |
| | Construction of storm drainage | ▪ Better hygienic conditions | ▪ Can be source of soil erosion | ▪ Design and install efficient storm water drains at proper gradient | * Existing Drainage System & provided |
| | | ▪ Healthy people | ▪ Can breed vectors if not made or maintained properly | | * Quality of internal roads |
| | **Paving of internal paths** | ▪ Excess water is safely | ▪ Side drains if not properly made and | ▪ Change alignment, rough surface preferred and | |

| Activity | Environmental Issue | Opportunities | Potential Concerns | Management/ Mitigation Measures | Monitoring Indicators |
|---|---|---|---|---|---|
| | **in villages** | drained out | maintained can become gullies | cross barriers on steeper stretches | |
| | | ▪ Walking, specially at night for women and children be safe | ▪ On steep slopes, paths may become slippery, especially for animals – at higher risk of bone injury. | ▪ Wide steps on steep portions | |
| | | ▪ Hygienic and clean environment | | ▪ Paving of internal paths with appropriate locally available material/ water bound macadam/brick to ensure proper drainage. | |
| | | ▪ Less eroding and damaging to areas below paths | | ▪ *Provide cross-drainage at appropriate places | |

| Activity | Environmental Issue | Opportunities | Potential Concerns | Management/ Mitigation Measures | Monitoring Indicators |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Environmental Sanitation** | ▪ Garbage management | ▪ Cleaner environment | ▪ Pits require efforts & land & will cost more | ▪ Collect garbage and send it for recycling | * No. Compost pits made & used |
| | ▪ Biodegradable waste (Make compost pits) | ▪ Healthier surrounding | | | * No. of Garbage pits made & used |
| | ▪ Non-biodegradable Restrict/ Ban polythene/ plastics | ▪ Good quality manure | ▪ Collection, dumping and processing at a place outside village will require extra work | | * Garbage collection started & properly disposed |
| | ▪ Provision of individual/ community compost pits/ garbage pits | ▪ Aesthetically better | ▪ May pollute water | | |
| | | | | ▪ Incinerate it in small lots away from habitation | |
| | | | | ▪ Sustained training campaigns to persuade cattle owners to shift the cattle outside the living area | |
| | | | | ▪ Provide individual/ community compost pits for sanitary disposal of biodegradable wastes | |
| | | | ▪ Unhygienic environmental sanitation conditions due to large number of manure pits | ▪ Promote bio-gas plants | |

| Activity | Environmental Issue | Opportunities | Potential Concerns | Management/ Mitigation Measures | Monitoring Indicators |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | | ▪ Costly<br>▪ Needs maintenance<br>▪ Creation of breeding places of disease vectors | ▪ Non-biodegradable waste may be sold out | |

Together with this, the details of relevant Environmental Codes of Practices (ECOPs) for following activities are stated in **Annexure -34.**

1. Identification of Sources of Water Supply
2. Protecting Surface Water Supply Source and Ensuring Sustainability
3. Protecting Ground Water Supply Sources and in Ensuring Sustainability
4. Water Quality Monitoring
5. Selection of Safe Sanitation Technology Options (Including Drainage) at Individual Household and Community Level
6. Selection of Location for Community Toilets
7. Safe Sullage Disposal and Organic Waste Management
8. Safe Solid Waste Management at Individual Household and Community Level

## 13.7 Management of Water Quality Issues

Information available with different line departments dealing with water sector development suggests that heavy metal and chemical contamination may not pose any risk to the project. However, bacteriological contamination may pose some concern for the project. Keeping this in mind the project has developed specification for treating the water in each sub-project area. The proposed treatment involves three-fold interventions; i) undertaking regular residue chlorine testing (residue assessment) by the UWSSC, ii) testing of water samples from different single/multiple village schemes (particularly from source collection point and storage tank) periodically (twice in a year) for bacteriological parameters by using locally available techniques, iii) testing of water sample (random basis) for any possible heavy metal and chemical contamination once in two years. The bacteriological test will be undertaken to assess the coliform and fecal coliform count in the common storage tank from which the water is taken for households and common stand-post supply. Detailed water quality monitoring will be done at the time of selecting a site for tapping water sources. Critical water quality parameters identified would be kept in mind for future follow-up actions. Water testing will be done twice every year at the end of July and February (pre-post monsoon), especially for bacteriological contamination. Provisions are also made for emergency water sample testing in case of any eventuality such as epidemic in the sub-project area or in vicinity. **The Table-12.11, at the end of the chapter gives the type of tests, facilities available, frequency of tests, and organizations responsible for execution and monitoring of the water quality-testing program.**

The monitoring of physio-chemical and bacteriological parameters under this project include; turbidity, colour, taste, odour, pH, total dissolved solids, total hardness, chlorides, calcium, nitrates, iron, flourides, sulphates and bacteriological parameters such as MPN Coliform bacteria per 100 ml & E coli per 100 ml. The project will adhere to the permissible limit/standard prescribed by the Indian National Standard. Institutional arrangement has been made by PMU for testing of water samples in local laboratories, which can be conveniently accessed from different sub-project areas. Since testing of Coliform should be done within a short period, $H_2S$ strip will also be encouraged by the project. Accordingly, UWSSC will be trained for regular testing by using $H_2S$ with the help of the support organization. The key management measures required as part of the water quality surveillance include the following:

1. Undertaking chemical and bacteriological water testing of the source, prior to any execution work of the water supply scheme.

2. Undertaking regular bacteriological test during the implementation phase for assessing coliform infections. This would be done by the UWSSC/GP/SO, using $H_2S$ strips, preferably during pre-post-monsoon times.

3. The training of UWSSC along with SOs on the use of $H_2S$ for bacteriological testing of water samples at village level. Each UWSSC will be provided with $H_2S$ strips by the DPMU. The SO will provide all catalytic support for undertaking regular (quarterly) water quality surveillance and mitigation measures in consultation with GP. The PMU in coordination with DPMU will make regular training arrangements for the UWSSC, SOs and Selected GP members on how to undertake bacteriological testing by using $H_2S$.

4. In case of any coliform presence, the project will coordinate with the health department and supply chlorine tablets for disinfecting the storage tanks. Besides this, regular checking of chlorine residues in the storage tanks, would also be an integral part of the project.

5. Project would establish a mechanism in coordination with the Pollution Control Board to allow user UWSSC/GP, to use its laboratories for water sample testing on demand basis.

6. The State does not have any water testing laboratory facilities at the district level. Having adopted sector wide approach (SWAP), the project must ensure that the concerned line departments (Health, Pollution Control Board and Pey Jal Nigam) develop decentralized water testing facilities so that the UWSSC can access such facilities at the district level. At present, the state has only two laboratories with Spectrophotometer and Atomic Absorption Spectrophotometer (AAS) facilities managed by the Pollution Control Board.

7. While the project does not anticipate any industrial effluent discharge in the districts that can pose any concern for the chemical and heavy metal contamination in downstream areas, it has taken adequate precaution for any such possible contamination. Most of the districts in Uttarakhand state fall into hilly terrain of Himalayan region (High/Mid-himalayan and Shivalik Hilly regions). However, there are two districts (Haridwar and Udhamsingh Nagar) in the state that fall into the plain Tarai-belt of India. These two districts are subject to intensive agricultural practices with increasing use of pesticides and fertilizers. According to the PMU, most of the single/multiple village water supply schemes in these two districts are likely to tap groundwater as the main source for water supply. Considering the increasing trend of using pesticides and fertilizers in these two districts, the project has made provision of regular tubewell water testing for chemical as well as bacteriological contamination.

## 13.8 Management of Project specific other issues

### 13.8.1 Possible impact on down stream ecosystem and settlements

Available information suggests that 62.5% of the state land belongs to forest department. Since most of the spring water sources are located in forest areas, the project has made provisions for diversion of forest land required for creating source storage tank in line with the state government's order and Ministry of Environment & Forest (MoEF), Government of India's guideline. This includes the net-present value cost of the forest land.

### 13.8.2 Possible impact on ecological resources

The forest department has well laid procedures to minimize the impacts on the forestland and has adequate controls in place, requiring the implementing agencies obtain necessary approvals before initiating any construction in the forest areas. In this context as well as in light of the scale of activities envisaged in water supply schemes, impact on ecology in terms of cutting of trees and/or damaging the forestland is not expected to be significant

Each single/multiple village based scheme will require a small (2 feet / 3 feet) water storage space (mainly in the forest land). Keeping this in mind, the State Government and the MoEF have stipulated specific norms for such water supply projects in hill states. The project will comply with these MoEF norms. While laying down pipeline from source to the tank, through forests, care should be taken not to fell any tree. After laying the underground pipelines, the soil should be compacted with adequate plantations. The project will also ensure that small cross-bunds (stone pitching) are made on excavated/compacted areas to prevent water runoff over it and any further soil degradation.

### 13.8.3 Possible Impacts on land-use and topography

In general there will be no long-term appreciable impact on the land use and topography. There may be some disturbances at the time of water supply construction. Hence, the project will only develop its distribution network of piped-lines either pre-harvesting or post harvesting period to avoid any damage to the standing crop.

### 13.8.4 Possible impact due to inadequate environmental sanitation

According to GoUA, only 16% rural households have access to proper sanitation facilities and less than 2.2% of HHs has garbage or compost pits. Considering that majority of the project areas fall into hilly terrain, run off of frequent flash floods and storm water may carry residues posing environmental risks for water storage of the piped water supply schemes. The project has made provision for garbage pits, soak pits, compost pits and for improved drainage system in sub-project areas.

For non-biodegradable waste the project will adopt extensive community mobilization strategy to segregate these wastes at primary level (glass, metal, plastic, paper etc.). As part of the SWAP, the project will also coordinate with specialized agencies to help in safe disposal or recycling these wastes. The project's community mobilization strategy will promote basic primary segregation at the village/household level; of waste having economic value, waste having hazardous implications and waste that can be disposed at the village level with collective input from the community itself. The waste having economic value will be collected at one place near village and it will be disposed with the help of a professional garbage collector. The biodegradable waste will be collected in garbage pits in the form of landfills and subsequently used as compost. Care should be taken to select site from which there is no leaching to any drinking water source. The project will also encourage for soak pits at the household and community level for improved environmental sanitation practices through advocacy and campaign.

## 13.9 Roles and Responsibilities of Stakeholders for Management of Environmental Issues

The Roles and Responsibilities of the Stake Holders have been enlisted in the matrix below :-

| Key Responsibility | Planning Stage | Implementation Stage |
|---|---|---|
| **PMU** | ▪ Overall environmental planning for state in line of EMF<br>▪ Coordination with line department for micro-catchment development<br>▪ Developing advocacy and | ▪ Timely release of fund for DPMU<br>▪ Ensure that line departments take timely supportive action in the micro-catchments for source protection is needed |

| | | |
|---|---|---|
| | communication strategy for promoting LPG and stall feeding | ▪ Integrate environmental monitoring result into common MIS of the project |
| **DPMU** | ▪ ES will coordinate with GP, SO and UWSSC for finalizing interventions required for source protection<br>▪ Ensure timely release of fund to the UWSSC, validate technical proposal for source protection<br>▪ ES of DPMU will help in finalizing the work plan agreement between UWSSC, GP, SO and DPMU | ▪ Help preparing district's environmental monitoring report.<br>▪ Continuous monitoring and supervision<br>▪ ensure that the interventions needed for source protection must start before the onset of monsoon |
| **GP** | ▪ Helps UWSSC in preparing the environmental plan at the village level.<br>▪ Help UWSSC in identifying credible SO for planning of the source protection work | ▪ Coordinate with UWSSC for financial management and finalizing cost contribution mechanism for source protection work<br>▪ Help UWSSC in LPG and environmental sanitation campaign work |
| **SO** | ▪ Help UWSSC in planning the entire source protection and sustainability work | ▪ Help UWSSC in implementing source protection work<br>▪ Provide technical input to UWSSC while executing the source protection work<br>▪ Coordinate with, UWSSC, GP and ES for monitoring the entire source protection work |
| **UWSSC** | ▪ Assess the environmental risk in village meeting<br>▪ Plan the mitigation measure with the help of SO and GP | ▪ Implement the environmental mitigation measures<br>▪ Ensure cast-sharing norms are implemented for source protection work<br>▪ Monitor the entire process and give continuous feed back GP and ES |
| **Line Departments (Forest & Watershed)** | ▪ Coordinate with PMU once Water schemes are finalized (particularly for catchment treatment work) | ▪ Ensure timely implementation of the catchment treatment interventions in conjunction with the Project work |

## 13.10 Screening Guidelines For Environmental Issues And Safe Guard Measures

The following Screening Matrix is to be applied to identify sub-projects regarding application of GOI/GoUA Legislative and World Bank Policies on sub-project interventions. Some significant steps for environmental clearance and approval of sub-project is given below:-

| **SCREENING GUIDELINES ON ENVIRONMENTAL ISSUES** | | | | |
|---|---|---|---|---|
| **(A) Drinking Water Schemes** | | | | |
| **S.No** | **Activity** | **if Yes** | **if NO** | **if Not Sure** |
| **1** | Land Availability (Forest Land) | Clearance of GoUA required up to 01 hectare only | Beyond 01 hectare, GOI clearance required | ----- |
| **2** | Land Availability (Community/Private Land) | GP's clearance required | Private Owner clearance required | ---- |

| | | | | |
|---|---|---|---|---|
| **3** | Sufficient water available at source (even in summers) | | Consult records, JN /Discuss with GP | ---- |
| **4** | Competitive uses of the Water Source | Consult records, JN /Discuss with GP | | ----- |
| **5** | Source location | Should not be below or near a polluting point | | ----- |
| **6** | Safety and Protection of source | | Provisions be made | |
| **7** | Water quality of the water source | Should be within prescribed norms | | Test Sample |
| **8** | In hills, Preferred water source should be Springs | | Consult records, JN /Discuss with GP | |
| **9** | In plains, Preferred water source should be Deep Tube Wells | | Consult records, JN /Discuss with GP | |
| **10** | GP's preference should be Single Village Schemes for better management | | Check Feasibility | |
| **(B) Environmental Sanitation** | | | | |
| **11** | Toilets, Soak pits, compost pit, & garbage pits should be made away from any drinking water source. | | Needs Awareness program | |
| **12** | Sites for the above should have sufficient soil depth. | | Search for alternate | |
| **13** | Sites for the above are airy, non-polluting, & near household | | Search for alternate | |
| **14** | Storm water be drained out of village to natural drainage point. | | Provisions be made | |
| **15** | Sub-Project can be properly designed including following environmental aspects in mind: - | | | |
| | ▪ Construction of proper and adequate storage tank | | Check Feasibility | |
| | ▪ Construction of appropriate water distribution system | | Check Feasibility | |
| | ▪ Construction of proper water use platform | | Provisions be made | |
| | ▪ Construction of safe disposal of water without stagnation | | Provisions be made | |
| | ▪ Provision of collection all spill over or excess water for animal use | | Provisions be made | |
| | ▪ Proper drainage system is planned | | Provisions be made | |

## 13.11 RISK FACTORS

In managing the water supply sub-projects, the major risk factors along with some proposed management measures from the environmental point of view are given in table below, which are as follows:-

| S.No | Environmental Risks | Management Proposals |
|---|---|---|
| 1 | 2 | 3 |
| | Drying-up of water sources | • Preventing water wastage<br>• Draw out only planned quantity<br>• Water augmentation<br>• Water harvesting<br>• Catchment area treatment<br>• Alternative sources be explored |
| | Natural Calamities like landslides, Flash Floods, Cloud Burst & Earthquakes | • Sub & Mirco-Watershed treatment<br>• Reducing dependency on Fuelwood & Fodder extracted from foret area<br>• Minimum disturbing the topography of the area and immediately rehabilitating it through biological and mechanical measures when constructing Roads |
| 3 | Lack of awareness in the community, especially regarding water quality and environmental sanitation | • Intensive awareness creation program.<br>• Incentives as visit to new/ religious places in the state, distribution of Priyagni Angethi or Smokeless Chula, higher priority while distributing some benefits, etc. may help.<br>• Identify convenient water quality testing centers. |
| 4 | Unsuitable location and design of toilets specially wet-type toilets | • Selected site should not pollute the downhill or valley villages.<br>• Proper design, construction and maintenance of toilets should be ensured. |
| 5 | Absence of Proper waste management in the community | • Proper training regarding use of compost and garbage pits<br>• Incentives to be provided<br>• Arranging/ encouraging private garbage collectors to collect sellable/ usable waste periodically, from each village |

The drying up of the sources can be the biggest risk. For it the short-term solutions are to prevent water wastage and to draw out or take only planned quantity for each household to meet the basic essential needs of all. The quantity to be drawn will depend on the quantity of immediately available water. The long-term solutions will be water augmentation, water harvesting, catchment area treatment and exploration of new alternative sources. On the other hand care should be taken that easy availability of water may not encourage people to waste water. The extra water can be stored in well-made cemented tanks for animals' use. Even if, there is more water, then it can be connected to local irrigation system or should be drained out safely to natural streams.

Another fear is that the people may not appreciate or understand the importance of maintaining the water quality and rural hygiene. Intensive training and awareness creation is the only way to let them understand it. Proper training including raising the awareness levels of the GPs is a must. Lack of proper capabilities of the GPs to undertake total work planning, execution, maintenance, monitoring and evaluation may present the biggest risk to the project. Thus, proper training may be termed as a pre-requisite for the success of the project. Hand holding of the GPs may have to be done for a long period, according to the local absorption capacity to work under changed circumstances.

Some incentives may be given to the people to encourage them to adopt the suggestions. The incentives can be: taking them to see success stories of neighboring districts or visit to some neighboring religious or tourist places. Distribution of some subsidized small household useful items as Priyagni Angethi, Smokeless Chula etc. may be a good incentive. The people who accept the program may be given higher priority while distributing items of some other program in the village. Regarding water quality, help in identification of convenient, easily accessible testing laboratories would be an incentive to get it done regularly.

Toilets especially the wet type with soak pits can concentrate contaminants in a small area. Therefore proper designing, construction and the follow-up maintenance is very important. In most of the villages there is no tradition of proper waste management. Therefore people will have to be trained and convinced to use compost and garbage pits. The sellable, non-biodegradable waste would be sorted out separately and sold out to professional garbage collectors periodically. The villagers could be encouraged to collect all sellable waste at one place for removal. Professional garbage collectors would be encouraged to contract large areas (a block or a district or all the villages on a major road etc.) so that it may become remunerative for them. People accepting the proper waste management and sanitation may be provided with some incentives either from RWSS sector or from other village programs.

**Table 13.11**

## Water Quality Testing Process

| Types of Test | Laboratory Facilities/Means of surveillance | Responsibilities at the Village level | Frequency of Testing | Cross-verification | Overall Responsibility/Monitoring |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Turbidity, Colour, Taste, Odour, pH, TDS, Hardness | Field test Kit and State Pollution Control Board (SPCB) laboratories at Haldwani or Delhradun | SO will help UWSSC collecting water sample and get it analyzed in coordination with ES of DPMU. Regular sample collection procedures will be | Quarterly | Public health department (PHD) regularly undertakes random sample analysis. PMU will coordinate with PHD ensuring sensitive sub-project areas samples are analyzed. Only | - As part of the SWAP, the PMU will coordinate with line departments (PHD, SPCB, Jal Nigam and Forest department)<br>- PMU in coordination with DPMUs will organize training for all SOs and Selected UWSSC members. The training will include sample collection procedure and safety measure that needs to adopted. |

| | | | | | |
|---|---|---|---|---|---|
| | | mainstreamed by the PMU | | 2% of the sample will be cross-checked. | |
| Nitrate, Chloride, Sulphate, Fluoride, Iron | SPCB laboratories. Only 10% of the random sample will be sent for testing by using AAS | SO | Once a year | 2% of the sample needs to be cross-checked by DPMU with help PHD and SPCB | ES of DPMU. GP/SO will help ES in compiling and creating a database |
| Bacteriological, MPN | By using $H_2S$ strips | SO and UWSSC | Twice a year Pre and Post-monsoon | By DPMU taking few random sample with the help of SPCB | PMU will ensure that master trainers are regularly sent to train SOs and UWSSC during first two years of the project. PMU will ensure that $H_2S$ strips are procured and provided to all UWSSC and SO |
| Heavy metal residues | This can be done by using AAS available in SPCB laboratories. Only 10% of the random sample should be sent for testing | PMU will make special arrangements with SPCB(without any additional burden on SPCB) for sample collection analysis | Once in year | NA | PMU with the help of SPCB will be responsible for this task |

# Chapter 14

# M&E System for Sector Program

The proposed Monitoring and Evaluation (M&E) system that could be potentially developed as the M&E system for Uttarakhand Rural Water Supply and Sanitation Project (Sector Program) is currently in the process of being designed by the Government of Uttarakhand, with assistance from The World Bank. The proposed M&E system has the following four components:

- **Computer-based MIS**
- **Periodic Review**
- **Sustainability monitoring and evaluation**
- **Community monitoring**

## 14.1 Computer-based MIS

The computer-based MIS would be driven by a set of indicators. These indicators would be objectively verifiable and would form the basis of all information entering the system. The indicators suggested are in the following four categories:

- Physical progress
- Financial progress
- Sustainability
- Development objectives

While the first two are progress indicators, the other two contain both process and impact indicators. The logical framework for developing the indicators is spelt out in the Monitoring and Evaluation Manual. The output reports generated by the system would be in the same categories as indicator categories.

The information would be collected using paper based input formats. The information collection would be carried out by the concerned field level project staff, which could also include the non-government and other support organizations engaged to provide capacity building support to the user communities, as eventually decided by the project management agency.
The Progress indicators are proposed to be evaluated using indicators belonging to Sector/Program Development Objectives, RWSS Sector Development, RWSS Infrastructure Investments, Community Development Initiatives, Tribal development Component, Sector-wide indicators, Multi village Schemes etc. These indicators further have more sub parameters. These make a total of 73 indicators for Progress Monitoring.

## 14.2 Periodic Review

A system of Periodic Review has been suggested to enable the project managers and other stakeholders to track the qualitative aspects of physical and financial progress and assess the community processes undertaken in the project GPs. This would also facilitate the project managers to learn from the field experience and suggest strategic inputs for further strengthening of the project design and strategies, for effective delivery of inputs at the GP level. The Periodic Review is to be carried out by district and state teams. The district team would conduct the periodic review quarterly where as the state unit would carry out twice in a year in sampled GPs. Appropriate mechanism has been suggested to ensure linkage between the periodic review and the

SME. The system of periodic review also contains issues to be discussed at the community level and methodology to be adopted for the study.

After completion of first year of the sector program, monitoring indicators and processes will be reviewed to improve upon them as per the feedback received from the various stakeholders. The subsequent follow-up revised plans including remedial measures will be developed and implemented. This process shall be repeated after the completion of each batch.

## 14.3 Sustainability Monitoring and Evaluation

Sustainability Monitoring and Evaluation (SME) component of the M&E system essentially aims at tracking the sustainability prospects of the schemes and assets created during the project life cycle. Though the actual sustainability of constructed schemes and services can be seen only during the operation and maintenance phase, the factors that determine sustainability have to be identified and addressed right from the planning phase and through the implementation phase.

Hence the exercise of sustainability monitoring and evaluation is proposed to be undertaken during planning, implementation, and operation and maintenance phases.

It is proposed to evaluate the sustainability on 12 parameters. These parameters are broadly categorized under four heads which are Institutional, Technical, Financial and Social Sustainability. The subparameters under different heads include the UWSC formation, Linkage with GP, Capacity Building, Participation of UWSC members, SO support, DWSM/DPMU support, Technical options, Coverage, Community contribution , Willingness to eliminate open defecation, Health & Hygiene benefits& formation & strengthening of SHG. Each parameter has more than one sub parameter.

## 14.4 Community Monitoring

The project is envisaged to be community based, participatory and demand driven in nature. This basically means that members of the user communities, particularly women, would be actively involved in decision making processes at each stage of project planning, implementation and operation and maintenance. Hence, the assumption is that the sustainability of project assets and benefits would eventually depend on the efficacy of the community processes involved.

The external agencies such as the Government of Uttarakhand, SWSM, NGOs and other support organizations would be present in the project villages only till the completion of the implementation phase and for some time in the operation and maintenance phase for the purpose of handholding, if so decided. The user communities and their representative organizations such as user water and sanitation committee (UWSC) would be primarily responsible for running the schemes during the operation and maintenance phase.

In view of this, a system of community monitoring is worked out to help community members track the progress of their schemes in all the phases of the project. The system basically contains a set of suggested participatory monitoring tools, which can be easily understood and used by the community members, with some training and handholding, to begin with.

Community Monitoring Indicators have been designed to enable communities to monitor progress and process at the village level for each phase- planning phase, Implementation Phase and O&M phase. There are 33 indicators for community monitoring.

## 14.4.1 Community Monitoring Indicators

**The data will be provided by the communities**

**Planning Phase**

| S. N. | Community monitoring issue Indicator |
|---|---|
| 1 | Site selection for water points and community sanitary complexes done by communities |
| a | 100% sites for construction of water points and community sanitary complexes selected by community |
| 2 | Activities undertaken in the village by Support Organization |
| a | All activities (listed in TOR of SO) for facilitating the process at the village level undertaken on time |
| 3 | Degree of informed decision making |
| | Communities aware of key decisions taken for construction of scheme |
| 4 | Agreement on O&M tariff |
| a | O&M tariff fixed on the basis of informed understanding of required O&M costs |
| 5 | Community consensus on eradication of open defecation |
| a | • Expressed willingness by community members to stop open defecation in a community wide meeting |
| b | • Community penalty on open defecation |
| 6 | • Availability of and people's access to information about all the possible and feasible technology options for IHHLs |
| a | Informed choice of technology options for sanitation by people |
| 7 | Behaviour related to personal hygiene, domestic and environmental sanitation |
| a | As developed by the community |
| 8 | Community participation in preparation of community action plan (CAP) |
| a | Community members aware of community action plan (CAP) |

**Implementation Phase**

| S. N. | Community monitoring issue Indicator |
|---|---|
| **1** | Quality of construction of water supply scheme e.g. cement used, construction at agreed site selected |
| a | Construction quality complied to specifications mentioned in the DPR |

| S. N. | Community monitoring issue Indicator |
|---|---|
| **1** | Quality of construction of water supply scheme e.g. cement used, construction at agreed site selected |
| 2 | Quality of material procured |
| a | All material procured are of ISI quality |
| 3 | Records e.g. people having knowledge of bank balance |
| a | 1 out of 4 people interviewed having knowledge of bank balance |
| 4 | Community members' access to Rural Sanitary Marts (RSMs)/Production Centres (PCs) |
| a | Community members can get sanitation related material without any apparent difficulty |
| 5 | Community initiative to construct individual household latrines (IHHLs) |
| a | Number of IHHLs constructed |
| 6 | Construction of school sanitary latrines |
| a | Separate latrines constructed for girls and boys in schools |
| 7 | Construction of environmental sanitation facilities such as soak pits, garbage pits, compost pits, and drains and their quality |
| a | Number of soak pits, garbage pits, compost pits and the length of drains constructed and their quality as per the norms specified in the CAP |
| 8 | Availability of technical know-how to construct individual and community latrines and other environmental sanitation facilities such as soak pits, garbage pits, compost pits and drains |
| a | Locally available trained masons to construct latrines and other environmental sanitation facilities such as soak pits, garbage pits, compost pits and drains |
| 9 | Behaviour related to personal hygiene, domestic and environmental sanitation |
| a | As developed by the community |
| 10 | Activities undertaken by the SO/Consulting Agency in the village |
| a | All activities listed in the TOR of SO/Consulting Agency for community mobilisation and capacity building undertaken on time |

**O&M Phase**

| S. N. | Community monitoring issue |
|---|---|
| **1** | Functionality |
| **a** | All water points give water X hours a day, 30 days in a month and 12 months a year |
| 2 | Physical conditions |
| a | All water points approachable and sanitary conditions around water points |
| 3 | Use of safe water |
| a | Only safe water is used for cooking and drinking purposes |
| 4 | Payment against operation and maintenance |
| a | X number of houses pay their operation and maintenance charges regularly |
| 5 | Time taken for minor and major repairs |

| S. N. | Community monitoring issue |
|---|---|
| **1** | Functionality |
| **a** | All water points give water X hours a day, 30 days in a month and 12 months a year |
| a | All minor repairs undertaken in X days and major repairs in Y days |
| 6 | Satisfaction of users |
| a | More than X % of people are satisfied with the functioning of schemes |
| 7 | Reduction in the practice of open defecation |
| a | More and more people have access to and use sanitary latrines for defecation |
| b | Community penalty imposed on open defecation |
| 8 | Use and maintenance of latrines |
| a | 100% of the individual and community sanitary facilities constructed are functional and are being used |
| b | All individual and community sanitary facilities are being maintained and cleaned regularly |
| c | Repairs are being done in a timely manner, mostly by a trained technician available locally |
| 9 | Hand washing practices |
| a | All the community members are washing their hands with soap/ash after defecation |
| b | There is a practice of hand washing with soap/ash after anal cleaning of infants |
| 10 | O&M of CSCs |
| a | O&M requirements of CSCs are being met by the GP |
| 11 | O&M of SSLs/AWLs/BWLs |
| a | O&M requirements of SSLs/AWLs/BWLs are being met by the PTA/School Authorities |
| 12 | Safe disposal of solid waste and waste water |
| | 1. Village paths are clean<br>2. No stagnant pools of water around water sources<br>3. Clean and functional drains |
| | 4. Garbage is being disposed in garbage pits |
| | 5. Cow dung is disposed in compost pits |
| 13 | Safe disposal of Infant excreta |
| b | Infant excreta disposed in sanitary latrines |
| 14 | Behaviour related to personal hygiene, domestic and environmental sanitation |
| a | As developed by the community |
| 15 | Daily time use pattern of women |
| a | Use of time saved for productive purposes |

**Sector/ Program Indicators**

| S. No. | Description | Data Provider |
|---|---|---|
| **A. Sector/ Program Development Objectives** | | |
| **1** | ***To improve the delivery of rural water supply and environment sanitation services by involving Panchayati Raj Institutions and local communities*** | UJS,UJN,PMU |
| A | ***Decentralized improved water supply and sanitation services established*** | UJS,UJN,PMU |
| 1 | x% of RWSS schemes managed by UWSCs/ GPs | UJS,UJN,PMU |
| 2 | Number of households with sanitary latrines constructed | UJS,UJN,PMU |
| 3 | KMs of drainage network constructed | UJS,UJN,PMU |
| B | ***Local level institutions strengthened and Capacity Built*** | UJS,UJN,PMU |
| 4 | x% of UWSCs members trained in scheme planning, implementation and O&M | UJS,UJN,PMU |
| 5 | Number of SO person-days of training | UJS,UJN,PMU |
| C | ***People Benefited and increased role of women and other marginalized groups in decision making*** | UJS,UJN,PMU |
| 6 | x% of NC/PC habitations covered under the project | UJS,UJN,PMU |
| 7 | Population covered by new schemes | UJS,UJN,PMU |
| 8 | Number of women functioning as chairperson/ treasurer in UWSCs | UJS,UJN,PMU |
| 9 | x nos. of SC/ ST population in project area having access to safe and adequate sources of water | UJS,UJN,PMU |
| D | ***Sustainability and Decentralized Management*** | UJS,UJN,PMU |
| 10 | O&M of new schemes fully financed and managed by UWSCs | UJS,UJN,PMU |
| 11 | x% households paying monthly O&M tarrif | UJS,UJN,PMU |
| 12 | Reduction of incidences of diarrhea in children below 5 yrs. | UJS,UJN,PMU |
| **2** | ***To assist the state in implementation of the sector reform including policies and institutional arrangenments to improve the sustainability of RWSS services*** | UJS,UJN,PMU |
| 13 | ***% of single village schemes commissioned/ rejuvenated by UAPN/ UAJS adopting approach of capital cost sharing by community*** | UJS,UJN,PMU |
| 14 | ***Sector MIS developed and operational at state level*** | UJS,UJN,PMU |
| 15 | ***GOs issued as per the approved sector vision and MOU signed with GOI*** | UJS,UJN,PMU |
| | | |
| **B. Out Put Indicators** | | |
| ***3*** | ***RWSS Sector Development*** | |
| **A** | **Support for Institutional change of the Sector Institutions** | UJS,UJN,PMU |
| 16 | DWSM with support from DPMUs established | PMU |
| | | |
| ***B*** | ***Capacity building and strengthening Program for sector institutions*** | UJS,UJN,PMU |
| 17 | Training person-days for stakeholders at all level of operation | UJS,UJN,PMU |
| 18 | x% of JPS/ UWSCs having access to and capable of using electronic media to communicate | UJS,UJN,PMU |

| | | |
|---|---|---|
| | | |
| ***C*** | ***Water Quality Monitoring and Surveillance*** | UJS,UJN,PMU |
| 19 | x nos. of existing district level water quality monitoring labs strengthened | UJS,UJN,PMU |
| | | |
| ***D*** | ***Sector studies undertaken*** | |
| 20 | Number of studies undertaken | PMU |
| | | |
| ***4*** | ***RWSS Infrastructure Investments*** | |
| ***A*** | ***Water supply and sanitation facility upgraded and/or constructed, operational at their installed capacity, with appropriate source strengthening measures*** | **UJS,UJN,PMU** |
| 21 | x nos. of water supply schemes constructed and managed by UWSCs | UJS,UJN,PMU |
| 22 | x% of UWSCs/ GPs with 'No' open defecation | UJS,UJN,PMU |
| 23 | All schools and *Anganwari* covered by functioning hygienic sanitation facilities | UJS,UJN,PMU |
| 24 | x nos. of commissioned scheme with catchment area treatment | UJS,UJN,PMU |
| 25 | x nos. of Rainwater harvesting units commissioned | UJS,UJN,PMU |
| | | |
| **B** | **Improved sanitation services and hygienic behavior** | UJS,UJN,PMU |
| 26 | x% increase in households over targeted having sanitation facilities | UJS,UJN,PMU |
| 27 | x nos. of composts pits constructed | UJS,UJN,PMU |
| 28 | x nos. of soak pits constructed | UJS,UJN,PMU |
| 29 | x nos. of garbage pits constructed | UJS,UJN,PMU |
| 30 | Rural sanitary marts established | UJS,UJN,PMU |
| 31 | Village clean-up campaigns undertaken | UJS,UJN,PMU |
| 32 | Folk Program campaigns launched | UJS,UJN,PMU |
| | | |
| ***5*** | ***Community Development Initiatives*** | UJS,UJN,PMU |
| 33 | SHGs formed and linked to the bank | UJS,UJN,PMU |
| 34 | UWSCs formed for managing water supply schemes | UJS,UJN,PMU |
| | | |
| ***6*** | ***Tribal development component*** | PMU |
| 35 | Number of habitations selected within the project | UJS,UJN,PMU |
| 36 | Number of tribal habitations where user groups have been formed | UJS,UJN,PMU |
| 37 | Number of user groups in which tribal representation is more than 50% | UJS,UJN,PMU |
| 38 | Number of tribal habitations where the community cost sharing norms have been achieved | UJS,UJN,PMU |
| 39 | Number of schemes commissioned | UJS,UJN,PMU |
| ***7*** | ***Sector-wide indicators*** | UJS,UJN,PMU |
| 40 | No. of NC/PC/FC habitations | UJS,UJN,PMU |
| 41 | No. of JN/JS staff transferred to the GPs/ZPs for technical assistance | UJS,UJN,PMU |
| 42 | Number of water supply schemes constructed in the state adopting the principles of reforms | UJS,UJN,PMU |

| | | |
|---|---|---|
| 43 | A cell within the RDD has been designated to perform the functions of sector-wide monitoring and evaluation | UJS,UJN,PMU |
| 44 | No. of personnel within the cell trained | UJS,UJN,PMU |
| 45 | Number of NC habitations covered as against the target | UJS,UJN,PMU |
| 46 | Number of PC habitations covered as against the target | UJS,UJN,PMU |
| 47 | Number of existing single village schemes transferred to the user groups after augmentation and rejuvenation | UJS,UJN,PMU |
| 48 | Number of existing MVSs transferred to the user groups after augmentation and rejuvenation | UJS,UJN,PMU |
| 49 | Fund board established under the DWD for channelisation of funds from various sources | UJS,UJN,PMU |
| 50 | Total fund received from various sources (GOI, State, WB, Others) as against the budget allocation for the RWSS sector | UJS,UJN,PMU |
| 51 | Total fund released to the GPs/DWSMs as against the target | UJS,UJN,PMU |
| 52 | % of tariff collection in SVSs as against the target | PMU |
| 53 | % of tariff collection in MVSs as against the target | UJS,UJN,PMU |
| 54 | No. of new SVS commissioned | PMU |
| 55 | No. of new MVS commissioned | UJS,UJN,PMU |
| 56 | Total population benefitted from the new SVSs | PMU |
| 57 | Total population benefitted from the new MVSs | UJS,UJN,PMU |
| 58 | No. of SVS transferred to the GP fully functional | PMU |
| 59 | No. of SVS transferred to the GP partially functional | PMU |
| 60 | No. of SVS transferred to the GP non functional | PMU |
| 61 | No. of schemes where source discharged have reduced beyound service level limit | UJS,UJN,PMU |
| 62 | No of MVSs being managed by the JN | UJN |
| 63 | No of MVSs being managed by the JS | UJS |
| 64 | % completion of schemes following the supply driven approach | UJS,UJN,PMU |
| ***8*** | ***Multi-village schemes (MVS)*** | UJS,UJN |
| 65 | Number of MVSs planned | UJS,UJN |
| 66 | Number of GPs covered | UJS,UJN |
| 67 | Number of habitations covered | UJS,UJN |
| 68 | Total population benefitted from the MVSs | UJS,UJN |
| 69 | Number of RWSCs/federations formed | UJS,UJN |
| 70 | Persons of RWSCs/deferations trained | UJS,UJN |
| 71 | Number of MVSs constructed and handed over to RWSCs | UJS,UJN |
| 72 | No. of MVS fully functional after one year of commissioning | UJS,UJN |
| 73 | No. of MVS where tariff collection is more than 50% as against the target after one year of commissioning | UJS,UJN |

*Sustainability Monitoring Indicators*

| **Essential Condition: Source Discharge** | |
|---|---|
| **The Source discharge of the scheme to be evaluated on the following norms:** | |
| Catchment area protection measures have been proposed in the DPR as per the felt need of the community and declining source discharge | **A** |
| Catchment area protection measures not proposed, because there was no perceived felt need by the community and source discharge is above the safe yield | **B** |
| Catchment area protection measures not proposed, although there was perceived felt need by the community and source discharge was below the safe yield | **C** |

| **Sl. No.** | **Parameters** | **Data Provided By** |
|---|---|---|
| **I.** | **INSTITUTIONAL SUSTAINABILITY** | **Data will be provided by the villagers, UWSSCs and the data will be analyzed by the independent agencies/DPMU/PMU/UJS/UJN** |
| **1.** | ***UWSC formation*** | |
| | UWSC has been formed with adequate representations from poor and marginalized groups as per the project norms | |
| | UWSC has been formed with inadequate representations from poor and marginalized groups | |
| **2.** | ***Linkage with GP*** | |
| | JPS has been formed and members of UWSC has been inducted in the JPS and decisions of UWSC/JPS are placed, discussed and ratified in the GP/GS meetings | |
| | JPS has been formed with adequate representations from the UWSC but decisions of UWSC/JPS are not placed, discussed and ratified in the GP/GS meetings | |
| | JPS has been formed but neither UWSC members have been included in it nor UWSC/JPS decisions are ratified in the GP/GS meetings | |
| | JPS not formed | |
| **3.** | **Capacity building** | |
| | All UWSC & JPS members have been trained and capacity built on roles and responsibilities and bye-laws for management functions have been put in place | |
| | Few UWSC & JPS members have been trained and capacity built on roles and responsibilities and bye-laws for management functions have been put in place | |

| Sl. No. | Parameters | Data Provided By |
|---|---|---|
| | Only UWSC members have been trained and capacity built on roles and responsibilities and bye-laws for management functions have been put in place | |
| | No training and capacity building activities have been undertaken nor bye-laws have been put in place for management functions | |
| **4.** | ***Participation of UWSC members*** | |
| | 100% UWSC members participated in last three consecutive meetings | |
| | More than 75% UWSC members participated in last three consecutive meetings | |
| | More than 50% UWSC members participated in last three consecutive meetings | |
| | Less than 50% UWSC members participated in last three consecutive meetings | |
| **5.** | **SO support** | |
| | Performance rating score above 7.5 | |
| | Performance rating score in between 5-7.5 | |
| | Performance rating score below 5 | |
| **6.** | ***DWSM/DPMU support*** | |
| | Performance rating score above 7.5 | |
| | Performance rating score in between 5-7.5 | |
| | Performance rating score below 5 | |
| **II.** | **TECHNICAL SUSTAINABILITY** | |
| **7.** | **Technology options** | |
| | There is no dispute regarding water supply technology options and locations of stand posts/Hand Pumps | |

| Sl. No. | Parameters | Data Provided By |
|---|---|---|
| | There are disputes regarding water supply technology options and locations of stand posts/Hand Pumps | |
| **8.** | **Coverage** | |
| | All households within the habitation have been proposed to be covered with drinking water supply scheme (s) | |
| | Few households (excluding SC/ST and other marginalized groups) have been left out in despite of felt need | |
| | Few SC/ST households including marginalized groups have been left out in despite of felt need | |
| **III.** | **FINANCIAL SUSTAINABILITY** | |
| **9** | **Community contribution** | |
| | All users have contributed towards capital cost and upfront operation and maintenance of water supply scheme as per the project norms | |
| | More than 75% users have contributed towards capital cost and upfront operation and maintenance as per the project norms | |
| | Less than 75% users have contributed towards capital cost and upfront operation and maintenance of water supply scheme as per the project norms | |
| **IV.** | **SOCIAL SUSTAINABILITY** | |
| **10.** | **Willingness to eliminate open defecation** | |
| | 100% households have resolved to eliminate open defecation | |
| | More than 75% households have resolved to eliminate open defecation | |
| | More than 50% households have resolved to eliminate open defecation | |

| Sl. No. | Parameters | Data Provided By |
|---|---|---|
| | Less than 50% households have resolved to eliminate open defecation | |
| **11.** | **Health and hygiene benefits** | |
| | % Children under 5 years suffering from diarrhea during the last 7 days is less than 5% | |
| | % Children under 5 years suffering from diarrhea during the last 7 days is less than 7% | |
| | % Children under 5 years suffering from diarrhea during the last 7 days is less than 10% | |
| | % Children under 5 years suffering from diarrhea during the last 7 days is more than 10% | |
| **12.** | **Formation & strengthening of SHG** | |
| | SHG scoring more than 75 | |
| | SHG scoring in between 50-75 | |
| | SHG scoring less than 50 | |

The Results Framework for the Sector Program is placed at **Annexure- 35.**