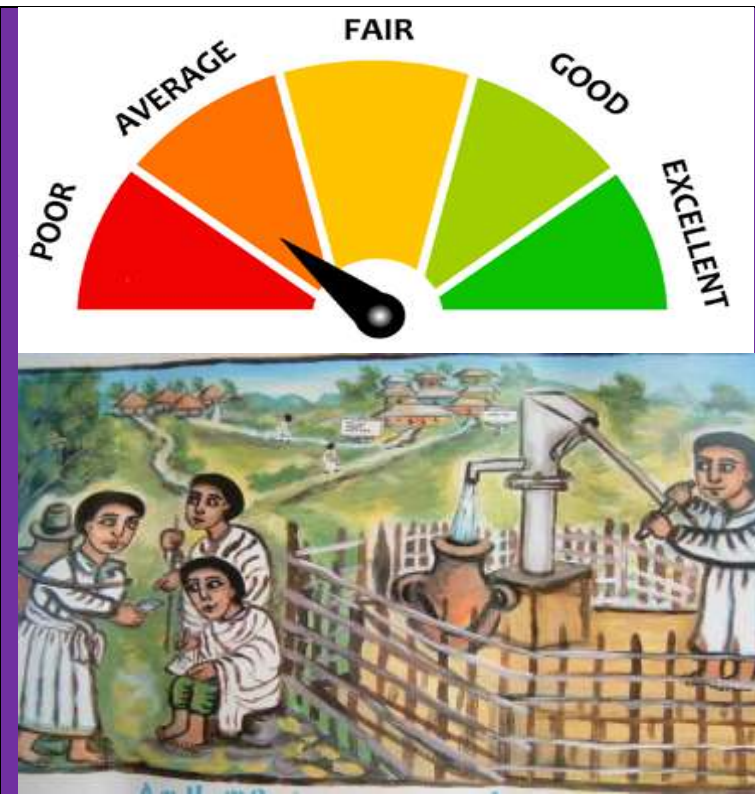




# Rural Water Supply Operation and Maintenance Manual



## Module - F

A Trainer's Manual for Monitoring and Evaluation System for  
O & M Management System



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**MODULES** **RURAL WATER SUPPLY POINT SOURCES**  
**MANUAL**

- MODULE – A FACILITATOR’S GUIDELINE
- MODULE – B DESCRIPTION OF POINT WATER SOURCES AND TECHNOLOGIES
- MODULE – C TECHNICAL OPERATION AND MAINTENANCE REQUIREMENTS FOR POINT WATER SOURCES
- MODULE – D COMMUNITY BASED SCHEME AND FINANCIAL MANAGEMENT
- MODULE – E SPARE PART SUPPLY AND MANAGEMENT

**MODULE – F MONITORING AND EVALUATION OF RURAL WATER SUPPLY SCHEME**

- MODULE – G WATER SAFETY PLAN FOR RURAL WATER SUPPLY
- MODULE – H PREPARATION OF ACTION PLAN AND IMPLEMENTATION OF O&M



## MODULE - F: MONITORING & EVALUATION OF O&M MANAGEMENT SYSTEM

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## DEFINITIONS OF TERMS:

<b>Accessibility</b>	Is having a functional and reliable water supply facility without any barriers within a radius of 1500 metres for Rural Water Supply
<b>Access Coverage</b>	Is the percentage of people with access to safe, adequate and reliable water supply within 1500m at 15 l/c/d for rural community.
<b>Adequate Water</b>	Is the quantity of water required to meet the minimum demand per capita per day. The standard being 15l/capita/day by 2015 for Rural people.
<b>Community</b>	Refers to a group of people living in a designated area who share residential and developmental challenges and benefits. It may also refer to all people sharing such challenges and benefit regardless of geographical and social boundaries
<b>Community Based Management</b>	Is the process of empowering community members to assume the lead role in decision making about the levels of services they require, whilst organizing themselves to plan, implement, operate and maintain their water supply and sanitation facilities.
<b>Community Management</b>	Is a form of community participation in which the community takes the final decision on all aspects of planning, implementation, management, monitoring, evaluation, O&M of the water supply facility
<b>Evaluation</b>	Is the periodic and systematic review and analysis of a practice to determine the relevance, effectiveness, efficiency and impact of programmes/projects compared to the set objectives.
<b>Maintenance</b>	Refers to activities required to sustain the water supply facilities in a proper working condition. It includes preventive maintenance, corrective maintenance and crisis maintenance.
<b>Monitoring</b>	Is the regular and continuous checking of whether plans, activities and situations are being implemented as planned, and includes the provision of feedback to facilitate the taking of corrective measures by relevant stakeholders.
<b>Operation</b>	Refers to the day to day running and handling of the water supply facilities in a manner that optimizes their use and contributes to a reduction in breakdown and maintenance needs
<b>Preventive Maintenance</b>	Refers to an activity that includes checking the status of hand pump components at regular fixed intervals
<b>Rehabilitation</b>	Is the correction of major defects and the replacement of equipment to enable the facility to function as originally intended.
<b>Reliable Water Supply</b>	Is the supply of water on a continuous basis meeting the minimum demand per capita per day
<b>Repair</b>	Is the restoration of a defective component to return the facility to acceptable working condition. The cost of the repair should be borne by the community.
<b>Rural Area</b>	“Areas of population outside urban and peri-urban using point or piped water supply system for which the community is responsible for the O&M” in addition, low population densities characterize rural areas, with small houses isolated from each other.
<b>Safe water</b>	Is water that is free from harmful quantities of physical, chemical and pathogenic matter and that meets the minimum Ethiopian standards (usually WHO Guidelines)
<b>Seed Money</b>	Is the initial sum of money disbursed to an organization in order to create/start a revolving fund for undertaking a designated programme

<b>Scheme (Water)</b>	The entire facility (concrete works, pipes, pumps) established to extract water from a water source, and distribute it to (close to) people's homes
<b>Sustainable Supply Chain</b>	Is a system of procuring and supplying spare parts that guarantees a continuous supply of spare parts.
<b>Source (Water)</b>	The natural water source only, i.e. spring, groundwater, river, etc
<b>Supply chains</b>	Is the term used for the process that relates all activities involved with the flow and transformation of goods from the raw materials stage through to the end-user, as well as the associated information flows
<b>WASHCO</b>	Is a committee of representatives from a number of Water, Sanitation and Hygiene Point Committee of the same village. Sometimes WASHCO committee may refer to 2 or more village representatives benefitting from a water and sanitation point.



## 6. MODULE – F: MONITORING AND EVALUATION

### 6.1 Introduction

This Training manual comprise of:

- Session – 1: Monitoring of Operation and Maintenance Management
- Session – 2: Evaluation of Operation and Maintenance Management
- Session – 3: Reporting System

### 6.2 Manual to be referred

This training module is extracted from operation and maintenance Part-F of the manual. Please refer it whenever necessary.

### 6.3 Session – F1: Introduction to Monitoring and Evaluation of O&M Management

<b>MODULE – F:</b>	<b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT SYSTEM</b>
<b>SESSION – F1</b>	<b>MONITORING OF O &amp; M MANAGEMENT</b>
<b>Introduction</b>	<p>M &amp; E is defined as a process of measuring, recording, collecting, processing and communicating information to assist project management decision-making.</p> <p>Monitoring can be taken as the continuous or periodic review and surveillance (overseeing) by management at every level of the hierarchy of the implementation of an activity to ensure that input deliveries, work schedules, targeted outputs and other required actions are proceeding according to plan.</p>
<b>Objective</b>	<p>At the end of this module participants will be able to:</p> <ul style="list-style-type: none"> <li>▪ Define the concept monitoring and evaluation</li> <li>▪ Set monitoring and evaluation standards</li> <li>▪ Acquire the necessary skill for O&amp;MM monitoring and evaluation</li> <li>▪ Conduct effective monitoring and evaluation activities.</li> </ul>
<b>Outputs</b>	Participants are understood the concept of supply chain for rural water supply schemes.
<b>Timing</b>	1 hour



<b>MODULE – F:</b>	<b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT SYSTEM</b>
<b>Target Group</b>	Regional Water Bureau, Zone and Worda Water Offices, Local Service Providers, NGOs, Micro Finance Institutes, and WASHCOs.
<b>Session Guide</b>	
<b>Step 1: Objectives and Purposes of Monitoring</b>	<p><b>a) Objective of Monitoring are:</b></p> <ul style="list-style-type: none"> <li>▪ Determine whether communities have access to adequate quantities of safe drinking water as per the UAP/GTP,</li> <li>▪ Assess performance of different stakeholders and strategies;</li> <li>▪ To follow up overall success rates for a O&amp;M Management;</li> <li>▪ To follow up water service coverage figures;</li> <li>▪ Identify problems early in order to find timely solutions and pre-empt failures;</li> <li>▪ Measure service effectiveness, efficiency and equity; and Inform decision-makers to improve performance.</li> </ul> <p><b>b) Purposes of Monitoring</b></p> <ul style="list-style-type: none"> <li>▪ To identify the current condition of O &amp; M and Management of the water scheme in order to take necessary actions without delay for ensuring sustainable use of the water scheme.</li> <li>▪ To promote information sharing with the WWO and to enable the WWO to grasp the O&amp;MM status of each WASHCO and provide necessary support without delay.</li> </ul>
<b>Step 2: Monitoring Procedures</b>	<p>The following are the key procedures to conduct monitoring of RWS – O&amp;MM:</p> <ol style="list-style-type: none"> <li>1. Develop proper Monitoring and Evaluation guideline</li> <li>2. Establish the M&amp;E department</li> <li>3. Assign responsible person for M&amp;E</li> <li>4. Integrate monitoring activities in the project plan</li> <li>5. Use the LFA to design the indicators and means of verification for monitoring the activities in a O&amp;MM</li> <li>6. Prepare detailed program of work – Action Plan</li> <li>7. Monitor project progress and accomplishment regularly</li> <li>8. Report project accomplishment and</li> <li>9. Disseminate information to relevant stakeholders</li> </ol> <ul style="list-style-type: none"> <li>▪ Answer a clearly stated set of objectives (design SMART objectives)</li> <li>▪ State clearly what indicators will be chosen to monitor the project activities</li> <li>▪ Specify how often monitoring will be done and by whom</li> <li>▪ Specify how often evaluations will be made and by whom</li> </ul>

<b>MODULE – F:</b>	<b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT SYSTEM</b>
	<ul style="list-style-type: none"> <li>▪ Outline any necessary training that is required for the staff to carry out the monitoring activities</li> <li>▪ Specify costs and funding sources for various monitoring activities</li> </ul>
<b>Step 3: Main Monitoring aspects</b>	<p>The following are main aspects to be monitored:</p> <ul style="list-style-type: none"> <li>❖ <b>Organizational or Managerial aspects</b> <ul style="list-style-type: none"> <li>▪ Practice of meeting</li> <li>▪ Topics to be discussed and to be decided</li> <li>▪ Keeping different records</li> </ul> </li> <li>❖ <b>Technical aspects</b> <ul style="list-style-type: none"> <li>▪ Function of the facility</li> <li>▪ Practice of preventive maintenance</li> <li>▪ Availability of spare parts</li> <li>▪ Regular replacement of consumable parts of the equipment</li> </ul> </li> <li>❖ <b>Financial aspects</b> <ul style="list-style-type: none"> <li>▪ Practice of fee collection</li> <li>▪ Amount of income &amp; expenditure of the month</li> <li>▪ Last balance in hand (cash) and in the bank</li> </ul> </li> </ul> <p>The cashier needs to report regularly to Executive Water Board (EWB)/ WASHCO and then EWB/WASHCO report to the users in the General Assembly meeting and/or to the Zone or Woreda Water Offices, other means of communication such as “water billboard”.</p> <ul style="list-style-type: none"> <li>✓ How much money has been collected and has been spent &amp; on what?</li> <li>✓ How much money is left in account?</li> <li>✓ Who has not paid their contribution?</li> </ul> <p>EWBs or WASHCOs should check the accounts book and income and expense book on a regular basis. These financial records should be made available to all members of the community to inspect, ask questions, and get answers.</p>





<b>MODULE – F:</b>	<b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT SYSTEM</b>																														
<b>Step 4: Monitoring Plan</b>	<p>The monitoring plan should answer the following questions:</p> <ol style="list-style-type: none"> <li>1. What do you want to monitor?</li> <li>2. What kind of information is required?</li> <li>3. How will this information be collected?</li> <li>4. How often will it be collected?</li> <li>5. Who will participate in the monitoring activities?</li> <li>6. <input type="checkbox"/> How will the findings be utilized?</li> <li>7. How will the information be shared?</li> </ol>																														
<b>Step 5: Monitoring Tools</b>	<p>The following are the Monitoring Matrix applied for O&amp;MM.</p> <p><b>Table 6-1: Monitoring Matrix</b></p> <table border="1"> <thead> <tr> <th></th> <th colspan="4"><b>Sustainability Indicators</b></th> </tr> <tr> <th><b>Performance theme</b></th> <th><b>Effectiveness</b></th> <th><b>Efficiency</b></th> <th><b>Equity</b></th> <th><b>Replicability</b></th> </tr> </thead> <tbody> <tr> <td>Management</td> <td>Record keeping Relationship with users</td> <td>Financial and resource management</td> <td>Pro-poor strategies Gender equity</td> <td>Management capacity &amp; commitment</td> </tr> <tr> <td>Operation</td> <td>Flow rates Water quality</td> <td>Ease of operation Waiting times</td> <td>Use of alternative sources</td> <td>User acceptability</td> </tr> <tr> <td>Maintenance</td> <td>Workmanship Frequency of breakdown</td> <td>Average downtime of facility</td> <td>Cost to communities</td> <td>Ease of maintenance Affordability</td> </tr> <tr> <td>Environment</td> <td>Water quality</td> <td>Well yields</td> <td>Effect on all other water sources</td> <td>Water levels</td> </tr> </tbody> </table>		<b>Sustainability Indicators</b>				<b>Performance theme</b>	<b>Effectiveness</b>	<b>Efficiency</b>	<b>Equity</b>	<b>Replicability</b>	Management	Record keeping Relationship with users	Financial and resource management	Pro-poor strategies Gender equity	Management capacity & commitment	Operation	Flow rates Water quality	Ease of operation Waiting times	Use of alternative sources	User acceptability	Maintenance	Workmanship Frequency of breakdown	Average downtime of facility	Cost to communities	Ease of maintenance Affordability	Environment	Water quality	Well yields	Effect on all other water sources	Water levels
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<b>Step 5: Monitoring Framework</b>	<p>In order for monitoring to be effective, it is essential that a practicable and sustainable framework be set up. This should include:</p> <ol style="list-style-type: none"> <li>1) stakeholder responsibilities,</li> <li>2) monitoring schedules and</li> <li>3) Data requirements.</li> </ol>																														

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	<p><b>1. Stakeholder responsibilities</b></p> <p>Regional Water Bureaus and its successor offices provide the optimum institution to assume overall responsibility for monitoring of rural water supply system performance.</p> <p>Zone and Woreda Water Offices are normally close responsible for managing monitoring activities, these may include:</p> <ul style="list-style-type: none"> <li>▪ Regional Water Bureau,</li> <li>▪ Zone Water Offices,</li> <li>▪ Woreda Water Office,</li> <li>▪ WASHCOs and</li> <li>▪ Community Members</li> </ul> <p><b>2. Monitoring Schedule</b></p> <p>Quarterly monitoring should take place based on the performance indicators set to implement. Some of the sampled monitoring schedule is presented in Table 6-2 below.</p> <p><b>Table 6-2: Quarterly Monitoring Schedule Example</b></p> <table border="1"> <thead> <tr> <th>Activity</th> <th>1<sup>st</sup></th> <th>2<sup>nd</sup></th> <th>3<sup>rd</sup></th> <th>4<sup>th</sup></th> </tr> </thead> <tbody> <tr> <td>Observe facility status</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>Sustainability snapshot</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>User satisfaction survey</td> <td></td> <td>√</td> <td></td> <td>√</td> </tr> <tr> <td>Interview with Executive Water Board's/WASHCO's</td> <td></td> <td>√</td> <td></td> <td>√</td> </tr> <tr> <td>Interview with the Water Administration Office Managers and staff</td> <td></td> <td>√</td> <td></td> <td>√</td> </tr> <tr> <td>Referring Reports</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>Measure water quality</td> <td></td> <td>√</td> <td></td> <td></td> </tr> <tr> <td>O&amp;M Audit</td> <td>√</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>3. Data processing</b></p> <p>Monitoring is only useful if the data collected is managed and used effectively.</p> <p>Performance indicators can be given different weights depending on perceived importance in order to analyze collected data and draw conclusions.</p> <p>Data collecting using the format provided should be filled and stored in the database with computer or recorded file.</p>	Activity	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Observe facility status	√	√	√	√	Sustainability snapshot	√	√	√	√	User satisfaction survey		√		√	Interview with Executive Water Board's/WASHCO's		√		√	Interview with the Water Administration Office Managers and staff		√		√	Referring Reports	√	√	√	√	Measure water quality		√			O&M Audit	√			
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<b>MODULE – F:</b>	<b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT SYSTEM</b>
<b>Step 5: Types of Monitoring</b>	<p><b>a) <u>TASK MONITORING</u></b></p> <p><b>This can be seen from the following point of view:</b></p> <ul style="list-style-type: none"><li>○ <b>HIERARCHY OF IMPLEMENTATION</b> – this is mainly on the categorization of O&amp;MM activities according to importance of implementation in relation to O&amp;M goal and objectives.</li><li>○ <b>INSPECTION</b> - a critical examination of an activity or situation or something aimed at forming a judgment or evaluation.</li><li>○ <b>PROJECT</b> – can be monitored from point of a task or planned program of work by trying to see how much of the time, effort, budget, has been effectively and efficiently utilized in order to check accomplish the planned targets in relations to the specific objectives of the project.</li></ul> <p><b>b) <u>PRODUCT MONITORING</u></b></p> <p><b>Monitoring of products can be considered from point of:</b></p> <ul style="list-style-type: none"><li>○ <b>COMPLETE INFORMATION</b> – this is done by collecting data that have every necessary part or everything that is wanted about a certain activity.</li><li>○ <b>INFORMATION</b> – this is data or facts that have been collected during monitoring and processed about a specific activity.</li><li>○ <b>INPUT</b> –monitored by checking on the resources used to implement the planned activities and the process or situation through which it has been acted upon or integrated to produce or implement an activity; e.g. finance, labor, etc.</li></ul> <p><b>Product monitoring is done through :</b></p> <ul style="list-style-type: none"><li>○ <b>OUTPUT</b> – this monitored by checking the immediate result or product or manufactured,, especially during a fixed period of time by using the allocated resources as a result of an activity undertaken with the objective of obtaining such an output.</li><li>○ <b>QUALITY</b> – this is monitored by assessing the expression used for general standard or grade of an activity, which usually difficult to measure; e.g. color, test, etc.</li><li>○ <b>QUANTITY</b> – this is monitored by measuring the amount or number of input used to do the work and by measuring the amount of work or activities accomplished</li><li>○ <b>RELEVANCE</b> – is monitored by establishing some sensible or logical connection with the project such as a matter being discussed or investigated during monitoring.</li></ul> <p><b>c) <u>MEASURING PROGRESS</u></b></p> <p><b>Progress can be monitored by using the following methods:</b></p> <ul style="list-style-type: none"><li>○ <b>DATA COLLECTION</b> – project progress is measured by gathering</li></ul>



<p><b>MODULE – F:</b></p>	<p><b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT SYSTEM</b></p>
	<p>raw information on a regular basis for a specific purpose</p> <ul style="list-style-type: none"> <li>○ <b>INTERIM-REVIEW</b> – project can be reviewed by examining its operation to make sure that its progress is adequate, accurate, or correct within a period of time between two occurrences or periods (start point and current status).</li> <li>○ <b>MEANS OF VERIFICATION</b> – project progress can be measured by using the information from the project Logical frame developed at the initial stage and use the verification methods as evidence to check if what has been reported was available or achieved and provide reference and proof of the project activity that is accomplished truly or correctly.</li> <li>○ <b>PROGRESS REVIEW</b> – this type of monitoring helps to examine the development, usually of a gradual kind, at a certain point in time in the project life checking toward achieving a goal or reaching a higher standard during project implementation process</li> <li>○ <b>TIMELINESS</b> – monitoring the timeliness of the project and project activities helps to check if the project is happening or implemented at the right time or on an appropriate time</li> <li>○ <b>VARIANCE</b> – this is identified by monitoring the difference between two or more variables. This will help to know if there was a plus or minus difference from original plan of action</li> </ul> <p><b>d) <u>PROJECT MONITORING</u></b></p> <p><b>Project is monitored from the following point of views:</b></p> <ul style="list-style-type: none"> <li>○ <b>ACTIVITY</b> – monitoring of project activities is done by collecting data on the process of implementing in relation to accomplishment of the specific objectives, budget, time frame, etc.</li> <li>○ <b>COMPONENT</b> – monitoring of project components focuses on the main part of a project activity, usually when the components are containing more than one activity and sub-activities detailed assessment should be done</li> <li>○ <b>DATA</b> – during monitoring of activities, raw information, often in the form of facts or figures is obtained from the monitoring activity and is used as a basis for making comparisons, calculations or drawing conclusions after analysis is made.</li> <li>○ <b>DELIVERABLES</b> – project monitoring involves checking the outputs or outcomes from a piece of work that is part of a larger project, often contractually identified both in time and content.</li> <li>○ <b>EFFECTIVENESS</b> – this can be monitored by checking in to what is causing a result, especially the desired or intended result without exceeding the allocated or planned resource;</li> <li>○ <b>EFFICIENCY</b> – this can be monitored by assessing the ability to do something well or achieve a desired result without wasted energy or effort ; the degree to which something is done well or without</li> </ul>

<p><b>MODULE – F:</b></p>	<p><b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT SYSTEM</b></p>
	<p>wasted energy</p> <ul style="list-style-type: none"> <li>○ <b>PROBLEMS AND LAPSES</b> – this can be monitored by assessing the state of decline in value, quality, or conduct in projects during implementation.</li> <li>○ <b>RESOURCE</b> – this is monitored by checking the planned/budgeted resources and supplies required for project implementation such as money, personnel, equipment, etc. Against what has been used to implement the project activities.</li> <li>○ <b>SCOPE - project</b> scope can be monitored by looking into the range of activities covered, the objective it addresses, or from its area of operation, etc.</li> <li>○ <b>TARGET / BENEFICIARY</b> – this can be monitored by checking if the project activities are addressed to those community or individuals who are initially targeted to receive benefits from the project through the project activities.</li> </ul> <p><b>e) <u>COMPARE RESULTS</u></b></p> <ul style="list-style-type: none"> <li>○ <b>AUDITING</b> - a systematic check or assessment, especially of the efficiency or effectiveness of an organization or a project activity.</li> <li>○ <b>COST-EFFECTIVE</b> - economically worthwhile in terms of what is achieved for the amount of money spent</li> <li>○ <b>INDICATORS</b> – something that can be observed or calculated and used to show the presence, accomplishment, state of a condition or trend; an instrument or gauge that measures something and registers the measurement</li> <li>○ <b>SETTING STANDARD</b> – a level of quality or excellence that is accepted as the norm or by which actual attainments are judged</li> </ul> <p><b>f) <u>PREDICTIVE MONITORING</u></b></p> <ul style="list-style-type: none"> <li>○ <b>CRITICAL ASSUMPTION</b> – assumption containing or involving comments and opinions that analyze or judge something, especially in a detailed way explaining the act of taking over responsibility for something</li> <li>○ <b>RISK ANALYSIS</b> – examining the chance of danger (that is likely to happen) that might take place to incur something harmful, dangerous, or detrimental</li> <li>○ <b>RISK ASSESSMENT</b> - a judgmental study about a project based on an understanding of the situation to determine the chance of danger to incur in something harmful, dangerous, etc.</li> <li>○ <b>RISK IDENTIFICATION</b> - the action of identifying or an act of recognizing and naming the dangerous situation or anything harmful to the project</li> </ul> <p><b>g) <u>TAKING CARE</u></b></p> <ul style="list-style-type: none"> <li>○ <b>INVENTORY CONTROL</b> - a list of things, especially items of</li> </ul>


<b>MODULE – F:</b>	<b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT SYSTEM</b>
	property, assets, or other resources taken for control purposes
<b>Review questions</b>	<p>Clarifying concepts</p> <ul style="list-style-type: none"> <li>■ Define monitoring</li> <li>■ Define evaluation</li> <li>■ What is the difference between monitoring and evaluation</li> <li>■ Do you have experience in project monitoring /evaluation? Please share your experience with your colleagues.</li> </ul>
<b>Session Attachments</b>	N/A

## 6.4 Session – F2: Performance Measurement and Evaluation

<b>MODULE – F:</b>	<b>MONITORING &amp; EVALUATION OF O&amp;M MANGEMENT</b>
<b>SESSION – F2</b>	<b>PERFORMANCE MEASUREMENT AND EVALUATION</b>
<b>Introduction</b>	<p>Effective evaluation of the status of operation and maintenance depends primarily on the ability to measure current performance. This can be achieved using indicators and targets for the performance of different functions.</p> <p>Evaluation is made through performance indicators defined as variables whose purpose is to measure change in a process or function. Indicators are collected at regular intervals through regular reports, to track the way in which a system is performing or an activity is unfolding.</p> <p>Evaluation requires the situation to be assessed both at the beginning and at the end of a certain activity.</p>
<b>Objective</b>	<p>At the end of this module participants will be able to:</p> <ul style="list-style-type: none"> <li>▪ Define the concept evaluation</li> <li>▪ Set evaluation standards</li> <li>▪ Acquire the necessary skill for O&amp;MM evaluation</li> <li>▪ Conduct effective evaluation activities.</li> </ul>
<b>Outputs</b>	Creating knowledge how operation and maintenance management of rural water supply schemes by the various stakeholders of government body.
<b>Timing</b>	1 hour
<b>Target Group</b>	Regional Water Bureau, Zone and Worda Water Offices, Revolving fund offices, local service providers and WASHCOs.
<b>Methodology</b>	Lecture and discussions.

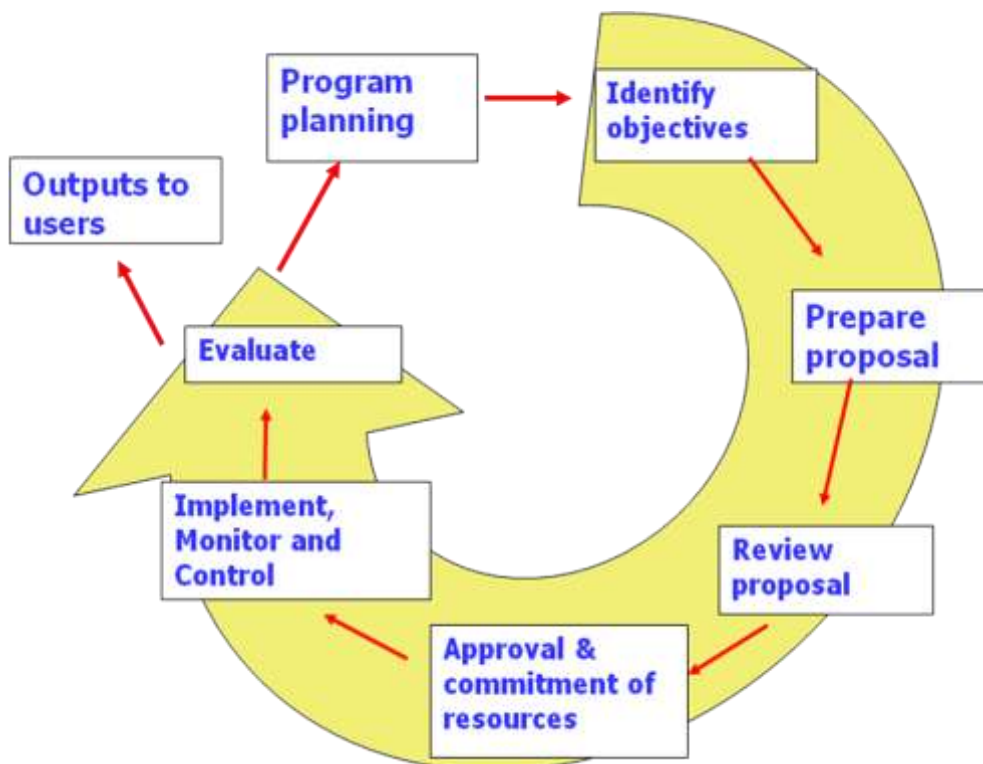
<b>MODULE – F:</b>	<b>MONITORING &amp; EVALUATION OF O&amp;M MANGEMENT</b>
<b>Session Guide</b>	
<b>Step 1: Definition of Evaluation</b>	<p>1. <b>UN definition says:</b></p> <p>‘ Evaluation is a process which attempts to determine as systematically and objectively as possible the <b>relevance, effectiveness and impact</b> of activities in the light of their objectives, i.e. their aims and purposes.’</p> <p>It usually involves in comparison “With and Without Scenarios”.</p>
<b>Step 2: Types of Evaluation</b>	<ul style="list-style-type: none"> <li>✓ <b>ON-GOING EVALUATION</b> (conducted at short intervals during the project/program implementation period – specially for sensitive projects)</li> <li>✓ <b>MID-TERM REVIEW</b> – conducted at the middle of the project period to check on how well the project was going for its half time to be able to decide on what corrections need to made for the remaining time.</li> <li>✓ <b>TERMINAL EVALUATION – END-OF-PROJECT EVALUATION</b> (conducted at the time of project/program completion)</li> <li>✓ <b>EX-POST EVALUATION</b> (Impact Assessment - conducted some years later after completion of the project)</li> </ul>
<b>Step 3: Why Evaluate</b>	<ul style="list-style-type: none"> <li>■ Most common reason for evaluating a program is to determine the effectiveness of the previous activities so that future programs can be designed and implemented in a better or improved manner.</li> </ul> <p><b>Other reasons could be:</b></p> <ul style="list-style-type: none"> <li>■ Assessing success or failure</li> <li>■ Testing objectives</li> <li>■ Contribution to organizational goals</li> <li>■ Conducted as a routine or usual control process</li> <li>■ Contribution to learning objectives</li> </ul>
<b>Step 4: Preparation of Evaluation Worksheet</b>	<p><b>a) Project objective</b></p> <ul style="list-style-type: none"> <li>■ What is the objective?</li> <li>■ What were the attainment indicators?</li> </ul> <p><b>b) Immediate project objectives</b></p> <ul style="list-style-type: none"> <li>■ What are the immediate objectives?</li> <li>■ What indicators confirm the achievement?</li> <li>■ What data available for each indicator?</li> <li>■ What major assumptions were identified?</li> </ul> <p><b>c) Outputs</b></p> <ul style="list-style-type: none"> <li>■ List planned outputs</li> <li>■ Identify schedule intended for completion</li> </ul>



<b>MODULE – F:</b>	<b>MONITORING &amp; EVALUATION OF O&amp;M MANGEMENT</b>	
	<ul style="list-style-type: none"> <li>■ Identify the major assumptions</li> <li>■ Show whether it is materialized or not</li> </ul> <p><b>d) Activities</b></p> <ul style="list-style-type: none"> <li>■ List major scheduled activities</li> <li>■ List type of impact for each activity</li> <li>■ Identify the major assumptions made for each activity</li> <li>■ What actions were taken to mitigate the conflicts (if any) between the activities</li> </ul> <p><b>e) Inputs</b></p> <ul style="list-style-type: none"> <li>■ Identify the apportioned provision for each input</li> <li>■ Show those provided to date</li> <li>■ Show whether it has been materialised</li> <li>■ Indicate actions taken to mitigate conflicts between activity and project</li> </ul>	
<p><b>Step 5:                  Choosing                  Evaluation                  Method                  Process</b></p> <p style="text-align: center;">and</p>	<p style="text-align: center;"><u><b>CRITERIA</b></u></p> <ul style="list-style-type: none"> <li>■ <b>PERFORMANCE</b> – use of resources, timeliness</li> <li>■ <b>QUALITY</b> – adherence to accepted standards – work precision</li> <li>■ <b>RELEVANCE</b> – importance of research to national priorities</li> </ul>	<p style="text-align: center;"><u><b>METHOD</b></u></p> <p style="text-align: center;"><b>PERFORMANCE AUDIT                  (resources, process)</b></p> <p style="text-align: center;"><b>PEER (expert) REVIEW</b></p> <p style="text-align: center;"><b>COMPREHENSIVE (technical,                  socio-economic)</b></p>
<p><b>THE EVALUATION PROCESS</b></p> 		

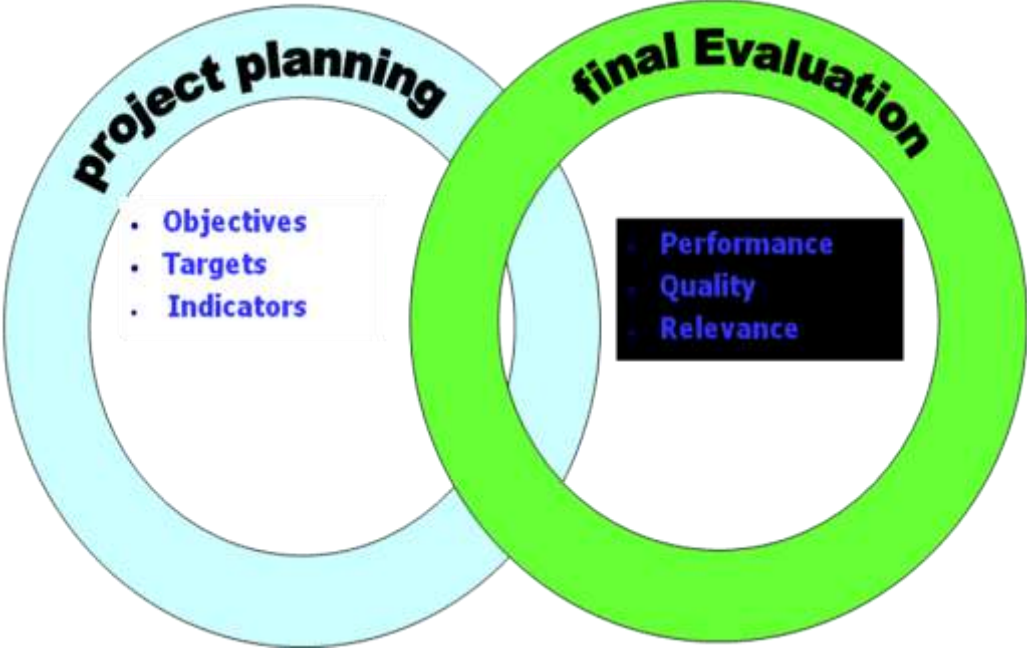
**MODULE – F:**

**MONITORING & EVALUATION OF O&M MANGEMENT**



**THE LINK BETWEEN PLANNING AND EVALUATION**



<p><b>MODULE – F:</b></p>	<p><b>MONITORING &amp; EVALUATION OF O&amp;M MANGEMENT</b></p>
	
<p><b>Step 6: Performance Indicators</b></p>	<ul style="list-style-type: none"> <li>▪ <i>Performance indicators</i> are measures of the <i>efficiency</i> and <i>effectiveness</i> of the Water Utilities with regard to specific aspects of the Utility’s activity and of the system’s behavior.</li> <li>▪ International Water Association (IWA) defined performance indicator as a ratio between variables of the same nature (e.g., %) or of different natures (e.g., Birr/m<sup>3</sup> or liters per service connection).</li> <li>▪ Performance Indicators are being used to monitor and evaluate the operation and maintenance stage of a number of rural water supply schemes.</li> <li>▪ Such indicators serve a valuable purpose in determining the success or otherwise of an individual scheme being monitored and evaluated using a number of criteria on a regular, on-going basis, and provide the basis for timeous and appropriate interventions to assist in the long-term functional and financial sustainability of the schemes.</li> </ul> <p><b>Key Performance Indicators:</b></p> <p><b>Category of Performance Indicators</b></p> <ol style="list-style-type: none"> <li>1. Operational</li> <li>2. Financial</li> <li>3. Management</li> <li>4. Maintenance</li> <li>5. Environmental</li> </ol>

<b>MODULE – F:</b>	<b>MONITORING &amp; EVALUATION OF O&amp;M MANGEMENT</b>
	<p><b>1. Operational KPIs</b></p> <p><b>a) Working Scheme</b></p> <p>Data required calculating coverage:</p> <p style="margin-left: 40px;">A      Total Number of functioning on-spot Schemes</p> <p style="margin-left: 40px;">B      Total Number of existing Schemes</p> <p>The indicator is calculated as:</p> $\text{Working Schemes (\%)} = \left[ \frac{A}{B} * 100 \right]$ <p><b>b) Stock Availability</b></p> <p>Data required calculating coverage:</p> <p style="margin-left: 40px;">A      Number of necessary items in stock</p> <p style="margin-left: 40px;">B      Total Number of necessary items in stock</p> $\text{Stock availability \%} = \left[ \frac{A}{B} * 100 \right]$ <p><b>c) Water Consumption</b></p> <p>The following data are required to calculate the indicator:</p> <p style="margin-left: 40px;">A. Total annual consumptions at point water sources (litres)</p> <p style="margin-left: 40px;">B. Number of households uses the point water source</p> <p style="margin-left: 40px;">C. Average number of persons living in the household</p> <p style="margin-left: 40px;">D. Per capita consumption of point water source (l/c/d)</p> $D = \left[ \frac{A}{(B * C * 365)} \right]$ <p><b>2. Financial Performance Indicators</b></p> <p><b>a) Basic O&amp;M Cost Recovery</b></p> <p>The following data are required to calculate the indicator:</p> <p style="margin-left: 40px;">A. Total expenditure for operation &amp; maintenance in a year (Birr)</p> <p style="margin-left: 40px;">B. Total revenue (sales) in a year (Birr),</p> <p style="margin-left: 40px;">C. The basic O&amp;M cost recovery expressed as (%)</p> $C = \left[ \frac{A}{B} * 100 \right]$ <p><b>b) Cash Balance</b></p> <p>The following data are required to calculate the indicator:</p>

MODULE – F:	MONITORING & EVALUATION OF O&M MANGEMENT										
	<p>A. Closing balance at end of previous month (Birr)                      B. Payment made in current month (Birr),                      C. Amount received in current month (Birr)                      D. Cash Balance (Birr)</p> $D = [A - B + C]$ <p><b>c) Late Payment</b>                      The following data are required to calculate the indicator:                      A. Total of arrears payment at end of period (Birr)                      B. Total of sales for period (Birr),                      C. Late payment (%)</p> $C = \left[ \frac{A}{B} * 100 \right]$ <p><b>3. Management Performance Indicators</b>  <b>a) Financial Accountability</b>                      Recommended rate of this indicator are as follows:</p> <table border="1"> <thead> <tr> <th>Rating</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0%</td> <td>If the WASHCO either cannot or will not disclose details of their income and/or expenditure</td> </tr> <tr> <td style="text-align: center;">33%</td> <td>If the WASHCO is willing to open its financial records for the inspection, but the records are incomplete and/or inaccurate and/or disorganized.</td> </tr> <tr> <td style="text-align: center;">67%</td> <td>If the WASHCO is keeping complete and accurate cashbooks for both their Petty Cash and their Current Account.</td> </tr> <tr> <td style="text-align: center;">100%</td> <td>If the WASHCO is able to produce income and expenditure statements (using generally accepted accounting principles) from their financial records (including accounts payable and account receivable).</td> </tr> </tbody> </table> <p><b>b) Accountability “Up” to Woreda Water Office</b>                      The following data are required to calculate the indicator:                      A. Number of report submitted to WWO                      B. Number of reports required to be submitted                      C. Accountability in delivering reports as (%)</p> $C = \left[ \frac{A}{B} * 100 \right]$ <p><b>c) Accountability “Down” to Community</b>                      The following data are required to calculate the indicator:</p>	Rating	Description	0%	If the WASHCO either cannot or will not disclose details of their income and/or expenditure	33%	If the WASHCO is willing to open its financial records for the inspection, but the records are incomplete and/or inaccurate and/or disorganized.	67%	If the WASHCO is keeping complete and accurate cashbooks for both their Petty Cash and their Current Account.	100%	If the WASHCO is able to produce income and expenditure statements (using generally accepted accounting principles) from their financial records (including accounts payable and account receivable).
Rating	Description										
0%	If the WASHCO either cannot or will not disclose details of their income and/or expenditure										
33%	If the WASHCO is willing to open its financial records for the inspection, but the records are incomplete and/or inaccurate and/or disorganized.										
67%	If the WASHCO is keeping complete and accurate cashbooks for both their Petty Cash and their Current Account.										
100%	If the WASHCO is able to produce income and expenditure statements (using generally accepted accounting principles) from their financial records (including accounts payable and account receivable).										

<b>MODULE – F:</b>	<b>MONITORING &amp; EVALUATION OF O&amp;M MANGEMENT</b>
	<p>A. Number of meeting held with the community                      B. Number of meetings required to be held                      C. Number of meeting conducted as (%)</p> $C = \left[ \frac{A}{B} * 100 \right]$ <p><b>4. Maintenance Performance Indicators</b></p> <p><b>a) Maintenance costs as a %age of total operating costs</b></p> <p>The following data are required to calculate the indicator:</p> <p>A. Total Annual maintenance cost (Birr),                      B. Total Annual operation and maintenance cost (Birr) excluding depreciation and financing charges                      C. The ratio of the maintenance cost against the overall operation cost (%)</p> <p>The indicator is calculated as:</p> $C = \left[ \frac{A}{B} * 100 \right]$ <p><b>b) Preventive Maintenance costs as a %age of total Maintenance costs</b></p> <p>The following data are required to calculate the indicator:</p> <p>A. Total Annual preventive maintenance cost (Birr),                      B. Total Annual maintenance cost (Birr)                      C. The ratio of the preventive maintenance cost against the overall maintenance cost (%)</p> <p>The indicator is calculated as:</p> $C = \left[ \frac{A}{B} * 100 \right]$ <p><b>5. Environmental performance</b></p> <p><b>a) Water Quality</b></p> <p>The following data are required to calculate the indicator:</p> <p>Indicator = Average of quality indices for selected key determinants,                      Note:-</p> <ul style="list-style-type: none"> <li>▪ The two key determinants recommended for the water quality monitoring programme are faecal coli forms and turbidity. It is recommended that residual chlorine is measured for reference purposes, but that this does not form part of the indicator.</li> </ul>

**MODULE – F:**

**MONITORING & EVALUATION OF O&M MANGEMENT**

- It is recommended that the quality index for a particular determinant for a sample meeting the WHO standard be set at 100%, that a Class I be set at 90% and a Class II be set at 70%. The quality index of a determinant which is below Class II standard should be set at 0%.
- It is recommended that at least three samples be taken on at least one sampling trip every six month. The samples should be taken accordingly to the prescribed method, and from different points in the scheme.
- Daily recorded observations by the WASHCO (using simple qualitative criteria such as colour, taste and smell) should be encouraged to supplement the formal water quality monitoring programme.

**Performance Evaluation**

Performance evaluation is the outcome of interpreting a range of performance indicators in relation to their respective targets. Indicators are collected at regular intervals through regular reports, to track the way in which a system is performing or an activity is unfolding.

**Table 6-3: Feedback on Performance Evaluation**

No.	Key Performance Indicators	Criteria for Performance Evaluation	Rating
Woreda Name _____, Name of Kebele _____ Scheme Name: _____, Name of WaSHCO _____			
1	Operational Performance	1. If the working status of the schemes is >90%, score=5  If between 80 and 89.9%, Score = 3 If between 70 and 79.9%, Score = 1 If < 70%, Score = 0	
		2. If the Stock availability is > 80%, score =5  If between 70 and 79.9%, Score = 3 If between 50 and 69.9%, Score = 1 If < 50%, Score = 0	
		3. Water Consumption @1.5km radius is >15l/c/d, score =5  If between 10 and 14.9, Score = 3 If < 10%, Score = 1	
2	Financial Indicator	1. Revenue Collection Efficiency: If > 90%, Score = 5  If between 80 and 89.9%, Score = 3 If between 70 and 79.9%, Score = 1 If < 70%, Score = 0	



MODULE – F:		MONITORING & EVALUATION OF O&M MANGEMENT	
			2. Basic O&M Cost Recovery: if > 1.30, Score =5 If between 1.15 and 1.29%, Score = 3 If between 1.0 and 1.14 Score = 1 If < 1.0, Score = 0
			3. Late Payment: If < 5%, score =5 If between 10 and 5.1% Score = 3 If between 15 and 10.1 Score = 1 If > 15%, Score = 0
		3	Management Indicator 1. Financial Accountability: <ul style="list-style-type: none"> <li>▪ If the WASHCO is able to produce income and expenditure statements (using generally accepted accounting principles) from their financial records (including accounts payable and account receivable), <b>Score =4</b></li> <li>▪ If the WASHCO is keeping complete and accurate cashbooks for both their Petty Cash and their Current Account., <b>Score = 3</b></li> <li>▪ If the WASHCO is willing to open its financial records for the inspection, but the records are incomplete and/or inaccurate and/or disorganized, <b>Score =1.5</b></li> <li>▪ If the WASHCO either cannot or will not disclose details of their income and/or expenditure, <b>Score =0</b></li> </ul>
			2. Accountability for reporting to WWO If the WASHCO deliver the report by 100%, score =4 If 80%, score = 3 If 60%, score =2 If < 50%, score = 0 3. Accountability “Down” to Community If the WASHCO conduct meeting with community by 100%, score =4 If 80%, score = 3 If 60%, score =2 If < 50%, score = 0



<b>MODULE – F:</b>	<b>MONITORING &amp; EVALUATION OF O&amp;M MANGEMENT</b>		
	4	Maintenance Indicator	<ol style="list-style-type: none"> <li>1. If the number of maintenance personnel divided by the Number of schemes &gt; 80%, score = 4                      If between 50% and 79.9%, score =2                      If &lt; 50, Score =0</li> <li>2. If the number of work orders for preventive maintenance divided by the number of total maintenance work orders                      &gt;-80%, score =4                      If between 50% and 79.9%, score =2                      If &lt; 50, Score =0</li> <li>3. If the number of work orders not completed (due to various ) divided by the number of total work orders (at the end of the month) &lt; 10%, score =4                      If between 10 – 20%, score =2                      If &gt; 20%, score =1</li> <li>4. If the preventive maintenance cost divided by the total maintenance cost &gt;25%, score =4                      If between 10 – 24.9%, score =3                      If &lt; 10%, score =1</li> </ol>
<b>Review</b>	<ul style="list-style-type: none"> <li>▪ Explain why end-of-project evaluation is an important step in the project cycle</li> <li>▪ Describe the linkage between planning and end-of-project evaluation</li> <li>▪ Identify some criteria and indicators used in end-of-project evaluation</li> </ul>		
<b>Session Attachments</b>	None		



## 6.5 Session – F3: Reporting and Documentation

<b>MODULE – F</b>	<b>MONITORING AND EVALUATION OF O&amp;M MANAGEMENT</b>
<b>SESSION – F3</b>	<b>REPORTING AND DOCUMENTATION</b>
<b>Appropriate Facilitator Background</b>	Well experienced Consultant in monitoring and evaluation of rural water system
<b>Introduction</b>	Reporting is an indispensable part of all management systems as it provides the key input to performance evaluation. Control of operation and maintenance activity is defined as obtaining conformity with the organizations plans and policies. Management control is dependent on performance reports and records. The information required for these reports must be generated by the operation and maintenance and accounting systems. Such reports allow management to measure performance and compare actual performance with standards and targets. The results may indicate that corrective action is required to obtain conformity with the plan.
<b>Objectives</b>	<ul style="list-style-type: none"> <li>▪ The objective of this section is to create awareness on the preparation of report and documentation.</li> </ul>
<b>Outputs</b>	<p>Participants understood the necessity of the establishment of spare part outlets and shops:</p> <ul style="list-style-type: none"> <li>▪ Ensured the reporting system;</li> <li>▪ Ensured the documentation of data and information of O&amp;M;</li> </ul>
<b>Timing</b>	1 hours
<b>Target Group</b>	<ul style="list-style-type: none"> <li>▪ Regional Water Bureau</li> <li>▪ Revolving Fund Office</li> <li>▪ Zone and Woreda Water offices</li> <li>▪ Local Service Providers.</li> </ul>
<b>Methodology</b>	<ul style="list-style-type: none"> <li>▪ Presentation and discussion</li> </ul>
<b>Session Guide</b>	



**Step 1:  
 Report  
 Requirements**

*a) Daily Report*

Daily report prepared by the scheme care takers, operators, or technicians of the water supply service and submitted to WASHCO, using the formats prepared for the purpose.

*b) Monthly Report*

Monthly report prepared by the WASHCO and submitted to Woreda Water Office.

*c) Quarterly Report*

The Woreda Water Office should submit quarterly performance reports to the ZWO & RWB. The ZWO & RWB, in turn, should compile and assess the quarterly reports received from Woredas and summarize them in to annual reports. These reports will provide data on the performance of O&MM activities, which could be used for analysis. Special trends, needs or requirements should also be conveyed to concerned authorities.

*d) Annual Report*

Quarterly report prepared by the WASHCO/WWO and submitted to ZWO and RWB. The Woreda Water office shall provide technical assistance in the preparation of the report.

The following are some of examples of reporting system of WASHCO at two levels;

- (1) Reporting to the administration (WWO) and
- (2) Reporting to the user community.

**Table 6-4: Description of Reporting to the Administration**

<b>Monitoring Activity -1</b>	<b>Monthly Reporting to the administration</b>
Objective	<ul style="list-style-type: none"> <li>❖ To enable WASHCO to review O &amp; M and management status regularly (monthly basis)</li> <li>❖ To establish close communication and information sharing between the WASHCO and the WWO</li> </ul>
Main Actors	WASHCO
Procedure (See the sample of monthly report attached)	<p>(1) WASHCO members have a meeting to review the following jointly at the end of each month to see;</p> <ul style="list-style-type: none"> <li>❑ <b>Financial aspects:</b> (monthly income and expenditure, balance (total of cash in hand and bank deposit, sufficiency of last balance to cover O &amp; M cost);</li> <li>❑ <b>Technical aspects:</b> (functioning of the water scheme, malfunction observed during the month, stock of spare parts);</li> <li>❑ <b>Management aspects:</b> (work performance of WASHCO members, organization of mass meeting (general assembly) to inform users of O &amp; M and management status, issues to be discussed with users);</li> </ul>



- ❑ Others to be discussed with the WWO
  - (2) Secretary of the WASHCO formulate a monthly report by summarizing the points described above.
  - (3) Submit the report to the WWO (any occasions that one of WASHCO members or other community member (e.g. kebele executive) goes to the Woreda town (e.g. market day, meeting held in woreda town, etc.)
- When WWO staff receives a monitoring report from WASHCO, he/she checks roughly the report to see if there is any serious problem in the use & management of the water scheme as well as any progress of certain issues.

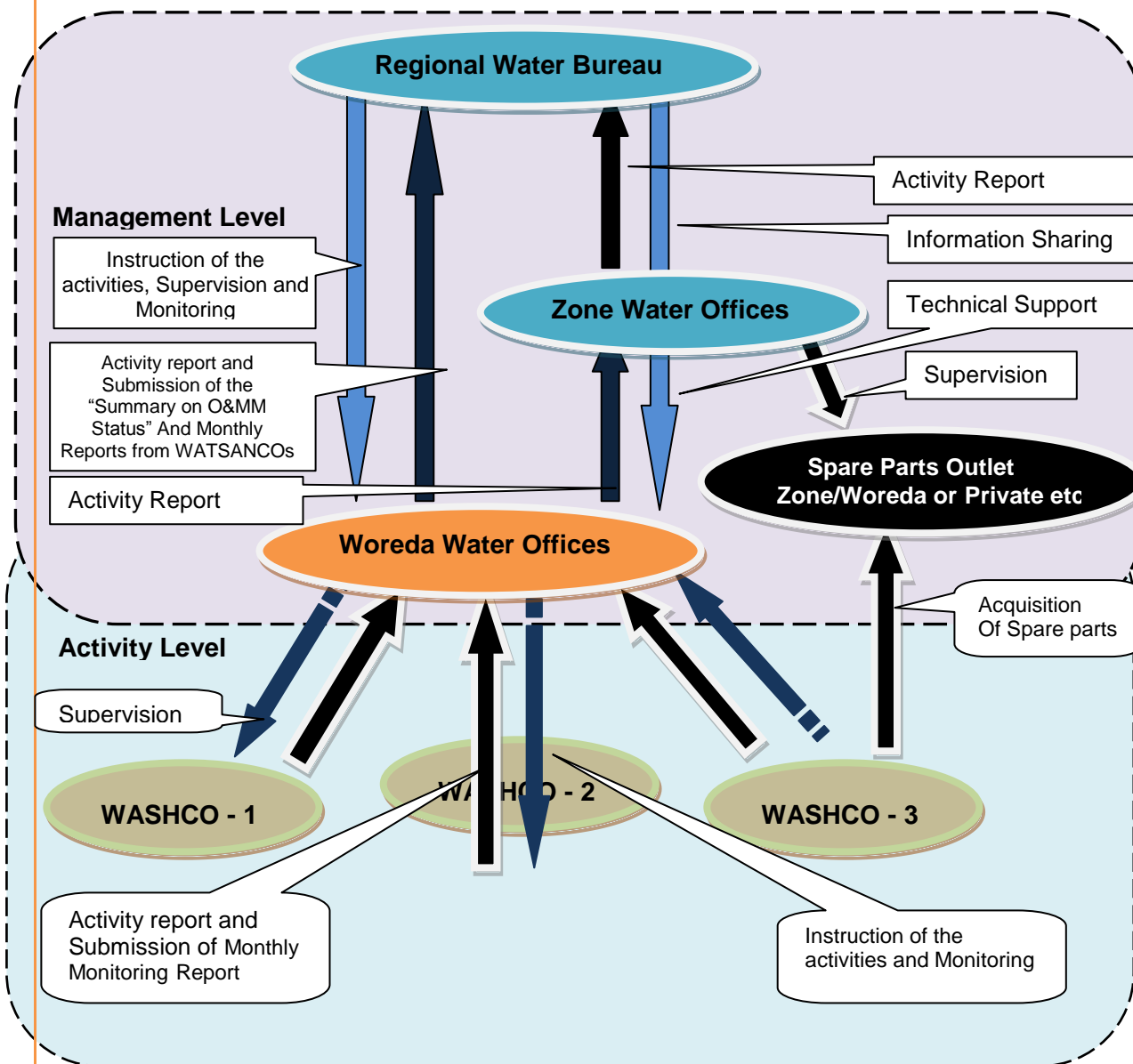
**Table 6-5: Description of Reporting to the Users**

Monitoring Activity - 2	Monthly Reporting to the Users
Objective	<ul style="list-style-type: none"> <li>❑ To enable users to review O &amp; M and management status regularly (monthly basis)</li> <li>❑ To establish transparency and trust between the WASHCO and the users</li> </ul>
Main Actors	WASHCO
Procedure	<p>WASHCO is expected to share information on O &amp; M and management with the users as mentioned above. There are different communication options:</p> <ul style="list-style-type: none"> <li>❑ Option 1: Communication by holding mass meeting</li> <li>❑ Option 2: Communication with “Billboard”</li> <li>❑ Option 1: Mass meeting                             <ul style="list-style-type: none"> <li>❑ WASHCO organizes a mass meeting (general meeting) to share monitoring information mentioned above.</li> <li>❑ In that meeting, WASHCO collect ideas/comments from users and discuss with users how to improve issues with regard to water, sanitation and hygiene observed in the community.</li> <li>❑ Time, venue convenient for main water scheme users (in most of cases, women) have to be taken into consideration as other community meetings.</li> </ul> </li> <li>❑ Option 2: Information sharing through community billboard                             <ul style="list-style-type: none"> <li>▪ WASHCO put important information on a board installed in a place where many community members have chance to look.</li> <li>▪ WASHCO need to update the information regularly so that users can get actual information on the O &amp; M and management of the water scheme.</li> </ul> </li> </ul> <p>(About the water billboard, please refer to the following page).</p>



### Communication System

**Figure-6 1: Communication System for O&M Management of RWS**



Data/information and reports should be handle properly both in hard as well as softcopies in computer with appropriate computer application such as Microsoft Word, Excel, Access of database management. Hard copies should be labelled and handle in box files.

**Review Questions**

1. How would be the existing reporting and documentation system at your place?

**Session Attachments**

See Attachment - 1



Attachment – 1:

**WASHCO Monthly Report on O & M and Management**  
 (Example for Afridev hand pump)

Reporting month (Month/Year)		Sene, 2005 E.C	
1. Name of WASHCO		_____ WASHCO	
2. Name of Woreda/Kebele		_____ Woreda, _____ kebele	
3.Type of Scheme (circle the water scheme managed by the WASHCO)			
( Afridev )		Indian Mark II	On-spot spring
Gravity spring scheme		Motorized scheme	
4. Operation Hours		(1 <sup>st</sup> service ) from 1 to 5 (2 <sup>nd</sup> service) from 9 to 12	
5. Number of households in current use of scheme			50
6. Present WASHCO members			
Chairperson: Tariku Tasew		Store Keeper: Hiwot Kassa	
Secretary: Tadele Kebede		Inspector: Takele Maru	
Cashier: Alemitu Alemu			
7. Person Employee(s)			
Title: Pump attendant		Name: Zeleke Tolla	Salary/annum: (birr): 2000.00
Title:		Name:	Salary: (birr):
Title:		Name:	Salary: (birr):
8.WASHCO Regular Meeting (Date/Month/Year)			
Main Agenda:		(1) Income and expenses of the month	
		(2) Maintenance of Hand-dug well	
		(3) Purchase of spare parts for replacement	
9. WASHCO Ad hoc Meeting (Date/Month/Year) (if any)			None
Main Agenda			
10.General Assembly (Date/Month/Year)			10/10/2005
11. Water Tariff		3.00 Birr per household per month	
12. Income of the reporting month			
Water fee collection:			150.00 Birr
Other source ( )			0.00 Birr
<b>Total income of the month</b>			<b>150.00 Birr</b>
13.Expenses of the reporting month			
Remuneration for pump attendant			120.00 Birr
Transportation for reporting to the WWO			10.00 Birr
Copy of monitoring form (10 copies)			5.00 Birr
<b>Total Expenses of the month</b>			<b>135.00 Birr</b>
14.Bank Account/Micro-Financing(Name of Institute)		Omo Micro Finance	



15. Financial Summary		
Amount of deposit		600.00 Birr
Amount of cash in hand		120.00 Birr
Total Amount for O & M fund		1,005.00 Birr

16. Technical Aspects				Caretaker leader: Tesfu Birehanu			
(1) Weekly Inspection							
Check Date	1. Working condition			2. Does pump handle work Properly? (Yes/No)	3. Are bolts and nuts tightened? (Yes/No)	Remark	
	Check (Circle)	In case of "non-functioning"					
		When stop	When repair				
Hidar 1	<u>Functioning</u>	/	/	Yes	Yes	Water has not come up for unknown reasons	
	Non-Functioning						
Hidar 8	<u>Functioning</u>	/	/	Yes	Yes		
	Non-Functioning						
Hidar 15	<u>Functioning</u>	/	/	Yes	Yes		
	Non-Functioning						
Hidar 22	<u>Functioning</u>	Hidar 21	Not yet	No			
	Non-Functioning						
	<u>Functioning</u>						
	Non-Functioning						
(2) Monthly Inspection							
Check Date	1. Stroke Test	2. Bucket Test	3. Check Bearing	Remarks *If stroke or bucket test result increase by 5 times compared to the previous result, you must check plunger and foot-valve according to "maintenance and installation sheet" that are included in the "Maintenance Manual of Afridev hand pump.			
	Number of strokes to have water	Number of strokes to fill up 20 liters	Worn out? (Yes/No)				
Hidar 1	12	30	No				
(3) Spare Parts Stock (In regard to the "rod centralizer, enter the number of rod in the bracket)							
	U-seal	O-ring	Bobbin	Rod Centralizer	Bearing bush	Hanger Pin	Fulcrum Pin
For 1 year stock	2	1	1	(4)	8	0	0
Present stock	1	1	0	0	0	0	0
Last replacement	01/2004	01/2004	01/2004	01/2004	01/2004	01/2004	01/2004
Next replacement	07/2004	01/2005	01/2005	01/2005	07/2004	01/2006	01/2006
Issues and problems encountered and action taken							
The water scheme has not been functioning since 1 week. We need technical support (inspection) by the Woreda Water Office.							
Date of Submission: Tahisasse 1, 2004				Prepared by: Megersaa Tolla			



## Annexes: MONITORING FORMATS

Annex A: Form – 1: Work request (to be filled by WASHCOs and submitted to WWOs)

<b>Work Request:</b>	Work No.: _____
Scheme's Name _____	Scheme type <input type="checkbox"/> <input type="checkbox"/>
Sub Kebele _____	HDW                      SPD
Kebele _____	Hand Pump type _____
Woreda _____	
Ref No. _____	
Description of the mal-function (break down) _____ _____ _____ _____ _____ _____ _____	Is the scheme functional at the moment? <input type="checkbox"/> <input type="checkbox"/> Yes                  No
	Date the water supply stopped _____
	Request by _____
	Date request received by Woreda _____



**Annex B: Form – 2: Work Order (to be filled by WWOs and given to WASHCOs/Artisans)**

<b>Work Order</b>	No. _____
Scheme's Name _____ Scheme Type: <input type="checkbox"/> <input type="checkbox"/> Sub Kebele _____ HDW SPD Kebele _____ Hand Pump Type _____ Woreda _____ Ref No. _____	
Description of the work order: _____ _____ _____ _____	Date work order prepared _____ Prepared by _____ Signature _____ Date work order issued to Artisan _____
Report on the executed tasks _____ _____ _____ _____ _____	Date of maintenance _____ Maintained by _____ Signature _____ Maintenance approved by _____ _____ Signature _____



**Annex C: Form – 3: Community Logbooks (to be filled by WASHCOs for Preventive and Corrective Maintenance)**

Woreda \_\_\_\_\_ Kebele \_\_\_\_\_  
 Sub Kebele \_\_\_\_\_ Scheme's Name \_\_\_\_\_  
 Ref .No \_\_\_\_\_ Type of Scheme \_\_\_\_\_

No	Date of Break Down	Type of Break down	Date Maintained	Spare parts changed	Maintained by	Remark

**Note:** The spaces provided for date and type of break down will only be used for corrective maintenance



Annex D: Form – 4: Woreda Water Office Logbooks (to be filled by WWOs on monthly basis)

Woreda Name: \_\_\_\_\_

No.	Work request		Work order		Date maintenance report received	Maintenance done by	Remark
	Date	No.	Date	No.			



## Annex 6: DLA Monitoring Checklist

CBM requires five (5) improved focal areas, namely: 1) Organization and Management, 2) Community Participation, 3) Money Management, 4) Operation and Maintenance, and 5) Linkage and Relations with Others. The following is checklist for monitoring.

Focal Area	Issues to look for
Organization and Management	<input type="checkbox"/> Unity among V-WASHE members (e.g. any power struggle or conflicts?) <input type="checkbox"/> Are decision made democratically or is it a one-man show? <input type="checkbox"/> Are tasks shared well among V-WASHE members? <input type="checkbox"/> How are women and other vulnerable group involved in decision making? <input type="checkbox"/> Are meetings on regularly? <input type="checkbox"/> How effective are the meetings? Check for clear decisions made during past meetings. <input type="checkbox"/> Look at action plan. How V-WASHE is coordinating plan <input type="checkbox"/> Check for minutes. Are they produced and properly done?

Focal Area	Issues to look for
Community Participation	<input type="checkbox"/> How often does V-WASHE meet with the community? <input type="checkbox"/> What mechanism does V-WASHE use to report on its activities and get the ideas of the community? <input type="checkbox"/> Their active participation in communal tasks? <input type="checkbox"/> Community support to V-WASHE

Focal Area	Issues to look for
Money Management	<input type="checkbox"/> Type of collection method: How effective? <input type="checkbox"/> Bank account details <input type="checkbox"/> How much has been collected, banked? Physical count of cash with Treasurer is necessary <input type="checkbox"/> Bookkeeping: books available for financial records and how are they written? <input type="checkbox"/> Regular financial reports by treasurer <input type="checkbox"/> Accountability: regular reporting to community

Focal Area	Issues to look for
Operation and Maintenance	<input type="checkbox"/> Status of water supply facility <input type="checkbox"/> How often does the caretaker inspect the hand pump? <input type="checkbox"/> How often does APM provide preventive maintenance for hand pump? <input type="checkbox"/> Stock of spare parts in hand <input type="checkbox"/> Number of times hand pumps was repaired in a quarter, year? <input type="checkbox"/> How fast does V-WASHE handle breakdowns? <input type="checkbox"/> Regular cleaning of surrounding of hand pump, status of drainage? <input type="checkbox"/> Fencing around hand pump, and status of apron? <input type="checkbox"/> Maintenance record

Focal Area	Issues to look for
Linkage and Relation with Others	<input type="checkbox"/> What support has V-WASHE received from village head, D-WASHE, ADC, APM, local politicians and councilors? <input type="checkbox"/> What links does V-WASHE have with other V-WASHEs? <input type="checkbox"/> What conflict has V-WASHE found difficult to resolve?



**Annex 7: ADC Quarterly Monitoring Report**

(Consolidated by reporting Officer, the ADC member, E.g.: EHT, school manager, comm.. member etc)

Description	Responses
Name of ward	
Number of Area Pump Menders (Male/female)	
Number of active APMs	
Number of <u>APM water point repair work</u> reports submitted	
Total number of boreholes in catchment area /ward	
Number of boreholes working	
Number of defective boreholes	
Number of boreholes repaired in this quarter	
Number of protected wells working	
Number of protected wells repaired	
Number of people accessing safe water	
Number of people using pit latrines	
V-WASHE meetings conducted	
Number of water point/V-WASHE inspected/monitored	
Any other:	

*Other remarks on O&M activities*

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Prepared by:.....

Designation:.....

Date:.....





**Annex 8: APM Water Point Repair Work Form**

Prepared by APM

1. Reporting Date: \_\_\_\_\_
2. Name of APM : \_\_\_\_\_
3. Name of Water Point: \_\_\_\_\_
4. Name of Village: \_\_\_\_\_
5. Name of Ward : \_\_\_\_\_
6. Number of Household using the hand pump: \_\_\_\_\_
7. Type of the Pump in use: Model \_\_\_\_\_ Serial No. \_\_\_\_\_
8. Nature of repair work carried out: \_\_\_\_\_
9. Date of breakdown :     dd           /mm           /yy \_\_\_\_\_
10. Date breakdown reported : dd           /mm           /yy \_\_\_\_\_
11. Date repair works done : dd           /mm           /yy \_\_\_\_\_
12. Down time (number of days between breakdown and repaired) : \_\_\_\_\_
13. Date of previous repair : dd           /mm           /yy \_\_\_\_\_

14. Status of the Hand pump (Comments)

Fence	
Soak pit	
Drainage	
Apron	
Surrounding	

15. Status of V-WASHE

Number of members (Total/Male/Female)	
Is the V-WASHE active? (Example of activities)	
V-WASHE meeting (How often?)	
Amount of com. Contribution with V-WASHE	K. _____

16. Caretaker training : Already done / Done this time / Not yet(reason)

Amount paid to APM: K. \_\_\_\_\_ Cost of Spare parts: K. \_\_\_\_\_

Other remarks : \_\_\_\_\_

Prepared by (APM): \_\_\_\_\_ Date: \_\_\_\_\_ Sign: \_\_\_\_\_

Informed by : \_\_\_\_\_ Date: \_\_\_\_\_ Sign: \_\_\_\_\_

Position in V-WASHE: \_\_\_\_\_



## Annex 9: Tool kit Usage Movement Form (Log Book)

Log Book for use of Tool Kits

No.	Date Collected	APM Name	Items	Venue	Date of Return	APM Signature	Manager Signature	User Fee	Remarks
	Day / Month / Year	Mr./ Ms.		Village	Day / Month / Year			Paid/ Unpaid	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									



## Annex 10: Sample ADC Activity Plan

Action & related activities	Resources Needed for each activity	Responsible person/s	Where/ from whom Needed resources will come from	When the activity will be done (Timeframe)
<b>Sensitisation of Traditional Leaders</b>	<ul style="list-style-type: none"> <li>Village register</li> <li>Pens &amp; Paper</li> <li>People (human resource D-WASHE, LA)</li> </ul>	DLA Chairman, ADC Chairman	DLA	Every Quarter.
<b>V-WASHE formation &amp; Training</b>	<ul style="list-style-type: none"> <li>village register</li> <li>data on water points &amp; V-WASHE formed/active</li> <li>Pens &amp; Paper</li> <li>Human resource</li> <li>Resource materials</li> </ul>	ADC Chairman, DLA Traditional leadership	Community leadership, Community members, DLA	At least 10 V-WASHEs every quarter.
<b>Regular Meeting of ADC</b>	<ul style="list-style-type: none"> <li>Pens &amp; Paper</li> <li>O&amp;M reporting &amp; monitoring forms</li> <li>Paper</li> <li>Human Resources</li> </ul>	V-WASHE Caretaker, APM, Community	APM forms, Information from community members	Every Quarter
<b>APM repair works</b>	<ul style="list-style-type: none"> <li>Spare parts</li> <li>Transport</li> <li>Cash</li> <li>APM</li> </ul>	V-WASHE chairperson, (facilitation of meeting), Traditional leadership (mobilisation) Caretaker & APM	Shop in town, Community	Within two weeks



## Annex 11: COMMUNITY ACTION PLAN (sample)

Water Problem: Hand pump is unkempt & not properly operated.

Objective: Sustainability of hand pump.

Action & related activities	Resources Needed for each activity	Responsible person/s	Where/ from whom Needed resources will come from	When the activity will be done (Timeframe)
Collection of Community contributions.	<ul style="list-style-type: none"> <li>Cash</li> <li>Cash book/register</li> <li>Household register</li> <li>Pens</li> <li>People (human resource)</li> <li>Payments in kind</li> </ul>	V-WASHE treasurer	Community members	Throughout the year
Mobilization of community for contributions.	<ul style="list-style-type: none"> <li>Household register</li> <li>Pens</li> <li>Human resource</li> </ul>	V-WASHE Chairman, WASHE members, Traditional leadership	Community leadership, Community members,	Throughout the year
Reporting problems on Hand pump.	<ul style="list-style-type: none"> <li>Pens</li> <li>O&amp;M reporting &amp; monitoring forms</li> <li>Paper</li> <li>Human Resources</li> </ul>	V-WASHE Caretaker, APM, Community	APM forms, Information from community members	Throughout the year
Buying of spare parts & repair of hand pump when it breaks down	<ul style="list-style-type: none"> <li>Spare parts</li> <li>Transport</li> <li>Cash</li> <li>APM</li> </ul>	V-WASHE chairperson, (facilitation of meeting), Traditional leadership (mobilisation) Caretaker & APM	Shop in town, Community	Within two weeks
Holding of V-WASHE meetings	<ul style="list-style-type: none"> <li>People</li> <li>Agenda</li> <li>ADC members</li> </ul>	V-WASHE Chairperson	Community	Twice a year
Fencing of water point	<ul style="list-style-type: none"> <li>Poles &amp; sisal</li> <li>Labour (people)</li> <li>Digging tools</li> <li>Nails</li> <li>Transport</li> </ul>	V-WASHE Secretary, Caretaker, Traditional leadership (mobilisation)	Community	Once per year or as need arises.
Community hygiene education (Home visits)	<ul style="list-style-type: none"> <li>People</li> <li>Drums</li> <li>Posters</li> </ul>	V-WASHE Chairperson, Caretaker, WASHE members	Community Community RHC	2nd & 4th Quarters
Fund raising activities for O&M (E.g: growing maize & cotton, gardening etc)	<ul style="list-style-type: none"> <li>People</li> <li>Oxen, tractor</li> <li>Plough,</li> <li>Seed/fertilizer</li> <li>Hoes, axes</li> <li>Land/field</li> </ul>	V-WASHE chairperson (takes lead) WASHE members	Community	Farming season

