



Government of Malawi

Rural Water Supply Operation and Maintenance Series 9

District O&M Planning Handbook



Ministry of Agriculture, Irrigation and Water Development

March 2015



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Table of Contents

PREFACE	v
ACKNOWLEDGEMENTS	vi
List of Acronyms	vii
Section 1. Overview of the Handbook	1
What's inside?	1
Who should use this handbook?	4
Integrating O&M planning with existing district plans	4
How to use this handbook	5
Section 2. Recognize principal elements of O&M	7
Six principal elements of O&M	7
Section 3. Envision the Ideal Situation	10
Outline of Section3	10
Preparation: Before you begin.....	10
Step1. Review existing plans relating to WASH.....	12
Step2. Identify the district's ideal situation for O&M.....	12
Step3. Set the period of the plan	14
Step4. Set the district O&M target	14
Section 4. Design Outputs for the Ideal Situation	16
Outline of Section4	16
Step1. Identify actors in O&M.....	16
Step2. Set outputs for each principal O&M element	17
Step3. Identify the ideal roles of actors.....	20
Section 5. Formulate an O&M Plan	24
Outline of Section5	24
Log frame.....	24
Step1. Adopt items set in Sections3 and 4.....	27
Step2. Set indicators.....	29
Step3. Set means of verification	30
Step4. Set activities.....	31
Step5. Set inputs and source of budget.....	34
Step6. Set pre-conditions	36
Step7. Set important assumptions.....	36
Section 6. Estimate Budget of the Plan	40
Outline of Section6	40
Step1. Detail the activities	40
Step2. Decide activity frequency and length.....	42
Step3. Set tentative timeline for the activities	42

Section 7. Estimate Budget of the Plan.....	47
Outline of Section7	47
Step1. Make a list of necessary items for each activity.....	48
Step2. Set unit cost	48
Step3. Estimate budget	49
Step4. Review the entire budget	51

Section 8. Evaluate Outputs and Review Approaches.....	52
Background on the action cycle.....	52
Capturing and evaluating progress	53
Reviewing approaches: After Action Reviews	55

Appendices

Appendix 1 Reference to set up District Target & Overall Goal of District O&M plan
Appendix 2 Example of Ideal Situation on District O&M
Appendix 3 Example of Log frame formulated by Mchinji district
Appendix 4 Example of Plan of Operation
Appendix 5 Example of Budget estimation
Appendix 6 Check sheet for O&M planning

PREFACE

The purpose of this handbook is to introduce some methods for how to formulate a district-level plan on “Operation and Maintenance for Rural Water Supply” in the Republic of Malawi.

In Malawi, it is the user communities that are responsible for operation and maintenance (O&M) of rural water supply facilities. However, this community-led O&M approach still has challenges, such as insufficient WPC involvement in O&M, non-timely response to the breakage of the facility, insufficient access to spare parts supply, etc. Therefore, the role of district government in supporting community-led O&M is essential for further empowerment of the communities, for timely repair of water supply facilities, for the establishment of an effective spare parts supply chain, and for strengthening other initiatives that contribute towards sustainable O&M.

However, many district government offices face limited operating budgets allocated from central government, and financial assistance from donor agencies is not always guaranteed. This often limits the ability of the district to effectively support community-led O&M activities on a wider scale. Key strategies in overcoming this challenge are both to use available resources effectively, and to leverage additional funds for O&M.

Formulation of a good district O&M plan is one of the strategies to be considered in ensuring district support to communities is still realized within available or limited budget. The additional advantage to planning for O&M is that through sharing a detailed O&M plan with central government or donors, districts can also foster a greater understanding of the need and rationale for financial assistance.

From 2011 to 2014, the Project for Enhancement of O&M for Rural Water Supply in the Republic of Malawi has been conducting 10 test activities in Mchinji district since the project launched in 2011. The project carried out planning activities which specifically targeted Central Regional Water Development and Irrigation Office (RWDIO) and Mchinji District Coordination Team (DCT) members as one of the activity components. The Project team developed planning methods through their activities in Mchinji and solicited extensive input from other organizations working locally in the sector. Through recognition that other districts may have valuable input, district perspectives from outside of Mchinji have been included in this handbook as much as possible.

It is hoped that the experiences compiled in this handbook may provide useful information all over Malawi as Districts continue to develop strategies and plans for effective O&M service delivery.



Sandram C. Y. Maweru

SECRETARY FOR IRRIGATION AND WATER DEVELOPMENT

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This manual was produced by the “Project for Enhancement of Operation and Maintenance for Rural Water Supply in the Republic of Malawi” under the technical cooperation by Japan International Cooperation Agency (JICA).

A series of workshops were held in the project, and a lot of stakeholders in Malawi, Development Partners, and NGOs technically contributed in the formulation of the manual. The Ministry of Agriculture, Irrigation and Water Development therefore, extends special thanks to these stakeholders for allowing their staff to participate in the production of this manual.

The Ministry is also indebted to JICA for assisting in the development of the manual, and many who have not been mentioned here but made a contribution in different ways.

List of Acronyms

ADC	Area Development Committee
AMs	Area Mechanics
CBM	Community Based Management
DCT	District Coordination Team
DDP	District Development Plan
DSIP	District Strategy and Investment Plan
DWDO	District Water Development Officer
EWB	Engineers Without Borders Canada
EWs	Extension Workers
JICA	Japan International Cooperation Agency
LDF	Local Development Fund
M&E	Monitoring and Evaluation
MoAIWD	Ministry of Agriculture, Irrigation, and Water Development
NGO	Non-Governmental Organization
NWDP	National Water Development Programme
O&M	Operation and Maintenance
ODF	Open Defecation Free
ORT	Other Recurrent Transaction
PC	Personal Computer
PO	Plan of Operation
PSIP	Public Sector Investment Programme
RWDIO	Regional Water Development and Irrigation Office
TA	Traditional Authority
UNICEF	United Nations Children's Fund
VDC	Village Development Committee
VHWC	Village Health and Water Committee
WASH	Water, Sanitation and Hygiene
WMA	Water Monitoring Assistant
WPC	Water Point Committee

Section

1

Overview of the Handbook

**Objective of
Section 1**

- The facilitator understands the contents, purpose of, and method for using the handbook

What's inside?

This handbook has been prepared as a guide to facilitate the development of effective operation and maintenance (O&M) plans at district level in a workshop style fashion. It has been developed based on the experiences from planning activities conducted in Mchinji through the Project, and through incorporation of lessons learned in other Districts. It is a systematic procedure of district O&M planning that assumes the District Coordination Team (DCT) is mainly responsible for formulation of the plan. This planning method is designed to cater to mid- and long-term district O&M plans based on the future perspective of the planners. The content includes:

- Step-by-step facilitator guides and tips on facilitating a visioning, planning, and budgeting process for O&M,
- Strategies and tools for evaluating progress on the plan, learning from challenges, and adapting the approach so as to achieve intended outputs,
- Reference materials, including examples of outputs from the various stages of the planning process undertaken in Mchinji, are included as appendices.

Box 1 Steps in the O&M planning process described in this handbook

- (1) Identify principal elements of O&M and bringing it to a sustainable and more practical level**
- (2) Envision the ideal situation of O&M in the District**
- (3) Design outputs for the ideal situation**
- (4) Define what activities to do in order to bring about the ideal situation**
- (5) Put the planned activities on a timeline**
- (6) Set the budget required to carry out these activities**
- (7) Evaluate outputs and review approaches**

This planning method was verified through the planning activities with Mchinji DCT members and Central Regional Water Development and Irrigation Office (RWDIO) staff. In order to foster the analytical thinking of the planners and simplify the planning process, four supporting tools are suggested; 1) Ideal Situation Matrix, 2) Log frame, 3) Plan of Operation, 4) Budget

Estimation Format. The planning process, planning goals, and supporting tools which this handbook proposes based on the activity experiences are summarized in Figure 1.

Figure 1 Outline of proposed planning method

Planning process	Planning goals	Supporting tools
Recognize Principal Elements of O&M	<ul style="list-style-type: none"> Understanding the major elements of O&M planning 	<ul style="list-style-type: none"> Six major elements of O&M planning
Envision the Ideal Situation	<ul style="list-style-type: none"> Envisioning the Ideal situation on O&M in the District and goals to be achieved within a certain period 	<ul style="list-style-type: none"> Six major elements for O&M planning Ideal Situation matrix
Design Outputs for the Ideal Situation	<ul style="list-style-type: none"> Identifying the outputs for each of the six O&M element 	<ul style="list-style-type: none"> Six major elements for O&M planning Ideal Situation matrix
Formulate an O&M plan	<ul style="list-style-type: none"> Identifying means of achieving the Ideal status Setting activities based on the identified means of achievement 	<ul style="list-style-type: none"> Ideal situation matrix Log frame
Formulate a Schedule of Activities	<ul style="list-style-type: none"> Setting activities needed to achieve the goals over the specified period Modifying unrealistic (impractical) activity schedules 	<ul style="list-style-type: none"> Log frame Plan of Operation(PO)
Estimate Budget of the plan	<ul style="list-style-type: none"> Calculating the budget for activities required to achieve the goals Setting priorities in the planned activities and effective allocation of limited resources Modifying unrealistic activities in budgetary terms 	<ul style="list-style-type: none"> Budget estimation format Budget analysis Log frame PO
Evaluate Outputs and Review Approaches	<ul style="list-style-type: none"> Understand the importance of evaluating outputs and reviewing approaches Build evaluation and review practices in a district setting 	<ul style="list-style-type: none"> After Action Review Recommendations and lessons for future efforts

Throughout this handbook there are pieces of advice for planning, many of which were learned during the activities with Mchinji DCT members and RWDIO staff, and some from other Districts and organizations.

Who should use this handbook?

Planning as a DCT

O&M planning should be done not only by the District Water Development Officers but also by the DCT members of the relevant sectors. In this way, it can be expected that a variety of ideas will be incorporated into the plan.

Planning as an office

Many of the ideas presented in this handbook could also be used during planning at office level, with Extension Staff involved.

Necessity of good facilitation

The facilitator of the planning process needs to understand this planning method sufficiently to formulate a realistic plan. If the understanding of the facilitator is not enough, the plan may be unrealistic.

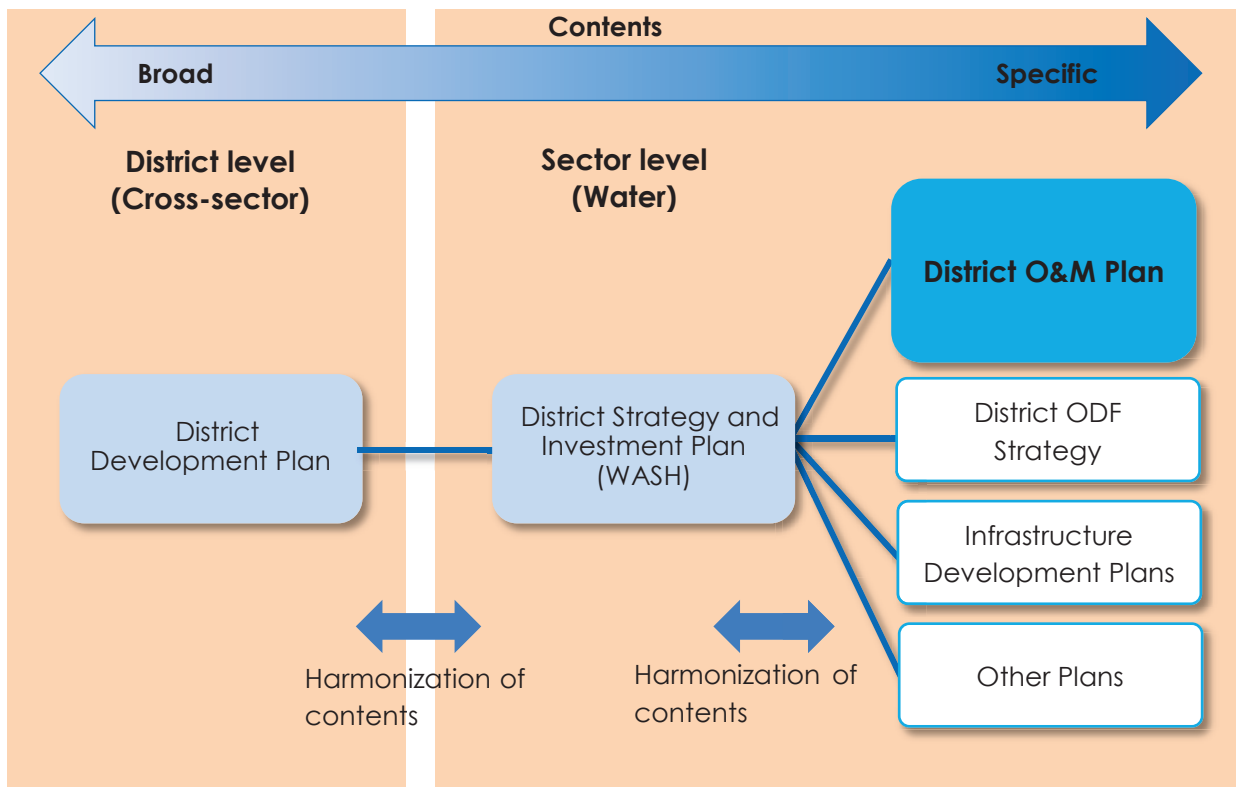
Integrating O&M planning with existing district plans

At this point, some districts may have already developed extensive plans. If so, that's great! The question planners need to answer then, is how can formulate an O&M plan for the district complement or augment existing plans?

Going through the process to develop a comprehensive O&M plan requires an understanding of where the plan will fit into the existing plans of the district.

At district level, many different planning processes exist, and some of them may be specific to WASH activities. There is the District Development Plan (DDP), which is a plan for all of the development activities that will happen in the district across all sectors and there is District Strategy and Investment Plan (DSIP), which is a plan made on a certain year timeline that outline district priorities for action in the WASH sector specifically. From the DSIP, a number of shorter-term plans may be created at district level to address a number of issues. Common plans that follow the DSIP may be plans to reach ODF (Open Defecation Free), plans for infrastructure development, and/or O&M plans for the district.

Figure 2 Relationship between District O&M plan and other District plans



As seen in figure 2 above, it is important to recognize that O&M plans can fit into existing district plans both as a chapter dedicated to O&M in the DSIP, and also as separate, more specific plans that emerge from the DSIP.

If a district has already gone through the process of envisioning five year goals for O&M when the district DSIP was formulated, then it may make sense to adopt that vision as part of the planning process outlined in this handbook. As the DSIP provides only a broad overview of intended plans and investments in WASH, it is important to take that broad level plan and develop it into a specific plan for O&M outcomes in the district. This specific plan will include a plan of operation with associated log frames and budgets, all of which will be developed through the planning process described in this handbook.

How to use this handbook

Although this handbook is meant as a guide to facilitate an O&M planning process at district level, it is expected that Districts will adapt this process to suite their own needs.

Throughout the planning process, it is important to keep the following in mind:

- Adapt the process and templates presented here to suit the needs of your District, without omitting important steps in planning,
- Stay positive and ambitious in setting district goals, but stay realistic in what you can achieve with the resources you have available,

- Think about how the outputs of this planning process will fit with existing plans in the district, including those of NGOs or Community Based Organizations in the area,
- Identify the essential activities that absolutely must happen each month to provide or support basic services, and separate them from the activities that would be beneficial but are not the top priorities,
- If you are not sure about how to facilitate a stage in the planning process, refer to the examples in the appendices, and/or ask for support from a colleague,
- Try to keep the whole process as participatory as possible,
- Similarly, it will be important to recognize where individual review or compilation of the plan may be necessary to be time effective. At the same time, keep in mind where the whole planning group should meet together to go through the planning process,
- In your district, you may not need to use every section of this handbook if you have already gone through an extensive process of planning. Look through and see which sections are most relevant to your district.

Above all, remember that planning is an iterative process, and even the best-laid plans can change significantly as you implement them. It is therefore important that you re-visit the O&M plan on a regular basis, to re-evaluate whether the actions you are taking are really leading towards the impact you desire.

This handbook is intended to be used alongside water and sanitation sector policies, strategy documents, guidelines, and other manuals used in the sector.

Section 2

Recognize principal elements of O&M

Objective of Section2

- The facilitator understands the principal elements of O&M as a basis for the planning process

Six principal elements of O&M

The project for Enhancement of O&M for Rural Water Supply in Malawi extracted and analyzed the challenges of O&M of water supply facilities and sanitation improvement of Malawi. The analysis was conducted based on the existing policies, guidelines and manuals, the good practice and lessons collected from past projects, the results of baseline surveys, and the present status survey of water supply facilities.

On the basis of the survey findings, the project categorized the most prevalent O&M challenges into six categories. The six categories are elements to be strengthened in order to make the O&M of Malawi more practical and sustainable. It is essential that these six elements are incorporated into O&M plans. Figure 3 shows the six principal elements and some considerations during planning of each element*.

Figure 3 The six planning elements and the categorized considerations

Six principal elements of O&M	Examples of considerations during planning
1. Community-based O&M Practices	<ul style="list-style-type: none"> • How are ADCs supported to mobilize community systems? • How are WPCs supported to take ownership and actively participate in O&M? • How are ADCs, WPCs, and AMs interacting and working together? • Other considerations like tariff collection by WPC, sanitation of water points, regular maintenance and upkeep of water points, engaging AMs for repairs, etc.
2. Hand pump Spare Parts Supply Chain	<ul style="list-style-type: none"> • Do communities know their spare parts supplier? • Are spare parts suppliers being advertised in communities? • Are AMs working in partnership with a particular spare parts supplier? • How can the supply chain ensure quality and availability of parts in rural areas? • How are spare parts prices regulated to ensure affordability and transparency? • What support can be provided to spare parts suppliers (from the district, ADC, or AM)?

* For further guidance, refer to the *Rural Water Supply Operation and Maintenance Series*, Government of Malawi

Six principal elements of O&M

Examples of considerations during planning

3. Area Mechanic System

- How can an AM network be set up in a district or area without one (how can AMs be trained, who facilitates the training, how are tools procured, distributed, and managed)?
- How can existing AM networks be best supported to remain active in the community?
- Who is best suited to support AMs (districts directly, or through ADCs)?
- How are different NGO systems coordinated through the districts?

4. Manuals and Guidelines on O&M

- How will O&M plans be implemented in line with the existing manuals and guidelines (e.g. Area Mechanic Guidelines, Spare Parts Retail Guidelines, Well Diagnosis and Rehabilitation, etc.)?
- How can the stakeholders find and access the appropriate guidance for planning and management of O&M?

5. M&E System of Water Supply Facilities at District Level

- Putting long term and short term plans in place
- Planning regularly at district level
- Acting on high priorities with available resources and leveraging additional funds for other beneficial O&M activities

6. Planning and Management of O&M at District level

- Are both long-term and short-term plans in place?
- Are districts planning regularly?
- How do districts prioritize O&M activities, and how are the available resources used to act on these priorities?
- How does the district leverage funds for other beneficial O&M activities?

An understanding of these six planning elements will form the basis of the planning method adopted in this handbook.

Refer to this figure when discussing and identifying necessary elements for O&M planning in the district with other planning members. At the same time, verify how functional these planning elements are in the district. Though all are important aspects of a comprehensive O&M plan, some of these elements may not be as applicable to your district as they are in others and you will have to decide which elements are priorities in your planning process.

The following sections introduce a process of O&M planning on the basis of the six elements mentioned above. In the O&M plan, planners can adopt these six elements as potential outputs.

Section 3

Envision the Ideal Situation

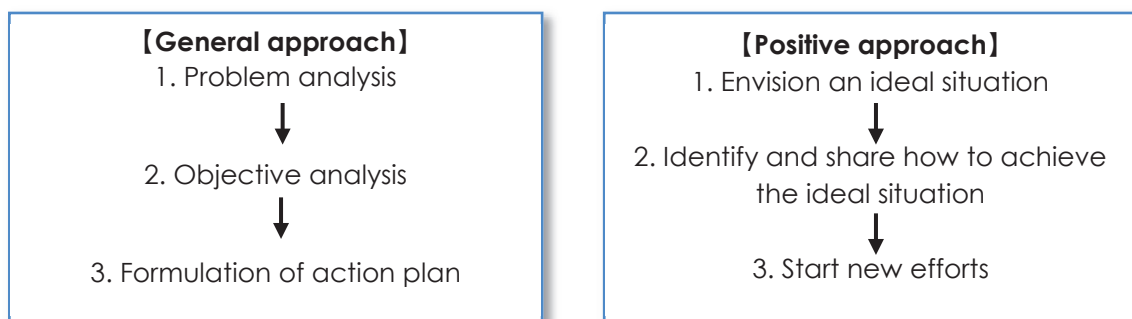
Objective of Section3	<ul style="list-style-type: none"> To envision the ideal situation for O&M in the district that DCT members would like to see achieved in the future To motivate DCT members to plan more effectively
Outputs	<ul style="list-style-type: none"> Ideal situation matrix DCT members share their ideas for O&M improvement in the district
Days	<ul style="list-style-type: none"> 1 day
Materials	<ul style="list-style-type: none"> Flip chart, 4"x6" blank paper cards, colored markers, tape

When deciding to formulate a district O&M plan, it may not be easy to know where to begin.

One way to put participants in a positive mindset before planning is to begin by having them share their dreams, hopes, and wishes for the future situation of O&M in the district with other members involved in planning. This approach is called a "Positive approach".

Figure4 shows the difference between a General approach and a Positive approach to planning.

Figure 4 Two approaches to planning



In the case of the general approach, the first step of planning is problem analysis which seems to put participants in a negative mindset at the beginning of the planning process.

However, adoption of the positive approach helps members to feel ownership over the plan, and to work together in a more positive environment. It is important to note that although a positive approach to planning may put emphasis on staying positive and not dwelling on challenges, it should still include aspects of problem analysis along the way. Every good plan still has problems and associated objectives defined, however the positive approach to planning allows planners to think about what IS possible to achieve, rather than what is NOT possible.

In this section, you will use an understanding of the six principal elements of O&M from Section 2 to envision the district's ideal situation, to set the period of the plan, to set the district target,

and to detail the ideal capacities of O&M actors in the system as they relate to the district's ideal situation.

Outline of Section3

Steps to envision the ideal situation are outlined below:

Steps	Activities	Outputs of the steps
Step1	Review existing plans relating to WASH, if available at the district	<ul style="list-style-type: none"> Excerpts from existing plans that are relevant to O&M are compiled
Step2	Identify district Ideal situation on O&M	<ul style="list-style-type: none"> The district Ideal situation on O&M is set following National and district policy.
Step3	Set period of the plan	<ul style="list-style-type: none"> The period of the plan is set.
Step4	Set district O&M target	<ul style="list-style-type: none"> Realistic district target is set.

Preparation: Before you begin

Before you begin the visioning process, it is a good idea to prepare materials that will help facilitators guide and facilitate the process with participants. Putting materials up on the wall for participants to see before beginning the process can help them to understand the process that they will be going through together.

To start with, put up a flipchart with the following three headings written:

- (1) District Ideal situation on O&M:**
- (2) Period:**
- (3) District O&M Target:**

Beside the flipchart on the wall, it will be helpful to prepare what is referred to as an Ideal Situation matrix. This matrix is a template that allows facilitators to guide the participants through the visioning process, to organize the outputs of section4 into one table, and to relate each ideal situation with the relevant actors and their ideal roles. The items which should be described on the matrix are as follows:

Column1: Six principal elements of O&M

- Write each of the six principal elements of O&M on paper cards and place them on the wall to form column one of the matrix.

Column2: Ideal situation of each O&M element (Outputs)

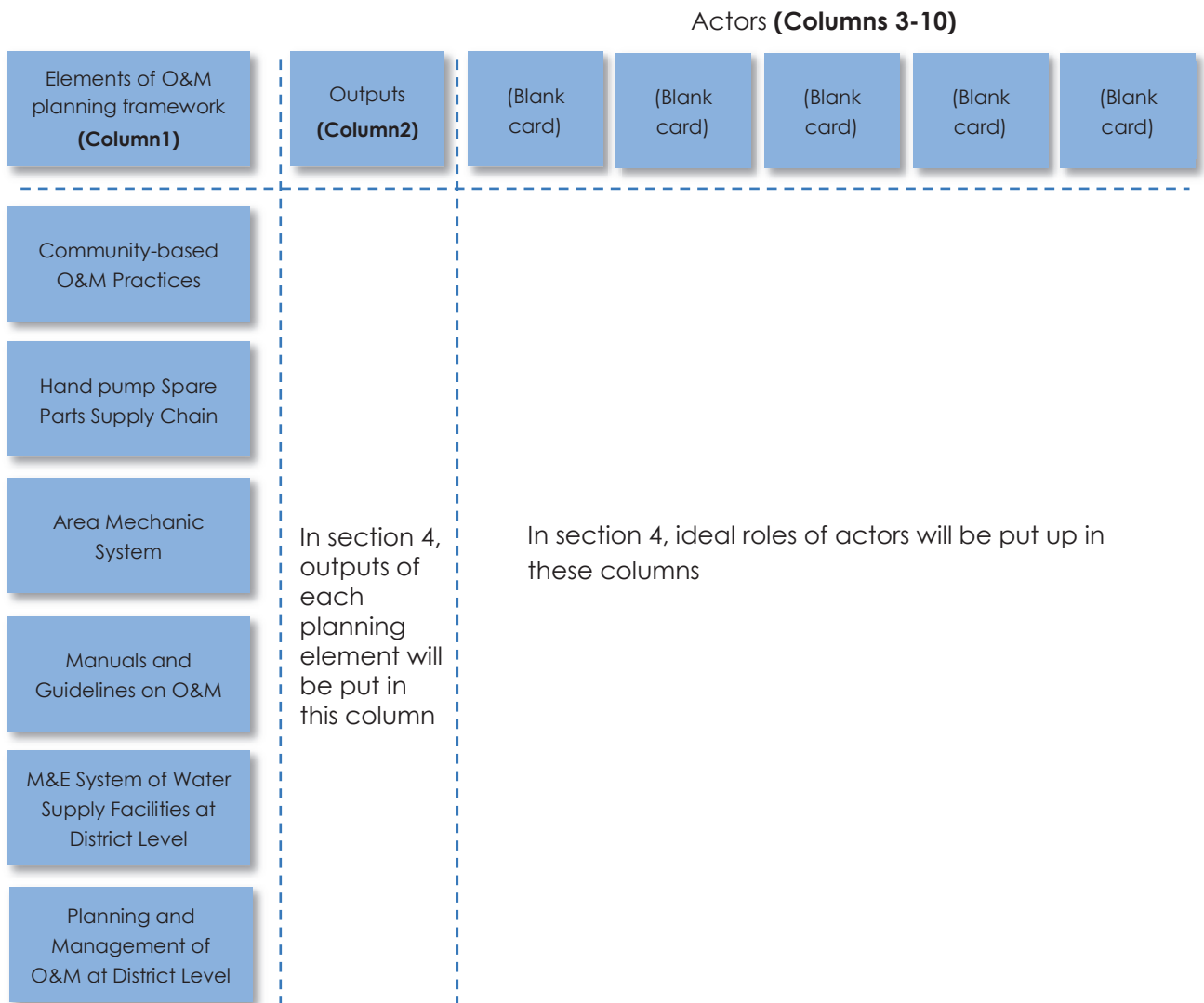
- Write "Output" on a paper card and place it as the heading for column two on the matrix. Participants will add cards to this column in step 6.

Columns 3-10: Actors

- Place blank paper cards for column headers 3-10 of the matrix. These will serve as placeholders until section 4, where you will write up the names of the O&M actors on the cards. In section 4 you can add or remove cards to match the number of actors that the group of planners would like to include.

Figure 5 below is an example template that shows how the ideal situation matrix can be formed with paper cards up on the wall in order to help participants engage in the planning process.

Figure 5 Template for the ideal situation matrix



Step 1. Review existing plans relating to WASH

In Malawi, the National Water Policy and associated strategies provide direction for the development of the water sector. Similarly, some districts may keep updated district-level plans such as the District Development Plan or District Strategy and Investment Plan which were mentioned in the first section of this handbook. Before proceeding to envisioning the ideal situation for O&M in the district, it would be good to review the contents of those plans to do the following:

- Pull out sections that are about the water sector
- Assess whether those sections that are specific to O&M could help form ideas about the future ideal situation of O&M,
- Avoid adopting activities that were planned for O&M as the ideal situation, but rather look more generally at what O&M situation those activities would lead to,
- Discuss any ideas about the future ideal situation of O&M that come from this review of existing plans. Are they realistic? Are they ambitious enough? Do they reflect the hopes and dreams of those planners in the room?
- Any relevant information found during this review will help to proceed to the next step of envisioning and defining in one sentence the ideal situation for O&M in the district.

Step 2. Identify the district's ideal situation for O&M

The district's overall ideal situation for O&M is "the best or most suitable situation that the district could possibly be in or hope to achieve in regards to a high level of O&M of rural water points." The ideal situation should be envisioned for a time after a period of 5 years or more.

- 1) To start the brainstorm, the facilitator can pose a question to the participants such as:
"In 5 or more years, what do you hope the district O&M situation will be like?"

If participants face challenges in answering this main question, the facilitator can probe further by asking questions like:

- Should the district be in a situation in which the water supply facilities are maintained at a high rate of operation?
- Should the district be in a situation in which an environment that enables community-led sustainable maintenance of water supply facilities has been established?

Have the participants describe their expectations and ideas. However, the ideal situation that the group decides on here will form the basis of a realistic target that the group will set in the next step of the visioning process. Therefore, the ideal situation should be envisioned while still keeping in mind the mission of the government in the provision of rural water supply.

- 2) **Revisit the six principal O&M elements described in section 2 to find specific inspiration about what could be possible to achieve in O&M.**
- 3) **Look through any available references based on national or district policy on O&M, including Appendix 1.**

It is important to follow the national or district level policies or plans that have already been set out, such as the National Water Policy or district investment plans. Appendix 1 provides references to national and district policies or plans relating to rural water supply. These descriptions will help guide the planners while they imagine the ideal situation for O&M that could be achieved or realized in their district.

4) The facilitator can share an example of a district ideal situation to help the brainstorm.

Often, it is useful for participants to see an example of what is being asked of them to better enable them to brainstorm. However, be careful to guide participants away from simply “copying and pasting” the example to be their own ideal situation.

Example	<i>Boreholes fitted with Afridev Hand Pump are sustainably maintained by WPCs/VHWCs for safe drinking water in the district</i>
---------	--

5) Have the group discuss what they think the ideal situation should be for the district.

Even if the planning members have the freedom to choose their own “Ideal” in this exercise, it is useful to remind them that the selected statement should be reasonably close to what is possible given the current reality. Use existing data and other up-to-date information, such as the Socio Economic Profile, to aid in understanding the current situation.

This kind of broad discussion is often a challenge to facilitate smoothly in order to bring out specific ideas. Hence, while the group discusses, the facilitator should note the words often provided by the members (key words) on a flip chart for all to see. When the discussion becomes stuck, the facilitator can point the group to look at the keywords.

In the case of Mchinji district, the keywords that the group came up with in this step were:

- Access to safe water
- Sustainable use of Boreholes
- Hygiene and Sanitation
- Community-based O&M practice

6) Set a district ideal situation in a full sentence

Let the planners compare the keywords with the example of a district ideal situation mentioned above, and ask the group to construct a sentence that describes the district ideal situation they envision.

One way to facilitate this would be to:

- 1) Have the group choose their five favorite keywords that feel the most important to them,
- 2) Combine various keywords with short phrases to form possible sentences that describe the district ideal situation (e.g. Access to safe water → All rural communities in the district have access to safe water),
- 3) Choose the top two sentences that the group feel are the most important or the most exciting possible ideal situations,
- 4) Discuss the possibility of either combining the two sentences or choosing one over the other.

Once you have decided on a sentence that best describes the district ideal situation, write it up on the flipchart where you have indicated “district ideal situation.”

NOTE

Decisions made during this step can always be revised later in the process. Even if the discussion is not concluded, set tentative decisions and move on to the next step.



Discuss with other members

Step3. Set the period of the plan

While the district ideal situation is set looking forward to beyond five years, the period of the plan and the district target decided in the next step are set aiming at achievement in the shorter term through implementation of a plan.

Generally, implementation of the plan is set within the period of five years. In addition, it is better to consider the period set for the district's development plans, because the O&M plan should be consistent with them.

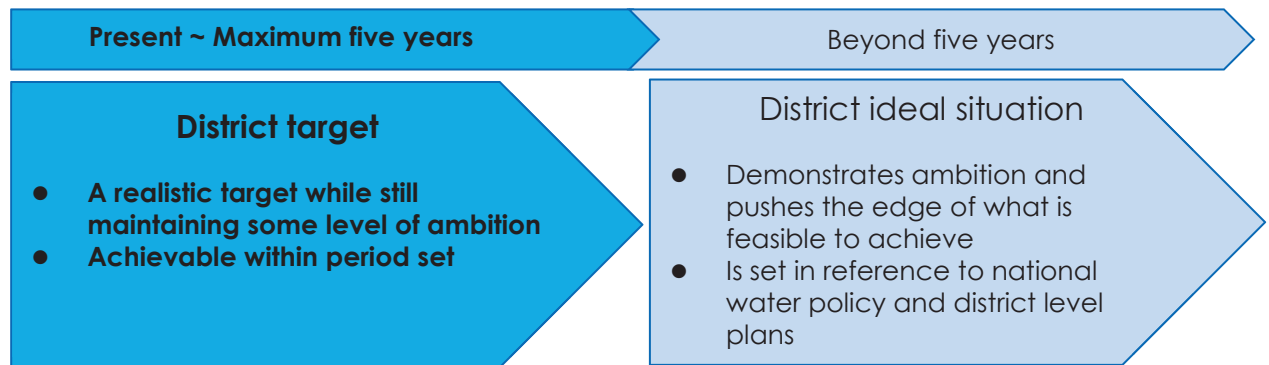
Write the decided timeframe up on the flipchart where you have indicated “period.”

Step4. Set the district O&M target

The district O&M target is the objective that should be achieved through the implementation of the plan within the set planning period. This target is the core of the plan.

While it can be good for the district ideal situation to be ambitious, the **district O&M target needs to be concrete and realistic. An achievable target within the period should be set.**

Figure6shows the differences between the district ideal situation and the district target

Figure 6 Differences between the district ideal situation and the district target

If district O&M data is available, it will be helpful when setting the district O&M target. Appendix 1 shows some plans which districts often have.

Examples of relevant data that could be available at district level are:

- Functionality of water facilities
- Number of existing WPCs/VHWCs
- Number of WPCs that have been newly established in a year, etc.

Based on these pieces of data, members should formulate a sentence that describes the district O&M target. Once you have formulated a sentence, write it up on the flip chart where you have left space for the district O&M target.

Below is an example of a possible district target:

Example	<i>Non-functionality of boreholes fitted with Afridev Hand Pumps is reduced through better community-based O&M.</i>
---------	--

NOTE

Setting a qualitative district target is acceptable.

Although planners typically prefer to include a number in the target, qualitative targets are acceptable and can be used in conjunction with quantitative and qualitative indicators.

In the example above, in the target “*Non-functionality of boreholes in the district is reduced from 18% to 15% through better community-based O&M*” it may be difficult to see a difference in non-functionality percentages even though community-based O&M may have been improved. This is due to the fact that a reduction of non-functionality of boreholes is not only dependent on O&M activities, but on many factors that play into functionality rates. This could mean that a purely quantitative target may not be suitable.

**Section
4**

Design Outputs for the Ideal Situation

Objective of Section4	<ul style="list-style-type: none"> To design the outputs which will lead to realizing the district target of O&M in the district DCT members are aware of how the district could possibly be to realize the district's ideal situation
Outputs	<ul style="list-style-type: none"> Ideal situation matrix DCT members share their ideas for O&M improvement in the district
Days	<ul style="list-style-type: none"> 1 day
Materials	<ul style="list-style-type: none"> Flip chart, 4"x6" blank paper cards, colored markers, tape

In this section, use an understanding of the six O&M principal elements following section3 to design the outputs and to detail the ideal capacities of O&M actors for the district's ideal situation. This section will build on and use the ideal situation matrix that has been set up on the wall in section 3.

Outline of Section4

Steps to design the outputs for ideal situation are outlined below:

Steps	Activities	Outputs of the steps
Step1	Identify actors in O&M	<ul style="list-style-type: none"> Relevant actors involved in O&M in the district are identified.
Step2	Set outputs for each principal O&M elements	<ul style="list-style-type: none"> Outputs of each principal O&M element are identified.
Step3	Identify the ideal roles of actors	<ul style="list-style-type: none"> Planners identify what the actors relating to O&M should do to realize the district Ideal situation.

Step1. Identify actors in O&M

Who are the actors that are relevant to O&M in your district? Table1 on the next page lists questions to consider when identifying actors.

Table 1 Questions to consider when identifying actors

Questions	Examples of actors
Who are the planners involved in O&M?	District Coordination Team (DCT), Regional Water Development and Irrigation Office (RWDIO), etc.
Who works in the field on O&M?	Extension Workers (EWs), Area Mechanics (AMs), Spare Parts Retailers , etc.
Who are the trainers of the field workers?	DCT, etc.
Who are the users of water facilities? (Who pays water tariffs?)	Community members, institutions such as schools, health centres, etc.
Who collects the water tariff?	Water Point Committees (WPC) , Village Health Water Committees (VHWC), etc.
Who maintains water facilities daily?	WPC, VHWC
Who repairs the water facilities beyond daily maintenance?	AMs, General mechanics, etc.
Are there other organizations in the district that work in O&M and should be coordinated through this plan?	NGOs

- (1) Using these questions as a reference, identify the actors that currently have, or could have in the future, a role to play in O&M in the district.
- (2) Have the planning members discuss which actors are the most important to be involved in O&M in the district.
- (3) After identifying the most relevant O&M actors in the district, write each on the paper cards that form the column headers for the ideal situation matrix template of figure 5 in section 3 on the wall (write on the blank cards you had put up as placeholders).

In step 3, planning members will discuss the roles that each of these actors would play in the ideal situation.

Step 2. Set outputs for each principal O&M element

Outputs are intermediate goals that, if reached, will contribute to the achievement of the overall district target. In this case, a strategy to form outputs for O&M is to come up with the ideal situation for each principal O&M element. These outputs should be achieved through the activities carried out.

The outputs for each principal element of O&M will vary depending on the district, but could range from a description of a particular status of a particular actor, to something like the presence of a system established for sustainable O&M.

Use the following points to guide you in developing an output for each principal element of O&M.

- (1) Refer to the considerations of each principal O&M element described in section 2. If possible, translate them into outputs that represent the case in which the positive outputs of the considerations have occurred.

- (2) If you need more inspiration to think of appropriate outputs, brainstorm a list of some of the challenges with each principal O&M element.
- (3) Then, translate the identified challenges into an ideal situation that represents the case in which the challenges have been resolved, which will be stated as outputs.

For example:

- WPCs are untrained. → WPCs are trained well in CBM.
- WPCs do not collaborate with AMs → WPCs collaborate with AMs.

- (4) The planning members should write down their ideas for the ideal situation on blank paper cards and put them up as “outputs” for each O&M element. It is important to keep the following in mind while formulating the outputs:

➤ **Describe the situation rather than the action.**

For example, two common actions that arose when members tried to suggest ideal situations are below.

- I. *“Monitor WPCs”*
- II. *“Review manuals and guidelines”*

These examples are actions. In order to become outputs they may be converted to:

- I. *“Water facility management by WPCs are monitored and reported to the DWDO by EWs.”*
- II. *“Manuals and guidelines are reviewed regularly by DCT and EWs in line with the O&M status of the district, and are utilized accordingly.”*

The facilitator should show planning members these examples in advance to avoid the same challenge.

➤ **Each output should describe a concrete, specific situation.**

The examples given in (3) above are still not suitable as outputs, because even if WPCs are trained, it does not contribute to the achievement of the district target directly. As an output, it should also describe specifically the situation that arises after the training or after the collaboration.

Table 2 Example of setting concrete specific Outputs

Opposite situation of the challenges	Outputs
WPCs are trained well in CBM	Water fees are collected regularly and managed for the repair of water facility by WPCs
WPCs collaborate with AMs	AMs are prompt to repair the water facilities at the request of WPCs

- (5) Discuss as a group the ideas that are put up on the wall as outputs. If there are multiple ideas for outputs for each O&M element, then combine where relevant. It is okay to have more than one output per O&M element.

Refer to Table 3 below that shows examples of output for each principal O&M element. These examples may help the group brainstorm.

Table 3 Examples of outputs for each O&M element

Principal O&M elements		Outputs
Community-based Practices	O&M	WPCs and users are able to be responsible for repairing and keeping water points sanitary
Hand pump Spare Parts Supply Chain		Hand pump spare parts are available and accessible to WPC/VHWC through a standardized system managed by government after the phase out of NGOs
Area Mechanic System		AMs are able to repair hand pumps in a timely manner at the request of WPCs
Manuals and Guidelines on O&M		Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation
M&E System of Water Supply Facilities at District Level		The district is able to use the national WASH M&E framework to routinely monitor water supply situation in the district
Planning and Management of O&M at District Level		The district is able to formulate district plans that incorporate O&M issues based on community plans, with technical support from RWDO

NOTE

Always keep the link between the district target and outputs in mind

Look at the following example of output setting (O&M element: Area Mechanic System):

- I. AMs are identified and trained in diagnosis and troubleshooting of Afridev Hand pumps
- II. AMs provide repairs of Afridev Hand pumps in timely manner

Which option would be better to choose as an output? If the district target is to reduce non-functionality, the logic would be:



Therefore, we would take II. as a suitable output, and I. as the activity that could lead to the achievement of the output. Make sure to review each output with this in mind, and adjust your outputs as needed so that they logically lead to the achievement of the district target.



Write down your idea

Step3. Identify the ideal roles of actors

This step becomes the basis for formulating a plan in section5, and for identification of activities for the Plan of Operation in Section6.

It is important to discuss what each actor in the district needs to know about O&M activities, what they should be able to do, and what tools or materials they would need in order to contribute to the achievement of the outputs.

In order to identify or describe what the ideal roles of each actor in O&M should be, consider the following process:

- ✓ **For each actor in the ideal situation matrix, discuss 1) what actors should do, 2) what actors should know, and 3) what actors should have, in order to realize each output.**
- ✓ **Try to write full sentences on paper cards, and put them under the appropriate actor and the corresponding output in the ideal situation matrix on the wall.**
- ✓ **Ensure that each actor's ideal role or status describes a situation, and does not simply describe actions.**
- ✓ **The group should discuss the ideas that are put up on the wall to decide whether some may be combined, improved, removed entirely, and which suggestions should be adopted as part of the plan.**

Table 4 shows examples of actors' ideal role or status for an example output for Community-based O&M Practices.

Table 4 Example of ideal roles or status of O&M actors

Principal Elements of O&M	Outputs	Actors and their ideal roles or status					
		Mchinji District Coordination Team (DCT)	Extension Workers (EWs)	Area Mechanics (AMs)	WPC/VHWC	Community	NGO
Community-based O&M Practices	WPCs and Users are able to be responsible for repairing water points and keeping them sanitary	* DCT is able to prepare a training plan and conduct TOT (EWs) for tariff setting, accounting, book-keeping and water point sanitation	* EWs are able to prepare a training plan and conduct training of WPCs/VHWCs on topics mentioned in the column for the DCT * Report on the activities done in communities to DCT	* AMs are able to diagnose and deal with troubles of Afridev Hand pumps *AMs are able to prepare and conduct WPC trainings	*WPCs/VHWCs are able to set water tariffs *WPCs/VHWCs are able to manage their finances effectively	*Communities make regular contributions for O&M (user fee, tariffs, in kind contributions such as labor) *Communities are involved in Facility Management Plan	*NGOs can provide resources and also complement the roles of the DCT and EWs

NOTE**Avoid vague expressions of actors' roles or status**

Examples of vague expressions that often emerge are:

- EWs train WPCs
- Build capacity of EWs
- Supervise EWs
- Establish a system of hand pump spare parts

These expressions are still written in the abstract. The ideas developed as part of the ideal situation matrix will form the basis of activities in the plan. Therefore, the ideal roles or status of the actors in the O&M system need to be described in as much detail as possible. If participants contribute these kinds of vague expressions such as the examples above, the facilitator should ask the members questions like:

“Train what?”

“Capacity for what?”

“Supervise what?”

“What kind of system should be established?”

By asking the questions mentioned above, the facilitator can try to extract further details from the participants. Any participant should feel free to answer, not just the participant who had contributed the vague expression. Types of possible answers that improve the specificity of the ideas on the roles or status of actors are shown on the next page:

Table 5 Examples of improved answers against vague expressions

Vague expressions	Examples of answers that add specificity
EWs train WPCs	EWs are able to train WPCs on water tariff setting
Build capacity of EWs	DCT is able to build capacity of EWs on facilitation of CBM training
Supervise EWs	DCT is able to supervise EWs on the management and arrangement of CBM training
Establish a system of hand pump spare parts	DCT and EWs establish a system in collaboration with an NGO in which there are a minimal number of days when spare parts at retail shops are unavailable

**Present your idea and discuss with other members**

Before moving on to Section 5, check that the ideal situation matrix is complete and makes logical sense by checking the points below:

- ✓ Are the outputs, actors, and their ideal roles or status identified for each of the six O&M elements?
- ✓ Do the outputs identified for each of the O&M elements lead to achievement of the district target?
- ✓ Do the actors' ideal roles or status lead to the realization of the outputs of each of the O&M elements?

Section 5 Formulate an O&M Plan

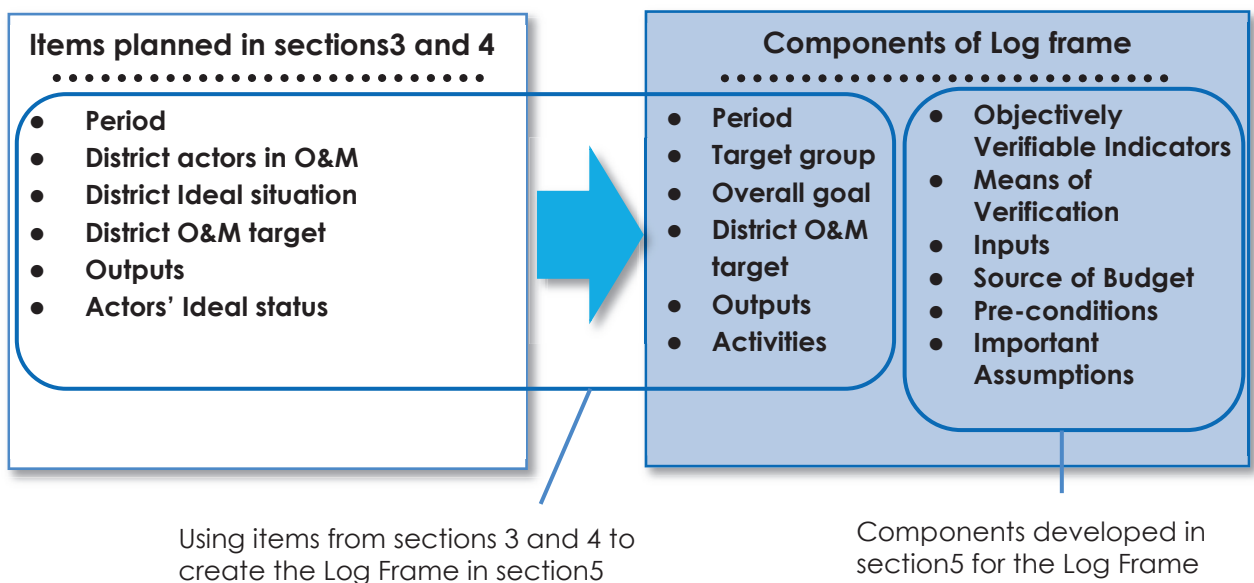
Objective of Section5	<ul style="list-style-type: none"> To formulate an O&M plan in the form of a Logical Framework To upgrade planning skills of DCT members through the formulation of a Logical Framework
Outputs	<ul style="list-style-type: none"> Logical Framework DCT members formulate a plan that logically links necessary information
Days	<ul style="list-style-type: none"> 2days
Materials	<ul style="list-style-type: none"> Flip chart, Cards, White paper, Color markers

In this section, an actual plan is formulated based on the ideal situation. Although various planning methods exist, this handbook proposes to plan using a Logical Framework (also known as a Log frame). It is a table summarizing a plan’s Activities, Inputs, Objectives, etc. as well as the logical relationships between them. The reasons for adopting a Log frame are:

- The people developing the plan will learn the planning method and process under guidance from a facilitator. This tool and process can then be used again for other activities.
- The six major O&M elements will be simply shown on one sheet. This allows anyone to easily view the sheet and examine the overall plan, while also making it easier to make connections between different elements.

Figure7 shows the relation between sections3, 4 and 5.

Figure 7 Relation between sections3, 4 and 5



Outline of Section5

Section5 is outlined below:

Steps	Activities	Outputs of the steps
Log frame	Understand the purpose and structure of the Log Frame	<ul style="list-style-type: none"> Planners acquire basic understanding of the Log frame.
Step1	Adopt items from Sections3 and 4	<ul style="list-style-type: none"> Some items set in Sections3and 4 are transferred to the Log frame.
Step2	Set indicators	<ul style="list-style-type: none"> Indicators for the Outputs, District target and Overall goal are set.
Step3	Set means of verifications	<ul style="list-style-type: none"> Planners identify data sources for Indicator verification
Step4	Set activities	<ul style="list-style-type: none"> Activities for the plan are set based on the Actors' Ideal status.
Step5	Set inputs and source of budget	<ul style="list-style-type: none"> Required Inputs and Source of Budget for the implementation of activities are formulated.
Step6	Set pre-conditions	<ul style="list-style-type: none"> Necessary requirements for the implementation of the plan are identified.
Step7	Set important assumptions	<ul style="list-style-type: none"> Necessary conditions for achieving the outputs, district target and overall goal after implementation of activities are identified.

Log frame

Definition of Log frame

A log frame is a management tool used to improve a development intervention plan in a given region or country (Table6). It is the product of an analytical approach, and summarizes what you plan to do and how you plan to do it. It is also helpful for the monitoring and evaluation of projects or activities. It is useful to first clarify the objective of the plan and to make sure the indicators can be understood to effectively measure achievement of the desired output.

The log frame is a matrix or table in which the strategies for the plan of operation are placed. These strategies or components are placed in both columns and rows in order of their

execution. Components of the plan, such as the overall goal, the district target, the outputs, and the activities and Inputs are shown in a “cause and effect” relationship. This means that one part of the matrix is functionally linked to another part. In addition, the log frame shows the expectation level for both the goal and outputs as Indicators, and specifies important assumptions that may affect the implementation of the plan.

Table 6 Sample log frame format
(Items transferred from previous sections marked with an asterisk)

Name of plan: _____ Period*: _____

Target Area: _____ Target group*: _____ Date: _____

Narrative Summary	Objectively Verifiable Indicators	Means Of Verification	Important Assumptions
Overall Goal* What is the overall change the specific target is contributing to?	Standards for measuring achievements of Overall goal	Data sources for Indicators	Things that are assumed that may affect the achievement of the overall goal
District O&M target* What should the plan achieve within the decided period?	Standards for measuring achievements of District target	Data sources for Indicators	Things that are assumed that may affect the achievement of the overall goal
Outputs* How should the plan achieve the district target? (add additional rows for each output)	Standards for measuring achievements of Outputs	Data sources for Indicators	Things that are assumed that may affect the achievement of the overall goal
Activities What should actually be done to achieve the outputs? (add additional rows for activities based on the number of the outputs)	Inputs Personnel, materials, equipment, funds that are required for the plan	Source of Budget Available budget for implementation of the plan	Pre-conditions Conditions that must be fulfilled before the plan starts

Logical structure of a log frame

A brief logical overview of the log frame is described below:

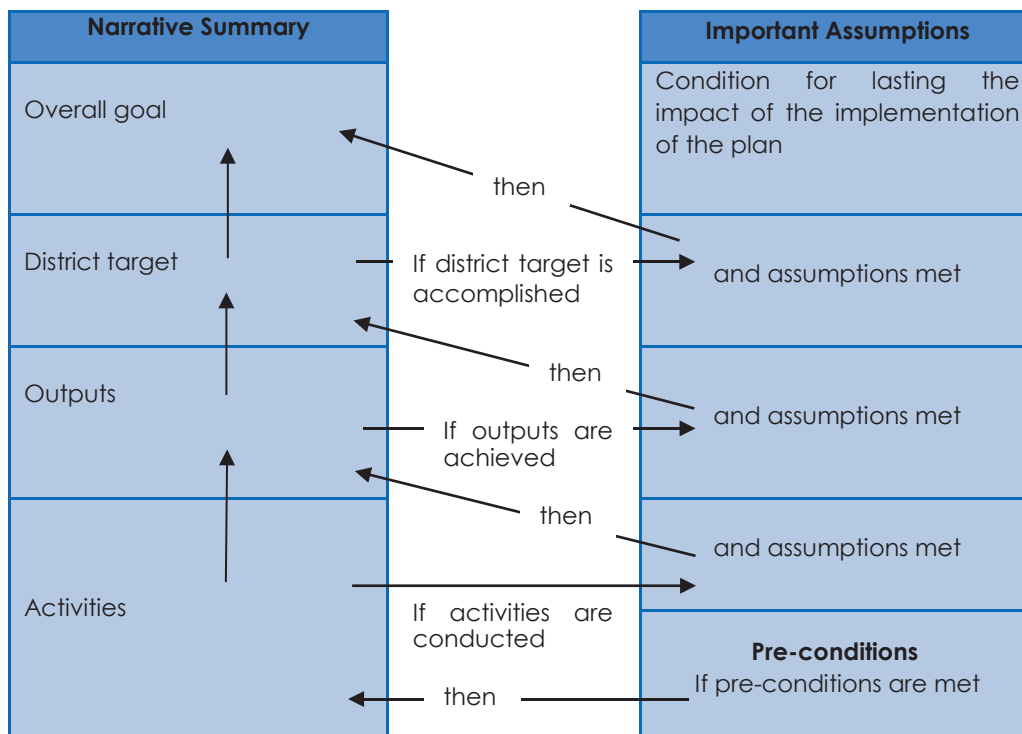
- (1) **If** activities are conducted, **then** outputs are achieved : **Activities →Outputs**
- (2) **If** outputs are achieved, **then** the district target is accomplished : **Outputs →District target**
- (3) **If** the district O&M target is accomplished, **then** it will contribute to the overall goal : **District O&M target →Overall goal**

It is important to note that the relationship between **if** and **then** should be as direct or as close as possible.

Although it is possible to generate outputs, district targets, and the overall goal only through asking “if ____, then ____?”, there are also several external factors which can affect the plan. In this regard, it is also necessary to allow these important assumptions to guide the creation of the log frame.

Figure 8 shows the logical structure of the log frame. The logic is: **If** the activities are implemented **and** the important assumptions are satisfied, **then** the outputs are achieved. The same logic applies to the top section of Figure 8 starting from the Outputs.

Figure 8 Logical structure of Log frame



NOTE

Show a whole picture of the work to the members

Table 6 should be shown to the members at the beginning of the session. Being able to write on flip chart or a large sized piece of paper can help participants to have a better understanding of the log frame before they start working on it themselves.



Step 1. Adopt items set in Sections 3 and 4

For the formulation of the Log frame, some items formulated in sections 3 and 4 can be adopted. The first three items (period, target area, and target group) are not contained within the table of the log frame, but are described above it.

1. Period

The period set in section 3 will be noted within the title section of the log frame, and not within the log frame table itself.

2. Target Area

The district can be set as the Target area of the plan. On the other hand, a particular area of the district, like a certain TA, could also be targeted depending on the district target and strategy. Like the period, the target area is placed in the title area of the log frame.

3. Target group

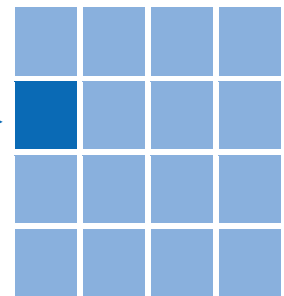
Actors (apart from the DCT) in the Ideal situation matrix are adopted as the target group. Particular actors within those groups of actors could also be targeted depending on the district target and strategy. Like the period and target area, the target group is written above the log frame.

4. District O&M target

The district O&M target set in section 3 is transferred directly into the Log frame grid. At this point, it is important to still be assessing the relevance of the target and making sure it is realistic and achievable.

District O&M target:

Non-functionality of Borehole fitted with Afridev Hand Pump is reduced by better community-based O&M.



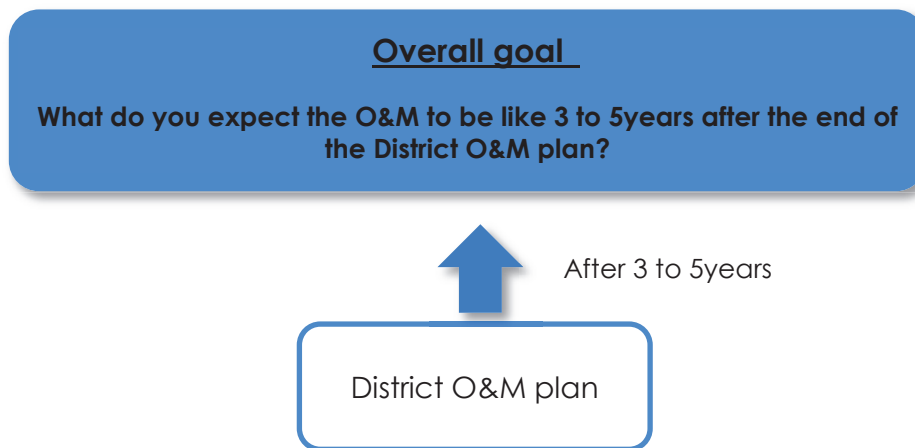
Position in the log frame

5. Overall goal

The overall goal is a development effect (i.e. a positive impact) that would come as a result of the achievement of the district O&M target. Basically, there is only one overall goal for one plan, as it is a high level goal.

The figure 9 shows a depiction of the overall goal. **It is the effect that would be realized 3 to 5 years after the end of the district O&M plan.**

Figure 9 Depiction of the Overall goal



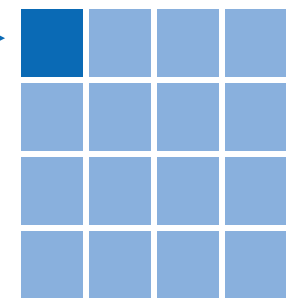
In section3, the district ideal situation was identified looking ahead more than 5years. Verify if the ideal situation developed in section3 is appropriate to be adopted as the overall goal based on the depiction above. If it is fine, it can be taken and used directly in the log frame.

In some cases, such as those in the following examples, a more relevant overall goal will need to be set.

- The overall goal could not be realized even if 10 years had passed since the plan was finished.
- A different plan or intervention in addition to the one you are planning is needed to realize the overall goal.

District Ideal situation on O&M:

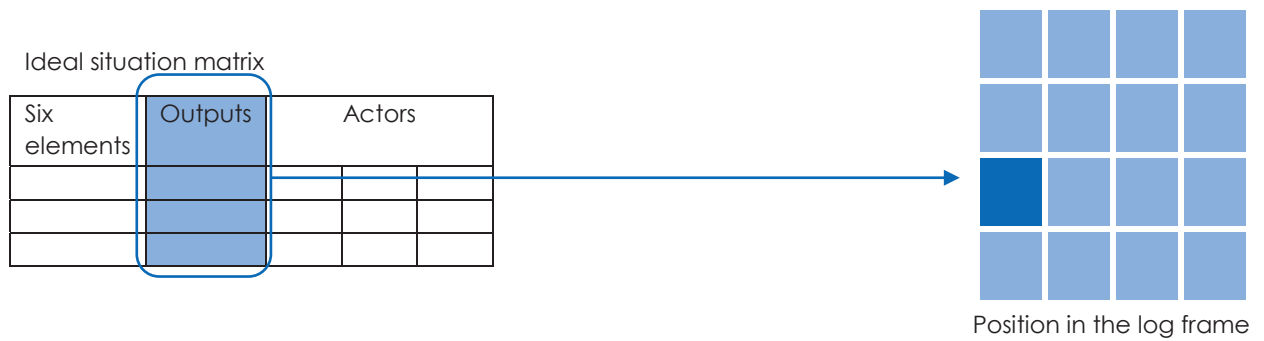
Boreholes fitted with an Afridev Hand Pump are sustainably maintained by WPCs/VHWCs for safe drinking water in the district



Position in the log frame

6. Outputs

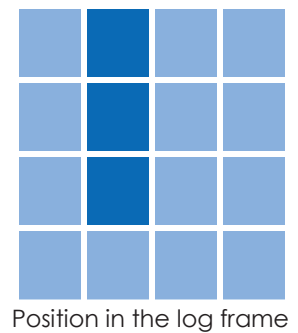
Outputs are able to be transferred to the log frame from the ideal situation matrix developed in section4. An image depicting how this would work is shown on the next page:



Step2. Set indicators

After the items set in sections 3 and 4 are adopted as components of the log frame, indicators must be set. Indicators are the quantified values that indicate the part of the target that has been achieved. In this log frame, the indicators are called objectively verifiable indicators. These indicators are set for the outputs, the district target and the overall goal.

The objectively verifiable indicators comprise some components as follows:



Components	Example
(1) Objective	WPCs are identified and trained
(2) Target group	WPCs
(3) Quantity	XX %
(4) Quality	Ability to keep water point sanitary following standardized O&M method
(5) Time	2019
(6) Location	District A

Then, make a sentence including these components. As a result, the objectively verifiable indicator will be:

“XX% of WPCs are identified and trained through standardized O&M methods in district A by 2019.”

For indicator setting, prepare a flipchart like figure 10 for every output.

Figure 10 Flip chart for work of step2

Output	Objectively Verifiable Indicators	Means of Verification
1. WPCs and users are responsible for repairing and keeping water points sanitary	XX% of WPCs are identified and trained through standardized O&M method in district A by 2019.	✘Work in step 3

NOTE

At this moment, it is not necessary to fix the Quantity(set as XX)

After the plan is launched, it will be decided based on the scale of the plan, e.g. fixed period, amount of activities, actors' capacity, etc. Having access to relevant baseline-like data to refer to at this point would allow you to go ahead and set quantifiable indicators.

Set indicators for all outputs referring to the example mentioned above. If possible, try to set 2 to 3 indicators per output. Similarly, set indicators for the district target and overall goal.



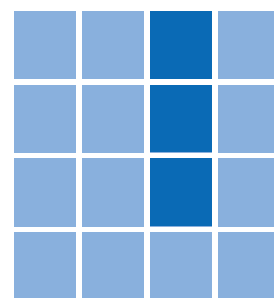
Set realistic Indicators

Step3. Set means of verification

Following the setting of Indicators, decide on the means of verification.

The means of verification are sources of data which allow assessment of indicator achievement. Planners should clarify methods for obtaining data sources for indicators. If it is difficult to clarify the means of verification for a particular indicator, that indicator might not be appropriate.

In the case of O&M activities, the data would be collected through some documents such as:



Position in the log frame

- Extension Workers reports
- District Water Development Officer (DWDO)reports
- Area Mechanics reports
- Water Point Committee financial records

Considering the often-limited availability of data in the district, set appropriate and manageable means of verification. Write on the same flip chart as the one used in step2 to set the indicators.

Figure 11 Example output with objectively verifiable indicators and means of verification

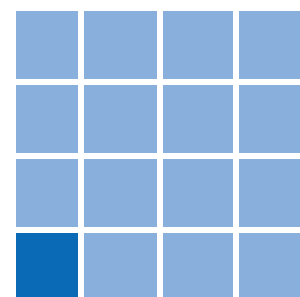
Output	Objectively Verifiable Indicators	Means of Verification
1. WPCs and users are responsible for repairing and keeping water points sanitary	1-1 XX% of WPCs are identified and trained in standardized method in ...district by 2019 1-2 XX% of community leaders are aware about the use of O&M fund in ... by 2019 1-3 XX% of WPCs keep up to date financial records properly in ...by 2019 1-4 XX% of WPCs construct standard fences and soak away pits and clean the environment in ...by 2019	<ul style="list-style-type: none"> ● EWs report ● Agreement consensus forms ● WPC financial record ● EWs report

Step4. Set activities

Activities are specific actions which help produce the Outputs. **The sources of activities are found in the “Actors’ Ideal roles” identified in the ideal situation matrix in section4.**

This step may be the most complicated in the formulation of the Log frame. It is important to work slowly so that this step can be done properly.

The point of this step is to think about **what the DCT should do in order to produce the expected outputs.** You need to identify the activities to be undertaken by DCT members. In addition, **be careful not to re-phrase the Actors’ ideal roles identified in section4.**



Position in the log frame

This step proceeds as follows:

Figure 12 Steps of Activity setting

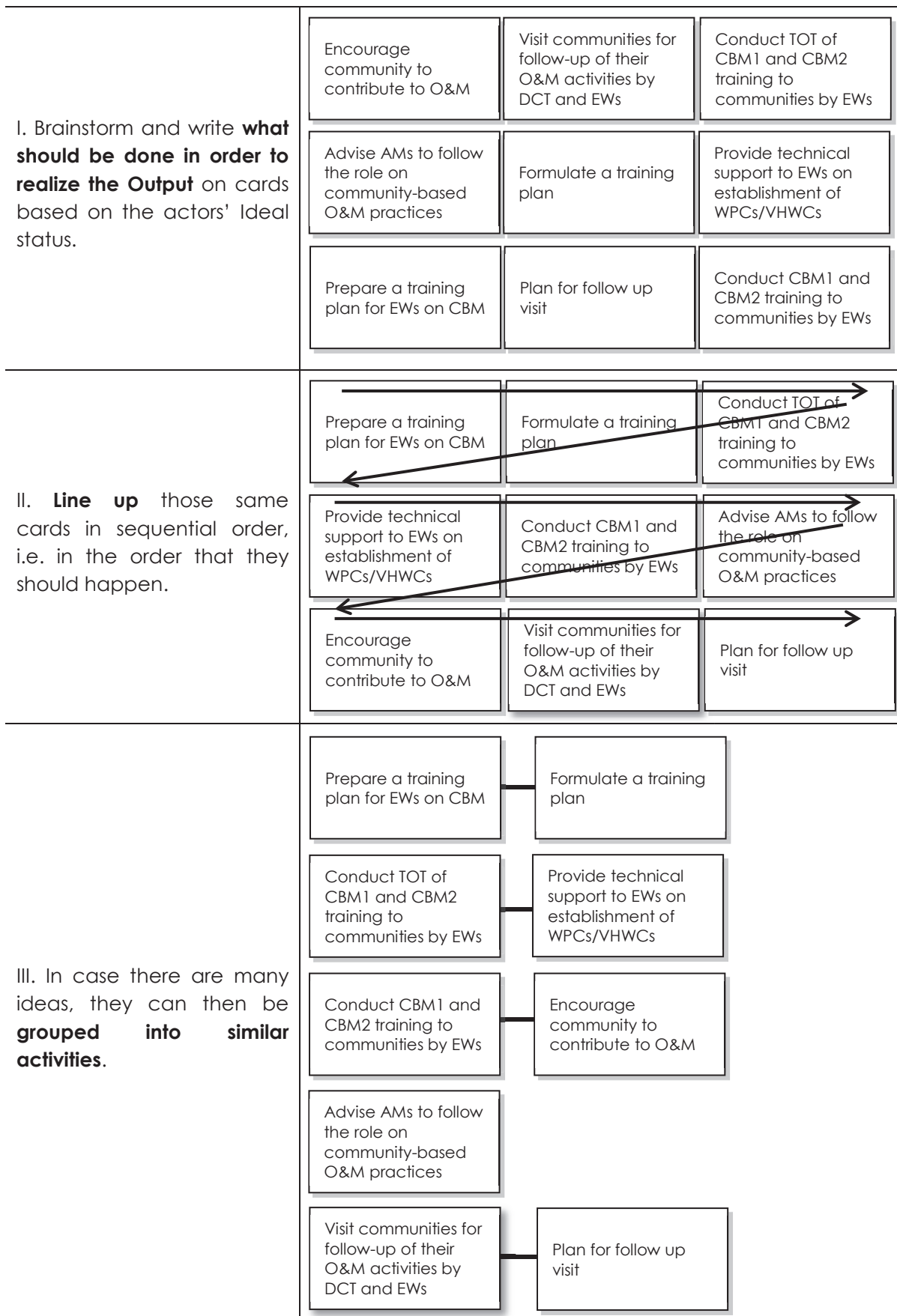
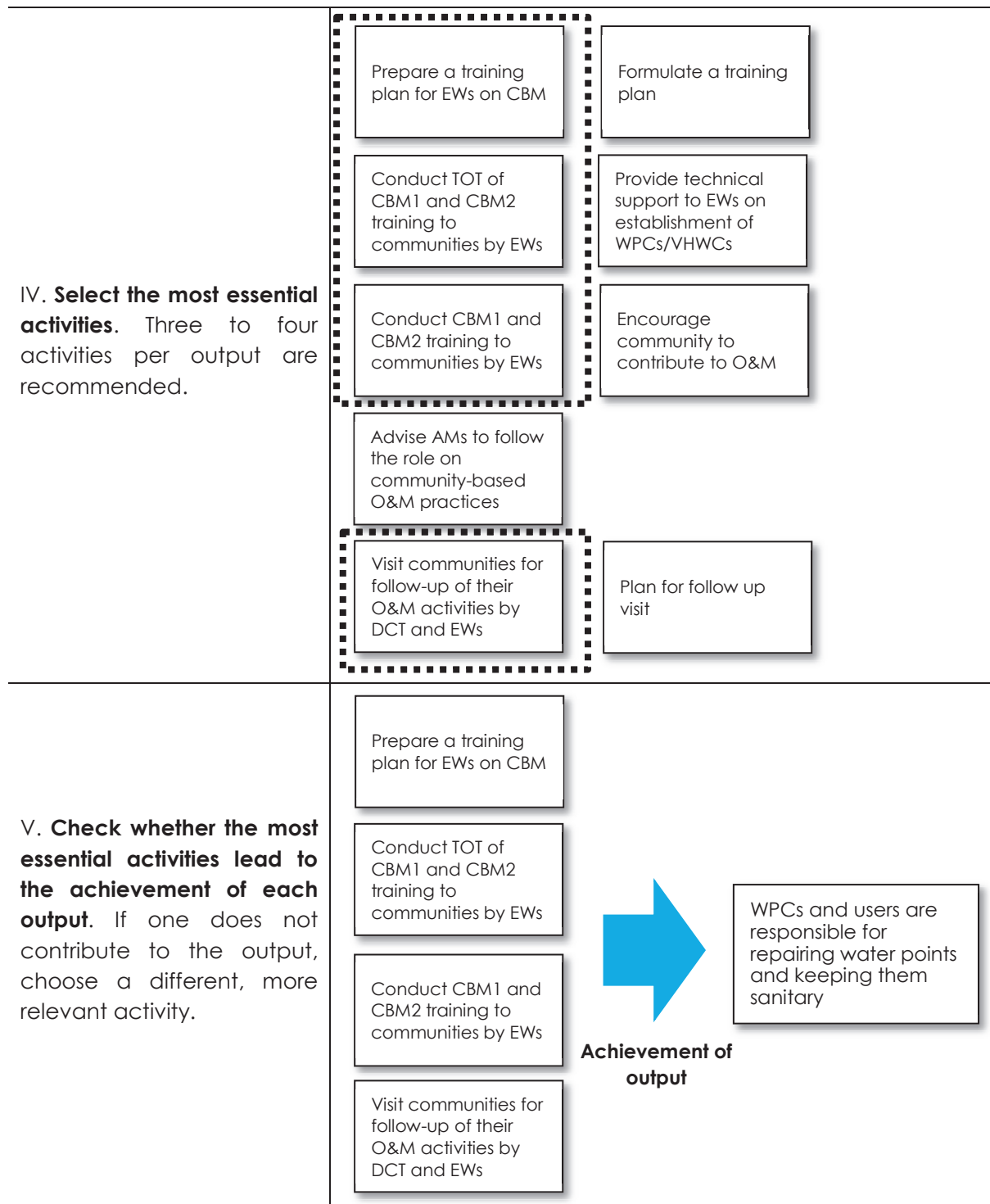


Figure 12 Steps of Activity setting



NOTE

Keep a general classification of activities in mind

In the case of the O&M plan of Mchinji district, the activities were mostly classified as:

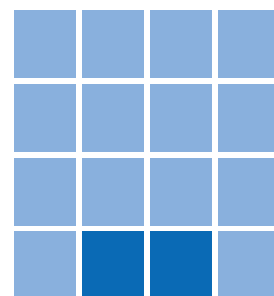
1. Planning
2. Implementation of the plan e.g. Train EWs(AMs)
3. Activity in community level
4. Monitoring

If you have trouble thinking of ideas, feel free to refer to this classification for further inspiration.

Step5. Set inputs and source of budget

Inputs

Inputs could be personnel, facilities, equipment, and/or funds necessary for doing activities set out in the log frame. For O&M, Inputs often include transportation costs, field costs, and travel and lunch allowances for field workers to visit the field. Prepare flip charts for each output shown below to write down the ideas.



Position in the log frame

Figure13 Flipchart for the work of Step5

Input	Source of Budget
1. Personnel	
2. Machinery, Equipment and Materials	
3. Transportation	
4. Allowance	

Table 7 shows the points to consider for Input setting. Refer to this table when thinking of ideas.

Table 7 Points to consider when setting Inputs

1. Personnel	Who are the actors needed in this output? Refer to the ideal situation matrix. If necessary, identify other actors.
2.Machinery, Equipment and Materials	What are necessary items for carrying out the plan? For example, stationary is often essential.
3. Transportation	Which transportation is used for the activity? In the case of motor

	cycles, fuel should be accounted for as an input.
4. Allowance	Allowances for lunch and accommodation will be necessary depending on the activity.

Source of Budget

List the sources of funds in the district that would supply the budget for these activities. The primary source of funds should be the governmental budget, such as ORT.

NGOs and other donors might be able to provide funds for some of these activities as well, however it is important to avoid sourcing resources for **routine activities** of district using temporary NGO funding, as this is ultimately not sustainable.

Although an NGO may not be directly funding a district, the district may be able to combine activities they are doing with activities that an NGO is doing in order to reduce cost for the district. This should be included in the source of budget.

Next, write down these ideas on a flip chart, as in figure 14 below.

Figure 14 Example of Input and Source of budget

(Output: WPCs and users are responsible for repairing water points and keeping them sanitary)

Inputs	Source of Budget
1. Personnel ➤ DCT, EWs, AMs, and WPCs	1. Governmental budget
2. Machinery, Equipment and Materials ➤ Hand pump parts and tools for demonstration ➤ Flip chart stands, Flip charts, Markers,	2. Donor fund ➤ UNICEF
3. Transportation ➤ Fuel	3. ORT ➤ Will try to link with NGOs working in the same areas wherever possible
4. Allowance ➤ Field allowance for DCT and EWs ➤ Lunch allowance for AMs and WPCs	4. ORT, UNICEF, other NGO funding where possible

NOTE

Avoid inexact listing of inputs

Although it can be easy to think that a vehicle and a laptop (for example) are required for a specific activity, if an activity is being combined with NGO work or if reports are normally written by hand, these items are not actually needed. This sort of **inexact listing may decrease the reliability of the plan, and can undermine efforts to secure funding from external sources.** Planners should list only what is really needed for the activities.

Step 6. Set pre-conditions

Pre-conditions are the necessary requirements that must be fulfilled before the plan can be implemented.

One of the examples of a pre-condition is,

“Stakeholders in the district, such as WPCs/VHWCs and Communities willingly take part in the implementation of the O&M plan”.

However, the possibility of **personnel transfer or financial matters is not included as pre-conditions.**

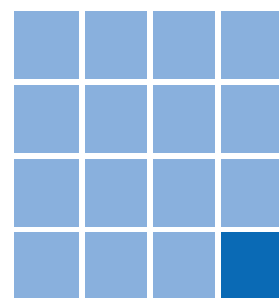
For example, the following should not be stated as pre-conditions:

“Personnel transfer of DCT members is not frequent”

“The budget for the implementation of the plan is available”

It is difficult to assure that personnel are not transferred, despite existence or nonexistence of a plan. Similarly, there is no guarantee of budget allocation for O&M under the limited budget status of the country. **Pre-conditions that cannot be changed or altered should not be included as pre-conditions in this log frame.** If these types of pre-conditions are set, the plan might not be able to begin because of this issue that nobody can control. Instead, these types of conditions may be taken into consideration when setting important assumptions in the next step.

The facilitator should show the members an example of a pre-condition that should not be included in the log frame before asking the planners to write their ideas on cards.



Position in the log frame

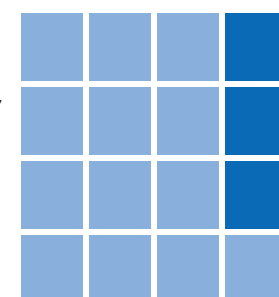
Step 7. Set important assumptions

Important assumptions are conditions that are important for success of the plan, but are not necessarily under the control of the planners. In particular, they are those conditions necessary for achieving the outputs, the district target, and the overall goal after activities are implemented.

These important assumptions are likely linked to things external to the specific system in which the plan is implemented. They are important, but uncontrollable factors that form a set of critical assumptions.

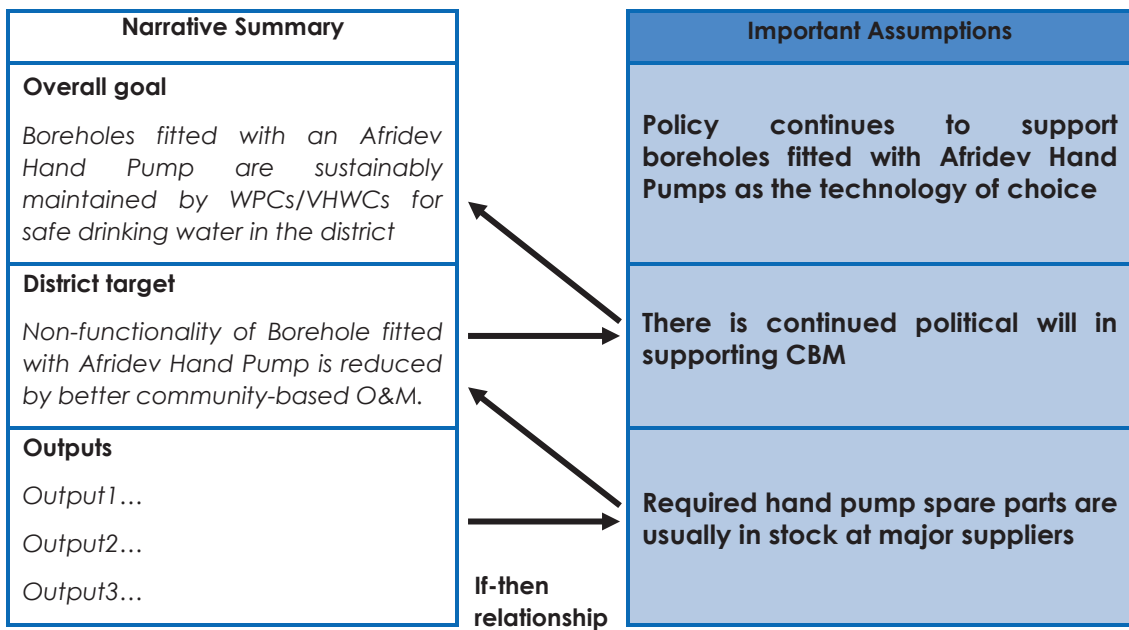
Conditions relating to politics, the economy, and natural disasters are often described as important assumptions. Although they cannot be controlled by the planners, it is important to be aware of the things that can influence the ability of the district O&M plan to be executed.

Figure 15 shows some examples of important assumptions. Referring to these examples, write down your own ideas and discuss with other members.



Position in the log frame

Figure 15 Examples of important assumptions and their links with Narrative Summary



Finally, review the log frame. This review is important to reveal **whether the plan is logically formulated or not**. Check the plan following the points below and revise areas where there may be illogical parts.

- ✓ Are all items set?
- ✓ Are the activities set properly (Number of activities, contents, order)?
- ✓ Do the Outputs contribute to achievement of the District O&M target?
- ✓ Is the District O&M target realistic and achievable?
- ✓ Are the indicators achievable?
- ✓ Are the data for certifying the indicators available?

That's all for Section5. Appendix3 is an actual log frame formulated by Mchinji DCT members which may be helpful as a reference.



Additional Resources

The following resources can be used as supplemental material to provide more information on log frames.

- USAID, Technical Note: The Logical Framework, December 2012

[http://usaidlearninglab.org/sites/default/files/resource/files/2012_12%20Logical%20Framework%20Technical%20Note_final%20\(2\).pdf](http://usaidlearninglab.org/sites/default/files/resource/files/2012_12%20Logical%20Framework%20Technical%20Note_final%20(2).pdf)

- SIDA, Logical Framework Approach- with an appreciative approach

http://arirusila.files.wordpress.com/2010/04/sida28355en_lfa_web.pdf

- Other

https://www.unodc.org/documents/human-trafficking/Toolkit-files/08-58296_tool_10-3.pdf

Section 6 Formulate a Schedule of Activities

Objective of Section 6	<ul style="list-style-type: none"> To formulate a schedule for activities in the form of a Plan of Operation (PO) To reinforce the scheduling capacity of DCT members
Outputs	<ul style="list-style-type: none"> Plan of Operation DCT members have methods to manage the plan
Days	<ul style="list-style-type: none"> 2days
Materials	<ul style="list-style-type: none"> Flip chart, White paper, Colour markers, PC

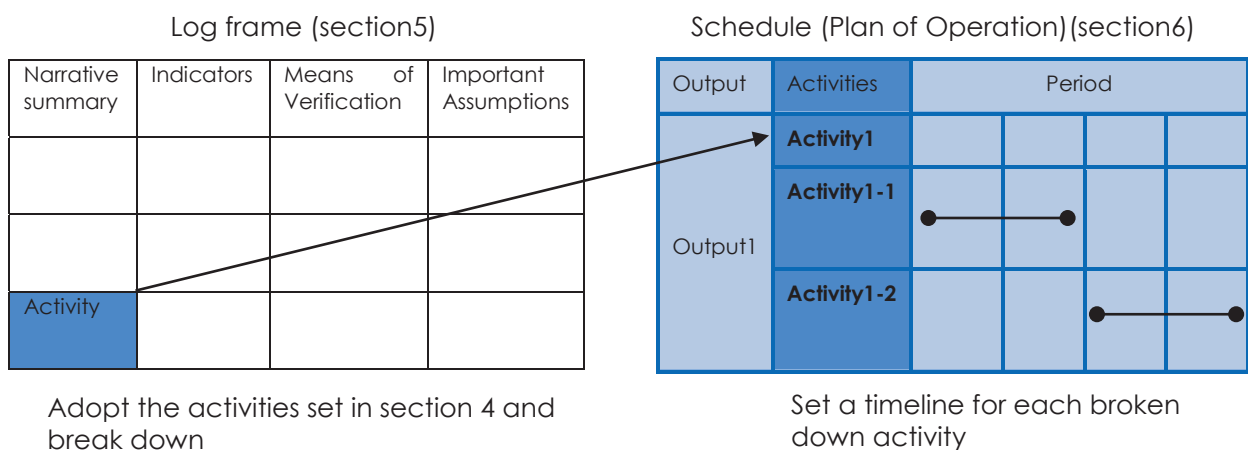
In this step, more detail will be added to the activities set in section5 and a schedule will be made for the execution of these activities. The schedule will:

- Clarify roles, responsibilities, and timelines for the activities
- Allow activities to be finished within the given period
- To efficiently manage personnel, equipment and materials in order to achieve the desired output

The schedule will allow those who are responsible for implementing the activities to achieve their goals within the chosen timeframe, and also plan for the future. By comparing actual progress with the scheduled progress, discrepancies can be corrected on more regular basis, and the schedule can be appropriately corrected to better reflect realistic timelines.

The schedule is a great tool for communicating district plans to interested stakeholders, as well as being a useful management tool in general.

Figure16 Relationship between section5and section6



Outline of Section 6

Section 6 is broken down into three steps as follows:

Steps	Activities	Outputs of the steps
Step1	Add detail to the activities	<ul style="list-style-type: none"> The activities in the Log frame are broken down further.
Step2	Decide activity frequency and length	<ul style="list-style-type: none"> Total time commitment to achieve desired output
Step3	Set tentative timeline for the activities	<ul style="list-style-type: none"> All activities are scheduled tentatively in the Plan of Operation (PO).

Step1. Detail the activities

In section4, several activities are planned to achieve a given output. The specific actions required for each activity in the log frame will now be clarified. Roles and responsibilities should be defined, and consideration should be given to the order in which certain activities occur (what should happen first, second, third, etc.).

For example, if preparation of a training plan for CBM is set as one of the activities, the facilitator would now ask the members:

“What has to be done first?”

“How is it going to be prepared?”

“Who is the particular target audience for the training?”

“With whom is the training plan prepared?”

“What resources do we need to complete this activity?”

Table8 shows examples of detailed activities.

Table 8 Examples of detailed activities

Output: WPCs and users are responsible for repairing and keeping water points sanitary

Activities set in log frame	Examples of detailing
1-1 Prepare a training plan for EWs on CBM with a strengthened O&M framework	1-1-1 Identify untrained EWs & WPCs in the targeted areas (liaise with DCT members) 1-1-2 Compile the list of EWs (untrained) by DCT 1-1-3 Formulate training plan
1-2Conduct TOT of CBM 1 and CBM 2 to EWs by DCT, with a strengthened O&M framework	1-2-1 Train untrained EWs 1-2-2 Conduct refresher training for EWs

Activities set in log frame	Examples of detailing
1-3 EWs conduct CBM1 and CBM2 training with communities with a strengthened O&M framework	1-3-1 Train untrained WPCs 1-3-2 Conduct refresher training for WPCs
1-4 Follow-up visits on community O&M activities by DCT and EWs	1-4-1 Plan for the follow up visit 1-4-2 Budget for regular follow up 1-4-3 Conduct follow up visits in order to monitor the communities O&M activities

For each output, write the detailed activities that accompany it on flip chart. By putting these detailed activities on the wall, members can easily share ideas and collaborate. Read the tip below for more details about this presentation style:

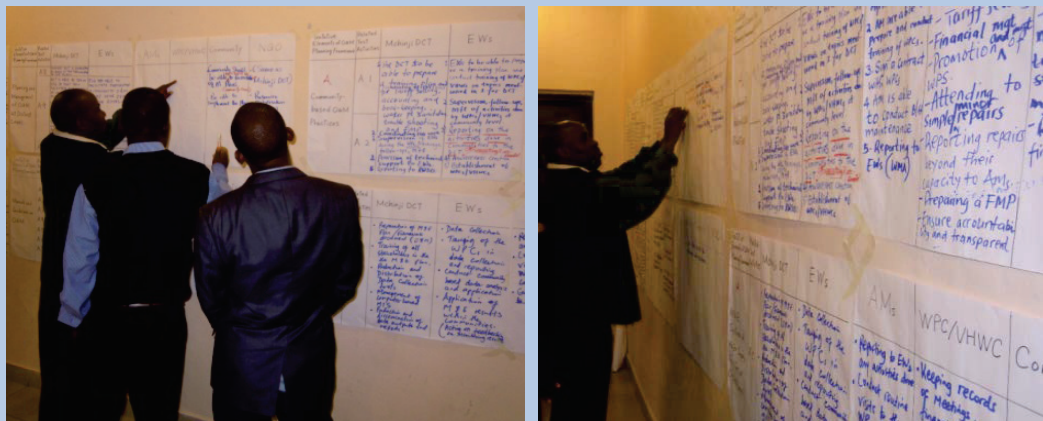
[TIPS] Flip chart collaboration vs. presentation and discussion

Being able to see the intended impact of the activities, by having the information on the wall on flip charts, makes it easy for all members of the process to actively participate and have creative input. As opposed to a more traditional individual presentation, this allows everyone to contribute, and can also save time. Using sticky notes or writing directly on the paper can then spark a conversation and help come to a better conclusion.

NOTE

Set realistic activities

For example, planning members often propose “Development of tools” “Development of text” as an activity. The important thing is to consider if participants will be able to specifically develop these tools or text, not just know that they need to be developed. Learning how to develop a tool needs to happen before the tool itself can be developed, and this should be reflected in the activity timelines. **Make sure activities are realistic and are able to be executed.**



Share your idea with other members and write comments on flip charts

Step2. Decide activity frequency and length

Before setting the timeline for achieving the intended outcome, it is necessary to examine how long it will take to complete each activity and how many times each activity should occur. It is especially important to do so when involving other stakeholders like EWs, WPCs, ADCs, and AMs. These numbers are set based on estimating how long it should take, but also by considering availability of resources, availability of staff, and other limitations.

Box1 is an example of how to do this process.

Box 2 Example of how to decide the activity frequency and length

Activity: Conduct CBM refresher training for 50 WPCs

(Example)

1. Target frequency for activity:	50 trainings
2. Necessary days of training per WPC:	2 days
3. Necessary days for 50 WPCs:	$50 \times 2\text{days} = 100\text{days}$
4. Extra days (including Sat & Sun):	50 days
5. Training team:	2 teams
6. Total days:	$150\text{ days} \div 2\text{ teams} = \underline{75\text{days}}$

Step3. Set tentative timeline for the activities

Set tentative timeline for all activities following the steps below.

- (1) Schedule the activities
- (2) Share the idea
- (3) Review the Plan of Operation

(1) Schedule the activities

Set a timeline for each activity. This handbook introduces the "Plan of Operation" as a format of scheduling. Table 9 on the next page is an example format of a Plan of Operation. It is intended that this table be created for **each output**.

It is also important to consider other things when making these yearlong schedules.

- Stakeholder availability
- Seasonal constraints (e.g. field visits become difficult in rainy season)
- Recurring annual events (Joint Sector Reviews, etc., that take up specific weeks)
- Major holidays such as Christmas and New Years, which is usually not a productive time of year

Table 9 Plan of Operation
 ✧ Prepare for all outputs

Name of Plan: _____
 Target Group: Extension Workers, Area Mechanics, WPCs/VHWCs, Communities, NGOs

Period: _____
 Date: _____

Outputs	Activities	FY (Fiscal Year) 2014			FY2015			FY2016			Responsible							
		Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep		Oct-Dec	Jan-Mar	Apr-Jun				
Output1: WPCs and users are responsible for repairing water points and keeping them sanitary	1-1 Prepare a training plan for EWs on CBM with a strengthened O&M framework																	
	1-1-1 Identify untrained EWs & WPCs in the targeted areas (liaise with DCT members)	█																
	1-1-2 Compile the list of EWs (untrained) by DCT		█															
	1-1-3 ...			█														
	1-2 Conduct TOT of CBM 1 and CBM 2 to EWs by DCT, with a strengthened O&M framework																	
	1-2-1 ...				█													
	1-2-2...					█												
	1-3 Conduct CBM 1 and CBM 2 training with a strengthened O&M framework to the communities by EWs																	
	1-3-1...																	
	1-3-2...																	
1-4 Follow-up visits on community O&M activities by DCT and EWs																		
1-4-1...																		
1-4-2...																		

Insert lines following actual period of plan

Add 2~4 rows under the main activities (activities written in Log frame) and write the detailed activities

Decide who is responsible in DCT member

Draw a timeline of the activity in Bar. If the activity is routine, draw in a dotted line

█ Focused Periodor █ Routine Work



Scheduling by PC

[TIPS] Flip chart or PC?

Step3 is able to be done either on flip chart or on PC. There are merits and demerits to each approach. The table below is a comparison of using flip chart or a PC when scheduling work. Choose an appropriate method considering ability of participants and availability of a PC.

	Merit	Demerit
Flip chart	<ul style="list-style-type: none"> ● Easy to share all work at the same time ● Easy to keep concentration of members 	<ul style="list-style-type: none"> ● Multiple flip charts have to be prepared in advance ● Unsuitable for editing
PC	<ul style="list-style-type: none"> ● Easy to prepare in advance ● Easy to add and correct data 	<ul style="list-style-type: none"> ● Difficult to control the work (participants might do other work) ● Several PCs are required ● Difficult to share all work at the same time

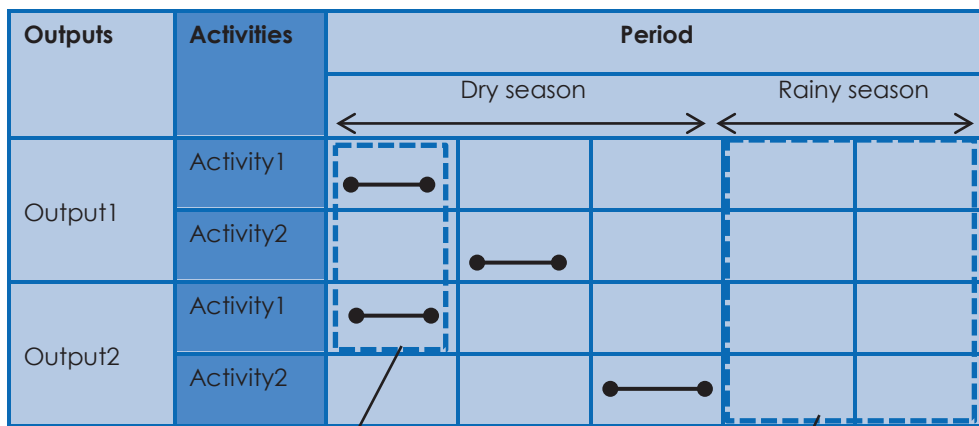
(2) Share the idea

Try sharing the schedule and examine how other members set timelines for each activity. There is no need to discuss at this step. Instead, verify those schedules from the following viewpoints:

- ✓ **Is the activity length and implementation period appropriate or realistic?**
Verify EWs availability in that period as well as potential seasonal constraint.
- ✓ **Is it possible to conduct some activities during the same period?**
Attempt to be efficient during implementation of the activities. Particularly, if some field work is able to be implemented simultaneously, huge savings can be made in terms of time and resources. Looking for opportunities like this is a very good strategy for resource constrained districts.

Figure17 is an example of scheduling some activities simultaneously.

Figure 17 Example of scheduling



Staff commitment, time and budget will be saved if some activities are able to be conducted at the same period.

Verify whether or not the field activity can be executed in the rainy season.

(3) Review the Plan of Operation (PO)

Review the Plan of Operation considering the viewpoints described in (1) and (2). Group people into teams of two or three, and have them go over the plans that have been created. Everyone should contribute. This is the time to discuss any issues and come to a consensus as a group.

NOTE

Better to have a few members finalize

It will be difficult to finalize the PO in the above exercises. In this light, it will be more efficient to have just a few members or participants check the PO and look at the entire schedule, after the scheduling contributions from the entire team. One or two participants should check the PO in detail, and make executive decisions to draft a final version.

**Section
7**

Estimate Budget of the Plan

Objective of Section 7	<ul style="list-style-type: none"> • To estimate the budget of the plan • To build the budget estimation capacity of DCT members
Outputs	<ul style="list-style-type: none"> • Budget estimation document • DCT members estimate an accurate and proper budget for the plan
Days	<ul style="list-style-type: none"> • 2days
Materials	<ul style="list-style-type: none"> • PC, White paper, Flip chart, Color markers, Calculator

District plans and budgets go hand in hand. Plans cannot exist without the means to execute them, and budgets cannot exist without plans that guide and prioritize spending.

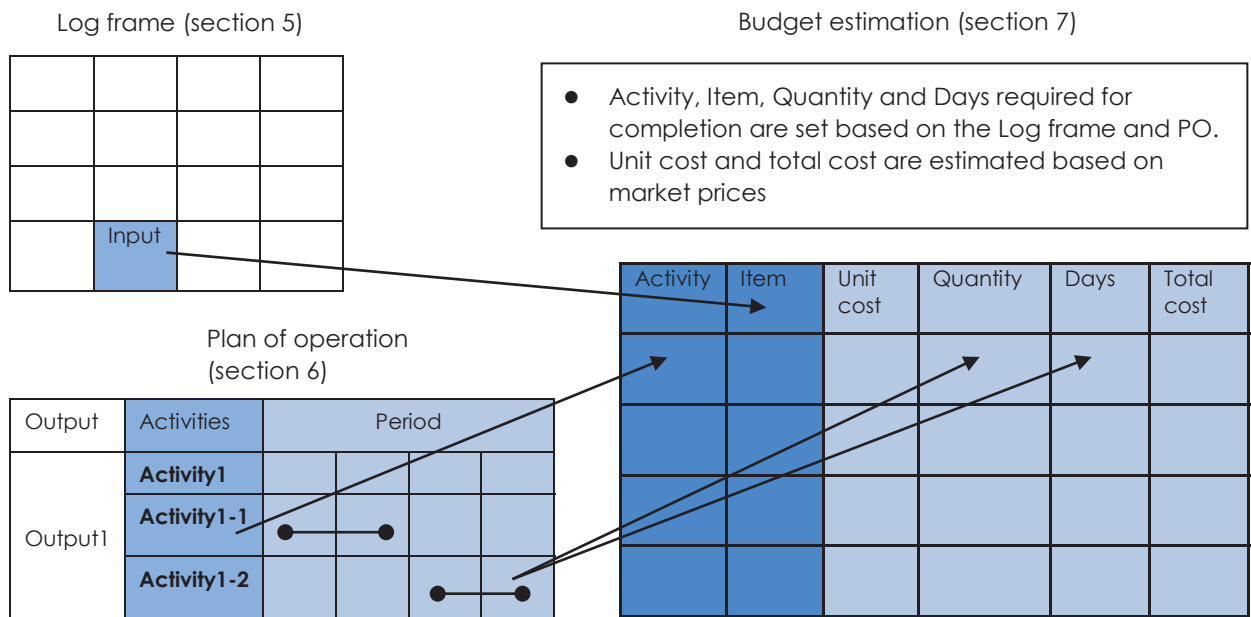
This is the final component of the planning process. In this section, estimate the budget for the planned activities. A budget is a crucial step in creating a realistic plan. If a given activity does not fit within the budget, then achieving the output related to that activity will be nearly impossible. Budgets allow planned activities to be executed, which is critical to progress. In particular, budgets are able to:

- Show the scale of the plan and help communicate the intended impacts and clarify district priorities in order to gain more interest from development partners,
- Be used by external stakeholders to further comprehend district plans, and potentially figure out limitations on execution.

In this light, budgets and operational plans should be prepared in a way that third parties would understand.

To make a budget, you will need to draw on the planning you have already done up to this point in the process. Figure18 on the following page shows how to formulate the budget based on information contained in the Log frame and the Plan of Operation that you have developed in previous sections.

Figure 18 Relationship between the Log frame, the Plan of Operation, and the Budget



Outline of Section7

Section 7 proceeds as outlined below:

Steps	Activities	Outputs of the steps
Step1	Make a list of necessary items for each activity	<ul style="list-style-type: none"> • The items/materials/resources needed for each activity are identified in detail.
Step2	Set unit cost	<ul style="list-style-type: none"> • Unit costs of the identified items are set.
Step3	Estimate budget	<ul style="list-style-type: none"> • The budget for each activity is tentatively estimated.
Step4	Review the entire budget	<ul style="list-style-type: none"> • Whole budget estimate is reviewed. • Log frame and PO are modified following any corrections to the budget.

Step 1. Make a list of necessary items for each activity

In Section 4 of this handbook, the log frame was made and included inputs for each activity. These inputs are similar to budgeted items. In this step, all the necessary items for each activity will be listed. This can include administration costs, airtime, allowances, as well as general office expenses that contribute to that activity. If possible, the facilitator should prepare this list beforehand, to save time. The facilitator might also have a better idea of specific costs for activities, or specific things that need to be allocated for each activity.

It is important to note that this is done per activity. All activities have different costs associated with them, and it is important to distinguish the different expenses of each activity in the budget. Make sure to watch out for any expenses that could be already accounted for in another activity (e.g. a CBM training may require more flip chart, but the flip chart might be already stocked at the office from past activities).

Table 10 shows examples of items that could be needed for a given activity.

Table 10 Example costs for O&M activities

Items of expense	Example
Personnel expense	Meal allowance for DCT, EWs, AMs Field allowance for DCT, EWs, AMs
Material expense	Printer cartridge, Marker, Hand pump parts for demonstration, Flip chart, Flip chart stand, Copy paper, Writing pad, Printer, Fuel
Other general expense	Hall hire, equipment hire

Step 2. Set unit cost

Set the appropriate unit cost of the items through a discussion among the planning members. When cost guidelines are available, they should be used to avoid random or inappropriate costs being set. Particularly, **allowance fees should be set in accordance with government regulation** in order to avoid inexact cost setting and to allow for consistency across plans.

Appendix 5 includes a list of unit costs set by Mchinji district in 2013. Refer to it if necessary.

NOTE

During budget estimation, do not spend much time on setting unit costs

Unit costs of materials are often set based on market prices (e.g. fuel). Because these prices can fluctuate, sometimes participants can have differing opinions on the actual cost of an item in the budget. Although the prices set in the budget should reflect real market prices, avoid spending excess time deciding prices if there is a disagreement among participants.

This can waste precious time, and the budget estimation process as a whole is meant to be just that, an estimation. The priority is to set realistic prices within an efficient timeframe.

Step3. Estimate budget

For each output in the Plan of Operation, an individual budget should be made. A computer can make this process easier, as it allows for easy editing and sharing. If a computer is not available, however, a simple grid can be made on flip chart paper and the same process can take place.

If the district has a budget template that is regularly used, it can be used during this budgeting process. It is important to note, however, that the process described in this handbook results in an outcome-based budget, and not the more common generalized budget. If the existing district budget, for example, only allocates fuel in a lump sum, the budget template will need to be edited to allow fuel allocation on a per-activity basis. This template editing should be done well before the actual budget estimation itself, in order to save time. See Appendix5 for an example budget estimation.

Table11 on the next page is an example format for this outcome-based budgeting process. This is a revised format of a District annual work plan sheet for the UNICEF WASH Programme in 2013.

The points of the estimation are as follows,

- **Estimate the budget corresponding with the period described in the PO.**

The activity period and number of days required for each activity should align with the budget, and the budget should reflect the time commitment required to complete each activity.

- **Apart from consumable goods, avoid duplication of the same item in different sections.**

For example, multiple flip chart stands and printers are not necessary to purchase just because they are needed for multiple activities. There are some items that can be purchased once, and used over and over again for many activities as long as they are stored in an easily accessible place.

- **Verify the necessity of the items.**

For example, lunch allowance and snacks will not be necessary to budget for the regular activities of the office. Another example would be budgeting for a room rental for a meeting if your office has an available boardroom that can be used for free.

- **Try to economize the budget.**

When estimating item costs for activities that are executed in the same period, try to combine them wherever possible. Particularly, avoiding overlap of fuel and allowance leads to economization of the budget.

NOTE

Tips for meeting stakeholders in the field using a limited budget

- Using public transport instead of motorbikes or vehicles to get to more rural areas for meetings can save huge amounts of money. These savings can have a dramatic effect on increasing the district's ability to coordinate with field level stakeholders.

- Choosing a central location to meet with more than one AM at a time can save money by reducing the total number of field visits, but can also allow AMs to build a relationship.
- If it is not feasible to meet every AM (or ADC) each quarter, budgeting for a small amount of airtime can still give the DWDO a chance to check in and connect with the AM or ADC.
- Meeting AMs when in the field for other activities (like an external project) can also save fuel and reduce the total number of field visits. This also allows the AMs to learn about other office activities.

Table 11 Example of Budget estimation format

※ Prepare for each Output and all years

Write number here

Budget Estimation for (Title of plan) in~ District for Fiscal Year 2014

Output 1: WPCs and users are responsible for repairing and keeping Water Points sanitary

Number of target TAs: WPCs/VHWCs:

Planned Activity	Item	Unit cost	Quantity	Days	Total cost (Mkw)	Explanatory notes
1-1 Prepare a training plan for EWs on CBM with a strengthened O&M framework						
1-1-1 Identify untrained EWs & WPCs through a DCT Meeting	Fuel	850	10	2	17,000	
1-1-2 Compilation of the list of untrained EWs & WPCs through a DCT Meeting		250	4	1	1,000	
1-1-3 Formulate the training plan through a DCT Meeting	Markers	250	4	1	1,000	
	Sub-Total				19,000	
1-2 Conduct TOT of CBM to EWs with a strengthened O&M framework by DCT						
1-2-1 Train untrained EWs	Flip chart stand					
	Flip chart					
	Markers					
1-2-2...						
	Sub-Total					
1-3 Conduct CBM 1 and CBM 2 training with strengthened O&M framework to communities by EWs						
1-3-1...						
1-3-2...						
	Sub-Total					
1-4 Follow-up visits on community O&M by DCT and EWs						
1-4-1...						
1-4-2...						
	Sub-Total					
GRAND TOTAL					Mkw	

Step4. Review the entire budget

The final budget should be reviewed by a select group of members, and should be done while examining the Plan of Operation (PO). The select group can do a more efficient review, but can still communicate any important points to the rest of the members. Points to review are the same as those mentioned in the previous step. In addition, pay attention to the common **mistakes** listed below:

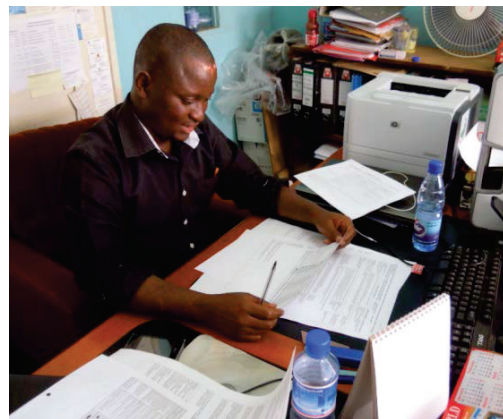
- **Fixed assets, e.g. printer and flip chart stand are listed every year for the same output.**
- **Activities that are not listed in the PO are still included in the budget. All items in the budget should be activities that are planned for explicitly.**

【TIP】 Optimizing implementation

Budgeting will also aid the district in reviewing their operational plans, by allowing comparisons to be made between different methods of implementation. For example, it could allow a district to see how much of their annual budget they are spending on fuel to meet AMs in the field, compared with spending on airtime. In this case, it could help a district see how increasing the budget for airtime would still allow communication between the DWDO and the AM, but would save money on fuel spending. This type of decision-making and prioritization can save time and money, and can ultimately make more room in a budget for other activities.

Correct the activity period on the PO if necessary. The PO and the budget estimation are correlated; therefore the logical link between the two documents should be maintained.

Finally, review the log frame, PO and budget estimation, confirming carefully whether these three documents are logically linked. At this point, it is likely that elements of the three documents will need to be corrected. If one component is changed, remember to adjust the corresponding components in the other two documents. Once the three documents have been reviewed, edited, and adjusted, the plan is complete.



Review the formulated plans at the end of the budgeting process

Section 8 Evaluate Outputs and Review Approaches

Objectives of Section 8	<ul style="list-style-type: none"> • Understand the importance of evaluating outputs and reviewing approaches • Build DCT member's ability to carry out evaluation and review practices
Outputs	<ul style="list-style-type: none"> • After Action Review • DCT members find recommendations and lessons for future efforts through the evaluating and reviewing approaches
Days	<ul style="list-style-type: none"> • 1 day
Materials	<ul style="list-style-type: none"> • PC, White paper, Flip chart, Color markers

Evaluating outputs and reviewing approaches is not a part of the planning process, but is used to improve future planning in the action cycle. Evaluation occurs after the planned activities have been carried out to determine whether the planned outputs were achieved, whether they contributed to the achievement of the district target and overall goal, and to gather learning for next time. Evaluation should be done so as to improve future planning.

In this section, we will review the evaluation step in more detail as well as provide some tips and simple tools regarding how to carry out evaluation and review approaches on a regular basis.

Background on the action cycle

The planning process that has been detailed thus far in this handbook is one part of the action cycle. The full cycle is outlined in Figure 19.

Figure 19 The action cycle



There are five main steps to the action cycle.

1) Set Goals, Targets, and Outputs: Setting goals, targets, and outputs enables the district to prioritize an area of focus and measure the success of its plans against those goals. You have completed these steps through sections 3 and 4 of this handbook.

2) Plan Activities: Planning activities involves developing an actionable approach that is shared across various staff for reaching the goals and targets set. You have done this through the formulation of a log frame in section 5, and a plan of operation in section 6 of this handbook.

3) Implement Activities: In this step, the planned activities are carried out.

4) Evaluate Progress: In this step, the information gathered from doing the activities is reported and made available to relevant district staff. Evaluating outputs takes the reported information and determines whether or not the approach the district had taken was a success.

5) Review Approaches: In this step, the process or approaches that were taken are reviewed and recommendations are made that will motivate the next round of planning. After reviewing, planners may decide to continue with the current approach taken to a certain activity, or may choose an alternative approach for achieving the same activity or output. In this sense, the action is cyclical as the results and lessons from one iteration will be applied to the following iteration of action planning.

Example of a district going through the action cycle:

A district made an O&M plan using this handbook 3 months ago. As part of their plan, the district had set that “WPCs and users are responsible for repairing and keeping water points sanitary” as one of their **outputs**. In order to achieve that output, the district then decided that it would both conduct CBM trainings for WPCs and do subsequent follow-up visits to support communities. These **activities** formed part of the district’s approach to achieving the output.

However, after implementing their chosen activities over the last three months, the district found that they only managed to provide CBM trainings to 20% of the WPCs that it had planned to. In addition, the district hadn’t completed any of the follow-up visits to support communities. This represents the **progress** made towards achieving the activities, and ultimately the outputs. Through evaluating why the progress fell short of the goals set out in the plan, any shortfalls in the **approaches** the district had taken to implement their activities and ultimately achieve the outputs were identified.

The district identified that although they had planned to make individual follow-up visits to each WPC that had been trained in CBM, they never had enough time or resources to do so. After reviewing the approach they were taking, they chose to do follow-up visits through clustering communities in central areas to lower the time and resources needed to meet all the planned communities.

The following process can be used to evaluate progress towards outputs and review the approaches taken in order to improve them.

Capturing and evaluating progress

In section 5 of this handbook, you went through a process for setting indicators for the overall goal, the district O&M target, and associated outputs. By the time that you will review progress, quantifiable indicators will also have been set.

Below is one way that you can modify the log frame table that you developed in section 5 to include information useful in evaluating your progress towards the outputs. A separate table can be made from the original log frame with these extra columns (shaded below) to use for

evaluating progress. Note that there is more than one date for inserting evaluations. This is because it is important to regularly track progress over time in achieving activities planned for, and the corresponding outputs.

Using our example output from above, the table used to evaluate progress would look something like the following:

Table 12 Example of evaluating progress

(Output: WPCs and users are responsible for repairing and keeping water points sanitary)

Objectively Verifiable Indicators	Means of Verification	Activities (taken from rows in the log frame)	Evaluate Progress		
			1 st date	2 nd date
1-1 XXWPCs are identified and trained in standardized method in Mchinji district by 2019	EWs report	1. Conduct CBM 1 and 2 trainings for identified WPCs	1. Of X CBM training in the PO for the first quarter, Y were completed.		
1-2 XX% of community leaders are aware about the use of O&M fund in Mchinji by 2019	Agreement consensus forms	2. Follow-up visits on community O&M activities by EWs	2. Of X follow-up visits in the PO for the first quarter, Y were completed.		
1-3...		3...	3...		
1-4...					

Next it is important to compare the progress of the activities done with the indicators that were set for each output. This will determine whether or not the output is on track to be achieved, and whether or not the activities or approach to achieve a particular output has been successful. An example of comparing progress against set indicators is:

(Evaluate Progress, 1st date)

- 1. Of 15 CBM trainings in the PO for the first quarter, 15 were completed.**
- 2. Of 15 follow-up visits in the PO for the first quarter, 0 were completed.**

In this example, we can see that the district had reached its goal for the first activity: it conducted all 15 CBM trainings. However, it had not fulfilled its plan to conduct follow-up visits. Because the district did not achieve the follow-visits, it will have to decide on the best way to adjust in the next round of planning and implementing activities. It may decide to recommit itself to conducting follow-up visits directly to WPCs or it may decide to change its approach. For example, it could cluster WPCs together so as to reduce the amount of required resources.

Evaluating progress towards the achievement of activities is important, but it is not the only evaluation that is needed when looking at progress towards achieving outputs. Note that the indicators outlined for the output above are quite tangible – a certain number of WPCs trained number of financial records kept, number of standard fences constructed, etc. However, it is also important to track some of the more intangible aspects of outputs so that true success can be measured.

In the above example, assessing and capturing the motivation for WPCs to collect and save O&M funds, for example, would be important to know whether WPCs really value this behavior and will continue it into the future. This could be similarly assessed through the EW's report, the content of which would be based off of their observations.

NOTE**Measuring progress towards less tangible aspects**

Sometimes it may be difficult to track progress towards less tangible changes, such as behavioral changes, through conventional indicators. Approaches such as surveys or in some cases use of proxy indicators can help in assessing whether the activities implemented are having the desired effect on less tangible changes.

Reviewing approaches: After Action Reviews

When evaluating outputs, it is important not only to evaluate progress towards outputs, but also to review the process or approach that was taken so as to draw out any lessons or recommendations. One of the most commonly used tools for reviewing a process or approach is something called an After Action Review. The After Action Review provides a group space where thoughts can be shared, reacted to, and documented. This will provide a structured yet open space for capturing lessons for future improvement.

Figures 20 and 21 on the following page show two versions of the After Action Review: the traditional version and a version that was adapted through use by the Mangochi district Water Development Office. Either version can be used in a district setting, depending on the context and situation. For both, the key is to draw out lessons and recommendations from what happened.

Figure 20 After Action Review (traditional)

1. What was supposed to happen?	2. What actually happened
4. What did we learn for the future?	3. Why was it different?




Figure 21 After Action Review (adapted)

1. Successes
2. Challenges
3. Recommendations

When conducting an After Action Review, either the traditional or adapted tool can be used, depending on the situation, context and/or the preference of the participants. Further modification can be made to the tool to suit the needs of the participants. Regardless of the version of the tool that is used, it should allow the participants to come up with recommendations and lessons for the next round of activity planning.

In the example above, it was found that although all the CBMs were conducted, none of the follow-up visits had been. The After Action Review is designed to assess the reasons why activities happened the way they did and develop recommendations for future planning. Using this tool, a possible recommendation could be that the district needs to cluster WPCs together to reduce the amount of resources required for the activity. Alternatively, a recommendation could be to switch its approach to using intermediary structures such as Area Development Committees to conduct follow-up visits.

Recommendations made during the After Action Review should be incorporated into the next round of planning so that improvements can be made.

NOTE

I. Tips for conducting After Action Reviews

- **Develop actionable recommendations:** Recommendations that are too abstract or unfeasible should be modified so that they can realistically be applied in the next round of planning. Avoid ending discussions with the broad recommendation to be “better” at doing something the next time, try to move the group to a discussion about specifically **how** something will be done better and by **who**.
- **Encourage group participation:** Extension workers will sometimes feel hesitant to share their perspectives and opinions even though they may hold interesting insight. Often, the biggest barrier to group participation may be the perceived constraints of hierarchy. One possible way to encourage group participation is to build a more team-like environment among staff, which could be done through holding weekly or

bi-weekly office meetings, involving in and even delegating to extension staff specific planning and budgeting exercises, or expressing interest in opinions of staff members on a regular basis.

- **Make After Action Reviews a habit:** Using After Action Reviews whenever possible improves how they are used over time. Try to bring After Action Reviews to existing meetings in the District, and to bring in any stakeholders that are or were involved in the activities implemented to assist in the review (such as Area Mechanics, NGO workers, etc).
- **Achieve detail:** Though something may be concisely summarized, it is important to dive deeper into the reasons behind what happened. This will assist in the development of recommendations. For example, instead of merely stating follow-up visits as a challenge, perhaps the underlying reason was that there was poor communication between the District Water Officer and the extension staff. With this, an actionable recommendation can more easily be made.

II. Flip chart or PC?

- **Evaluating progress:** For this step of evaluating outcomes, it is suggested to use a **computer** because it should be easy to revisit these targets at any time. It may also be important to use this information for reports.
- **Reviewing the process or approach:** Because the goal is to gather thoughts and perspectives from a group, it is better to use a **flip chart**. It may however be worthwhile to transfer the notes onto a computer afterwards so as to be able to visit the lessons at a later point in time.

Appendices



Reference to set up District Target & Overall Goal of District O&M plan

Vision 2020
<p>1. Increasing Access to Water</p> <ul style="list-style-type: none"> i. reviewing and strengthening institutional arrangements; ii. implementing and reviewing the newly enacted legislation; iii. increasing investment in water supply infrastructure iv. Protecting catchment areas; and encouraging harvesting of rainwater.
<p>2. Improving Sanitation Services</p> <ul style="list-style-type: none"> i. increasing investment in the construction of appropriate facilities and research; ii. reducing waste generation; iii. reviewing legislation governing disposal of waste including industrial hazardous waste; iv. developing standard designs for sanitation disposal v) systems to be used by developers.
<p>3. Improving Rural Water Supply</p> <ul style="list-style-type: none"> i. augmenting, rehabilitating and expanding of gravity-fed schemes; ii. rehabilitating boreholes and shallow wells, as well as the addition of new ones; iii. providing more water kiosks in urban slums; iv. constructing additional dams and reservoirs; v. developing small scale irrigation schemes;

MGDS II
<p>Goal</p> <p>The goal is to improve access to water through an integrated water management system.</p>
<p>Expected-Medium Term Outcome</p> <ul style="list-style-type: none"> • Well developed and managed water resources; and • Increased access to safe water points within 500m distance.
<p>Key Strategies</p> <ul style="list-style-type: none"> • Promoting development of potential multi-purpose dam sites and groundwater resources; • Improving existing water infrastructure; • Enhancing water resources monitoring, preservation, development and management; • Promoting user friendly technologies for water resources conservation and utilization; • Promoting the empowerment of local communities in water resources development and management; • Strengthening research in water resources development and management; • Increasing number of people connected to piped water supply systems in both urban and rural areas; • Strengthening institutionalization of practical operations and maintenance

MGDS II

- framework at all levels;
- Strengthening and institutionalizing monitoring and evaluation system for water services;
 - Enhancing information, education and communication;
 - Promoting private sector participation in the provision of water services;
 - Promoting equitable distribution of water points to rural areas through GPS mapping;
- and
- Enhancing institutional capacity at all levels.

The National Water Policy

- Achieving sustainable and integrated water resources management and development that make water readily available and equitably accessible by all Malawians in pursuit of their socio-economic development and for environmental sustenance;
- To ensure water of acceptable quality for all the needs in Malawi
- Achieving sustainable provision of water supply and sanitation services that are equitably accessible and used by individuals and entrepreneurs for socio-economic development at affordable cost;
- Promoting efficient and effective utilization, conservation and protection of water resources for sustainable agriculture and irrigation, fisheries, navigation, eco-tourism, forestry, hydropower and disaster management and environmental protection;
- Undertaking the rehabilitation, upgrading, extension and construction of water infrastructure;
- Promoting international cooperation in the management of trans-boundary and cross-boundary waters without compromising the country's sovereignty, security and territorial integrity;
- Dealing with challenges facing water resources management which include the need to adopt Integrated Water Resources Management (IWRM) Principles, the need to conform to current regional and international agreements and protocols on shared water resources, catchment protection and management, and water resources monitoring;
- Promoting the participation of the private sector in water resources development, management and service delivery;
- Strengthen and building capacity in the water sector; and
- Clarifying the roles of the Ministry for Water Affairs and other stakeholders in the water sector.

Joint Sector Review (JSR)

1. Institution Development and Capacity Building

Undertaking:

Design a SWAP funding mechanism for districts allocations to and be acceptable to the development partners

<p>2. Monitoring and Evaluation</p> <p>Undertaking: Institutionalize the preparation of the annual Sector Performance Review</p>
<p>3. Water supply</p> <p>Undertaking</p> <ul style="list-style-type: none"> • Reduce non-functionality of water supply facilities in rural areas from 18,600-17,600 • Reduce NRW in urban areas by 45-35% in Blantyre and 37-30% in Lilongwe
<p>4. Water for Production</p> <p>Undertaking: Develop the Irrigation master plan</p>
<p>5. Sanitation</p> <p>Undertaking: Review National Sanitation Policy and draft Sanitation Bill</p>
<p>6. TWG Water Resources Management</p> <p>Undertaking: Rehabilitate and manage the water catchment areas-Shire River Basin, Lunyangwa River Basin, Lilongwe River Basin</p>

<p>Other relevant plans and data at district level</p>
<ol style="list-style-type: none"> 1. District Development Plan 2. District Strategy and Investment Plan 3. Socio-Economic Profile 4. M&E system 5. Others

Appendix 2 Example of Ideal Situation on Operation and maintenance (O&M)

District Ideal Situation O&M:

Boreholes fitted with Afridev Hand Pump are sustainably maintained by WPCs/VHWCs for safe drinking water in the district

District Target on O&M:

Non-functionality of Borehole fitted with Afridev Hand Pump is reduced by better community-based O&M

Period:

		Actors and their ideal status or roles					
Tentative Elements of O&M Planning Framework	Outputs	Mchinji District Coordination Team (DCT)	Extension Workers (EWs)	Area Mechanics (AMs)	Water Point Committee/ Village Health Water Committee	Community	NGO
Community-based O&M Practices (F1)	WPCs and users are responsible for repairing and keeping Water Points sanitary.	* DCT is able to prepare a training plan and conducting of TOT (EWs) for tariff setting, accounting and book-keeping, water point sanitation trouble shooting and Facility Management Plan(FMP) ***** *****	* EWs are able to prepare a training plan and conduct training of WPCs/VHWCs on topics mentioned in the column of DCT(see ✖ in the column of DCT) ***** *****	* AMs are able to diagnose and deal with troubles of Afridev Hand pump ***** *****	* WPCs/VHWCs set water tariff ***** *****	* Communities should be involved in Facility Management Plan ***** *****	* NGOs are able to provide resources and also perform the roles of DCT and EWs ***** *****
Hand pump Spare Parts Supply Chain (F2)	Hand pump spare parts are available (e.g. price) and accessible (e.g. distance) to WPC/VHWC through a standardized system managed by government after phase out of NGO	* DCT is able to identify retail shops to stock spare parts ***** *****	* EWs identify retail shops to stock spare parts ***** *****	* AMs identify spare parts required for repairs to WPCs ***** *****	* WPCs collect and manage the funds of the spare parts purchase ***** *****	* Communities raise funds to buy the spare parts ***** *****	* NGOs provide support in the supply chain system ***** *****
Area Mechanic System (F3)	AMs are able to serve in timely manner in the repair of Afridev hand pump or a request of WPCs.	* DCT is able to prepare a training plan of EWs * SuperVise EWs on AMs training ***** *****	* EWs prepare a training plan and training of AMs ***** *****	* AMs are able to diagnose and deal with troubles of Afridev Hand pump ***** *****	* WPCs are able to enter into contract with AMs ***** *****	* Communities provide labor during B/H repairs ***** *****	* NGOs provide support to DCT ***** *****

Appendix 2 Example of Ideal Situation on Operation and maintenance (O&M)

District Ideal Situation O&M: Boreholes fitted with Afridev Hand Pump are sustainably maintained by WPCs/VHWCs for safe drinking water in the district
District Target on O&M: Non-functionality of Borehole fitted with Afridev Hand Pump is reduced by better community-based O&M
Period:

Actors and their ideal status or roles							
Tentative Elements of O&M Planning Framework	Outputs	Mchinji District Coordination Team (DCT)	Extension Workers (EWs)	Area Mechanics (AMs)	Water Point Committee/ Village Health Water Committee	Community	NGO
Manuals and Guidelines on O&M (F4)	Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation.	*DCT is able to establish and use manual & guidelines management system ***** *****	* EWs are able to facilitate training on the use of community manuals ***** *****	*AMs are able to use the (distributed) manuals ***** *****	* WPCs are able to use the distributed manuals and guidelines ***** *****	* Communities are able to use the distributed manuals and guidelines ***** *****	* NGOs are able to promote use of the manuals and guidelines ***** *****
M&E System of Water Supply Facilities at District Level (F5)	A functional M&E system are developed, approved and adopted for the implementation.	* DCT is able to prepare M&E plan/ formulate M&E document on O&M ***** *****	* EWs are able to collect the data at village level ***** *****	* AMs report to EWs any activities done at village level ***** *****	* WPCs keep records of meetings, financial transactions, change and purchase of spare parts. ***** *****	* Communities conduct interface meeting and feedback process ***** *****	* NGOs support all M&E activities planned by the DCT ***** *****
Planning and Management of Operation and maintenance (O&M) at District Level (F6)	District is able to formulate district plans that incorporates O&M issues based on community plans with technical support from RWDO.	*Mchinji District Coordination Team (DCT) is supported by RWDO on the formulation of the Plan *DCT is able to train EWs so that they facilitate formulation of community water and sanitation plans ***** *****	* EWs are able to facilitate formulation of community O&M plans using O&M planning guideline ***** *****	***** *****	*WPCs formulate O&M plans (FMP) and implement the plans ***** *****	* Community should be involved in formulation of O&M plans ***** *****	*NGOs are able to train EWs so that they facilitate formulation of community water and sanitation plans ***** *****

Narrative Summary	Inputs	Source of budget	Pre-Conditions
<p>Output4: 4-1. Establish district manuals and guideline system 4-2. Train and provide EWs on the use of the manual and guidelines by DCT 4-3. Train and provide AMs and WPCs on the use of the manual and guidelines by EWs 4-4. Provide an update of the manuals and guidelines to stakeholders including NGOs</p>	<p>1) Personnel ➤ DCT, EWs 2) Machinery, Equipment and Materials ➤ Guidelines and manuals, Stationary for TOT 3) Transportation ➤ Fuel for EWs during TOT and training of AMs and WPCs 4) Allowance ➤ DCT and EWs for TOT and training of AMs and WPCs ➤ Lunch allowances : AMs and WPCs</p>	<p>ORT ➤ PSIP (O&M Project) ➤ NGOs ➤ UNICEF ➤ NWDP ➤ LDF</p>	<p>There is willingness and cooperation of stakeholders to take part in the O&M plan</p>
<p>Output5: 5-1. Prepare M&E plan (framework / document on O&M) or reviewed 5-2. Train all stakeholders in the M&E plan 5-3. Produce and distribute the data collection tools to EWs 5-4. Produce and disseminate data output and reports</p>	<p>1) Personnel ➤ DCT, EWs, AMs, NGOs, WPC members 2) Machinery, Equipment and Materials ➤ Computers: Desktop and Laptops, LCD projector, Stationary, Internet, Photocopier, Binding Machine, Anti-virus software, Printer, Hall hire charge 3) Transportation ➤ 7 motor cycles, 1 vehicle 4) Allowance ➤ Lunch allowance, Subsistence allowance, Night allowance</p>	<p>ORT ➤ Project fund (AfDB fund, if possible)</p>	
<p>Output6: 6-1. Develop O&M planning guidelines 6-2. Train EWs in formulation of community O&M plans 6-3. Facilitate the formulation of community O&M plans by EWs 6-4. Analyse community O&M plans and incorporate in the DSIP & DDP 6-5. Mobilize resources for DSIP/DDP implementation</p>	<p>1) Personnel ➤ DCT, EWs 2) Machinery, Equipment and Materials ➤ Stationary for DCT and EWs for TOT and formulation of O&M plans 3) Transportation ➤ Fuel for DCT and EWs for TOT ➤ Fuel for EWs for formulation of O&M plans 4) Allowance ➤ DCT for TOT ➤ EWs for TOT and formulation of O&M plans</p>	<p>ORT ➤ PSIP(O&M) ➤ WASH UNICEF ➤ NGO ➤ LDF</p>	

Appendix 5 Example of Budget estimation

Budget Estimation for Enhancement of O&M for Rural Water Supply in ***** District for Fiscal Year 2014-2019

	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6
Fiscal Year 2014-2015						
Yearly Total						
Fiscal Year 2015-2016						
Yearly Total						
Fiscal Year 2016-2017						
Yearly Total						
Fiscal Year 2017-2018						
Yearly Total						
Fiscal Year 2018-2019						
Yearly Total						
Output Total						
Grand Total						

Date: Unit: Mkw

- Output1: WPCs and users are responsible for repairing and keeping water points sanitary
- Output2: Hand pump spare parts are available and accessible to WPC/VHWC through a standardized system managed by government after phase out of NGO
- Output3: AMs serve in timely manner in the repair of Afridev hand pump at a request of WPCs
- Output4: Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation
- Output5: A functional M&E system are developed, approved and adopted for the implementation
- Output6: District formulates district plans that incorporates O&M issues based on community plans with technical support from RWDO

Budget Estimation for Enhancement of O&M for Rural Water Supply in ***** District

Example of List of Unit Cost

Items	Cost(Mkw)
Allowances for DCT/NGO	
Field lunch allowance	3,500
Lunch allowance	1,500
DSA	Depending on the case
Allowances for EWs/AMs	
Field lunch allowance	1,500~2,500
Lunch allowance	800
DSA	6,000~8,000
Allowances for WPCs	
Lunch allowance	800
Fuel	
Diesel	850/little
Petrol	850/little
Stationaly	
Flip chart	3,500
Flip chart stand	20,000
Copy paper	3,500/ream
Toner	45,000
Note book	100
Writing pad	350
Marker	250
Pen	50
Masking tape	350
Meeting expence	
Hall hire	2,000~15,000
Refreshment	250/drink

Output1:WPCs and users are responsible for repairing and keeping Water Points sanitary

Number of target: TAs **In all TAs and STAs** WPCs/VHWCs **100** Unit: Mkw

Planned Activity	Item	Unit	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
1-1 Prepare a training plan for EWs on CBM with a strengthened O&M framework							
1-1-1 Identify untrained Ex. Workers & WPCs through a DCT Meeting	Petrol	Little	850	60	2	102,000	9 DCT Members & 1 Support Staff
1-1-2 Compilation of the list of untrained Ex. Workers & WPCs through a DCT Meeting	Refreshment	Bottle	250	3	1	750	
1-1-3 Formulate the training plan through DCT Meeting	Refreshment	Bottle	250	9	1	2,250	
	Sub-Total					105,000	
1-2 Conduct TOT of CBM to Ex. Workers with a strengthened O&M framework by DCT							
1-2-1 Train untrained EWs	Flip Chart Stand						
	Flip Charts						
	Markers						
	Reams of Plain Papers						
	Printer Cartridge						
	Writing Pads						
	Hand pump parts and tools for demonstration						
	Hall Hire						
	Petrol						
	FieldLunch allowances for DCT						
	Lunch allowances for EWs						
	Lunch allowances for drivers						
		Sub-Total					0
1-3 Conduct CBM 1 and CBM 2 training with strengthened O&M framework to communities by Ex. Workers							
1-3-1 Train untrained WPCs	Flip Charts						
	Markers						
	Note Books						
	Hall Hire						
	Promotion material						
	Petrol						
	Field allowances for DCT						
	Lunch allowances for EWs						
	Lunch allowances for drivers						
	Sub-Total					0	
1-4 Follow-up visits on community O&M by DCT and EWs							
1-4-1 Plan for the follow up visits to come up with the necessary resources	Lunch allowances for DCT						
1-4-2 Conduct follow up visits using monitoring checklist provided by output 5 including H&S component	Petrol						
	Lunch allowances for DCT						
	Lunch allowances for EWs						
	Lunch allowances for drivers						
	Sub-total					0	
GRAND TOTAL						105,000	

Output 2: Hand pump spare parts are available and accessible to WPC/VHWC through a standardized system managed by government after phase out of NGO

Unit: Mkw

Planned Activity	Item	Unit	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
2-1 Plan and execute standardized spare parts supply chain system							
2-1-1 Prepare draft plan based on current situation						0	
						0	
2-1-2 Hold meetings with NGOs on the current situation of spare parts supply chain	Lunch allowance for DCT	Person	1,500	5	1	7,500	
	Lunch allowance for NGOs	Person	1,500	2	1	3,000	
	Flipchart	Roll	3,500	1	1	3,500	
	Markers	Piece	200	10	1	2,000	
2-1-3 Re-plan according to the evaluation result						0	
	Subtotal					14,000	
2-2 Implement the plan (Establish the hand Pump Spare Parts Supply System)							
2-2-1 Train EWs on the standardized supply chain system (TOT) in collaboration with NGO	Facilitator allowance for NGOs					0	
	Lunch allowance for NGOs					0	
	Lunch allowance for EWs					0	
2-2-2 Train new retail shop owners (if necessary)						0	
	Subtotal					0	
2-3 Engage Private service provider to manage the system							
2-3-1 Identify private service providers						0	
2-3-2 Train the identified Private Service Provider on the standardized supply chain system						0	
2-3-3 Agree on TORs through signing MOU						0	
2-3-4 Monitor the supply chain system						0	
	Subtotal					0	
GRAND TOTAL						14,000	

Output 3: AMs serve in timely manner in the repair of Afridev hand pump at a request of WPCs

Unit: Mkw

Planned Activity	Item	Unit	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
3-1 Prepare the establishment system of AMs							
3-1-1 Prepare draft plan based on the current situation of AMs						0	
3-1-2 Hold meeting with NGOs on the current situation of AMs and evaluate the results						0	Hold at the same time as Activity 2-1-2
						0	
3-1-3 Re-plan according to evaluation Results						0	
	Subtotal					0	
3-2 Establish AM System							
3-2-1 Train EWs (TOT) in collaboration with NGO						0	
						0	
						0	
3-2-2 Recruit and train new AMs if necessary						0	
						0	
3-2-3 Review contract forms/guidelines if necessary						0	
						0	
3-2-4 Monitor AMs' activities monthly/quarterly						0	
						0	
	Subtotal					0	
GRAND TOTAL						0	

FY2014-2015

Output 4: Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation

Number of target: AMs 20 WPCs/VHWCs 100 Unit: Mkw

Planned Activity	Item	Unit	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
4-1 Establish district manuals Prepare M&E plan (Framework/Document on O&M) or reviewed							
4-1-1 Plan how to establish the system by DCT in liaison with the ministry	Copy paper	Ream	3,500	1	1	3,500	
	Lunch allowances for DCT	Person	1,500	5	1	7,500	
4-1-2 Put in place the required resources such as space, shelves and responsible person by DCT	Book shelves	Shelve	15,000	1	1	15,000	
4-1-3 Source manuals & guidelines by DCT						0	
	Sub-Total					26,000	
4-2 Train and provide EWs on the use of the manual and guidelines by DCT in liaison with the Ministry							
4-2-1 Train and provide Manuals & guidelines during TOT training as in 1-2-1 & 1-2-2	Copy paper					0	
	Paper file					0	
	Sub-Total					0	
4-3 Train and provide AMs and WPCs on the use of the manuals and guidelines by EWs							
4-3-1 Train and provide Manuals during CBM training as 1-3-1 & 1-3-2	Copy paper					0	
	Paper file					0	
	Sub-Total					0	
4-4 Provide an update of the manuals and guidelines to stakeholders including NGOs							
4-4-1 Identify required Manuals and Guidelines by DCT						0	
4-4-2 Aware creation on the availability of manuals and guidelines	Lunch allowances for DCT					0	
	Lunch allowances for Stakeholders					0	
	Hall hire					0	
4-3-3 Collect manuals and guidelines by Stakeholders						0	
	Sub-total					0	
GRAND TOTAL						26,000	

FY2014-2015

Output 5: A functional M&E system are developed, approved and adopted for the implementation

Number of target: TAs WPCs/VHWCs Unit: Mkw

Planned Activity	Item	Unit	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
5-1 Prepare M&E plan (Framework/Document on O&M) or reviewed							
5-1-1 Conduct planning meeting with the DCT members	Lunch allowances for DCT	Person	1,500	9	1	13,500	
5-1-2 Conduct a formulation workshop for the M&E plan	Lunch allowance for DCT members	Person	1,500	9	1	13,500	5HSAs/3CDAs/3WMAAs/3AMAs shall be part of the formulation team
	Lunch allowances for EWs/AMs	Person	1,500	16	1	24,000	
	Lunch allowance for drivers	Person	1,500	1	1	1,500	
	Petrol	Little	694	14	1	9,716	
	Toner	Piece	45,000	1	1	45,000	
	Ream of paper	Ream	3,500	3	1	10,500	
	Note pads	Piece	350	25	1	8,750	
	CDs	Piece	250	25	1	6,250	
5-1-3 Develop data collection tools	Soft drinks and snacks	Bottle/Bag	250	25	1	6,250	
	Lunch allowance for DCT members	Person	1,500	9	1	13,500	
5-1-4 Print and Disseminate M&E plan	Ream of paper	Ream	3,500	5	1	17,500	
	Printing	Copy	500	200	1	100,000	
5-1-4 Print and Disseminate M&E plan	Lunch allowance for stakeholder meeting	Person	1,500	30	1	45,000	
	Petrol	Little	694	14	1	9,716	
	Sub-Total					324,682	
5-2 Train all stakeholders in the M&E plan							
5-2-1 Plan for the training manuals/course content/ and facilitators	Printing of manuals					0	
	Folders					0	
5-2-2 Conduct an M&E training	Facilitators/Resource person allowance					0	
	Lunch allowances for EWs/AMs					0	
	Lunch allowance for drivers					0	
	Ream of paper					0	
	Note pads					0	
	CDs					0	
	Soft drinks and snacks					0	
5-2-3 Conduct a training review meeting and submit a report	Hall Hire					0	
	Lunch allowances					0	
	Soft drinks and snacks					0	
	Sub-Total					0	
5-3 Produce and distribute the data collection tools to EWs							
5-3-1 Print data collection tools for the EWs	Toner					0	
	Papers					0	
5-3-2 Orient data collectors	Lunch allowances for DCT					0	This activity shall take place once in 6 month
	Lunch allowances for EWs					0	
	Petrol					0	
5-3-3 Conduct field data collection exercise	Lunch allowances					0	
	Sub-total					0	
5-4 Produce and disseminate data output and reports							
5-4-1 Conduct data entry	Purchase a projector					0	The equipment shall be purchased once between now and 2018
5-4-2 Produce a report	CDs					0	
	Ream of paper					0	
5-4-3 Conduct a stakeholders review meeting to disseminate a report	Toner					0	
	Lunch allowances					0	
	Soft drinks and snacks					0	
	Petrol					0	
	Sub-total					0	
GRAND TOTAL						324,682	

Output 6: District formulates district plans that incorporates O&M issues based on community plans with technical support from RWDIO

Number of target: TAs **4** VDCs **100** WPCs/VHWCs **4** Unit: Mkw

Planned Activity	Item	Unit	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
6-1 Develop community O&M planning guidelines							
6-1-1 Review the existing Guidelines	Copy paper	Ream	3,500	2	1	7,000	
	Lunch allowance for DCT members	Person	1,500	9	1	13,500	
	Toner	Piece	45,000	1	1	45,000	
6-1-2 Produce draft guidelines, distribute and collect comments	Copy paper	Ream	3,500	1	1	3,500	
	Lunch allowance for DCT members	Person	1,500	9	1	13,500	
6-1-4 Finalize the guidelines	Copy paper	Ream	3,500	1	1	3,500	
	Lunch allowance for DCT members	Person	1,500	9	1	13,500	
	Subtotal					99,500	
6-2 Train EWs in formulation of Community O&M plan							
6-2-1 As similar tasks in Activity 1-1-1 to 1-1-3 at the same time						0	The cost is covered by activity 1-1-1 to 1-1-3
6-2-1 Formulate training plan							
6-2-3 Conduct the training						0	
6-2-4 Conduct the refresher training							
	Subtotal					0	
6-3 Facilitate the formulation of O&M plans by EWs							
6-3-1 Plan the facilitation sessions						0	
6-3-2 Mobilize resources for sessions						0	
6-3-3 Facilitate the sessions						0	
	Subtotal					0	
6-4 Analyze community O&M plans and incorporate O&M issues							
6-4-1 Divide the work to be analyzed							
6-4-2 Do the analysis							
6-4-3 Compile the analyzed information							
6-4-4 Incorporate the data in DSIP/DDP							
	Subtotal					0	
6-5 Mobilize resources for DSIP/DDP implementation							
6-5-1 Plan or identify the potential source of funds for DSIP/DDP implementation						0	
6-5-2 Share the activity in DSIP/DDP with donors/Partners	Lunch allowance for stakeholders					0	
	Copy paper					0	
6-5-3 Liaise with RWDO and ministry						0	
	Subtotal					0	
GRAND TOTAL						99,500	

Check sheet for O&M planning

Review the plan following this check sheet after the each planning step so as to ensure the quality of district O&M plan.

Section 3. Envision the Ideal Situation & Section 4. Design Outputs for the Ideal Situation				
	Check Item	Point	✓	Remarks
1	Elements of O&M planning framework	6(six) elements of O&M planning are set. The elements are listed below:		
		1. Community-based O&M Practices		
		2. Hand pump Spare Parts Supply Chain		
		3. Area Mechanic System		
		4. Manuals and Guidelines on O&M		
		5. M&E System of Water Supply Facilities at District Level		
	6. Planning and Management of O&M at District Level			
2	District Ideal Situation	The target is set following the national/district strategy/policy.		
3	Period of plan	The plan is set in line with principal district plan relating to O&M, such as DDP, DSIP.		
4	District target	1. The target is realistic and achievable by approach to Six O&M planning elements.		
		2. The target is considered to be qualitative.		
5	Outputs of planning elements	The outputs are addressing the considerations of each principal element of O&M.		
6	Actors' Ideal status	The Actors' roles and status are described concretely and in full sentence.		

Section 5. Formulate an O&M plan				
	Check Item	Point	✓	Remarks
1	Overall goal	1. The goal would be realized 3~5 years after the implementation of the plan.		
		2. The target is achievable by approach to O&M planning elements.		
2	District target	The target is adopted from Section3 and verified its relevance.		
3	Output	1. Achievement of outputs contributes to accomplish the district target.		
		2. Outputs are described in full sentences.		
4	Indicators	Target Group, Quantity, Quality, Time and Location are set against each ideal situation and they are described in full sentence.		
5	Means of verification	Available data are set as source of information.		

Section 5. Formulate an O&M plan				
	Check Item	Point	✓	Remarks
6	Activities	1. Mentioned activities are not simply re-phrased the Actors' Ideal status.		
		2. The activities are mentioned in the form of actions to be taken by DCT.		
7	Input	Personnel, materials, equipment, transportation and facilities required for implementation of the plan are identified.		
8	Source of Budget	Identified funds are likely to utilize as fund for O&M activity.		
9	Pre-conditions	"The project budget is available"; "Personal transfers of DCT members are not frequent" are not included as Pre-conditions.		
10	Important assumption	Important, but uncontrollable factors of the project are set.		

Section 6. Formulate a Schedule of Activities				
	Check item	Point	✓	Remarks
1	Breakdown of Activities	1. The activities are written down in concrete expressions which lead to easy estimation of the budget.		
		2. The activities are put in sequential order.		
2	Target number and necessary days of the activities	Numbers and days are set considering the activity contents and district resources.		
3	Timeline of the activities	1. The timeline of the activity is consistent with sequential order of activities.		
		2. The timelines are considered to conduct at the same time as other activities for effective implementation and budget saving.		
		3. Focused period and routine work are distinguished.		

Section 7. Estimate Budget of the Plan				
	Check Item	Point	✓	Remarks
1	Unit cost	District rate and market price are applied properly to the identified materials in Log frame.		
2	Estimation of budget for each year	1. The unit cost is adopted following Section6, Step2.		
		2. Unnecessary cost is not estimated, e.g. lunch allowance for desk work.		
		3. The quantity and days of each item are not overestimated.		
		4. Relevance to cost among other activities are enough considered (The cost is not overlapped).		



Rural Water Supply Operation and Maintenance Series were developed for planners, managers and practitioners for the practices of operation and maintenance of boreholes fitted with Afridev hand pumps in rural Malawi.