

**MINISTRY OF AGRICULTURE, IRRIGATION AND WATER DEVELOPMENT (MoAIWD)
REPUBLIC OF MALAWI**

**THE PROJECT FOR ENHANCEMENT OF
OPERATION AND MAINTENANCE FOR RURAL
WATER SUPPLY
IN THE REPUBLIC OF MALAWI**

FINAL REPORT

JULY 2015

**JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

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Executive Summary

Safe water supply access for rural areas in Malawi was at 64 percent in 2008, up from 58 percent in 2004¹. Despite these achievements, there are considerable challenges in the water sector. These include relatively low access to potable water, aging infrastructure, inadequate maintenance capacity, theft and vandalism resulting in more than 30 percent non-functionality² of the infrastructure at any given time.

In order to overcome the above-mentioned challenges, the Government of Malawi identified “Irrigation and Water Development” as one of the nine key priority areas in the Malawi Growth and Development Strategy 2011-2016 (MGDS II) set out the expected medium-term outcome to achieve increased access to safe water points within 500m distance and to increase population with access to safe water to 86% by 2016. The Government aims to increase the functionality of water supply facilities by improving the O&M framework. The framework was developed using the concept of Community Based Management (CBM), which was adopted by the Malawian Government in the 1990’s.

Against this background, the Government of Malawi requested technical assistance from the Government of Japan to conduct the Project for Enhancement of Operation and Maintenance (O&M) for Rural Water Supply in the Republic of Malawi. Upon this request, the Japan International Cooperation Agency (JICA) dispatched the Detailed Planning Survey Team in November 2010 and signed and exchanged the Record of Discussions (R/D) on the Project in February 2011.

The Project was implemented as a technical cooperation project based on the R/D and for a period of four (4) years, from July 2011 to June 2015. Three institutions were assigned as counterpart organizations: Department of Water Supply Services (DWSS), Ministry of Agriculture, Irrigation and Water Development (MoAIWD), Regional Irrigation and Water Development Office (Centre) {RIWDO (C)} and Mchinji District Council. Under the Project Purpose, i.e., “The existing O&M framework is strengthened practically for subsequence nationwide dissemination.” the project had the following five expected outputs:

Output 1: Implementation structure for strengthening the existing O&M framework for rural water supply is set up.

Output 2: Present situation and challenges of O&M for rural water supply are investigated.

Output 3: The existing O&M framework is strengthened based on the field test in Mchinji District.

Output 4: The strengthened O&M framework is applied to the whole Mchinji District.

Output 5: The strengthened framework is widely understood.

The Project period was divided into three stages as described below.

The first stage: from July 2011 to March 2012

The second stage: from June 2012 to March 2014

¹ Note: recent data by the sector performance report 2012/2013
Rural population with access to safe water supply: 81% (2011)

² Non-functionality of rural water supply facilities: 25% (2013)

The third stage: from June 2014 to June 2015

Process to be improved on the existing O&M framework by this Project is shown in below.

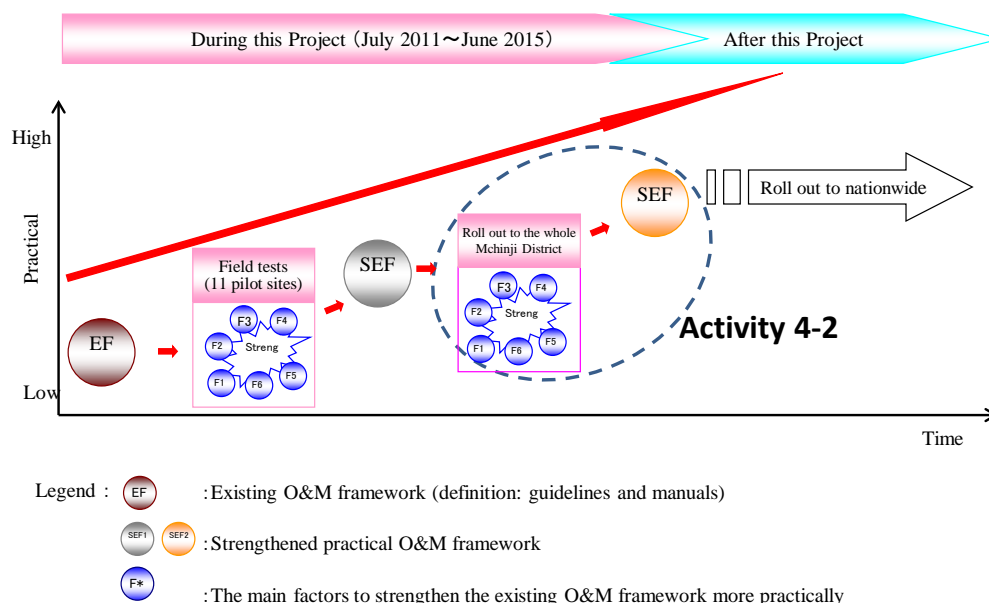


Figure 1: Process to be improved on the existing O&M framework by this Project

The Project activities were implemented based on the Project Design Matrix (PDM). The following are the status of the achievements for the Project purpose and each output.

Table 1: Status of the Achievements for the Project Purpose and each Output

<p>【Status of Achievement of Project Purpose】</p> <p>For the reasons below, <u>the project purpose can be viewed as achieved.</u></p> <p>Discussions were made on the Operation and Maintenance (O&M) framework strengthened in this project at JSRs made in 2013 and 2014 and the frameworks studied were recorded in their reports. In addition, in April 2015, a total of 14 national guidelines/manuals developed in this project were approved by the Principal Secretary of MoAIWD and officially recognised. After the strengthened framework was applied at the pilot facilities, it was found that the Water Point Committee’s sense of ownership was enhanced.</p>
<p>【Status of Achievement of Output 1】</p> <p>For the reasons below, <u>Output 1 can be viewed as achieved.</u></p> <p>The Project Task Force (PTF) meeting was held roughly every quarter and the meeting functioned as a forum for decision making to strengthen the existing O&M framework.</p>
<p>【Status of Achievement of Output 2】</p> <p>For the reasons below, <u>Output 2 can be viewed as achieved.</u></p> <p>Lessons learnt and problems on O&M of water supply facilities and improvement of sanitation were identified and the present situation and challenges on O&M of rural water supply facilities were shared with C/Ps through PTF meeting. Therefore, it can be said that the present situation and challenges of O&M for rural water supply have been investigated.</p>
<p>【Status of Achievement of Output 3】</p> <p>For the reasons below, <u>Output 3 can be viewed as achieved.</u></p> <p>Ten test activities were carried out based on the measures to solve the challenges and strengthened O&M framework (comprehensive series of guidelines and manuals) has been developed. Therefore it can be said that the existing O&M framework has been strengthened based on the field test in Mchinji District.</p>
<p>【Status of Achievement of Output 4】</p> <p>For the reasons below, <u>Output 4 can be viewed as achieved.</u></p> <p>O&M training for Water Point Committees (WPCs) (O&M refresher’s courses) had been carried out in 50 WPCs</p>

based on the strengthened O&M framework. Training of Trainers (ToT) for CBM O&M refresher's courses was carried out for 90 EWs and AMs, and the number of WPCs training conducted by each EW and AM has been increasing.

【Status of Achievement of Output 5】

For the reasons below, Output 5 can be viewed as basically achieved.

The strengthened practical O&M framework (guidelines/manuals) has been disseminated to interested parties such as development partners and NGOs through a multiple number of workshops held in this project, including the final seminar and feedback obtained from the participants has also been reflected in the finalisation process of the O&M framework. The framework was officially approved by the Principal Secretary of MoAIWD and during the project period, a total of about 3,800 copies of guidelines/manuals were distributed at about 100 locations.

Five evaluation criteria were adopted for the terminal evaluation. These are shown in Table 2.

Table 2: Summary of the Results of the Terminal Evaluation

Evaluation criteria	Results
Relevance	<p><u>High</u></p> <p>1) Consistency with Policies in Malawi The Overall Goal and the Project Purpose of the Project are reasonable and aligned to the national development plan, sector plans and other relevant policies in Malawi.</p> <p>2) Needs The Project Purpose is consistent with the needs of the target group.</p> <p>3) Consistency with policy of Japan In "The Republic of Malawi Country Assistance Policy" which was formulated in 2012, improvement of basic social services has become a priority area (Medium Goal).</p> <p>4) Utilization of experience of technical cooperation The experience and the knowledge from similar project conducted by JICA were utilized for the Project.</p>
Effectiveness	<p><u>High</u></p> <p>1) Achievement level of Project Purpose It is expected to achieve the Project Purpose. Good results have been obtained in the test activities and the possibility to achieve the indicator is high.</p> <p>2) Important assumptions Important assumption has not been fulfilled.</p> <p>3) Contributing factors</p> <ul style="list-style-type: none"> ➤ The second fiscal year and the third fiscal year were not divided and regarded as the second stage. This arrangement has allowed conducting activities at the end of Japanese fiscal year that would be otherwise being interrupted. ➤ Information was regularly shared between the Malawi side and the Japanese side through the Project based on the lessons learnt, and it can be said that all project activities has been jointly conducted and have hence created a high sense of ownership towards the Project by the Malawian side.
Efficiency	<p><u>Relatively High</u></p> <p>1) Fulfillment of Project Activities Indicators for Output have been already achieved or are expected to be achieved and it is considered that sufficient activities have been carried out as planned and all activities contributed to the achievement of Outputs.</p> <p>2) Appropriateness of Inputs</p> <ul style="list-style-type: none"> ➤ Long-term expert were dispatched for the Project and there were several benefits such as smooth execution of project activities without interruptions during renewal of contract period, continuous dissemination of information to C/Ps as well as relevant stakeholders, building good relationships with C/Ps, etc. ➤ C/Ps learned the situation of rural water sector in Zambia and it was effective by the third country training. ➤ Number and assignment condition of C/P was not appropriate. ➤ Malawian side funding disbursement was not adequate.

Evaluation criteria	Results
Impact	<p><u>Moderate</u></p> <p>1) Probability of Achievement of the Overall Goal The roadmap to achieve the Overall Goal was prepared and application for PSIP budget has started within MoAIWD. However there are several uncertain factors and it is difficult to foresee expectation of the achievement.</p> <p>2) Unexpected positive factor In Mchinji District, an approach was tried to utilize a community radio to enlighten the village people for the O&M of rural water supply facilities. Through the activities, effectiveness of utilization of community radio was confirmed.</p>
Sustainability	<p><u>Moderate</u></p> <p>1) Political and Institutional Aspect Sustainability of Political and Institutional aspect is high. The medium-term plan of MGDS II 2011-2016 is valid until 2016 and the current policy will be continued even after the project completion.</p> <p>2) Organizational Aspect Sustainability of organizational aspect is moderate. Organizational capacities are insufficient to disseminate activities to other districts in Malawi after completion of the Project.</p> <p>3) Financial Aspect Sustainability of financial aspect is moderate. It is necessary to continue lobbying activities for securing the necessary financial resources.</p> <p>4) Technical Aspect Sustainability of technical aspect is moderate. Most of the technical capacity will be retained by C/Ps, but cooperation from development partners and NGOs is still necessary.</p>
<p><u>Recommendations</u></p> <p>【Recommendation by the end of the Project】</p> <ol style="list-style-type: none"> 1) Assisting refining and implementation of the roadmap 2) Officially approving the guidelines and manuals as soon as possible and guide the Development Partners and NGOs for the utilization 3) Organizing a SWG meeting by the end of the Project 4) Assessment of the effectiveness of using community radio (continuation of the impact study) <p>【Recommendation after completion of the Project (for MoAIWD)】</p> <ol style="list-style-type: none"> 1) Establishment of coordination mechanism for implementing the roadmap 2) Increasing the number of WMAs at the District level 	
<p><u>Lessons Learnt</u></p> <ol style="list-style-type: none"> 1) Advantages and disadvantages when conducting similar projects in the same area 2) Setting the relevant indicators 	

The JICA experts provided the following recommendations for continuous development in the strengthened O&M framework by the MoAIWD:

- Emphasis on the reinforcement of monitoring of communities
- Further development of support for Area Mechanics at the central and district levels
- Future efforts for realising a sustainable supply chain system
- Continued use of existing platforms for document sharing such as NDR, NICE, WES-network, etc.
- Review of manuals developed by the Project based on “*Water Supply Services Technical Document Management Guidelines*” and improvement of their content
- Utilisation of resources of Mchinji District for nationwide dissemination

Project photos (1/4)

	
<p>1st Joint Coordination Committee (JCC): Discussion of working plan (August 1, 2011, MoAIWD, Lilongwe)</p>	<p>Baseline Survey (Secondary diagnosis survey for Condition of Water Points): Diagnosis survey for Afridev hand pump was done by Area Mechanics (November, 2011, Nkhwazi Village, TA Mavwere.)</p>
	
<p>Study Tour to Zambia on SOMAP Model: Study tour was done in order to learn challenges and lessons learnt in the process of building up SOMAP model. (February 24, 2012, Zambia Lusaka)</p>	<p>3rd Technical Committee (TC) Meeting: Address by DPD of Mchinji District Council (August 6, 2012, Mchinji District Council)</p>
	
<p>1st Project Task Force (PTF) Meeting in the 2nd stage: Explanation about “What the Practical Framework should be.” (July 24, 2012, Mchinji District)</p>	<p>Workshop of CUBBAS for Test Activity A9: C/P presenting the results of analysis of the aptitude cards. (August 22, 2012, Mchinji District)</p>
	
<p>Workshop of CUBBAS for Test Activity A8: Changing the order of aptitude cards. (September 4, 2012, Lilongwe)</p>	<p>3rd Project Task Force Meeting in the 2nd stage: Mr. Matiki presenting on the progress of Test Activity 7. (November 15, 2012, Mchinji District)</p>

Project photos (2/4)



Training of module 4 and 5 on Test Activity A9
(March 8, 2013, Bridge View Hotel at Lilongwe)



Training of trainers for EWs on Teat Activity A1,A2 and A10
(July 4, 2013, Rewards Lodge at Mchinji)



Interview with InterAide at their Mponela office
(August 14, 2013, Mponela)



Spare parts retail shop for Afridev handpump supported by InterAide
(August 14, 2013, Ntchisi District)



WPC training on Test Activity A1,A 2, A7 and A10
(August 28, 2013, Chinyonga village, TA Dambe)



WPC training on Test Activity A1, A2, A7 and A10
(July 9, 2013, Chimkoka village, TA Mlonjeni)



WASH M&E Database Training on Test Activity A5:
Exercise on how to use WASH M&E DB
(September 25, 2013, Rewards Lodge at Mchinji)



WASH M&E Database Training on Test Activity A5:
Exercise on how to create the map
(September 26, 2013, Rewards Lodge at Mchinji)

Project photos (3/4)

	
<p>Sector Sharing Workshop on “Enhancement of Operation and Maintenance of Rural Water Supply” for nationwide dissemination (September 19, 2013, Bridgeview Hotel, Lilongwe)</p>	<p>Day 3 of Training on Document Management on Test Activity A6: Library tour for experiencing library orientation (January 30, 2014, National Library)</p>
	
<p>The 7th PTF Meeting in the 2nd stage: Hand-over of certificates to A8&A9 participants (February 20, 2014, Rewards Lodge at Mchinji)</p>	<p>Workshop on Document Management: Policies governing records management system (February 19, 2014, Bridgeview Hotel)</p>
	
<p>Training of Trainers on CBM refresher course for EWs (July 8, 2014, Rewards Lodge at Mchinji)</p>	<p>Training of Trainers on CBM refresher course for EWs (July 9, 2014, Rewards Lodge at Mchinji)</p>
	
<p>Training of Trainers on CBM refresher course for EWs (July 10, 2014, Rewards Lodge at Mchinji)</p>	<p>Training of Trainers on CBM refresher course for EWs (July 10, 2014, Rewards Lodge at Mchinji)</p>

Project photos (4/4)

	
<p>WPC Training (CBM refresher course) (July 14, 2014, Mponda 1 & 3)</p>	<p>Mr. Mchipha (DDEHO) who participated as one of the Experts in the interphase live radio Programme (October 7, 2014, Mchinji)</p>
	
<p>Sector consultative workshop on Area Mechanics and spare parts supply chain manuals (March 12 &13, 2014, Bridgeview Hotel)</p>	<p>Sector consultative workshop on CBM refresher manual (July 3 & 4, 2014, Riverside Hotel at Lilongwe)</p>
	
<p>Study tour on CBM refresher course training (September 9 2014, Silombe Village in Mchinji)</p>	<p>Project final seminar: Ms. Mbalame (DDWSS OMME) providing closing remarks (May 13, 2015, Cross Roads Hotel, Lilongwe)</p>
	
<p>Project final seminar : Participants during the workshop (May 13, 2015, Cross Roads Hotel, Lilongwe)</p>	<p>The 6th JCC Meeting (final JCC): Sharing Project achievements and lessons learnt (June 1, 2015, MoAIWD)</p>

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Appendix 7: Roadmap for the nationwide dissemination of the strengthened O&M framework

Appendix 8: List of Model Villages

Appendix 9: Presentation Materials related to the Project Summary

Abbreviations

ACDO	Assistant of Community Development Officer
AEHO	Assistant of Environmental Health Officer
AfDB	African Development Bank
AM	Area Mechanic
CDA	Community Development Assistant
CEO	Chief executive officer
C/P	Counterpart Personnel
CBM	Community Based Management
DB	Database
DC	District Council
DCT	District Coordination Team
DDEHO	Deputy District Environmental Health Officer
DSA	Daily Subsistence Allowance
DSIP	District Strategy and Investment Plan
DWDO	District Water Development Officer
DWSP	District Water Supply and Sanitation Plan
DWSS	Department of Water Supply Services
EF	Existing O&M framework
EU	European Union
EWB	Engineers Without Borders
EW(s)	Extension Worker (s)
F*	Factor *
GPS	Global positioning system、
HSA	Health Surveillance Assistant
IDS	Institute of Development Studies
IEC	Information Education and Communication
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JOCV	Japan Overseas Cooperation Volunteers
JSR	Joint Sector Review
M&E	Monitoring & Evaluation
MGDS	Malawi Growth and Development Strategy
MOU	Memorandum of Understanding
MoAIWD	Ministry of Agriculture, Irrigation and Water Development (from Sep. 2011 to Apr. 2012, After May 2014~)
MoIWD	Ministry of Irrigation and Water Development (before Sep. 2011)

MoWDI	Ministry of Water Development and Irrigation (from Apr. 2012 to May 2014)
NDR	The National Digital Repository
NGO(s)	Non-Governmental Organization (s)
NICE	National Initiative for Civic Education
NWDP	National Water Development Programme
O&M	Operation and Maintenance
PDM	Project Design Matrix
PO	Plan of Operation
PSIP	Public Sector Investment Programme
PTF	Project Task Force
ODF	Open Defecation Free
RLCs	Radio Listening Clubs
RIWDO	Regional Irrigation and Water Development Office
RIWDO (C)	Regional Irrigation and Water Development Office (Centre)
RWDO	Regional Water Development Office (before Apr. 2014)
RWDO (C)	Regional Water Development Office (Centre) (before Apr. 2014)
SEF	Strengthened Practical O&M Framework
SHSA	Senior Health Surveillance Assistant
SMS	Short messaging service
SPR	Sector Performance Report
STA	Sub-Traditional Authority
SWAp	Sector Wide Approach
SWG	Sector Working Group
TA	Traditional Authority
TC	Technical Committee
TOT	Training of Trainers
TWG	Technical Working Group
UNICEF	United Nations Children's Fund
VHWC	Village Health and Water Committee
WASH	Water, Sanitation and Hygiene
WES	Water and Environmental Sanitation
WMA(s)	Water Monitoring Assistant (s)
WP	Water Point
WPC	Water Point Committee
WSS	Water Supply Services

1. Outline of the Project

1.1 Background of the Project

The safe water supply access for rural areas in Malawi was at 64 percent in 2008^{**1}, up from 58 percent in 2004. Despite these achievements, there are considerable challenges in the water sector. These include relatively low access to potable water, aging infrastructure, inadequate maintenance capacity, theft and vandalism resulting in more than 30 percent^{**2} non-functionality of the infrastructure at any given time.

In order to overcome the above-mentioned challenges, the Government of Malawi has identified “irrigation and water development” as one of the nine key priority areas in the Malawi Growth and Development Strategy 2011-2016 (MGDS II) set out the expected medium-term outcome to achieve increased access to safe water points within 500m distance and to increase population with access to safe water to 86% by 2016. The Government aims to increase the functionality of water supply facilities by improving the O&M framework. The framework was developed using the concept of Community Based Management (CBM), which was adopted by the Malawian Government in the 1990’s.

Against this background, the Government of Malawi requested technical assistance from the Government of Japan to conduct the Project for Enhancement of Operation and Maintenance (O&M) for Rural Water Supply in the Republic of Malawi. Upon this request, the Japan International Cooperation Agency (JICA) dispatched the Detailed Planning Survey Team in November 2010 and signed and exchanged the Record of Discussions (R/D) on the Project in February 2011.

Note: recent data by the sector performance report 2012/2013

**1: Rural population with access to safe water supply: 81% (2011)

**2: Non-functionality of rural water supply facilities: 25% (2013)

1.2 Summary of the Project Design

The purpose of the Project is to strengthen the O&M framework for rural water supply in Malawi to be more practical by adopting various lessons and challenges extracted from the existing O&M framework (guidelines and manuals) and consequently to improve the functionality rate of the water supply facilities by applying the strengthened O&M framework. Ultimately it could be expected that the overall goal of the Project would be accomplished if the strengthened O&M framework is adopted by MoAIWD, NGOs and other development partners and utilized fully in the rest of districts in Malawi. This technical cooperation project was implemented in accordance with the following Project Design:

Table 1-1: Summary of the Project Design

<Overall Goal>
The strengthened practical O&M framework is applied nationwide.
<Project Purpose>
The existing O&M framework is strengthened practically for subsequence nationwide dissemination.
<Expected Outputs>
(1) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.
(2) Present situation and challenges of O&M for rural water supply are investigated.
(3) The existing O&M framework is strengthened based on the field test in Mchinji District.
(4) The strengthened O&M framework is applied to the whole Mchinji District.
(5) The strengthened framework is widely understood.

<Project Implementation Period>
From July 2011 to June 2015
<Implementing Agencies>
<ul style="list-style-type: none"> • Department of Water Supply Services, Ministry of Agriculture, Irrigation and Water Development • Regional Irrigation and Water Development Office (Centre) • Mchinji District Council
<Target Area>
Mchinji District
<Beneficiaries>
<ul style="list-style-type: none"> • Staff members of MoAIWD, (RIWDO(C)) and Mchinji Council • Village Health and Water Committees (VHWCs) and Water Point Committees (WPCs) in Mchinji District • User of water points in Mchinji District

1.3 Project Overview

1.3.1 Outline of the Project Activities

Based on the Project Design Matrix (PDM) and Plan of Operation (PO), each activity was conducted as shown in the table below. The details of activities are described in *Chapter 3*.

Table 1-2: Summary of the Project Activities

Stage	Period	Outline
1 st	July 2011 to March 2012	<ul style="list-style-type: none"> ➤ Capacity assessment, Baseline survey ➤ Identification of the challenges related to the O&M framework ➤ Development of the action plan for solution to the above challenges
2 nd	July 2012 to March 2013	<ul style="list-style-type: none"> ➤ Implementation of the 10 field tests and monitoring ➤ Improvement of the existing O&M framework ➤ Development of an implementation plan for larger-scale application of the strengthened O&M framework ➤ Implementation of the above action plan and monitoring
3 rd	June 2014 to June 2015	<ul style="list-style-type: none"> ➤ Continuation of the four field tests ➤ Further improvement of the existing O&M framework ➤ Finalization of the guidelines and manuals ➤ Approval and acknowledgement of the final products

1.3.2 Project Design Matrix (PDM)

PDM at the time of project completion (version 3) is shown in *Table 1-3*.

PDM ver.2 was approved at the second JCC and PDM ver.3 at the third JCC, respectively. The major changes made in each revision are as follows:

Table 1-3: Major Changes of PDM

Version	JCC	Approval	Changes
2	2 nd JCC	3 rd August 2012	<ul style="list-style-type: none"> ➤ Basic hygiene and sanitation research was added as Activity 2-0 ➤ Activity 3-3 was broken into 10 different, detailed field tests.
3	3 rd JCC	26 th February 2014	<ul style="list-style-type: none"> ➤ Revision of objectively verifiable indicators for project purpose ➤ Revision of objectively verifiable indicators for output 4 and 5 ➤ Revision of means of verification for above indicators

(1) Changes from PDM ver.1 to PDM ver.2

At the second JCC held on 3rd August 2012, PDM was revised from PDM ver.1 to PDM ver.2. The main points of revision were as follows:

【Points of revision】

- In order to make an extensive analysis to understand the present status and issues concerning the operation and maintenance of water supply facilities in Mchinji District, basic hygiene and sanitation

research was added as Activity 2-0.

- As a means to solve 14 issues identified in the baseline survey and the capacity assessment carried out in the first stage, Activity 3-3 was broken into 10 different, detailed field tests (test activities).

Table 1-4: Changes from PDM ver.1 to PDM ver.2

PDMver.1 (before revisions)	PDMver.2 (after revisions)
No setting	Activity 2-0 was added. (2-0) To collect basic information on Hygiene and Sanitation.
(2-5) To conduct capacity assessment.	Sub-activities “Activity 2-5-1 (Subdivision)” and “Activity 2-5-2 (Subdivision)” have been added to “Activity 2-5”. (2-5-1) To hold the workshop-style training. (2-5-2) To set up the performance indicators.
(3-3) To implement selected test activities at the selected communities in target communities.	Activity 3-3 was broken into 10 different, detailed field tests. (3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly (3-3-2) Facility design for better O&M and promotion of water point sanitation (3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics (3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain (3-3-5) Standardization and dissemination of monitoring system for the water supply facilities (3-3-6) Improvement of the rules on the manuals (use/storage and hierarchical management) (3-3-7) Activities for development of a text of maintenance and rehabilitation for deep well (3-3-8) Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council (3-3-9) Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment Plan (3-3-10) Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan

(2) Changes from PDM ver.2 to PDM ver.3

A review was made on PDM at the fifth PTF meeting held on 3rd June 2013, following a recommendations were made at the mid-term review meeting in May 2013 that the indicators for the project purpose be revised promptly. As a result, it was agreed to make revisions as shown in **Table 1-5**.

Later at the sixth and seventh PTF, discussions were made on proposed revisions to be made on indicators of Outputs 4 and 5, which had been pending and the proposed revisions were officially approved as PDM ver.3 in fourth JCC held on 26th February 2014.

【Points of revision made for the indicators of project purpose】

As indicators of project purpose, the following two indicators had been selected for PDM ver.1 and PDM ver.2.

【Objectively Verifiable Indicators】

- ① The strengthened practical O&M framework is stated in SWAp relevant documents
- ② **% of non-functional water supply facilities measured by a baseline survey in Mchinji District are functioning. (** will be determined based on the result of baseline survey which will be conducted 6 months after the start of the project.)

Of the above, the indicator ② was removed for the following reason and two other alternate indicators were added. With a total of three indicators including the above ①, it was decided to measure how far project purpose has been achieved.

- Depending on the cause of non-functioning of the facilities it will be necessary to install expensive hardware, for example to replace a stainless rod or a PVC lift pipe, and therefore, it is expected a soft input only based on technical cooperation such as training programmes cannot improve the functionality rate.
- The indicator of **% can be measured depending on how many communities can receive CBM refresher training when Output 4 is being disseminated to the whole Mchinji.
- The number of WPCs to receive the CBM refresher training is to be determined based on the C/P fund.
- One issue is that there is no clear causal relationship between the measurement of the indicator of “**%” and the “strengthened practical O&M framework.” Which means there should be a rational explanation of what percentage can mean the strengthening of the practical content of existing framework (for example, can we say that non-functioning facilities during the baseline survey were strengthened, if the operation reached at the level of 50%? Can we not say so, if it is only 10 % ?).

Table 1-5: Changes from PDMver.2 to PDMver.3

PDMver.2 (before revisions)	PDMver.3 (after revisions)
Project Purpose	
<Objectively Verifiable Indicators> I-2: **% of non-functional water supply facilities measured by a baseline survey in Mchinji District are functioning. (**will be determined based on the result of baseline survey which will be conducted in 6 months after the start of the project.)	I-2: The strengthened practical guidelines/manuals/training materials are officially acknowledged by MoWDI. I-3: Ownership consciousness is improved in WPCs to be applied with the strengthened framework.
<Means of Verification> V-2: Project Report (Result of impact survey), (Result of baseline survey) V-3: No setting	V-2: Approved documents by MoWDI V-3: Project Report (Result of investigation before and after intervention ^{*1)} *1: Items to be measured for ownership consciousness are: 1) Water fee collection rate, 2) Reserve fund/stock of spare parts, 3) Water point sanitation (fence, soak away pit, cleaning around water point), 4) Implementation of regular maintenance by caretakers, 5) Awareness of roles and responsibilities of AMs.
Outputs 4	
<Objectively Verifiable Indicators> I4-1: strengthened practical O&M framework reaches ** communities. (** will be determined based on Malawian budget to be allocated for this output) I4-2: - Degree of understanding of the counterparts after training improves. I4-3 No setting	I4-1: Number of communities trained following the strengthened practical O&M framework reaches 50 communities ^{*1} . I4-2: Number of extension workers to be trained according to the strengthened practical O&M framework increases. I4-3: Number of WPC training conducted by each extension worker according to the strengthened practical O&M framework increases.

PDMver.2 (before revisions)	PDMver.3 (after revisions)
<p><Means of Verification> V4-2:-The result of the present and the post-test of the counterparts about the implementation of the strengthened practical O&M framework. V4-3: The performance report of the counterparts</p>	<p>V4-2: delete V4-3: The reflection sheets of the counterparts</p>
Outputs 5	
<p><Objectively Verifiable Indicators> I5-4: The number of addresses for distribution of the strengthened practical O&M framework. (The number will be determined after the third year of the project.)</p>	<p>I5-4: The number of addresses for distribution of the strengthened practical O&M framework.</p>
<p><Means of Verification> V5-2: Endorsement by SWG</p>	<p>V5-2: Minutes of Meeting of SWG</p>

Table 1-6: PDMver.3

Project Design Matrix version 3

Project Name: The Project for Enhancement of Operation and Maintenance for Rural Water Supply
 Target Area: Mchinji District
 Target Group: Staff of District Council, MoWDI

Project Duration: 4 years from July 2011
Version 3
 Date: 26 February 2014

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal The strengthened practical O&M framework is applied nationwide.</p>	<p>The strengthened practical O&M framework is applied in CBM trainings by MoWDI and districts.</p>	<p>- Joint Sector Review Report - District's annual report</p>	
<p>Project Purpose The existing O&M framework is strengthened practically for subsequence nationwide dissemination.</p>	<ul style="list-style-type: none"> - The strengthened practical O&M framework is stated in Sector Working Group Reports and/or Joint Sector Review Reports. - The strengthened practical guidelines/manuals/training materials are officially acknowledged by MoWDI. - Ownership consciousness is improved in WPCs to be applied with the strengthened framework. 	<ul style="list-style-type: none"> - Sector Working Group Report - Joint Sector Review Report - Approved documents by MoWDI - Project Report (Result of investigation before and after intervention¹) 	<ul style="list-style-type: none"> - The policies on rural water supply are not significantly changed - The O&M of rural water supply facilities is financed by the government. - Adequate financial resources are allocated to District Council and MoWDI. - NGO activities in rural water supply are reported to and coordinated by MoWDI and District Council. - An action to be taken by MoWDI: to distribute the strengthened practical O&M framework to all the districts in Malawi. - An action to be taken by District Coordination Teams in Malawi; to make the strengthened practical O&M framework known to all implementation partners in each district.

¹ Items to be measured for ownership consciousness are, 1. Collect rate for water tariff by beneficiaries, 2. Reserve fund/stock of spare parts, 3. Water point sanitation (fence, soak away pit, cleaning around water point), 4. Implementation of regular maintenance by caretakers, 5. Awareness of roles and responsibilities of Area Mechanics

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Outputs</p> <p>(1) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.</p> <p>(2) Present situation and challenges of O&M for rural water supply are investigated.</p> <p>(3) The existing O&M framework is strengthened based on the field test in Mchinji District.</p> <p>(4) The strengthened O&M framework is applied to the whole Mchinji District.</p> <p>(5) The strengthened framework is widely understood.</p>	<ul style="list-style-type: none"> - The frequency of the meeting of Project Task Force taken place at least 4 times a year. - The report of the present situation and challenges is made. - The report is shared with the Project Task Force. - The strengthened practical O&M framework based on lessons from the result of the test activities is made. - Number of communities trained following the strengthened practical O&M framework reaches 50 communities. - Number of extension workers to be trained according to the strengthened practical O&M framework increases. - Number of WPC training conducted by each extension worker according to the strengthened practical O&M framework increases - The strengthened practical O&M framework is shared by all of the stakeholders in the Sector Working Group (SWG). - The number of the stakeholders which participate in the SWG above. - The strengthened practical O&M framework is endorsed by SWG. - The number of addresses for distribution of the strengthened practical O&M framework. 	<ul style="list-style-type: none"> - Project Report - M/M of Project Task Force - Joint Sector Review Report - Project Report - M/M of Project Task Force - Project Report - The products of the project - Project Report - The reflection sheets of the counterparts - Report of the seminar/workshop - Minutes of Meeting of SWG - Project report 	<ul style="list-style-type: none"> - Personnel transfers of counterparts are not frequent during the project period.

Activities	Inputs	Preconditions
<p>(1-1) To set up the Project Task Force to discuss the strengthening of existing O&M framework for rural water supply in MoWDI.</p> <p>(1-2) To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.</p> <p>(2-0) To collect basic information on Hygiene and Sanitation.</p> <p>(2-1) To collect existing policies, guidelines, implementing manuals, training manuals, etc.</p> <p>(2-2) To collect good practices and lessons learned from past projects.</p> <p>(2-3) To conduct a baseline survey.</p> <p>(2-4) To survey actual conditions of O&M for rural water supply in Mchinji District.</p> <p>(2-5) To conduct capacity assessment.</p> <p>(2-5-1) To hold the workshop-style training</p> <p>(2-5-2) To set up the performance indicators.</p> <p>(2-6) To analyze good practices and challenges.</p> <p>(2-7) To identify challenges in order to make the framework more practical.</p> <p>(2-8) To share findings at the project task force and compile the report based on the dialogue.</p> <p>(3-1) To select recurrent O&M test activities and target communities following the framework.</p> <p>(3-2) To make an implementation plan of test activities.</p> <p>(3-3) To implement selected test activities at the selected communities in target communities.</p> <p>(3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly</p> <p>(3-3-2) Facility design for better O&M and promotion of water point sanitation</p> <p>(3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics</p> <p>(3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain</p> <p>(3-3-5) Standardization and dissemination of monitoring system for the water supply facilities</p>	<p>Japanese side:</p> <ol style="list-style-type: none"> 1. Japanese Experts <ol style="list-style-type: none"> (1) Chief Advisor (2) Rural Water Supply (3) Training (4) O&M of Rural Water Supply Facilities I and II (5) Project Coordination/ Hygiene & Sanitation 2. Machinery and Equipment <ol style="list-style-type: none"> (1) Office equipment (Photocopier, Scanner, Facsimile, Computer, Printer and Projector) (2) Vehicle (4WD Station Wagon) (3) GPS (4) Motorbike <p>Malawian side:</p> <ol style="list-style-type: none"> 1. Counterpart (C/P) Personnel determined according to the C/P list submitted by MoWDI 2. Facilities <ol style="list-style-type: none"> (1) Office spaces in Mchinji District and facilities such as furniture and telephone lines necessary for the Japanese experts (2) Meeting rooms or lecture rooms for the training (3) Other facilities mutually agreed upon as necessary 3. Local cost <ol style="list-style-type: none"> (1) Allowances and transportations for the Malawian counterpart personnel and any participants for the training provided and business trips in the Project (2) Utility cost for the project offices (3) Operational expenses for customs clearance, storage and domestic transportation for the equipment provided by the Japanese side (4) Expenses for maintenance of equipment (5) Recurrent cost for O&M in Mchinji District 	<p>- The budget for the project to be borne by Malawian side is available.</p>

<p>(3-3-6) Improvement of the rules on the manuals (use/storage and hierarchical management)</p> <p>(3-3-7) Activities for development of a text of maintenance and rehabilitation for deep well</p> <p>(3-3-8) Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council</p> <p>(3-3-9) Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment Plan</p> <p>(3-3-10) Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan</p> <p>(3-4) To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities.</p> <p>(4-1) To make an implementation plan for larger-scale application of the strengthened O&M framework</p> <p>(4-2) To implement recurrent O&M activities following the strengthened O&M framework on a larger scale.</p> <p>(5-1) To make the strengthened O&M framework acknowledged officially by MoWDI.</p> <p>(5-2) To disseminate the strengthened O&M framework by seminar/workshop.</p> <p>*The O&M framework means the guidelines and implementation manuals of rural water supply.</p>		
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1.3.3 Plan of Operation (PO)

PO at the time of project completion (version 2) is shown in **Table 1-8**.

The plan of operation (PO) was developed so as to link in with the activities of PDM.

PDM, as described in the above, was revised to PDMver.3 at the fourth JCC meeting on 26th February 2014. However, PO remains as PO ver.2 (approved at the second JCC meeting held on 3rd August 2012) because there are no changes in activities in PDM.

1.4 Target Area of the Project

The target area of the Project is Mchinji District, which is located west of the capital city of Malawi in the Central Region.

Mchinji District administration is divided into 9 TAs (6 TAs and 3 STAs) and is composed of 1,383 villages as shown in the table below.

Table 1-7: No. of Villages in Mchinji District

No.	TA or STA	Group Village Head	No. of villages
1	Mlonyeni	12	239
2	Mawwere	53	167
3	Zulu	68	220
4	Simphasi	9	113
5	Mduwa	15	86
6	Nyoka	17	166
7	Mkanda	14	121
8	Dambe	12	145
9	Kapondo	11	126
Total		211	1,383

Source : Baseline survey report, Feb.2012

Table 1-8: POver.2

Project Name: The Project for Enhancement of Operation and Maintenance for Rural Water Supply
 Project Duration: July 2011 – June 2015

Version 2
Date: 3 August 2012

	2011		2012				2013				2014				2015	
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
(1) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.																
(1-1) To set up the Project Task Force to discuss the strengthening of existing O&M framework for rural water supply in Mchiji District.	Plan															
(1-2) To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.																
(2) Present situation and challenges of O&M for rural water supply are investigated.																
(2-0) To collect basic information on Hygiene and Sanitation.																
(2-1) To collect existing policies, guidelines, implementing manuals, training manuals, etc.																
(2-2) To collect good practices and lessons learned from past projects.																
(2-3) To conduct a baseline survey.																
(2-4) To survey actual conditions of O&M for rural water supply in Mchiji District.																
(2-5) To conduct capacity assessment.																
(2-5-1) To hold the workshop-style training.																
(2-5-2) To set up the performance indicators.																
(2-6) To analyze good practices and challenges.																
(2-7) To identify challenges in order to make the framework more practical.																
(2-8) To share findings at the Project Task Force and compile the report based on the dialogue.																
(3) The existing O&M framework is strengthened based on the field test in Mchiji District.																
(3-1) To select recurrent O&M test activities following the framework.																
(3-2) To make an implementation plan of test activities.																
(3-3) To implement selected test activities at the selected communities in target communities.																
(3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for																
(3-3-2) Facility design for better O&M and promotion of water point sanitation																
(3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics																
(3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply																
(3-3-5) Standardization and dissemination of monitoring system for the water supply facilities																
(3-3-6) Improvement of the rules on the manuals (non-storage and hierarchical management)																
(3-3-7) Activities for development of a text of maintenance and rehabilitation for deep well																
(3-3-8) Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchiji District Council																
(3-3-9) Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment Plan																
(3-3-10) Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan																
(3-4) To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities.																
(4) The strengthened O&M framework is applied to the whole Mchiji District.																
(4-1) To make an implementation plan for larger-scale application of the strengthened O&M framework.																
(4-2) To implement recurrent O&M activities following the strengthened O&M framework on a larger scale.																
(5) The strengthened framework is widely understood.																
(5-1) To make the strengthened O&M framework acknowledged officially by MiWDO.																
(5-2) To disseminate the strengthened O&M framework by seminar/workshop.																

* Malawi fiscal year starts in July and Japanese fiscal year starts in April
 ** MiWDO and DWDO prepare budget arrangement in January and February
 *** Rainy season is from December to April

Plan

1.5 Stakeholders

Stakeholders of recipient country are as follows:

(1) Counterpart Institution

- Ministry of Agriculture, Irrigation and Water Development: (MoAIWD)
- Implementing Agencies :
 - Department of Water Supply Services: (DWSS), MoAIWD
 - Regional Irrigation and Water Development Office (Centre): RIWDO(C)
 - Mchinji District

(2) Beneficiaries

- Staff members of MoAIWD, RIWDO (C) and Mchinji District Council
- Village Health and Water Committees (VHWCs) and Water Point Committees (WPCs) in Mchinji District
- Users for water points in Mchinji District

1.6 Project Implementing System

1.6.1 Counterpart (C/P)

Assignment of Counterpart Officers are as shown in below.

Table 1-9: Counterpart Name List

	Name	Position & Affiliation	Duration	
			From	To
1	S. C. Y. Maweru, Mr.	Principal Secretary, MoAIWD	Jul 2011	Present
2	Eng. Bonface N.C. Gongwe, Mr.	Director, Department of Water Supply Service, MoAIWD	Jul 2011	Nov 2012
3	Steve Mwanza, Mr.	Director, Department of Water Supply Service, MoAIWD	Jul 2013	Present
4	Emma Mbalame, Ms.	Deputy Director of Water Supply Service, Department of Water Supply Service, MoAIWD	Jul 2011	Present
5	T. Sitolo, Mr.	Principal Community Water Supply and Sanitation Officer, Department of Water Supply Service, MoAIWD	Jul 2011	Present
6	M. Chintengo, Mr.	Senior Hydrogeologist, Department of Water Resources, MoAIWD	Jul 2011	Oct 2011
7	D. Kambuku, Mr.	Senior Groundwater Development Officer, Department of Water Resources, MoAIWD	Nov 2011	Mar 2012
8	G.D.C. Matiki, Mr.	Principal Groundwater Development Officer, Department of Water Resources, MoAIWD	Jul 2012	Present
9	Ronald Chiwaula, Mr.	Senior Drilling Officer, Department of Water Resources, MoAIWD	Jul 2012	Present
10	Brigton Austin Chunga, Mr	Water Resource Engineer, Water Resource Board, Department of Water Resources, MoWDI	Aug 2012	Present
11	Gomezugani Ngwira, Mr.	Economist, Department of Administration and Support (Planning monitoring and evaluation division), MoAIWD	Jul 2012	Nov 2011
12	Synoden Kautsi, Mr.	Civil Engineer, Department of Sanitation, MoAIWD	Aug 2012	Present
13	M. Banda, Ms	Assistant Draftsman / Document management Officer, Department of Water Supply Service, MoAIWD	Jul 2013	Present
14	Peter Zondiwe Chipet, Mr.	Central Region Water Development and Irrigation Officer, Regional Water Development and Irrigation Office (Center), RWDIO (C)	Jan 2014	Present
15	A.A. Joloza, Mr.	Acting Central Region Water Development Officer, Regional Irrigation and Water Development Office	Aug 2012	Jan 2014

	Name	Position & Affiliation	Duration	
			From	To
		(Center), RIWDO (C)		
		Hydrological Research Officer Regional Irrigation and Water Development Office (Center), RIWDO (C)	Jan 2014	Present
16	S. Mashunga, Mr.	Senior Community Water Supply and Sanitation Officer, Regional Irrigation and Water Development Office (Center), RIWDO (C)	Jul 2011	Dec 2011
			Oct 2013	Present
17	M. Chilimadizi, Mr.	Senior Community Water Supply and Sanitation Officer, Regional Irrigation and Water Development Office (Center), RIWDO (C)	Jan 2012	May 2013
		District Water Development Officer, District Water Development Office, Mchinji District Council	Jun 2013	Dec 2014
18	A. Phili, Mr.	District Commissioner, Mchinji District Council	Jul 2011	Oct 2011
19	Gaston T. Macheke, Mr.	District Commissioner, Mchinji District Council	Nov 2011	Mar 2013
20	James Kanyangalazi, Mr.	District Commissioner, Mchinji District Council	Apr 2013	Oct 2013
21	Yamikani Chitete, Ms	District Commissioner, Mchinji District Council	Nov 2013	Present
22	Walter Chikuni, Mr.	Director of Planning and Development, Department of Planning and Development, Mchinji District Council	Nov 2011	Apr 2015
23	H. Namwiri, Mr.	District Water Development Officer, District Water Development Office, Mchinji District Council	Jul 2011	Dec 2011
24	S. Banda, Mr.	District Water Development Officer, District Water Development Office, Mchinji District Council	Jan 2012	Apr 2013
25	Charles B. Matatiyo, Mr.	District Community Development Officer, District Community Development Office, Mchinji District Council	Jul 2012	Mar 2013
26	Joyce Mtsuso, Ms.	District Community Development Officer, District Community Development Office, Mchinji District Council	Apr 2013	Present
27	Emmanuel Sohaya, Mr.	Acting Director of Planning and Development, Department of Planning and Development, Mchinji District Council	Jul 2011	Oct 2011
		District Monitoring & Evaluation Officer, District Monitoring & Evaluation Office, Mchinji District Council	Jul 2012	May 2014
28	P.K. Chambewu	District Monitoring & Evaluation Officer, District Monitoring & Evaluation Office, Mchinji District Council	Jun 2014	Present
29	Thomas Mchipha, Mr.	Deputy District Environmental Health Officer, District Environmental Health Office, Mchinji District Council	Jul 2012	Present
30	E. Nyale, Ms.	District Information Officer, District Information Office, Mchinji District Council	Dec 2012	Present
31	Damiano Semu, Mr.	District Health Promotion Officer, District Health Promotion Office, Mchinji District Council	Dec 2012	Present
32	C. Chimsale, Ms.	Deputy District Education Officer, Deputy District Education Office, Mchinji District Council	Dec 2012	Mar 2014
33	H. H. Munthali, Mr.	Senior Water Monitoring Assistant, District Water Development Office, Mchinji District Council	Jul 2011	Feb 2014
34	M. Kachala, Mr.	Water Monitoring Assistant, District Water Development Office, Mchinji District Council	Jul 2011	Present
35	M. Membe, Mr.	Water Monitoring Assistant, District Water Development Office, Mchinji District Council	Jul 2011	Present

1.6.2 JICA Expert Team

The members of the Japanese experts are as shown in the table below.

Table 1-10: Japanese Expert Team

Field of Experts	Name	Remark
1st stage		
Chief Adviser	Yuji UNE, Mr.	
Rural Water Supply/ Training II	Shuji YAMASHITA, Mr.	

Field of Experts	Name	Remark
O&M of Rural Water Supply Facilities	Takeshi YOSHIKAWA, Mr.	
Training I	Tomohiro KATO, Mr.	
O&M of Boreholes	Takayuki OHNO, Mr.	
Project Coordination/Hygiene & Sanitation	Maki YOSHIDA, Ms.	
2nd stage		
Chief Adviser	Yuji UNE, Mr.	
Rural Water Supply	Takeshi YOSHIKAWA, Mr.	
O&M of Rural Water Supply Facilities I	Akino KITAZUME, Ms.	
Training	Jun SUGAI, Mr.	
O&M of Rural Water Supply Facilities II	Shuji YAMASHITA, Mr.	
Project Coordination / Hygiene & Sanitation	Maki YOSHIDA, Ms.	Participation up to July 2013
Project Coordination / Hygiene & Sanitation	Noriko YAMADA, Ms	Participation from July 2013
3rd stage		
Team Leader / Rural Water Supply	Takeshi YOSHIKAWA, Mr.	
O&M of Rural Water Supply Facilities I	Akino KITAZUME, Ms.	
Training	Jun SUGAI, Mr.	
Project Coordination / Hygiene & Sanitation	Noriko YAMADA, Ms.	

1.6.3 Joint Coordinating Committee : JCC

The Joint Coordinating Committee (JCC) meets at least about twice a year or whenever the necessity arises in order to fulfil the following functions and composition:

1) Functions

- To formulate the annual plan of the Project;
- To review the progress of the annual work plan;
- To review and exchange opinions on major issues that may arise during the implementation of the Project;
- To discuss any other issue(s) pertinent to the smooth implementation of the Project.

2) Composition

- i. Chairperson: Principal Secretary, MoAIWD (Project Director)
- ii. Member of the Malawian Side:
 - a. Director of Water Supply Services, MoAIWD (Project Manager)
 - b. Director of Water Resources Development, MoAIWD
 - c. Director of Sanitation, MoAIWD
 - d. Director of Planning, MoAIWD
 - e. Representative of Regional Irrigation and Water Development Office (Centre)
 - f. Representative of Mchinji District Council (District Commissioner as Project Implementation Manager in the District)
 - g. Other personnel as required
- iii. Members of the Japanese Side:

- a. Resident Representative of JICA Malawi Office
- b. JICA Experts
- c. Other personnel as required

Six JCC meetings were held during the project term. The main topics for each JCC meeting are shown in the table below and the minutes of meetings are shown in *Appendix 1*.

Table 1-11: The Main Topics for each Meeting

JCC	Date	Main topics
1st JCC	1st August 2011	<ul style="list-style-type: none"> ➤ Confirmation of the (draft) work plan of the first year; and ➤ Confirmation of the measures to be taken by the Malawian side
2nd JCC	3rd August 2012	<ul style="list-style-type: none"> ➤ Explanation of revision of PDMver.1 and POver.1 ➤ Presentation of the Draft Work Plan for 2nd Stage ➤ Presentation of the Draft Implementation Plan for Test Activities for 2nd Stage ➤ Discussion on the Work Plan for 2nd Stage ➤ Items to be discuss
3rd JCC	29th May 2013	<ul style="list-style-type: none"> ➤ Sharing of the project achievements ➤ Sharing of the five evaluation criteria adopted in the evaluation ➤ Discussion about further implementation and recommendations
4th JCC	26th Februry 2014	<ul style="list-style-type: none"> ➤ Explanation of Revision of PDMver.3 ➤ Presentation of the recommendations and draft future activities for the 3rd stage
5th JCC	8th December 2014	<ul style="list-style-type: none"> ➤ Sharing of the results of the terminal evaluation ➤ Discussion about recommendations and lessons learnt
6th JCC	1st June 2015	<ul style="list-style-type: none"> ➤ Project achievements, challenges and lessons learnt ➤ Outcome of last sharing Seminar ➤ Progress on recommendations by the Terminal Evaluation ➤ Recommendations after project phase out

1.6.4 Technical Committee : TC

The Technical Committee (TC) meets about 2 - 3 times a year or whenever the necessity arises in order to fulfil the following functions and composition:

1) Functions

- To supervise and manage the Project activities in Mchinji district;
- To review and exchange opinions on major technical issues that may arise during the implementation of the Project;
- To discuss any other technical issue(s) pertinent to the smooth implementation of the Project.

2) Composition

- i. Chairperson: District Commissioner (Project Implementation Manager in the district)
- ii. Member of the Malawian Side:
 - a. Representative of Regional Irrigation and Water Development Office (Centre)
 - b. Members of District Coordination Team (DCT) in Mchinji District
 - c. Representative of Department of Water Supply Services, MoAIWD
 - d. Other personnel as required
- iii. Members of the Japanese Side:
 - a. JICA Experts
 - b. Other personnel as required

Three TC meetings were held during the project term. The main topics for each TC meeting are shown in

Table 1-14: Personnel Assignments for the JICA Experts

No.	Field in Charge	Name	1st stage	2nd stage	3rd stage	Total
1	Chief Adviser	Yuji UNE, Mr.	5.15	7.90	-	13.05
2	Rural Water Supply	Takeshi YOSHIKAWA, Mr	5.07	12.63	7.70	25.40
3	O&M of Rural Water Supply Facilities II	Shuji YAMASHITA, Mr.	4.00	8.00	-	12.00
4	Training I	Tomohiro KATO, Mr.	3.00	-	-	3.00
5	O&M of Boreholes	Takayuki OHNO, Mr.	0.57	-	-	0.57
6	O&M of Rural Water Supply Facilities I	Akino KITAZUME, Ms	-	8.07	2.80	10.87
7	Training	Jun SUGAI, Mr.	-	7.44	2.20	9.64
8	Project Coordination / Hygiene & Sanitation	Maki YOSHIDA, Ms.	8.37	15.97	-	24.34
9	Project Coordination / Hygiene & Sanitation	Noriko YAMADA, Ms	-	9.97	14.20	24.17
Total						123.04

1.8.2 Workshops, Seminars and Training

(1) Workshops, Seminars and Training in Malawi

List of the workshops, seminars and training throughout the entire project term are as shown in the table below.

Table 1-15: List of the Workshops, Seminars and Training

Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
1st stage				
1st Capacity Assessment Workshop	25th August 2011	N/A	11	MoAIWD, RWDO (C), Mchinji DC
2nd Capacity Assessment Workshop	18th November 2011	N/A	10	MoAIWD, RWDO (C), Mchinji DC, JOCV
3rd Capacity Assessment Workshop	30th November 2011	N/A	8	MoAIWD, RWDO (C), Mchinji DC, JOCV
2nd stage				
1st A6 Group Workshop	10th August 2012	N/A	13	MoAIWD, RWDO (C)
2nd A6 Group Workshop	6th September 2012	N/A	12	MoAIWD, RWDO (C)
3rd A6 Group Workshop	5th October 2012	N/A	16	MoAIWD, RWDO (C), Mchinji DC, NWDP
CUDBAS Workshop for RWDO (Day 1)	4th September, 2012	N/A	13	MoAIWD, RWDO (C), Mchinji DC
CUDBAS Workshop for RWDO (Day 2)	11th September 2012	N/A	13	MoAIWD, RWDO (C), Mchinji DC
Assessment Workshop for Operation Status on O&M in RWDIO by Means of Performance Indicators (PI)	9th October 2012	N/A	4	RWDIO (C)
CUDBAS Workshop for Mchinji DCT	22nd August 2012	N/A	10	RWDO (C), Mchinji DC, JOCV
Assessment Workshop for Operation Status on O&M in Mchinji DCT by Means of Performance Indicators (PI)	25th September 2012	N/A	8	RWDIO (C)
1st A3&A4 Group Workshops	27th March 2013	N/A	9	MoAIWD, RWDO (C), Mchinji DC, JOCV
1st Workshop on WSS Technical Document Management	13th March 2013	N/A	11	MoAIWD, RWDO (C), Mchinji DC
1st O&M Planning Workshop for RWDO and Mchinji DCT (Module 1)	2nd and 22nd February, 2013	N/A	8	RWDO (C), Mchinji DC
2nd O&M Planning Workshop for RWDO (Module 2)	1st March, 2013	N/A	3	RWDO (C)
2nd O&M Planning Workshop for Mchinji DCT (Module 4&5)	8th March, 2013	N/A	8	RWDO (C), Mchinji DC
1st Workshop for Hygiene and Sanitation	4th December 2012	N/A	12	RWDO, Mchinji DC (DWDO),

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Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
Component of A1&A2 Test Activities				DDEHO, HPO, DCDO, DEMO, DIO)
2nd Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	7th February 2013	N/A	10	Mchinji DC
3rd Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	14th March 2013	15th March 2013	12	RWDO, National Initiative for Civic Education (NICE), Mchinji DC
2nd A3&A4 Group Workshops	4th April 2013	N/A	9	MoAIWD, RWDO (C), Mchinji DC, JOCV
3rd A3&A4 Group Workshops	2nd May 2013	3rd May 2013	12	MoAIWD, Mchinji DC, InterAide, JOCV
4th A3&A4 Group Workshops	20th August 2013	21st August 2013	7	MoAIWD, Mchinji DC
1st A5 Group Workshop	6th June 2013	N/A	14	Mchinji DC, JOCV
The 2nd Workshop on WSS Technical Document Management	22 August 2013	N/A	18	MoAIWD, Mchinji DC
Training of Trainers 1 on Test Activity A7	17th June 2013	N/A	8	Mchinji DWDO , Mchinji WMAs
Training of Trainers 2 on Test Activity A7	17th June 2013	N/A	19	Area Mechanics
3rd O&M Planning Workshop for RWDO (Module 3&4)	27th June 2013	28th June,2013	3	RWDO (C)
3rd O&M Planning Workshop for Mchinji DCT (Module 6)	15th July 2013	16th July, 2013	7	RWDO (C), Mchinji DC
4th O&M Planning Workshop for Mchinji DCT (Module 7)	30th July 2013	31st July, 2013	8	RWDO (C), Mchinji DC
5th O&M Planning Workshop for Mchinji DCT (Module 8)	13th August 2013	14th August, 2013	8	Mchinji DC
Training of Trainers for EWs (A1, A2, A7 and A10 Activities)	3rd July 2013	4th July 2013	27	WMAs, SHSAs & HSAs, ACDO & CDA, AMs
WPC Training (A1, A2, A7 and A10 Activities) Note: Total 11 days (1day training per one village)	5th July 2013	August 30th, 2013	176	WPC members, Village headman, Group village headman, Village influential person, EWs (SHSAs, HSAs, ACDOs, SCDA, CDA, WMAs), AMs
5th A4 Group Workshop	8th October 2013	N/A	5	MoAIWD, Mchinji DC
Workshop on WASH M&E Database	24th September 2013	September 27, 2013	22	MoAIWD, Mchinji DC
Training on Document Management	28th January 2014	January 31, 2014	9	MoAIWD
Evaluation Workshop on WPC Training	12th September 2013	N/A	48	MoAIWD, Mchinji DC, Area Mechanics
Workshop on Document Management	18th February 2014	19th February 2014	26	MoAIWD, RIWDO (C), Mchinji DC
Sector Sharing Workshop on "Enhancement of Operation and Maintenance of Rural Water Supply" for the Nationwide Dissemination	19th September 2013	N/A	45	DPs, NGOs, Other district officials, MoAIWD, RWDO (C), Mchinji DC
Sector Consultative Workshop for the Development Guide Manuals for Establishment of Area Mechanic System and Supply Chain System (draft)	12th March 2014	13th March 2014	24	DPs, NGOs, Other district officials, MoAIWD, RWDIO (C), Mchinji DC
4th Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	10th April 2013	N/A	10	RWDIO, National Initiative for Civic Education (NICE), Mchinji DC
Training of Extension Workers (ToT2) on Hygiene and Sanitation Component of A1&A2 Test Activities	17th May 2013	N/A	30	Mchinji DC, Extension Workers (WMAs, HSAs, CDAs) in charge of the 11 villages, Area Mechanics in charge of the 11 villages
Training of Water Point Committees (WPCs) (ToT3) on Hygiene and Sanitation Component of A1&A2 Test Activities Note: 1 day training per village	20th May 2013	23rd May 2013	180	Water Point Committee (WPC) members of 11 villages (each WPC have 10 members) , Group Village Head/Village Heads and Influential person from 11 villages, Extension Workers in charge of the 11 villages
5th Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	19 th July 2013	N/A	36	MoAIWD, RWDO, Mchinji DC, NICE, Mchinji Extension Workers in charge of the 11 pilot sites
3rd stage				

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Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
(3) Sector Consultative Workshop for the Development of the CBM (O&M Refresher Course) Manual (Zero Draft)	3rd July 2014	4th July 2014	24	DPs, NGOs, MoAIWD, RIWDO (C), Mchinji DC
Sector Consultative Workshop for the Development of the O&M Planning Handbook	27th August 2014	N/A	30	DPs, NGOs, Other district officials, MoAIWD, RIWDO (C), Mchinji DC
Training of Trainers for CBM O&M Refresher Course	8th July 2014	10th July 2014	97	Mchinji DC (SHSAs, HSAs, WMAs, ACDOs, CDAs and AMs)
WPC Training on CBM O&M Refresher Course Note: Total training days: 34 days (2days training per village)	14th July 2014	16th September 2014	842	WPC members, Village headman, Group village headman, Village influential person, EWs (SHSAs, HSAs, ACDOs, SCDA, CDA, WMAs), AMs
Study Tour of CBM O&M Refresher Course Training	8th September 2014	N/A	14	Other district officials, MoAIWD, RIWDO (C), Mchinji DC
Technical Confirmation Workshop	31st October 2014	N/A	14	MoAIWD, RIWDO (C), Mchinji DC
1st O&M Radio Workshop	24th January, 2014	N/A	11	Mchinji DC, Mudziwathu Community Radio
2nd O&M radio Workshop for Evaluation of the Trial O&M Radio Program and Development of the Full Radio Program	7th April 2014	N/A	10	Mchinji DC, NICE, Mudziwathu Community Radio, Network of Journalist Living with HIV (JONEHA)
3rd O&M Radio Workshop for Capacity Development of Community Radio Staff and Development of the O&M Radio Program	28 April 2014	N/A	10	MoAIWD, RIWDO, Mchinji DC, Mudziwathu Community Radio
4th O&M Radio Workshop for the Evaluation of the Trial O&M Radio Program and Development of the Full Radio Program	24th September 2014	N/A	13	MoAIWD, RIWDO, Mchinji DC, Mudziwathu Community Radio, NICE
Practical workshop on O&M planning handbook	3 rd November 2014	5 th November 2014	6	Nkhuwa DC
The third A5 Workshop (preparatory meeting to collect WASH M&E Database Indicators)	4 th December 2014	N/A	20	Mchinji DEHO
Koha ILS and NDR workshops for document utilisation	11 th December 2014	N/A	10	MoAIWD, RIWDO, NGOs
Orientation course for O&M indicators collection for water supply facilities	11 th December 2014	12 th December 2014	305	HSAs (Mchinji), SHSAs (Mchinji)
Technical Confirmation Workshop Regarding the O&M Planning Handbook	9 th December 2014	N/A	22	MoAIWD, RIWDO, Mchinji DC, DPs and NGOs
Technical Confirmation Workshop for the Development of an Educational Community Radio Programme	19 th February 2015	N/A	21	MoAIWD, RIWDO, Mchinji DC, DPs and NGOs
Technical Confirmation Workshop Regarding the Community radio, M&E user guide and O&M technical document manuals	17 th March 2015	N/A	11	MoAIWD, RIWDO, Mchinji DC, DPs and NGOs
Project Final Seminar	13 th May 2015	N/A	94	MoAIWD, 3 RIWDOs, 27 Districts, DPs and NGOs

(1) Study Tour to Zambia on SOMAP Model

Study Tour to Zambia on SOMAP (Sustainable Operation and Maintenance Project for Rural Water Supply) Model was conducted from 24th February to 1st March 2012. 9 counterparts from MoAIWD and DCT in Mchinji District participated in this tour. Outline of this study tour is as follows.

1) Objectives

The participants who join the study tour will be able to achieve the following objectives;

- To learn implementation challenges and lessons learnt in the process of building up SOMAP model

- To study the actual situation of the roles and responsibilities of each stakeholders such as government, provinces and villages on sustainable operation and maintenance for rural water supply in the process of decentralization and to exchange opinions
- To study and share the information regarding the building up of the spare parts supply chain of hand pump
- To share experiences and exchange opinions about the coordination by the local government on their activities between NGOs and development partners

2) Counterparts Organization of Zambia Side

- Responsible agency: Ministry of Local Government, Housing Early Education and Environmental Protection (MoLGHEEEP)
- Implementation agency: Rural Water Supply and Sanitation Unit, Department of Housing and Infrastructure Development: DHID

1.8.3 Procurement of Equipment

The list of equipment procured by the Project is shown in table below.

Table 1-16: List of Procured Equipment by the Project

Item	Qty.	Location	Observations
Desktop Computer (DELL) GX 3010, 13.2 GB, 500GB, DVD-RM, LC Monitor 19'' Wide	1	MoAIWD, Tikwere House	Already being used in the IT section, 5 th Floor for the WSS Resource Centre, MoAIWD
APC UPS 650VA	1	MoAIWD, Tikwere House	Already being used in the IT section, 5 th Floor for the WSS Resource Centre, MoAIWD
Wireless ADSL Router	1	MoAIWD, Tikwere House	For the WSS Resource Centre, MoAIWD
Software (Windows 7 Pro, Microsoft Office 2013 Pro.	1	MoAIWD, Tikwere House	For the WSS Resource Centre, MoAIWD
Software (Adobe Acrobat x Pro for Windows)	1	MoAIWD, Tikwere House	For the WSS Resource Centre, MoAIWD
Cannon Digital Copier Machine (copy, scan, print function) Model IR 2530	1	MoAIWD, Tikwere House	
UPS (3KVA)	1	MoAIWD, Tikwere House	
Personal Computer HP Pro	3	MoAIWD, Tikwere House	
Software (Windows, Microsoft Office, Adobe Acrobat Professional).	3	MoAIWD, Tikwere House	Software are already installed in the computer
Projector SONY VPL-EX100 LCD	1	MoAIWD, Tikwere House	
4WD Station Wagon Toyota Prado. Registration No. BR 4458	1	MoAIWD, Tikwere House	
GPS Garmin Oregon 550	3	Mchinji DWDO	
Motorbike Yamaha with Helmets	2	Mchinji DWDO	Already being used at Mchinji DWDO
Xerox Phaser 3435 Laser Printer	1	Mchinji DWDO	
Cannon I SENSYS MF4550d	1	Mchinji DWDO	
Diesel Generator, Nyasa Food Processing	1	Mchinji DWDO	
Air Conditioner	1	Mchinji DWDO	
ASTRA 17500 Generator	1	Mchinji DWDO	

1.8.4 Local Project Cost

Regarding local project cost disburse during entire project period, the cost born by Japanese side is shown in table below.

Table 1-17: Local Project Cost Born by Japanese Side

Expenditure Item	Expense by Fiscal Year (1,000JPY)				
	2011	2012	2013	2014	2015
Activities Cost (Directly from JICA)	6,993	4,219	6,528	10,942	7,072
Activities Cost (Through Consultant)	4,936	3,763	15,705	11,983	3,062
Sub-Total	11,929	7,982	22,233	22,925	10,134
Total	75,203				

1.9 Project Outputs

The list of outputs produced in the Project is shown in the three tables below.

Table 1-18: List of Project Reports

Stage	Name of report	Date of submission
1st	Work plan (1st Stage)	August, 2011
	Progress Report (No.1)	February, 2012
	Final Report (2nd Stage)	March, 2012
2nd	Work plan (2nd Stage)	July, 2012
	Progress Report (No.2)	March, 2013
	Progress Report (No.3)	October, 2013
	Final Report (2nd Stage)	May, 2014
3rd	Work plan (3rd stage)	June, 2014
	Progress Report (No.4)	December, 2014
	Project Final Report	June, 2015

Table 1-19: List of Technical Cooperation Outputs

Stage	Name of report	Remarks
1st	Present status analysis on the O&M of rural water supply facilities and report on challenges	Refer to <i>Appendix 4.</i>
	Baseline survey report	
2nd	Implementation plan for test activities and outputs through test activities	
	Recommendations for enhancement and build-up of the O&M framework for rolling out of the whole Mchinji	Refer to <i>Appendix 5.</i>
3rd	Impact survey report	Refer to <i>Clause 3.6 in this report.</i>
	Recommendations for enhancement and build-up of the O&M framework for nationwide dissemination	Refer to <i>Clause 5.2</i> in this report.

Table 1-20: List of Guidelines and Manuals Developed by the Project

Series No.	Title	Language
1	Community Based Management (O & M Refresher Course) Training Manual	English
2	Community Based Management (O & M Refresher Course) Tool Kits	Chichewa
3	Guide Manual for the Establishment and Management of Area Mechanic System	English
4	Training Manual for Area Mechanics	English
4	Training Manual for Area Mechanics (Chichewa version)	Chichewa
5	Guide Manual for the Establishment of an Afridev Hand Pump Spare Parts Supply Chain	English
6	Training Manual for Afridev Hand Pump Spare Parts Retail Shop Owners	English
6	Training Manual for Afridev Hand Pump Spare Parts Retail Shop Owners (Chichewa version)	Chichewa
7	Borehole Rehabilitation Handbook for Extension Workers	English
8	Water Supply Service Technical Document Management Guidelines	English
9	District O&M Planning Handbook	English

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Series No.	Title	Language
10	Educational Community Radio Programme for Enhancing O&M for Rural Water Supply Sharing experiences from Mchinji District	English
11	User Guide Manual on Monitoring and Evaluation Database for Water Points	English
12	O&M Technical Document Utilisation Handbook	English

2. Status of Achievement

2.1 Achievement of Project Purpose

Project Purpose:

The existing O&M framework is strengthened practically for subsequence nationwide dissemination.

For the reasons below, the project purpose can be viewed as achieved.

Strengthened O&M framework was stated in the Joint Sector Review (JSR) report in 2013 and also discussed to be stated in 2014. In April 2015, a total of 14 national guidelines/manuals developed in this project were approved by the Principal Secretary of MoAIWD and officially recognised. Ownership consciousness has been improved in WPCs through application of the strengthened O&M framework. Therefore it can be said that the existing O&M framework has been strengthened practically for subsequent nationwide dissemination.

Table 2-1: Status of Achievement of Project Purpose

Objectively Verifiable Indicators	Status of Achievement											
<p>Indicator 1: The strengthened practical O&M framework is stated in Sector Working Group Reports and/or Joint Sector Review Reports.</p>	<p>Indicator 1 was basically achieved.</p> <p>The strengthened practical O&M framework was stated in the JSR in 2013 and the Sector Performance Report (SPR) in 2012/2013. The strengthened practical O&M framework was explained by C/Ps in the regional Joint Sector Review (JSR) in November 2014 and the national JSR in December 2014. The strengthened practical O&M framework was already stated in the national JSR in 2014 and is likely to be stated in the Sector Performance Report (SPR) in 2013/2014.</p> <p>In addition, at the final JCC meeting held on 1st June 2015, the last meeting for this project, the Principal Secretary of MoAIWD promised that an official announcement would be made at the next Sector Working Group (SWG) meeting that the O&M framework finalised in this project be disseminated and promoted as a national standard.</p>											
<p>Indicator 2: The strengthened practical guidelines/manuals/training materials are officially acknowledged by MoWDI.</p>	<p>Indicator 2 was achieved by April 2015.</p> <p>A total of 14 national guidelines/manuals developed in this project were approved by the Principal Secretary of MoAIWD and officially recognised</p>											
<p>Indicator 3: Ownership consciousness is improved in WPCs to be applied with the strengthened framework.</p>	<p>Indicator 3 was achieved.</p> <p>After the strengthened framework was applied at the pilot sites, it was found that the Water Point Committee's (WPC's) sense of ownership was enhanced as described below.</p> <p>According to the CBM O&M refresher training's impact assessment conducted in 50 WPCs, ownership consciousness has improved after project intervention. Improvement in ownership consciousness has been quantified through scoring five benchmark indicators where the minimum score was zero and the maximum 21 (the higher the score the higher the ownership consciousness).</p> <p>The following tables show the average ownership consciousness score as well as the variation of scores in the 50 WPCs before and after provision of the CBM O&M refresher training.</p> <p>Table 2-1-1: Average ownership consciousness score for 50 water supply facilities before and after intervention of the Project</p> <table border="1"> <thead> <tr> <th rowspan="2">Measurement period</th> <th>Before project intervention</th> <th>After project intervention</th> <th>Before project intervention</th> </tr> <tr> <th>Preliminary survey (Feb. 2014)</th> <th>Second monitoring (Oct. 2014)</th> <th>Fourth monitoring (Apr. 2015)</th> </tr> </thead> <tbody> <tr> <td>Average Scores</td> <td>9 points</td> <td>14 points</td> <td>11 points</td> </tr> </tbody> </table>	Measurement period	Before project intervention	After project intervention	Before project intervention	Preliminary survey (Feb. 2014)	Second monitoring (Oct. 2014)	Fourth monitoring (Apr. 2015)	Average Scores	9 points	14 points	11 points
Measurement period	Before project intervention		After project intervention	Before project intervention								
	Preliminary survey (Feb. 2014)	Second monitoring (Oct. 2014)	Fourth monitoring (Apr. 2015)									
Average Scores	9 points	14 points	11 points									

Objectively Verifiable Indicators	Status of Achievement		
	Table 2-1-2: Changes in Scores for 50 Target Water Points (WPs) before and after Project Intervention		
	Situation of increase or decrease of the score	Changes in Scores before and after Project Intervention	
		Second monitoring (Oct. 2014)	Fourth monitoring (Apr. 2015)
	Score increased compared to before project intervention	44 WPs (88%)	29 WPs (58%)
	Score was unchanged compared to before project intervention	3 WPs (6%)	3 WPs (6%)
	Score decreased compared to before project intervention	3 WPs (6%)	18 WPs (36%)
	<p>In addition, an educational O&M community radio programme (herein after referred as the O&M radio) was developed and aired during a total period of 11 months. A similar impact survey was also conducted in an additional 11 sites to assess the impact of the O&M radio. These 11 sites were selected based on the presence of Radio Listening Club and WPCs in the village.</p> <p>The result of the assessment also shows improvement in ownership consciousness in 91% of the sites (10 sites) as summarized in the below table.</p>		
	Table 2-1-3: Changes in O&M score after project intervention		
	Variation in score	Total number of sites	Percentage
	Score has increased after project intervention	10	91 %
	Score has not changed	0	0 %
	Score has decrease after project intervention	1	9 %

2.2 Achievement of Outputs

2.2.1 Output 1 : Implementation structure for strengthening the existing O&M framework for rural water supply is set up.

For the reasons below, Output 1 can be viewed as achieved.

The Project Task Force (PTF) meetings were held sufficiently and it can be said that implementation structure for strengthening the existing O&M framework for rural water supply has been set up.

Table 2-2: Status of Achievement of Output 1

Objectively Verifiable Indicators	Status of Achievement
<u>Indicator 1-1:</u> The frequency of the meeting of Project Task Force taken place at least 4 times a year.	<p>VI 1-1 was basically achieved.</p> <p>Frequency of the PTF meeting is as follows; there were three PTF meetings in the first stage, seven PTF meetings in the second stage and four PTF meetings in the third stages.</p>

2.2.2 Output 2 : Present situation and challenges of O&M for rural water supply are investigated.

Output 2 can be viewed as achieved.

Lessons learnt and problems on O&M of water supply facilities and improvement of sanitation were identified and the present situation and challenges on O&M of rural water supply facilities were shared with C/Ps through PTF meeting. Therefore, it can be said that the present situation and challenges of O&M for rural water supply have been investigated.

Table 2-3: Status of Achievement of Output 2

Objectively Verifiable Indicators	Status of Achievement
<u>Indicator 2-1:</u> The report of the present situation and challenges is made.	VI 2-1 was achieved. Lessons learnt and challenges on O&M of water supply facilities and improvement of sanitation were identified based on the results from Activity 2-1 to 2-7 and information was shared with members through the second and the third PTF meetings in 2012. Based on the discussions, “The report of the present situation and challenges on operation and management of rural water supply facilities” was prepared.
<u>Indicator 2-2:</u> The report is shared with the Project Task Force.	VI 2-2 was achieved. Findings of the present situation and challenges on O&M of rural water supply facilities were shared with C/Ps of the Project in the second PTF meeting implemented in the first stage.

2.2.3 Output 3 : The existing O&M framework is strengthened based on the field test in Mchinji District.

For the reasons below, Output 3 can be viewed as achieved.

Ten test activities were carried out based on the measures to solve the challenges and strengthened O&M framework (comprehensive series of guidelines and manuals) has been developed. Therefore it can be said that the existing O&M framework has been strengthened based on the field test in Mchinji District.

Table 2-4: Status of Achievement of Output 3

Objectively Verifiable Indicators	Status of Achievement																																		
<u>Indicator 3-1:</u> The strengthened practical O&M framework based on lessons from the result of the test activities is made.	<p>VI 3-1 was achieved.</p> <p>Measures which make existing O&M framework more practical and sustainable were identified based on the analysis of the present situation of water supply facilities, and these were categorized as six factors to be reinforced. In addition, ten test activities were carried out based on the measures for problem solving. As a result of the activities, existing O&M framework was reinforced and developed.</p> <p style="text-align: center;">Table 2-4-1: Relationship between six major factors and test activities</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Major factors</th> <th colspan="2">Test activities</th> </tr> </thead> <tbody> <tr> <td rowspan="4">F1:</td> <td rowspan="4">Increasing community ownership and responsibility (Community contributions)</td> <td>A1</td> <td>Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly</td> </tr> <tr> <td>A2</td> <td>Facility design for better O&M and promotion of water point sanitation</td> </tr> <tr> <td>A7</td> <td>Activities for development of a text of maintenance and rehabilitation for deep well</td> </tr> <tr> <td>A10</td> <td>Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan</td> </tr> <tr> <td>F2:</td> <td>Standardisation of spare parts supply chain system</td> <td>A4</td> <td>Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain</td> </tr> <tr> <td>F3:</td> <td>Standardisation of Area Mechanics (AMs) system</td> <td>A3</td> <td>Standardization and dissemination of a process for the introduction of Area Mechanics</td> </tr> <tr> <td>F4:</td> <td>Management of guidelines and manuals</td> <td>A6</td> <td>Improvement of the rules on the manuals (use/storage and hierarchical management)</td> </tr> <tr> <td>F5:</td> <td>Strengthening of Monitoring and Evaluation (M&E) system at district level</td> <td>A5</td> <td>Standardization and dissemination of monitoring system for the water supply facilities</td> </tr> <tr> <td>F6:</td> <td>Capacity development of Regional/District Coordination Team</td> <td>A8</td> <td>Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council</td> </tr> </tbody> </table>	Major factors		Test activities		F1:	Increasing community ownership and responsibility (Community contributions)	A1	Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly	A2	Facility design for better O&M and promotion of water point sanitation	A7	Activities for development of a text of maintenance and rehabilitation for deep well	A10	Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan	F2:	Standardisation of spare parts supply chain system	A4	Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain	F3:	Standardisation of Area Mechanics (AMs) system	A3	Standardization and dissemination of a process for the introduction of Area Mechanics	F4:	Management of guidelines and manuals	A6	Improvement of the rules on the manuals (use/storage and hierarchical management)	F5:	Strengthening of Monitoring and Evaluation (M&E) system at district level	A5	Standardization and dissemination of monitoring system for the water supply facilities	F6:	Capacity development of Regional/District Coordination Team	A8	Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council
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2.2.4 Output 4 : The strengthened O&M framework is applied to the whole Mchinji District.

Output 4 can be viewed as achieved.

O&M training for WPCs (O&M refresher’s courses) had been carried out in 50 WPCs based on the strengthened O&M framework developed through ten test activities. Training of Trainers (ToT) for CBM O&M refresher’s courses was carried out for 90 EWs and AMs, and the number of WPCs training conducted by each EW and AM has been increasing. In addition, development of the five-year plan of O&M in Mchinji, activities of the community radio have been carried out. Orientations for WASH monitoring and evaluation (M&E) data collection were conducted for extension workers (about 290 SHSAs and HSAs) at 16 health centers in Mchinji. Therefore, it can be said that the strengthened O&M framework has been applied to the whole Mchinji District.

Table 2-5: Status of Achievement of Output 4

Objectively Verifiable Indicators	Status of Achievement																						
<u>Indicator 4-1:</u> Number of communities trained following the strengthened practical O&M framework reaches 50 communities	VI 4-1 was achieved. O&M training for WPCs (refresher’s courses) has been carried out in 50 WPCs as of September 2014. Due to efforts of the project team, it has also been agreed that the refresher’s course manuals which were developed in the Project have been utilized in the O&M trainings for 330 target sites of an ongoing Japanese Grant Aid project “The Project for Selected Market Centres and Rural Water Supply in Mchinji and Kasungu District”. Therefore, it is expected that number of communities trained following the strengthened practical O&M framework is exceed the indicator.																						
<u>Indicator 4-2:</u> Number of extension workers to be trained according to the strengthened practical O&M framework increases.	VI 4-2 was achieved. Training of trainers for CBM O&M refresher’s courses was carried out for three days (from 8th July to 10th July 2014) for 90 of extension workers (Senior Health Surveillance Assistances (SHSAs), HSAs, Water Monitoring Assistants and Community Development Assistants) and Area Mechanics.																						
<u>Indicator 4-3:</u> Number of WPC training conducted by each extension worker according to the strengthened practical O&M framework increases.	VI4-3 was achieved. The number of Water Point Committees (WPCs) trained by Extension Workers (EWs) and Area Mechanics by using the strengthened practical O&M framework is as follows. <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Table 2-5-1: Distribution of EWs and number of training conducted³</caption> <thead> <tr> <th>Number of EWs that conducted</th> <th>Number of trainings</th> </tr> </thead> <tbody> <tr> <td>one training</td> <td>25 persons</td> </tr> <tr> <td>two trainings</td> <td>17 persons</td> </tr> <tr> <td>three trainings</td> <td>29 persons</td> </tr> <tr> <td>four trainings</td> <td>5 persons</td> </tr> <tr> <td>five trainings</td> <td>3 persons</td> </tr> <tr> <td>six trainings</td> <td>4 persons</td> </tr> <tr> <td>seven trainings</td> <td>2 persons</td> </tr> <tr> <td>10 trainings</td> <td>1 person</td> </tr> <tr> <td>17 trainings</td> <td>1 person</td> </tr> <tr> <td>21 trainings</td> <td>1 person</td> </tr> </tbody> </table>	Number of EWs that conducted	Number of trainings	one training	25 persons	two trainings	17 persons	three trainings	29 persons	four trainings	5 persons	five trainings	3 persons	six trainings	4 persons	seven trainings	2 persons	10 trainings	1 person	17 trainings	1 person	21 trainings	1 person
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³ Number of trainings in total was 50. However, extension workers formed teams and implemented the trainings several extension workers join a training. Therefore number of trainings in total and number of trainings which each extension workers have conducted in total are not same number.

Objectively Verifiable Indicators	Status of Achievement	
	Number of EWs that conducted 22 trainings	1 person
	Number of EWs that conducted 30 trainings	1 person
	<p>Note 1: Number of trainings in total was 50. However, extension workers formed teams and implemented the trainings several extension workers join a training. Therefore number of trainings in total and number of trainings which each extension workers have conducted in total are not same number.</p> <p>These additional factors ⁽²⁾ should also be considered.</p> <ul style="list-style-type: none"> ➤ At the time of the terminal evaluation, some activities had already been conducted such as preparation of the five-year plan of O&M to be incorporated as a part of Mchinji's mid-term district plan ➤ Awareness raising activities through a community radio. In addition, ➤ Orientations for WASH data collection were conducted for extension workers on monitoring and evaluation of water supply facilities in whole Mchinji District. <p>Note 2: This additional factor has been added to better reflect the achievements of the project without limiting it to the CBM O&M refresher training</p>	

2.2.5 Output 5 : The strengthened framework is widely understood.

For the reasons below, Output 5 can be viewed as basically achieved.

The strengthened practical O&M framework (guidelines/manuals) has been disseminated to interested parties such as development partners and NGOs through a multiple number of workshops held in this project, including the final dissemination seminar and feedback obtained from the participants has also been reflected in the finalisation process of the O&M framework. The strengthened framework (guidelines/manuals) was officially approved by the Principal Secretary of MoAIWD and during the project period, a total of about 3,800 copies of guidelines/manuals were distributed at about 100 locations by May 2015.

Table 2-6: Status of Achievement of Output 5

Objectively Verifiable Indicators	Status of Achievement											
<p><u>Indicator 5-1:</u> The strengthened practical O&M framework is shared by all of the stakeholders in the Sector Working Group (SWG).</p>	<p>Indicator 5-1 was basically achieved.</p> <p>In mid-April of 2015, the strengthened practical O&M framework was officially approved by the Principal Secretary of MoAIWD, while since that time no SWG meeting has been held and it has not been disseminated to stakeholders on the occasion of SWG meeting. In this project, however, as an alternate means, a number of workshops were offered to share the O&M framework among many stakeholders including SWG members and their feedback was reflected to finalise the framework, which allows us to consider that the relevant objective was achieved. Meanwhile, at the final Joint Coordination Committee meeting held on 1st June 2015, the last meeting for this project, the Principal Secretary of MoAIWD promised that an official announcement would be made at the next SWG meeting that the O&M framework finalised in this project be disseminated and promoted as a national standard.</p>											
<p><u>Indicator 5-2:</u> The number of the stakeholders which participate in the SWG above.</p>	<p>Indicator 5-2 was basically achieved.</p> <p>Workshops with development partners and NGOs including SWG members were held as shown in the table below. Ten to fifty major donors who are involved in the rural water sector attended the workshops. The purpose of the workshops was to obtain technical feedbacks from relevant stakeholders through sharing the contents of the documents.</p> <p style="text-align: center;">Table 2-6-1: Number of participants in each workshop</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Name of workshops</th> <th style="text-align: center;">Contents</th> <th style="text-align: center;">Date</th> <th style="text-align: center;">Number of participants*</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Sector sharing workshop on "Enhancement of Operation and Maintenance of Rural Water Supply" for the nationwide dissemination</td> <td style="text-align: center;">Information sharing of midterm result of the Project to relevant stakeholders</td> <td style="text-align: center;">19th September 2013</td> <td style="text-align: center;">45</td> </tr> </tbody> </table>				Name of workshops	Contents	Date	Number of participants*	Sector sharing workshop on "Enhancement of Operation and Maintenance of Rural Water Supply" for the nationwide dissemination	Information sharing of midterm result of the Project to relevant stakeholders	19 th September 2013	45
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Objectively Verifiable Indicators	Status of Achievement			
	Sector consultative workshop regarding the establishment of area mechanics system and spare parts supply chain system	Information sharing of draft version of guide manuals on area mechanic and spare parts supply chain to relevant stakeholders	12 th -13 th March 2014	25
	Sector consultative workshop regarding the CBM refresher training manual and tool kits	Information sharing of version 0 draft of a manual and a tool kit for CBM refresher's course to relevant stakeholders	3 rd -4 th July 2014	24
	Sector consultative workshop regarding the O&M planning handbook	Information sharing of version 0 draft of O&M planning handbook to relevant stakeholders	27 th August 2014	30
	Technical confirmation workshop regarding the O&M planning handbook	Information sharing of final draft of O&M planning handbook to relevant stakeholders	9 th December 2014	22
	Technical confirmation workshop for the development of an educational community Radio Programme	Information sharing of final draft of O&M community radio to relevant stakeholders	19 th February 2015	21
	Project final seminar	Information sharing of strengthened O&M framework (final version) to relevant stakeholders	13 th May 2015	94
	*Including Development Partners, NGOs, staff of other districts, member of project team and C/Ps			
Indicator 5-3: The strengthened practical O&M framework is endorsed by SWG.	Indicator 5-3 was basically achieved At the final seminar held on 13th May 2015, a total of 94 interested persons including SWG members acknowledged to the strengthened practical O&M framework.			
Indicator 5-4: The number of addresses for distribution of the strengthened practical O&M framework.	Indicator 5-4 was Achieved A total of about 3,800 copies of guidelines/manuals were printed and distributed to about 100 entities (2 government ministries, 17 development partners/NGOs, 27 district offices, 3 Regional Water Development Offices, 3 community radio stations, a total of 16 headquarters and branches of the National Library and 33 NICE offices). The digital form of above-mentioned guidelines/manuals can also be downloaded by anyone from the page of MoAIWD on the digital library website of the Malawi National Library.			

2.3 Prospects for Achieving the Overall Goal

Overall Goal:

The strengthened practical O&M framework is applied nationwide⁴.

Preparation of a roadmap (a scenario toward nationwide dissemination of the framework) to achieve the Overall Goal was discussed in the second PTF meeting held on the 11th of September 2014 and a draft road map was prepared. However Terminal Evaluation Team pointed out that there were several uncertain factors and it is difficult to foresee expectation of the achievement. It is necessary to make a best effort by the Malawi government to achieve the indicator. Based on this recommendation by Terminal Evaluation Team, the roadmap was updated and refined on the 4th PTF meeting held on the 17th of March 2015 as shown in *Appendix 7*. The main points of the the road map is described below.

- The strengthened framework by the Project is supposed to be utilized in the “Sustainable Rural Water

⁴ Definition of nationwide in the Overall Goal is that the strengthened practical O&M framework is applied to all districts (it does not mean to apply to the all communities).

and Sanitation Project for Improved Health and Livelihood” by AfDB (the project period will be 2014-2019, the target districts are five) and is expected to adopt in the O&M componets by WASH project supported by UNICEF which covers 18 districts.

3. Results of Activities

3.1 Activities of Output 1

【Output1 : Implementation structure for strengthening the existing O&M framework for rural water supply is set up.】

3.1.1 Activities1-1: To set up the working group to discuss the strengthening of existing O&M framework for rural water supply in MoIWD, stipulating the participation of other development partners.

At the first JCC meeting, the concept of the Working Groups proposed by the Japanese side in the Work Plan similar to the functions and structure of the Sector Working Group (SWG) and Technical Working Group (TWG) already established under the Sector Wide Approach (SWAp), and concern was expressed over possible confusion in demarcation with existing dialogue and in their operation. For this reason, following discussions with the Department of Water Supply Services, MoAIWD agreed to establish a Project Task Force (PTF) with the following content and objectives instead of the WG in the initial plan.

Table 3-1: Concept of Project Task Force (PTF)

Item	Outline	
Functions	<ul style="list-style-type: none"> ➤ To prepare and share information on good practices in the existing O&M framework through the related activities with the members of TWG and/or SWG. ➤ To obtain comments, recommendations and advices on the improvement and the strengthening of the existing O&M framework through the meeting of TWG and/or SWG in order to strengthen the O&M framework so that it is sufficiently practical to disseminate across the entire country. ➤ PTF meetings will be held at each stage of the project or as required. 	
Composition and Members	Chairperson	Deputy Director of Department of Water Supply Services (Operation, Maintenance, Monitoring and Evaluation), MoAIWD
	Members of the Malawian Side	<ul style="list-style-type: none"> • Representative from Water Supply Services, MoAIWD • Representative from sanitation, MoAIWD • Representative from Regional Water Development Office (Centre) • Representative from District Coordination team in Mchinji • Other personnel as required
	Members of the Japanese Side	<ul style="list-style-type: none"> • JICA Experts • Representative from JICA Malawi Office • Other personnel as required

3.1.2 Activities 1-2: To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.

Through the entire project period, fourteen (14) PTF Meetings were held. The main topical items on the agenda for each meeting are shown in the table below.

Table 3-2: The Main Topics for each Meeting

PTF	Date	Main topics
1st stage		
1st	1st December 2011	<ul style="list-style-type: none"> ➤ Discussion about the relevance and importance of the draft performance indicators
2nd	22nd February 2012	<ul style="list-style-type: none"> ➤ Sharing the the present status and challenges of the operation and maintenance of the rural water supply facilities
		<ul style="list-style-type: none"> ➤ Sharing the identified and analysed present status and challenges

3. Results of Activities

3rd	7th March 2012	➤ Discussion about the recurrent operation and maintenance activities to be examined in the field test, selection of the communities for the field test and the (draft) field test plan with regard to [Output 3],
2nd stage		
1st	24th July 2012	<ul style="list-style-type: none"> ➤ Explanation about the Work Plan and the Implementation Plan for the Test Activities (proposal) ➤ Discussion about the Work Plan and Implementation Plan of the Test Activities (proposal) ➤ Sharing the image about “What the Practical Framework should be” ➤ Discussion about the person in charge of each test activities
2nd	31st July 2012	<ul style="list-style-type: none"> ➤ Presentation concerned the action plan of the each test activity ➤ Suggestion for the graphical representation of the existing O&M framework and confirmation of the contents ➤ Concerning preparation of the 1st JCC ➤ Distribution of the files for the portfolio
3rd	15th November 2012	➤ Sharing of the progress of each field tests (Presentation concerning the progress and the problem of each field tests by C/P)
4th	11th March 2013	➤ Sharing of progress of the each test activity
5th	3rd June 2013	➤ Discussion about objectively verifiable indicators of the project purpose
6th	18th September 2013	<ul style="list-style-type: none"> ➤ Determination of the number of water points to be trained for scaling up the field test for Output 4, “The strengthened O&M framework is applied to the whole Mchinji District” ➤ Examination of the means of verification i.e. the composition and method of the pre-test and the post-test of the counterparts for the Objectively Verifiable Indicators for Output 4 which is “Degree of understanding of the counterparts after training improves ➤ Discussion on the draft document of WSS Technical Document Management Guidelines for Test Activity A6 ➤ Discussion on the presentation materials and scenario for workshop on “Enhancement of Operation and Maintenance of Rural Water Supply” held on September 19, 2013
7th	20th February 2014	<ul style="list-style-type: none"> ➤ Review of the outcomes of the 6th PTF meeting ➤ Examination of the number of communities to be trained for scaling up the field test for output 4, “the strengthened O&M framework is applied to the whole Mchinji District” ➤ Discussions regarding the performance report, one means of verification for Output 4 in PDM ver. 3 and updating the reflection sheet ➤ Discussions and sharing recommendations for further strengthening the existing O&M framework (presentations per factor) related to the activities 3-4 in PDM ver. 2 ➤ Schedule of the project activities for the next stage (from April 2014 to June 2015) ➤ Hand-over of certificates to A8 & A9 participants
3rd stage		
1st	24th June 2014	<ul style="list-style-type: none"> ➤ Review of the outcomes of the 7th PTF meeting ➤ Explanation of the Draft Work Plan (3rd stage) ➤ Reflection sheet aligned to the new Work Plan ➤ Presentation on the current status and content of the CBM refresher training manual ➤ Planning for the development of the CBM refresher training manual and involvement of key stakeholders
2nd	11th September 2014	<ul style="list-style-type: none"> ➤ Review of the outcomes of the 1st PTF meeting ➤ Sharing the achievements of various project activities and next steps ➤ Current status of various documents developed through the project and the approval process/signers of each document ➤ Acquiring the domain for the WSS Resource Centre ➤ Discussions regarding the recommendations from the mid-term review ➤ Securing sufficient budget allocation to the district level for O&M activities ➤ Wrap up
3rd	11th December 2014	<ul style="list-style-type: none"> ➤ Sharing Presentation of Results of the Terminal Evaluation ➤ Way forward {Finalisation of the rest of the guidelines and manuals, Uploading of digital documents (NDR and WES network), Monitoring of WPCs and RLCs for the Impact Assessment, Final Project Seminar, road map for nationwide dissemination }

4th	17th March 2015	<ul style="list-style-type: none"> ➤ Preparations for the World Water Day event ➤ Technical Confirmation meeting participants for the AM & Spare Parts Supply Chain – Chichewa version ➤ Confirmation of the progress of the recommendations by Terminal Evaluation Team <ul style="list-style-type: none"> ✓ Refine the O&M framework dissemination roadmap ✓ PSIP funding 2014/5 & 2015/6 ✓ Preparations for the Regional Workshops ✓ Sharing the roadmap during the SWG (by the end of the Project) ✓ UNICEF WASH Plan (Annual or 5 Year) – updates ✓ AfDB Project Implementation/Work Plan updates ➤ Preparations for last sharing seminar ➤ Distribution of guidelines and manuals to all districts in Malawi. How to distribute to districts that cannot participate in the last sharing seminar? ➤ Schedule of O&M project activities
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3.2 Activities of Output 2

[Output 2: Present situation and challenges of O&M for rural water supply are investigated.]

3.2.1 Activities 2-0: To collect basic information on hygiene and sanitation

This activity was not included in the PO ver.1, but this was added because basic information on the implementation structure of the hygiene and sanitation is vital to achieve Output 2.

a. Scope of Sanitation and Hygiene in this Project

The scope of “Sanitation and hygiene” in this project is defined as described below, considering the fact that 1) this project is focused on “rural water supply” in Malawi, 2) practical strengthening of the operation and maintenance framework of water supply facilities is the project purpose and 3) improvement of the functionality rate of the water supply facilities is the project indicator.

- With respect to “Activity 2-0: To collect basic information on sanitation and hygiene”, since this activity aims to survey the situation surrounding this project in Malawi, from the viewpoint of 1) above, the activity should focus on the area of “rural hygiene and sanitation”.
- With respect to hygiene and sanitation concerning “Activity 2-1” and subsequent activities, based on the promises that the activities should contribute to the project purpose in 2) and the indicator in 3), it was decided that the scope of “sanitation” should be “sanitation of water supply facilities” and “family sanitation” and that the scope of “hygiene” should be limited to hygiene relating to the use of water, excluding the “use of toilet and toilet cover” and “waste management”.

Basic information collected in this Activity was utilised in the analysis of Activity 2-6, which is described later.

3.2.2 Activities 2-1: To collect existing policies, guidelines, implementing manuals, training manuals, etc.

The existing policies, guidelines and various types of manuals related to the O&M of water points and sanitation were collected (Refer to *Appendix 3*). Based on these materials, good practices and lessons learned were extracted and analyzed as an Activity 2-6.

3.2.3 Activities 2-2: To collect good practices and lessons learned from past projects.

On-going and past projects related to the rural water supply and sanitation sub-sector was summarized based upon the collected data and information.

Documentary materials in four categories, (1) area mechanics for water points, (2) hand pump spare parts supply chain, (3) monitoring system and (4) maintenance fund, regarded as important elements for improvement of sustainable CBM, were collected from on-going and past projects in the above table and similar projects related to operation and maintenance of water points. Based on these materials, good practices and lessons learned was extracted and analyzed as an Activity 2-6.

3.2.4 Activities 2-3: To conduct a baseline survey.

a. Outline of Baseline Survey

To understand the current status of the water points in Mchinji District, a baseline survey was conducted by subcontracting local consultants. An overview of the baseline survey is shown in table below.

Table 3-3: Overview of Baseline Survey

No.	Type of Survey	Objective	Target Quantities
1	Village profile survey for the activity of VHWCs / WPCs	(i) To understand the present status of socio-economic characteristics and O&M management and condition of water points in Mchinji District. (ii) To provide baseline data on indicators for O&M Framework, and to propose target in PDM which will be used in subsequent years for measuring success of the project.	Approx. 1,000 VHWCs and/or WPCs
2	Diagnosis survey for condition of water points	To clarify present hard conditions such as Functioning, non-functioning, water discharge and water quality for hand-pumps and stand pipes.	Approx. 1,000 Water Points
3	Household survey	(i) To understand the present status of socio-economic characteristics and O&M management and condition of water points in Mchinji District. (ii) To provide baseline data on indicators for O&M Framework, and to propose target in Project Design Matrix (PDM) which will be used in subsequent years for measuring success of the project.	Approx. 800 Households
4	Basic survey of administrative organization	To obtain the basic information for the local government and TA level.	<u>1. District Level</u> i) District Assembly (DA) ii) District Executive Committee (DEC) iii) District Coordination Team (DCT) <u>2. TA Level</u> i) Area Development Committee (ADC) ii) Area Executive Committee (AEC) iii) Traditional Authority (TA)

b. Outline of Results

b.1 Village Profile Survey for the Activity of VHWCs / WPCs

Village profile survey for the activities of VHWCs / WPCs was carried out in villages with public water supply facilities in Mchinji District, the target of which excluded those villages where 300 boreholes with Afridev hand pump were constructed under a grant aid project from Japan.

The survey revealed that 538 villages had public water supply facilities in the entire Mchinji District. The local consultant collected and statistically analysed data on the population, water sources, socio-economic conditions and sanitary conditions in these villages.

Table 3-4: Identified Numbers of Villages in each TA

TA	No. of villages
TA Dambe + STA Kapondo	57
TA Mavwere	60
TA Mduwa	77
TA Mkanda + STA Nyoka	113
TA Mlonjeni	83
TA Zulu + STA Simphasi	148
Total	538

b.2 Diagnosis Survey for Condition of Water Points

b.2.1 Primary Diagnosis Survey

Primary diagnosis survey for water points of which targets were all the public water supply facilities in Mchinji District (excluding the 300 boreholes constructed in the grant aid project from Japan) for the assessment of the conditions of the facilities and on the condition of the management of the O&M systems. The survey lasted approximately two months from September to early November 2011.

The survey confirmed the existence water supply facilities at 975 locations. The assessment of the conditions of the hardware of the water supply facilities at the confirmed 975 locations revealed that facilities were not functioning at 163 locations. The average functional ratio of 82.5 % was obtained from these figures for the all water supply facilities in Mchinji District.

The table below shows the numbers and functional ratios of water supply facilities by type.

Table 3-5: Result of the primary diagnosis survey

	Hand Pump					Stand pipe	Total
	Afridev	Malda	Mark V	Elephant	No pump		
Functional water points	601	26	17	94	0	66	804
Non-functional water points	82	12	2	6	7	54	163
Under construction	3	0	0	2	0	0	5
Not applicable	2	0	0	0	0	1	3
Total	688	38	19	102	7	121	975
Functionality rate	87.4%	68.4%	89.5%	92.2%	0.0%	54.5%	82.5%

Source: Baseline Survey in 2011

b.2.2 Secondary Diagnosis Survey

Secondary diagnosis survey for water points of which targets were recognized as non-functional in the primary survey mentioned above were carried out to specify causes of hardware malfunction. The survey lasted approximately two months from September to early November 2011.

Among the facilities which had been non-functional at the time of the primary surveys, those at seven locations were functional at the time of the secondary survey because the causes of non-function had been eliminated with repair of pump parts or restoration of groundwater level inside wells.

Table 3-6: Result of the Secondary Diagnosis Survey

	a. Afridev			b. Malda			c. Elephant			d. No pump			e. Stand pipe			Ground Total		
	F	Non-F	Sub-total	F	Non-F	Sub-total	F	Non-F	Sub-total	F	Non-F	Sub-total	F	Non-F	Sub-total	F	Non-F	Sub-total
TA Dambe + STA Kapondo	0	18	18	2	1	3	0	0	0	0	1	1	0	0	0	2	20	22
TA Mavwere	0	11	11	0	0	0	0	1	1	0	2	2	0	0	0	0	14	14
TA Mduwa	0	10	10	0	0	0	0	2	2	0	1	1	0	1	1	0	14	14
TA Mkanda + STA Nyoka	1	19	20	0	8	8	0	0	0	0	1	1	1	12	13	2	40	42
TA Mlonyeni	1	10	11	0	0	0	0	0	0	0	0	0	1	38	39	2	48	50
TA Zulu + STA Simphasi	1	9	10	0	2	2	0	1	1	0	3	3	0	5	5	1	20	21
Total	3	77	80	2	11	13	0	4	4	0	8	8	2	56	58	7	156	163

Note: F: Functional water points, Non-F: Non functional water points

Source: Baseline Survey in 2011

b.3 Household Survey

It was decided to conduct a household survey in villages with water points confirmed in the 2008 Water Point Atlas, selecting at random households with children under the age of 5. As a result, the final number of households surveyed was 807 households.

b.4 Basic Survey of Administrative Organization

In accordance with the decentralisation policy of 1998, the framework of local administrative organisations of Malawi classifies the organisations involved in the water and sanitation sector at the district level and below into three levels, i.e. the levels of district, TA and village.

There are organisations that promote development and provide technical advice at the district level, i.e. the District Executive Committee (DEC) and the District Coordination Team (DCT), and at TA levels, i.e. the Area Development Committees (ADCs) and the Area Executive Committees (AECs), among the three levels. Since the basic information available on the current conditions of these organisations is insufficient, basic survey of administrative organization was carried out.

3.2.5 Activities 2-4: To survey actual conditions of O&M for rural water supply in Mchinji District

An interview survey was conducted by JICA experts at the District Water Development Office (DWDO) responsible for O&M of the water points and the District Environmental Health Office in charge of health

and sanitation services, with the aim of grasping the present status of O&M in the rural water supply and sanitation sub-sector in Mchinji District.

Another interview survey to area mechanics was also conducted through InterAide, one of the NGO working in the water sector.

(1) District Water Development Office (DWDO)

Responsibility for coordination of O&M of water supply and sanitation facilities in the villages in Mchinji District is borne by the District Water Development Officer (DWDO) who is a member of the District Coordination Team (DCT). Currently the District Water Development Office has DWDO and two Water Monitoring Assistants (WMAs) in charge of the water point of hand-pump.

(2) District Environmental Health Office (DEHO)

The District Environmental Health Office (DEHO) is responsible for health and medical services in the district. At community level, the system is composed of a Family Volunteer Group, Village Health Committee (VHC) and Health Surveillance Assistant (HSA) who provide health services (Source: Socio-Economic Profile 2008 – 2012, Mchinji District Assembly).

There are currently about 350 HSAs working in the entire district and they are mainly assigned to the health posts. Their duty is to provide preventive health and health surveys in order to solve community health-related issues (including securing of sanitation and safe water) in the area under their control.

3.2.6 Activities 2-5: To conduct capacity assessment.

(1) Set-up the Assessment Framework

Assessing the entire capacity of water supply and sanitation sector in Malawi requires enormous resources, which could not be employed under a single project. It is, however, indispensable for the Project to identify the shortfall and vulnerable areas of this sector for formulating the project intervention program in association with the project purposes. Besides, the approach which the Project introduce should be regularly utilized by the counterparts of the Project and contribute to the improvement of individual and/or organizational capacity development even after the termination of the Project.

(2) Capacity Assessment Matrix

From these points of view, the approach of the capacity assessment was summarized according to the types of organizations involved in O&M activities. In addition, personnel in these organizations are also targeted as a component of the capacity of water supply and sanitation sector. The capacity of the target organizations and personnel included in the matrix are examined subjectively with the result of self-assessment and objectively with the information obtained from literature review, the results of the baseline survey and assessment on performance indicators set by the Project team. The capacity assessment matrix, attached as Annex 10, encompasses the concept and methods of this approach.

a. Activity 2-5-1: To hold the workshop-style training.

In order for counterparts to understand the procedures how to conduct the self-assessment, a series of

workshops were conducted in a venue of MoAIWD with the following arrangement.

Table 3-7: Outline of Workshops

No.	Date	Topics	Outlines
1st	25th August, 2011	Roles and responsibilities of stakeholders in rural water supply and sanitation (RWSS) sector	Stakeholders of RWSS and their roles and responsibilities will be identified with application of PCM method jointly by project counterparts and project experts.
2nd	18th November, 2011	Capacity development and capacity assessment	Present level of capacities in RWSS stakeholders will be assessed based on the results of 1st workshop
3rd	30th November, 2011	Planning of capacity development intervention to project counterparts	The approach, methodology, contents of CD intervention will be discussed among project counterparts based on the results of 2nd workshop.

Through these workshops, all participants prepared the formats of their self-assessment and filled them subjectively based on the perception and insight into their own performance for given tasks. The individual results of self-assessment shall be confidential and utilized only for the purpose of the project implementation. On the other hand, the difference in the results of self-assessment, either positive or negative, will be monitored in the following activities.

b. Activity 2-5-2: To set up the performance indicators.

The assessment with performance indicators will be conducted comprehensively by including the results of above mentioned activities when the contents of performance indicators are agreed and finalized among the project counterparts.

The 1st PTF meeting was held on 1st December, 2011 to discuss the contents of draft performance indicators (PIs). In this meeting, the relevance and significance of performance indicators were explained by JICA experts and all participants agreed that they would read carefully through the draft performance indicators and gave their feedback to the Project.


3.2.7 Activities 2-6: To analyze good practices and challenges.

The good practices and challenges with regard to the O&M of water supply facilities and sanitation improvement were extracted and analyzed based on the existing policies, the collected guidelines and manuals (Activity 2-1), the good practice and lessons collected from the past projects (Activity 2-2), the results of baseline survey (Activity 2-3) and the present status survey of water supply facilities (Activity 2-4) and the results of capacity assessment (Activity 2-5).

3.2.8 Activities 2-7: To identify challenges in order to make the framework more practical.

Based upon the results of analysis of the challenges, proposed actions to make the framework more practical are summarized below.

Table 3-8: The Plan in order to make the Framework More Practical

No. of proposed actions	Identified challenges	Proposed actions
P1	Water tariff setting for water supply facilities equipped with	 Formulation of a calculation sheet for estimation of average operation and maintenance cost

3. Results of Activities

No. of proposed actions	Identified challenges	Proposed actions
	hand pumps not standard.	✚ Development of teaching materials which facilitate decision-making by water user committee in the CBM Training
P2	Facility design for better O&M	✚ Drafting drawings, including those for a standard fence and a standard soak away pit, which clearly indicate materials and costs, as a teaching material attached to the CBM Manual ✚ Drafting standard drawings without selection of ancillary structures such as a washing slab taken into consideration
P3	Standardization and dissemination of a process for the introduction of AMs	✚ Revision of the existing manuals ➤ The revision to be implemented under the leadership of the Project Task Force consisting of staff of MoAIWD and DWDO with assistance from development partners including Inter Aide, UNICEF and EWB ➤ To implement a series of works for the revision with the C/Ps so that they can learn the process of the revision ✚ Preparation for an appropriate environment for supporting AMs
P4	Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain	✚ Revision of the existing manuals ➤ The revision to be implemented under the leadership of the Project Task Force consisting of staff of MoAIWD and DWDO with assistance from development partners, including Inter Aide and UNICEF. ➤ To implement a series of works for the revision with the C/Ps so that they can learn the process of the revision ✚ Preparation for an appropriate environment for the establishment of the supply chain
P5	Monitoring system for the water supply facilities	✚ Design of a system for labelling each water supply facility with ID number plate ✚ A study on a method to set and display an ID number plate on a water supply facility ✚ Development of a kind of glossary including definitions of terms with drawings ✚ Development of a simple monitoring system
P6	Renewing of some existing manuals with user-friendly contents for their use at the community level	✚ It makes up deficiency with new contents after reviewing some existing manuals with line ministries (i.e. MoAIWD, MoH, etc.). (Examples) ➤ Translation of manuals to be used at the WPC/VHWC level into local languages ➤ Preparation of an additional manual on the CBM1 Refresher Training and the training for new WPC/VHWC members ➤ To make up for the lack of the description of the relevant manual, the contents of the description are more clarified. ➤ Regarding the duplicated, it is integrated with the latest version. ➤ Manuals for the community level are summarized to at most two pages in the A4 size that used illustrations. Laminating is made on the manual.
P7	Improvement of a rule on use and storage of manuals	✚ Improvement of a system for approval and update of manuals with line ministries (i.e. MoAIWD, MoH, etc.) ✚ Preparation of a database of manuals and drafting manual management rules at the levels of ministry, regional office, district and community with line ministries (i.e. MoAIWD, MoH, etc.)
P8	Hierarchical Management of the existing manuals	✚ Hierarchical management of the existing manuals with line ministries (i.e. MoAIWD, MoH, etc.) ✚ Preparation of a user's guide for the use of the existing manuals with line ministries (i.e. MoAIWD, MoH, etc.)
P9	Drafting of a manual on well diagnosis and rehabilitation	✚ Drafting of a manual on well diagnosis method and rehabilitation procedures to be understood by community people, based on the field survey for the actual situation of operation and maintenance of boreholes equipped with Afridev hand pump ✚ Development of conventional rehabilitation (well cleaning and dredging) methods
P10	Water Point Sanitation	✚ Development of promotion material, technical manual and action plan format to improve water point sanitation for WPC/VHWC use ✚ Development of teaching materials for HSA and WMA to educate WPC/VHWC on water point sanitation

No. of proposed actions	Identified challenges	Proposed actions
		<ul style="list-style-type: none"> Development of Training of Trainers (TOT) manual on water point sanitation
P11	Promotion of H&S practice motivate beneficiaries to pay for water regularly	<ul style="list-style-type: none"> Development of promotion material, technical manual and action plan format to promote targeted H&S practices for WPC/VHWC use Development of teaching materials for HSA to educate WPC/VHWC Development of TOT manual
P12	Shortfall of own regional annual action plan to oversee and assist O&M intervention at the district level more effectively for Regional Water Development Office	<ul style="list-style-type: none"> Technical support to RWDO to prepare their own regional annual action plan for O&M activities in Mchinji DC
P13	Lack of investment to O&M activities in both District Water Supply and Sanitation Plan (DWSP) and District Strategy and Investment Plan (DSIP)	<ul style="list-style-type: none"> Technical support to District Council (DC), DCT and EWs to make O&M plan according to O&M framework to be integrated with DWSP/DSIP
P14	Various deficiencies in O&M plans owned by user communities	<ul style="list-style-type: none"> Assist DC, DCT and EWs to facilitate pilot communities to establish and/or update O&M plan

These identified challenges were categorized into six factors mentioned below as the main factors to be strengthened in order to make the existing O&M framework of Malawi more practical and sustainable. These factors was discussed and confirmed in the 3rd PTF meeting in the first stage.

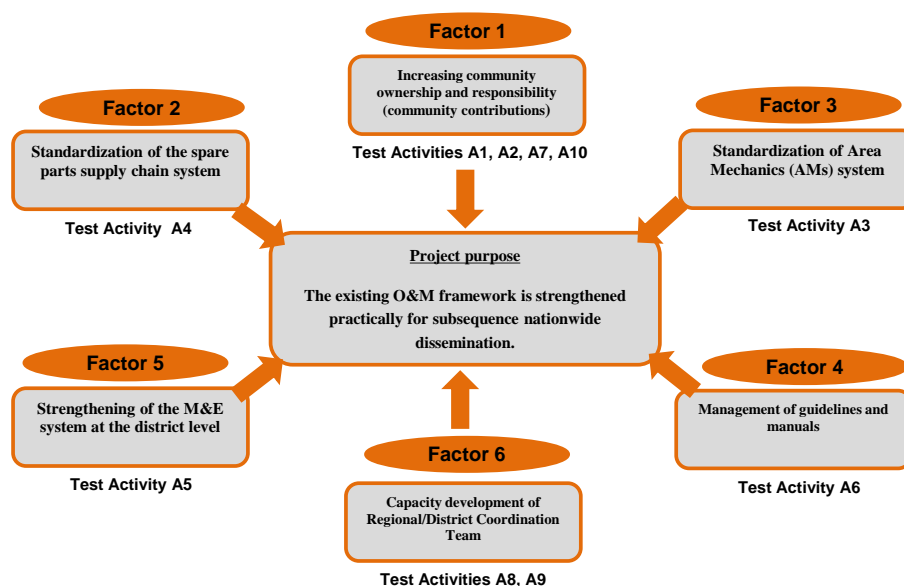


Figure 3-1: The Main Factors to Strengthen the Existing O&M Framework More Practically

3.2.9 Activities 2-8: To share findings at the working group and compile the report based on the dialogue.

The report on the analysis of the present status and challenges with the O&M rural water supply facilities was prepared through the discussion with the PTF members in the 2nd and 3rd PTF meetings on 22nd February and 7th March, 2012 respectively. The report is shown in *Appendix 4*.

3.3 Activities of Output 3

[Output 3: The existing O&M framework is strengthened based on the field test in Mchinji District]

3.3.1 Activities 3-1: To select recurrent O&M test activities and target communities following the framework.

a. Proposed Test Activities

Based upon the proposed actions described aforementioned table (*Table 3-8*), proposed test activities were examined as a second stage activities in consideration of the efficiency and relevance of the each actions. List of proposed test activities is shown in the table below.

Table 3-9: List of Proposed Test Activities

No. of activities	Proposed test activities	No. of proposed actions
A1	Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly	P1, P11
A2	Facility design for better O&M and promotion of water point sanitation	P2, P10
A3	Standardization and dissemination of a process for the introduction of AMs	P3
A4	Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain	P4
A5	Standardization and dissemination of monitoring system for the water supply facilities	P5
A6	Improvement of the rules on the manuals (use/storage and hierarchical management)	P7, P8
A7	Activities for development of a text of maintenance and rehabilitation for deep well	P9
A8	Technical support to RWDO to prepare their own regional annual activity plan for O&M activities in Mchinji DC	P12
A9	Technical support to DC and DCT to make O&M plan according to O&M framework to be integrated with DWSP/DSIP	P13
A10	Assist DC, DCT and EWs to facilitate pilot communities to establish and/or update O&M plan	P14
-	<u>Cross cutting issues:</u> Renewing of some existing manuals with user-friendly contents for their use at the community level	P6

b. Selection of the Pilot Sites

The selection criteria for 10 pilot sites to be targeted for implementation of test activities based on the criteria shown in the table below was discussed and confirmed with C/P in the 3rd PTF and 2nd Technical Committee (TC) meeting in March 2012. Each criterion was judged based on result of the baseline survey and site survey.

Table 3-10: Proposed Criteria to be selected 10 Pilot Sites

No.	Proposed criteria	Judgment	Judgment method
a	Afridev Hand Pump	Yes / No	Result of baseline survey
b	Functional water point	Yes / No	Result of baseline survey
c	Establishment of VHWC/WPC	Yes / No	Result of baseline survey
d	Balance of collection fees	Less than / more than 3,000MK	Result of baseline survey
e	Existing of the latrine within 30 m from the water point	Yes / No	Result of baseline survey
f	Unequipped with soak away pit	Yes / No	Result of baseline survey
g	Unequipped with fence	Yes / No	Result of baseline survey
h	Borehole	Yes / No	Site survey

The plan was to conduct a field survey of the 16 candidate sites selected in the desk study conducted in the first stage (2011) to select the final ten pilot sites in the second stage.

The JICA Experts had a discussion with the C/P before the commencement of the field test in the second stage (around April 2013) and decided in the discussion to use the criteria mentioned below to select pilot sites.

Table 3-11: Selection Criteria to determine the Pilot Sites out of 16 Candidate Sites

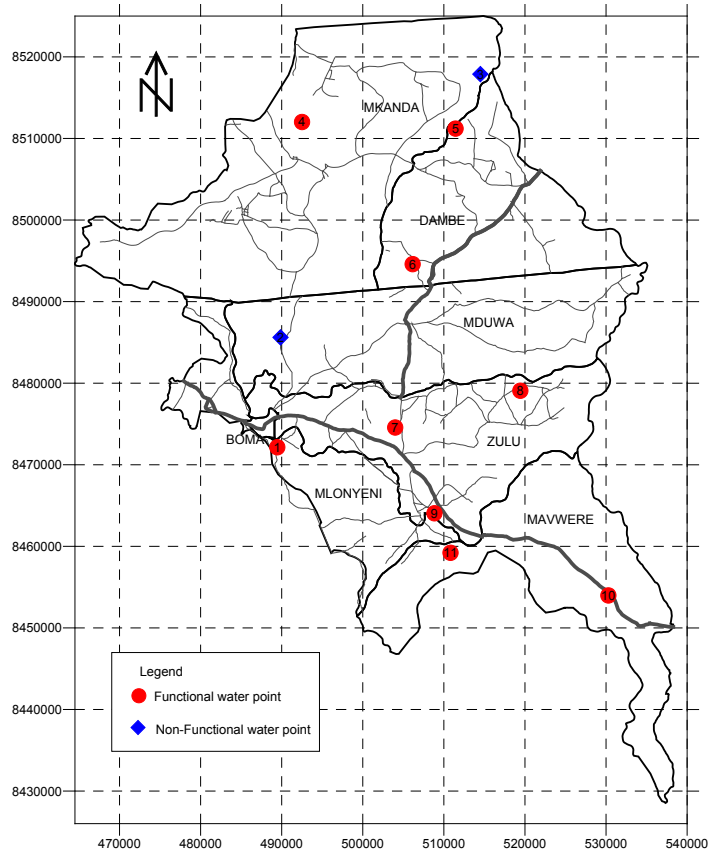
12 sites found to be functional in the baseline survey conducted between September and October in 2011	4 sites found to be non-functional in the baseline survey conducted between September and October in 2011
a. Facility is still functioning b. Deep well (does not dry up even during the dry season) c. The consent of cooperation by village head man is obtained.	a. There are no alternative water resources and/or there are only alternative water resources with seasonal limitations. b. The degree of a breakdown is small (no major problem) c. The consent of cooperation by village head man is obtained.

The field survey (the first survey) conducted in April 2013 revealed that only five sites among the 16 candidate sites satisfied the above-mentioned criteria, less than the target number of sites (10 sites). Therefore, the experts had a discussion with the C/P on actions to be taken, selected 17 additional candidate sites which satisfied the conditions mentioned below in a desk study based on the baseline data and conducted the second field survey of these facilities.

Table 3-12: Selection Criteria to determine the Target Sites for the Second Field Survey

12 sites found to be functional in the baseline survey conducted between September and October in 2011	4 sites found to be non-functional in the baseline survey conducted between September and October in 2011
Accessible sites along the main road	The degree of breakdown is small because there is a possibility of fund raising activities by the beneficiaries.

In the second field survey conducted in April 2013, five sites (four in functional sites and one non-functional site at the second field survey) were selected as facilities satisfying the criteria in **Table 3-12** above. With the five sites selected earlier, the total number of the pilot sites had become ten. However, since there was only one non-functional site in the selected ten sites and it was not certain whether it was possible to fully verify effects of the field tests at this non-functional site or not, it was decided to select another pilot site. In the end, a total of 11 sites, nine functional and two non-functional, were selected as the pilot sites. **Table 3-13** shows the selected 11 pilot sites and **Figure 3-2** shows their locations.



Location of 11 Pilot Sites

As of April 2013

Figure 3-2: Location map of 11 pilot sites

Table 3-13: List of 11 Pilot Sites

No.	S/N	S/N for baseline survey on 2011	TA	Village name	EASTINGS	NORTHINGS	Status of the functioning as of April 2013 *1
1	#1	ML-54	Mlonyeni	Zandama	489457	8472155	F
2	#5	MK-130	STA Nyoka	NYOKA	489855	8485626	NF
3	#8	MK-120	Mkanda	NTHOMDONI	514502	8517895	NF
4	#10	MK-50	Mkanda	Kanjiyo	492511	8512025	F
5	#13	DA-75	Dambe	Chinyonga	511445	8511217	F
6	#14	DA-25	Kapond	Mchonkhwe	506149	8494602	F
7	#21-1	ZU-118 and ZU-228	Zulu	Mtanga	503999	8474576	F
8	#17	ZU-229	STA Simpasi	Khwawe	519433	8479086	F
9	#19	ZU-146	Zulu	Gomani 1	508837	8464062	F
10	#32	MA-43	Mavwere	Msauchi	530289	8453992	F
11	#25-1	ML-83	Mlonyeni	Chimkoka	510819	8459219	F

*1 F: Functional water points

NF: Non-functional water points

3.3.2 Activities 3-2: To make an implementation plan of test activities.

Based on the activity results in 2-1 through 2-8 above, the items and the implementation plan (draft) of the

tests activities were formulated. The activities listed in the implementation plan were conducted at the water supply facility sites selected in Activities 3-1.

Outputs of the ten test activities, indicators for the verification of the achievement of the outputs and verification methods were proposed as described in **Table 3-14**. Those in charge of the test activities from the Japanese and Malawian sides, to be selected at the first PTF meeting on 24th July 2012, reviewed and revised the items (i.e. the outputs, indicators and verification methods). The results of the corrections and revisions of each action plan were shared with PTF members at the second PTF meeting on 31st July 2012. Subsequently, these action plans were approved at the second JCC meeting.

Table 3-14: Proposed Outputs of the Activities and Methods for the Verification of the Achievement of the Outputs⁵

Proposed Test Activities	Outputs	Objectively Indicators	Means of Verification
A1: Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly	<ol style="list-style-type: none"> 1) Better understanding of the need to collect fees from the beneficiaries in the pilot communities for the use of the hand pump facility 2) Improved awareness of sanitation/hygiene among the beneficiaries 	<ol style="list-style-type: none"> 1) The beneficiaries of the pilot communities understand the life-cycle costs associated with the O&M of the water supply facilities. 2) Fee collection plans in which the life cycle of the facilities is taken into consideration are included in the formulated plans for the O&M of the water supply facilities in the pilot communities. 3) The amount saved or the number of households paying for the O&M of the water supply facilities in the pilot communities increases. 	<ul style="list-style-type: none"> - Results of the questionnaire Survey to the pilot - O&M plan by beneficiaries - Project Report
A2: Facility design for better O&M and promotion of water point sanitation	<ol style="list-style-type: none"> 1) Creation of design documents for the facilities appropriate for operation and maintenance (O&M) by the beneficiaries. 2) Improved sanitary and hygienic environment around the hand pump facility in the pilot communities. 	<ol style="list-style-type: none"> 1) Drainage pits and fences are built at the Handpump facilities in the pilot communities. 2) Increase in the number of hand pump facilities in the pilot communities around which the sanitary/hygienic environment has been improved by means of such measures as the construction of soak away pits and fences. 	<ul style="list-style-type: none"> - Project Report - Project Report
A3: Standardization and dissemination of	<ol style="list-style-type: none"> 1) Standardization of the process for the 	<ol style="list-style-type: none"> 1) A strategy on assistance to Area Mechanics is established. 	<ul style="list-style-type: none"> - Project Report

⁵ This **table 3-14** shows the proposed outputs and indicators, etc. prepared by JICA experts based on the results of first stage before discussion with C/Ps. These outputs, products and indicators in this **table 3-14** were amended through discussions with C/Ps.

3. Results of Activities

Proposed Test Activities	Outputs	Objectively Indicators	Means of Verification
a process for the introduction of Area Mechanics	introduction of Area Mechanics. 2) Improved system for assistance to Area Mechanics.	2) Measures to assist Area Mechanics are implemented on a trial basis. 3) The manual for the introduction of Area Mechanics is revised.	- Project Report - Revised manual
A4: Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain	1) Standardization of the process for the introduction of the hand pump spare parts supply chain. 2) Development of a model for the establishment of the hand pump spare parts supplies chains.	1) A strategy on the support for the supply chain of hand pump spare parts is established. 2) Measures to support the supply chain of hand pump spare parts are implemented on a trial basis. 3) The manual for the introduction of the supply chain of hand pump spare parts is revised.	- Project Report - Project Report - Revised manual
A5: Standardization and dissemination of monitoring system for the water supply facilities	Standardization of the monitoring system for the water supply facilities.	1) The monitoring data of the water supply facilities in the pilot communities are updated. 2) The monitoring data of the water supply facilities in the pilot communities are used for the evaluation of the O&M of the facilities.	- Monitoring data sheet - Evaluation sheet
A6: Improvement of the rules on the manuals (use/storage and hierarchical management)	The environment for the management of manuals is improved and the existing documents are revised and reorganized.	1) The number of revised manuals 2) A handbook for the use of existing documents is prepared. 3) Documents are managed using the newly-developed document storage method 4) The regulations for the approval and renewal of documents are established in writing.	- Revised manuals - Handbook for the use of manuals - Project Reports - regulations for the approval and renewal of documents
A7: Activities for development of a text of maintenance and rehabilitation for deep well	The current state of the maintenance of deep wells and problems therein are clarified.	1) Reports on the surveys of the current situation for well rehabilitation 2) The manual for the maintenance of deep wells at the community level is revised.	- Project Report - Revised manuals
A8: Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council	Strengthening of the maintenance system for the O&M of the Regional Water Development Office.	1) An annual action plan for the O&M activities is formulated. 2) Monitoring reports are prepared using the revised method.	- Annual action plan - Monitoring report
A9: Technical support to District Council and District Coordination Team to make O&M plan according to O&M	Improved capacity of the District Water Development Office to formulate plans for O&M of water supply and sanitation/hygiene	1) District water supply and sanitation plan are revised. 2) The number of DCT members who have taken the training courses.	- District water supply and sanitation plan - Project Report

Proposed Test Activities	Outputs	Objectively Indicators	Means of Verification
framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment Plan	facilities.		
A10: Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan	Strengthening of the systems by which the district governments support the pilot communities in the O&M of the water supply facilities.	1) VHCs/WPCs of the pilot communities formulate (revise) plans for the O&M of the water supply facilities 2) The number of members of the DCT and EWs who have taken the training courses.	- plans for the O&M of the water supply facilities in the pilot communities - Project Report

3.3.3 Activities 3-3: To implement selected test activities at the selected communities in target communities.

Tests activities were carried out in Mchinji District in accordance with the implementation plan that was formulated on the basis of the outputs of the activities of the first stage and approved by 2nd JCC. The test activities were to be carefully monitored so that good practices and lessons to be used for improving the framework through the inclusion of more practical contents can be identified in the outcome of the activities.

a. Activities 3-3-1 : Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly

Activity 3-3-1 was divided into the water component for studying the setting of water tariff for hand pump facilities and the hygiene and sanitation component for studying the promotion of hygiene and sanitation practice to motivate beneficiaries to pay the water tariff for implementation.

a.1 Water Components

a.1.1 First A1 & A2 Group Meeting

The first A1&A2 group meeting was held on 7th September 2012 in order to discuss direction of strategy for this activity. A summary of this meeting is as shown in **Table 3-15**.

Table 3-15: Summary of First (1st) A1 & A2 Group Meeting

Date	7th September 2012 , 09:00~10:30
Venue	District Water Development Office at Mchinji
Participants	Mchinji DWDO, WMA, JOCV, Project Team: 5 participants
Objective	<p>Test Activity 1</p> <ul style="list-style-type: none"> ● Confirmation of expense item of water fee contribution for O&M ● Confirmation of concept for development of training materials for beneficiaries to support their decision making on the necessity of fee collection (type of materials, contents) ● Confirmation of work plan for development of hygiene and sanitation promotion materials to motivate beneficiaries to pay water tariff <p>Test Activity 2</p> <ul style="list-style-type: none"> ● Confirmation of low cost materials for construction of fences and soak away pits that are able to be procured in Malawi ● Confirmation of work plan for development of promotion materials to motivate the beneficiaries to improve in water point sanitation

Results	<p>Test Activity 1</p> <ul style="list-style-type: none"> ● Necessary materials for estimation of water fee contribution for O&M were confirmed with C/Ps. ● Objective, style and contents of training materials was proposed and the members confirmed to conduct the review and to discuss its contents after October 2012. ● The members confirmed to establish the working group and to develop the promotion materials based on discussions with members and their ideas and comments. <p>Test Activity 2</p> <ul style="list-style-type: none"> ● Based on the case studies for fences and soak away pits, types of facilities that are able to be constructed in Malawi were confirmed. C/Ps are also continuing to collect the good practices for these facilities Soak away pit. Development of promotion materials for water point sanitation was conducted in the same manner as Activity 1 described above
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a.1.2 Second A1 Group Meeting

The second A1 group meeting was held on 26th February 2013 in order to discuss the development of the teaching materials for the training on the decision-making regarding O&M costs of Afridev hand pumps by the community residents. A summary of this meeting is as shown in **Table 3-16**.

Table 3-16: Outline of the Second (2nd) A1 Group Meeting

Date	14:00~16:00, 26 th February, 2013
Venue	Mchinji District Water Development Office at Mchinji
Participants	Mchinji DWDO, WMA, JOCV, Project Team: 5 participants
Objective	<ul style="list-style-type: none"> ● Confirmation of style of the training materials ● Confirmation of the required information for decision making of the water tariff
Contents	<ul style="list-style-type: none"> ➢ To share the training materials for beneficiaries ➢ To discuss the template of the draft Facility Management Plan (FMP) ➢ To discuss the template of the action plan
Results	<ul style="list-style-type: none"> ● The Water Monitoring Assistants (WMAs) and the Community Development Assistants (CDAs) teach the technical matters on water tariff setting and accounting/bookkeeping, respectively, in the CBM Training. Therefore, the District Community Development Officer (DCDO) and CDAs shall have to be invited to the next meeting. ● The members have agreed upon the contents of the teaching materials on the water tariff setting. Each slide shall be printed on a sheet of A3 paper and the printout shall be stuck on a sheet of flipchart paper. The flip charts thus prepared shall be used as teaching materials in the training in the villages. ● A discussion on the formats FMP and the action plan shall be held again next week.

a.1.3 Field Test at the 11 Pilot Sites

The training on the tariff setting and financial management was held at the 11 pilot sites in July and August 2013. The training on other field tests for test activities A2, A7 and A10 were implemented in a day at each site. The details of all the field tests are described in *Clause j (Activity 3-3-10)*.

a.1.4 Methodology of Tariff Setting for O&M costs

Tariff setting for O&M costs is based on full cost recovery which is included in O&M costs plus replacement cost of pumping equipment where the life expectancy is **around 15 years**. This example shows the Afridev hand pump case but the same calculation could be used for other types of technologies.

<Example>

Number of beneficiaries:	100 Households
1. Cost of supplying water in life span (15 years):	
2. Replacement costs for hand pump spare parts	MK 1,200,000
3. Transportation costs for procurement of spare parts	MK 15,000
4. Cost for preventive maintenance contract with Area Mechanic	MK 45,000
5. Replacement costs of complete Afridev handpump	MK 150,000

6. Construction costs for fence and soak away pit	MK	90,000
Total cost of one water point	MK	1,500,000
Annual average cost of one water point	MK 1,500,000 ÷ 15 years =	MK 100,000
Annual average cost per household	MK 100,000 / 100 =	MK 1,000
Monthly average cost per household	MK 1,000 ÷ 12 months =	MK 84

Note: The above example does not consider price increases in each cost.

a.2 Sanitation and Hygiene (S&H) Components

a.2.2 Methodology for Promotion of the Payment for Water Tariff

It was agreed with the C/Ps that “Social Marketing Approach” will be applied to produce the promotion materials for test activity A1 and A2 {Sanitation & Hygiene (S&H)} at the end of the 1st stage of the Project. For this purpose, “Formative Research”, a series of research methods developed based on Epidemiology, Statistics, Medical Science and Anthropology to utilize “Social Marketing Approach” for the promotion of Hygiene & Sanitation was used to systemically collect and analyze the necessary data. Thereafter, the technical specifications, instruction manuals and details of the field test of the promotion materials were discussed and developed with the C/Ps based on the analyzed data.

All the decisions related to the production of the promotion materials of A1 and A2 test activities (S&H) were decided in the workshops and were administrated by the responsible C/Ps, DWDO and DDEHO-WES of Mchinji District. The details of all the workshops and the field test activities are stated in the table below.

Table 3-17: Summary of Activity of A1 & A2 Test Activity (H&S)

DATE & VENUE CHAIR ATTENDANCES	Test Activity A1 (S&H)	Test Activity A2 (S&H)
1st Workshop 04/12/2012. Joes’s Motel. Mchinji District. Chair: DDEHO. Attendees: The participants of the workshop.	<ul style="list-style-type: none"> ➤ Launching Group Meeting for H&S component of A1 & A2 ➤ Understanding the purpose and the members of the group meeting and activities to be conducted in the group meeting ➤ Having common understanding of the Social Marketing Approach <hr/> <ul style="list-style-type: none"> ➤ Reviewing the problem, understanding the desirable condition and building consensus on the Action Plan ➤ Sharing the results of Formative Research (Baseline Survey, FGD and literature review) ➤ Confirming the need of additional research ➤ Assignment provide individual ideas for the promotion plan on channels of communication, supporting materials, target practices, target audiences 	<ul style="list-style-type: none"> ➤ Reviewing the problem, understanding the desirable condition and building consensus on the Action Plan
2nd Workshop 07/02/2013. Joes’s Motel Mchinji District. Chair: DDEHO. Attendees: The participants of the workshop.	<ul style="list-style-type: none"> ➤ Sharing the results of the assignment of individual ideas of promotion plan and consolidate them into one e promotion plan and getting approval on the content ➤ Discussion to make the promotion plan on messages positioning and tone of communication. ➤ Discussion on the contents of village head men’s written 	None

DATE & VENUE CHAIR ATTENDANCES	Test Activity A1 (S&H)	Test Activity A2 (S&H)
	statement format	
3rd Workshop 14~15/05/2013. (2 Days) Bridgeview Hotel Lilongwe. Chair: DDEHO&DWDO. Attendees: The participants of the workshop.	<ul style="list-style-type: none"> ➤ Presentation of the draft TOR for musician/artist and getting approval. ➤ Selecting musician/artist to produce promotion materials 	<ul style="list-style-type: none"> ➤ Sharing the results of Formative Research (Baseline Survey, FGD and literature review) ➤ Confirming the need of additional research ➤ Discussion for agreement on channel of communication, support materials, target practices, target audiences based on the result of the formative research ➤ Discussion on messages positioning and tone of communication. ➤ Presentation on the topics and the images of education materials and approval on the way forward ➤ Discussion on the contents of village head men's written statement format ➤ Presentation of the draft of TOR for musician/artist and approval on the content. ➤ Selecting musician/artist to produce promotion materials
4th Workshop 10/04/2013. Rewards Lodge Mchinji District. Chair: DWDO. Attendees: The participants of the workshop.	<ul style="list-style-type: none"> ➤ Presentation of Draft Materials (Promotion Songs & VH format) and receiving feedback for improvement ➤ Producing Training Session Formats (TSF) for EWs, DCT and MoWDI & Regional Office and approval on the content ➤ Presentation of Recommendations for field test plan and approval on the way forward 	
5th Workshop 19/07/2013. Compass Lodge Mchinji District. Chair: DWDO. Attendees: MoWDI, The member of workshop & EWs.	<ul style="list-style-type: none"> ➤ Reviewing TSF and getting approval for larger scale trial to the whole Mchinji District ➤ Presentation of Result of Field Test ➤ Reviewing the promotion materials (Promotion Song & VH format) and getting approval for larger scale trial to the whole Mchinji District ➤ Reviewing the promotion materials (Promotion Song & VH format) and Education materials and getting approval for larger scale trial to the whole Mchinji District 	

Table 3-18: Summary of Field Tests of A1 & A2 Test Activity (H&S)

DATE & VENUE CHAIR ATTENDANCES	Test Activity A1 (S&H)	Test Activity A2 (S&H)
Training 1 17/05/2013. Rewards Lodge Mchinji District. Trainer: DDEHO. Trainee: Extension Workers (EWs).	<ul style="list-style-type: none"> ➤ Introducing the promotion songs ➤ Introducing the village head consensus forms ➤ Training about how to train WPC/VHWC, village head men, influential persons, beneficiaries of water points to promote regular payment of water using 2 promotion materials ➤ Explaining the way and timing of monitoring 	
Training 2 20~23/05/2013. 11 Villages Mchinji District. Trainee: EWs & Area Mechanics (AMs). Trainer: WPC/VHWC, Village Heads (VH) & Influential Person.	<ul style="list-style-type: none"> ➤ Introducing the promotion song ➤ Introducing the village head consensus form <p>Training about how to promote water tariff payment the beneficiaries of water point through the above promotion materials</p>	<p>Training about how to promote water point sanitation to the beneficiaries of water point in the through the above promotion materials</p>
Village Meeting Late May ~ Early June/2013. 11 Villages.	<ul style="list-style-type: none"> ➤ HSA's presenting the laminated village head consensus form to village head man ➤ Village Head Man's declaring to support his villagers to pay for water fee 	

Organizer: VH, WPC/VHWC & Influential Person. Supporter: HSA & AMs. Attendees: Beneficiaries of Water Points.	➤ HSA's declaring to provide technical support regarding water fee collecting to the villages on behalf of the GoM	
	➤ Performing the promotion song for water fee payment ➤ Discussing the amount, date and way of collection, and way of saving of the water fees, etc.	➤ Performing the promotion song for water point sanitation ➤ Discussing how to improve the condition of water point sanitation
1st Monitoring 15~17/06/2013. 11 Village Implementers: HAS/	➤ Monitoring the frequency and timing of the use of promotion materials	
	➤ Monitoring the situation of fee collection	➤ Monitoring the situation of the condition of water point sanitation
Focus Group Discussion 24~29/06/2013 11 Villages. Organizer: DWDO, DDEHO & EWs. Observer: WPC/VHWC, VH, Influential Person & AMs. Target: The beneficiaries of Water Point.	➤ Finding out occasions to sing the promotion songs in the communities in addition to the timing of village meetings ➤ Finding out the degree of understanding of the beneficiaries regarding the message received from the promotion materials ➤ Finding out the good points and weak points of the promotion materials	
2nd Monitoring 15~17/07/2013 11 Villages. Implementers: HSA.	➤ Monitoring the frequency and timing for the use of promotion materials	
	➤ Monitoring the water fee collection	➤ Monitoring the sanitary conditions of water point

a.2.3 Draft Promotion Materials

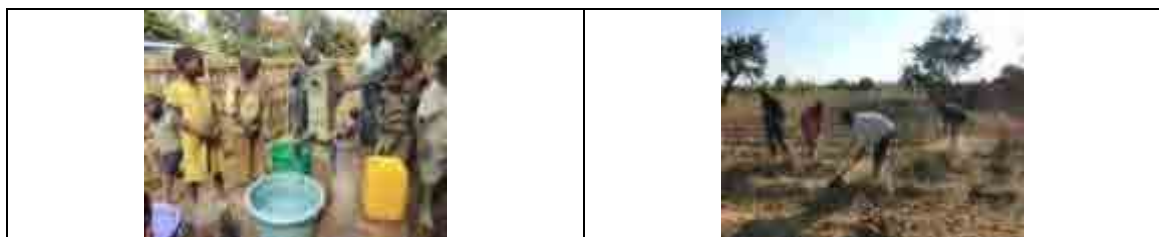
After the completion of the technical specifications, an artist and a singer (Mr. Skeffa Chimoto) were hired to produce the draft village head consensus form and the draft promotion song respectively.

a.2.4 Results of Focus Group Discussion

One month after the introduction of the promotion materials in the village meetings, FGD were conducted in the 11 villages to study the beneficiaries' degree of understanding and effectiveness of the promotion materials.

Based on the comments from FGD, the reasons of non-collection or low collection rate of water fee were expressed by the participants, namely; - 1) poor leadership of WPC, and hence cannot collect water fee from households, and 2) instead of WPC, the village head collected the water fee, however, the WPC did not know this due to the poor communication between the village head and the WPC. The two observations above demonstrate that good leadership, communication and proper coordination between village head and WPC/VHWC are vital in the success of the promotion activities in the villages. Moreover, it was observed that the more frequency and better communication between HSA and villages, the more collection of water fee and hence the amount of the fee collected. This point could also be attributed to the success of the promotion materials.

The Pictures of the results of monitoring (until 19/07/2013)



The water point has started functioning. (Nthodoni village, 15/07/2013)	The group village head donated his land to WPC and the proceeds of the harvest will be used for O&M of water point. (Chimkoka village, 15/07/2013)
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a.2.5 Modification of Promotion Materials

Based on the results of the Field Test, the promotion materials were modified respectively and were approved in the 5th workshop. The approved promotion materials were disseminated to the whole of Mchinji District through the activities related to Output 4.

a.3 Monitoring Results

The hygiene and sanitation promotion tools developed by the Project were introduced to the 11 Pilot sites through training to their WPCs on how to use these tools and to encourage its use. Thereafter, the usage of promotion tools were monthly monitored during a period of five months to see whether there has been an impact in the collection of water fees from the beneficiaries. **Table 3-19** shows the list of the monitoring survey and **Table 3-20** shows the summary of the monitoring results.

Table 3-19: List of the monitoring survey for 11 pilot sites (as of January 2014)

No.	Period of implementation	Target sites	Remark
Baseline survey	April 2013	11 sites	
1st monitoring	June 2013	11 sites	Monitoring was done only S&H component.
2nd monitoring	July 2013	11 sites	
3rd monitoring	From August to September 2013	11 sites	
4th monitoring	October 2013	11 sites	
5th monitoring	January 2014	11 sites	

Table 3-20: Water Fee Collection Monitoring Result (as of October 2013)

ID #	Village Name	Total No of HH	Functionality ⁹¹ - Baseline Survey - 1st Monit. - 2nd Monit. - 3rd Monit. - 4th Monit.	Amount in balance/ No of HH paid - Baseline Survey (Apr 2013) - 1st Monitoring (Jun 2013) - 2nd Monitoring (Jul 2013) - 3rd Monitoring. (Aug/Sep 2013) - 4th Monitoring (Oct 2013)	Water Fee Collection Rate (%)	Average Water Fee Collection Rate (%) / Average Amount Collected (in Malawi Kwacha)
1	Zandana (ML-54)	78	F	MK 0	0.0	0.0 MK 0
		119	F	MK 26,600/112	94.1	98.5% MK 26,670
			F	MK 29,750/119	100.0	
			F	MK 29,750/119	100.0	
			F	MK 20,580/119	100.0	
2	Nyoka (MK-181)	95	NF	MK 0	0.0	0.0% MK 0
			NF	MK 3,100/22	23.1	32.3% MK 2,900
			NF	MK 6,000/45	47.4	
			F	MK 2,500/25	26.3	
			NF	N/A	—	
3	Nthodoni (MK-120)	200	NF	MK 4,000/20	10.0	10.0% MK 4,000
			NF	MK 62,000/124	62.0	83.8% MK 44,150
			F	MK 16,400/164	82.0	
			F	MK 38,200/182	91.0	
			F	MK 60,000/200	100.0	
4	Kanjio Namagwe (MK-50)	>50	F	MK 0/0	0.0	0.0% MK 0
		50 - 70	F	MK 0/0	0.0	27.9% MK 4,775
			F	MK 8,000/60	100.0	
			F	MK 0/0	0.0	
			F	MK 11,100 /8	11.4	
5	Chiyonga (DA-70)	265	F	MK 0/0	0.0	0.0 MK 0
		68	F	MK 10,000/50	73.5	147%

3. Results of Activities

ID #	Village Name	Total No of HH	Functionality ^{*1} - Baseline Survey - 1st Monit. - 2nd Monit. - 3rd Monit. - 4th Monit.	Amount in balance/ No of HH paid - Baseline Survey (Apr 2013) - 1st Monitoring (Jun 2013) - 2nd Monitoring (Jul 2013) - 3rd Monitoring. (Aug/Sep 2013) - 4th Monitoring (Oct 2013)	Water Fee Collection Rate (%)	Average Water Fee Collection Rate (%) / Average Amount Collected (in Malawi Kwacha)
			F	MK 0/0	0.0	MK 7,650
			F	MK13,000 /150	220.6	
			F	MK 7,600/200	294.0	
6	Mchonkhwe (DA-25)	85	F	Unknown/85	100 ¹	100% MK 0
			F	MK 8,500/77	90.6	93.8% MK 19,600
			F	MK 7,400/74	87.0	
			F	MK 41,000 /82	96.5	
			F	MK 21,500/86	101.2	
7	Mtanga (ZU-21-1&2)	90	F	Unknown/89	98.9 ²	98.9% MK 0
		90 ~100	F	MK 19,200/128	128~142	122.7% MK 19,875
		90 ~100	F	MK 22,950/153	153~170	
		119	F	MK 16,800/112	94.1	
		147	F	MK 20,550/147	100.0	
8	Khwawe (ZU-229)	144	F	MK 2,000/144	100.0 ³	100.0% MK 2,000
		144	F	MK 7,500/144	100.0	91.9% MK 3,987.50
		49	F	MK 2,450/49	100.0	
		49	F	MK 2,200 /44	89.8	
		49	F	MK 3,800/38	77.6	
9	Gomani 1 (ZU-146)	98	F	MK 1,000/49	50.0	50.0% MK 1,000
			F	MK 7,000/70	71.4	53.1% MK 5,400
			F	MK 3,200/24	24.5	
			F	MK 5,000 /50	51.0	
			F	MK 6,400/64	65.3	
10	Msauchi (MA-43)	317	F	MK 650/22	6.9 ⁴	6.9% MK 650
			F	MK 3,800/38	12.0	9.2% MK 4,075
			F	MK 3,200/16	5.0	
			F	MK 9,300 /62	19.6	
			F	MK 0	0	
11	Chimkoka (ML-83)	34	F	MK 2,600/24	70.6 ⁵	70.6% MK 2,600
			F	MK 3,900/ 34	100.0	74.3% MK 5,050
			F	MK 2,400/24	70.6	
			F	MK 1,900/19	55.9	
			F	MK 12,000/24	70.6	
Average Percentage of Households that paid Water Fee (O&M Fee) during Baseline survey						39.7%
Average Amount Collected(MK) / village						MK 932
Average Percentage of Households that paid Water Fee (O&M Fee) after the Field Test						75.9%
Average Amount Collected(MK) / village						MK 13,103

*1: **F**: Functional / **NF**: Non Functional

^{1, 2, 3, 4, 5}: According to the baseline survey, households were only paying water fees when there was a problem in the borehole and needed to be fixed. No regular payment of water fee was conducted.

According to the monitoring results, before the introduction of the Project, 39.7% of the households were paying water fees not on a regular basis but only when the borehole needed to be repaired. After the field test activities in the 11 pilot sites, this figure increased to 75,6% of households paying water fees on a regular basis. Additionally, the average amount of funds kept by the WPCs per village was on average MK 932 before the Project and increased to MK 13,103 after the field activities.

b. Activities 3-3-2 : Facility design for better O&M and promotion of water point sanitation

Activity 3-3-2 was divided into the water component for studying the Facility design for better O&M such

as fence and soak away pit and the hygiene and sanitation component for studying the promotion of water point sanitation.

b.1 Water Components

b.1.1 Creation of Standard Drawings for Fences and Soak Away Pits



The activities outlined in the sections that follow are being implemented for the creation of standard drawings for fences and soak away pits.

(1) Collection of the Case Studies and Literature Review

Case studies and information on fences and soak away pits by rural water supply projects assisted by JICA and related literature were collected and the good practices were extracted.

(2) Collection of Case Studies in Mchinji District

Construction materials and dimensions of fences and soak away pits in Mchinji District were investigated in October 2012.

		
<p>Kanyenda village (TA Mduwa) Materials of fence : Brick, Cement, Fine aggregate Dimension : 3.7m x 10.2m Date: 31/10/2012</p>	<p>Mbalala village (TA Mduwa) Materials of fence : Brick, Cement, Fine aggregate Dimension : 3m x 10m Date: 31/10/2012</p>	<p>Kendekela village (TA Simpasi) Materials of fence : Plant, rope Date: 31/10/2012</p>
		
<p>Kanyenda village (TA Mduwa) Materials of soak away pit : Brick, Cement, Fine aggregate, Crusher stone Depth : approx. 6m (by hearing) Date: 31/10/2012</p>	<p>Mbalala village (TA Mduwa) Materials of soak away pit : Brick, Cement, Fine aggregate, Crusher stone Depth : approx. 2m (by hearing) Date: 31/10/2012</p>	<p>Kafulama village (TA Mlonyeni) Materials of soak away pit : Brick, Cement, Fine aggregate, Crusher stone Depth : approx. 3m (by hearing) Date: 31/10/2012</p>

(3) Collection of Case Studies by Other Project in Malawi

The Project Team collected the drawings of soak away pits of the water supply facilities (See **Figure 3-3**) adopted in the National Water Development Programme (NWDP) currently underway and conducted field survey on the construction sites through collaboration with WMA of Lilongwe District.

The soak away pits adopted in NWDP, when equipped with radial permeable waterways from the main pit,

are expected to have secondary effects of extending permeable layers of sewage longitudinally and improving the living environment of plants. This was a type proposed in the grant aid projects of Japan in the past.

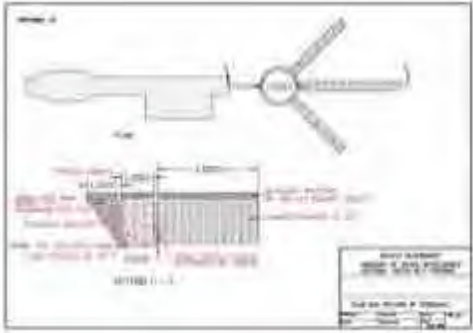
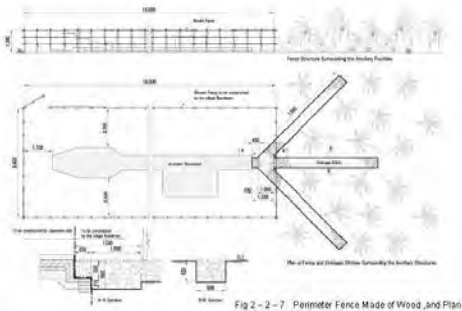
	 <p>Fig 2 - 2 - 7 Perimeter Fence Made of Wood, and Pipe and Section of Drainage Ditch (reference)</p>
<p>Design for soak away pit by NWDP which is going on.</p>	<p>Design of soak away pit by Ground Water Development Project in Lilongwe West under Japanese Grant Aide in 2005</p>

Figure 3-3: Design of soak away pit by other Projects in Malawi

		
<p>Ndevu village, TA Chanza, Lilongwe Date: 6/12/2012</p>	<p>Kudowa village, TA Chanza, Lilongwe Date: 6/12/2012</p>	<p>Kudowa village, TA Chanza, Lilongwe Date: 6/12/2012</p>
		
<p>Kudowa village, TA Chanza, Lilongwe Date: 6/12/2012</p>	<p>Kanthu Chimanga village, TA Mduwa Date: 6/12/2012</p>	<p>Kanthu Chimanga village, TA Mduwa Date: 6/12/2012</p>

Picture 3-1: Construction Process of Soak Away Pit by NWDP

b.1.2 Development of Standard Manual on Construction of Fence and Soak Away Pit

The third (3rd) A2 group meeting was held on 5th March 2013 in order to discuss the development of the draft version of the Informed Choice Manual on the construction of fence and soak away pits. A summary of this meeting is as shown in **Table 3-21**.

Table 3-21: Outline of the third (3rd) A2 group meeting

Date	10:00~12:00, 5 th March, 2013
Venue	Mchinji District Water Development Office at Mchinji
Participants	Mchinji DWDO, WMAs, Project Team: 5 participants
Objective	<ul style="list-style-type: none"> ● To share the results of the survey regarding the type of the fence and soak away pits by literature review, field survey at Mchinji and on-going sites under NWDP. ● To create common understanding of the general concept of the manual
Contents	➤ To share the survey results for fencing materials, especially around nurseries.

	<ul style="list-style-type: none"> ➤ To share the field survey results for type of soak away pit, especially underground drains which was adopted through NWDP Project ➤ To share the results of the cost estimation for the construction of fence ➤ To confirm the feasible type of fence and soak away pit which is used local materials with low cost ➤ To confirm the contents of informed choice manual
Result	<ul style="list-style-type: none"> ● Since the fence and soak way pits of six proposed types have been experienced in Mchinji; it is feasible type by the communities.

b.1.3 Field Test at the 11 Pilot Sites

The details of all the field tests are described in *Clause j (Activity 3-3-10)*.

b.2. Sanitation and Hygiene Components

b.2.1 Methodology

As was the case with A1 test activity (S&H) for the promotion of regular payment for water fee, “Social Marketing approach” was applied for the production of the promotion materials of A2 test activity (S&H), for the promotion of water point sanitation. Equally, “Formative research” was utilized to systematically collect and analyze the data for the purpose. Based on the data, a series of discussions were conducted with C/Ps of the Project to develop the technical specifications and drafting the materials, the training manuals and the details of the field test in the 1st to 4th workshops. All the decisions related to the production of promotion materials were made in the workshops chaired by the responsible C/Ps of both A1 and A2 test activities. {See *Table 3-17* and *Table 3-18* which is shown details of these activities and the member list of the workshop for A1 and A2 test activities (S&H) of this report. }

b.2.2 Draft of Promotion Materials

As the result of series of discussions in the workshops based on the results of the formative research, it was agreed to produce 2 kinds of promotion materials for promoting water point sanitation in the communities; a promotion song and a village head’s consensus form.

After the completion of the technical specifications, an artist, Mr. Skeffa Chimoto, and an illustrator were hired to produce the drafts of the promotion song and the village head consensus form respectively.

b.2.3 Field Test

One month after the introduction of the promotion materials in the village meetings, FGD were conducted in all 11 villages to study the beneficiaries’ level of understanding and effectiveness of the promotion materials.

	
Brick fence constructed at Khawe village. (16/07/2013)	Soak away pit is being repaired at Khawe village. 16/07/2013)

b.2.4 Modification of Promotion Materials

Based on the results of the field tests, the promotion materials were modified and the materials were disseminated to the whole Mchinji District.

b.2.5 Development of Visual Education Materials for the Promotion of Water Point Sanitation

During the first year of the Project and through numerous discussions with all counterparts, it was agreed to develop Visual Education Materials to promote water point sanitation. For the development of the materials, the content of the materials was first discussed and agreed, an illustrator was hired to prepare the illustrations and finally the draft English version was developed. Next, a workshop was organized on the 12th of September 2013 with all counterparts involved in Field Test Activity A2 to brush up the content of the Visual Education Materials and develop the Chichewa version. The summary of the workshop can be found in the table below.

Table 3-22: Workshop No.6 on Test Activity A2 (H&S)

Date	12 September, 2013
Place	Rewards Lodge, Mchinji District
Participants	MoAIWD, DWDO, DDEHO, NICE, WMAs, CDAs, HSAs, AMs, Project Team : 45 participants
Objectives	Discuss and recommend improvements of the Visual Education Materials
Contents	<ul style="list-style-type: none"> ➤ Group discussion on the practicality of the seven Visual Education Materials, provide recommendations for improvement and develop the Chichewa version ➤ Presentation and discussions on ways to improve the Visual Education Materials and present the Chichewa version ➤ Discuss the dissemination channel (Radio Mudziwathu, National TV) of all activities as well as the objective, content and frequency of information to be released
Results	<ul style="list-style-type: none"> ➤ The Visual Education Materials are going to be finalized as per recommendations from the group discussion

b.3 Monitoring Results

The hygiene and sanitation promotion tools developed by the Project were introduced to the 11 Pilot sites through training to their WPCs on how to use these tools and to encourage the use of this promotion tools. Thereafter, the usage of these promotion tools were monthly monitored during a period of five months to see whether there has been an impact in the construction of sanitation facilities such as fence and the soak away pit. Below is the summary of the monitoring results.

Table 3-23: Water Point Sanitation Monitoring Results (as of October 2013)

No.	Name of Village	Baseline (April 2013)		Status/Progress (as of October 2013)	
		Fence	Soak away pit	Fence	Soak away pit
1	Msauchi	NO	NO	Under preparation	Finished
2	Chimkoka	NO	NO	Under construction	Under construction
3	Gomani I	NO	NO	Finished	Finished
4	Mtanga	NO	Needs repair/Not-functional	Under preparation	Under preparation
5	Nthondoni	NO	Only hole/Not functional	Finished	Finished but need cleaning
6	Mchonkhwe	NO	Needs repair/Not functional	Finished	Finished
7	Chinyonga	NO	NO	Under preparation	Under construction
8	Kanjyo Namangwe	NO	Functional	Under preparation	Functional
9	Nyoka	NO	NO	NO	Under construction

No.	Name of Village	Baseline (April 2013)		Status/Progress (as of October 2013)	
		Fence	Soak away pit	Fence	Soak away pit
10	Zandana	NO	Functional	Finished	Finished
11	Khwawe	NO	Needs clean-up/ Not functional	Finished	Finished
TOTAL		0/11 (0%)	2/11 (18%) Functional	5/11 (45%) Finished, (1/11 Under construction)	7/11 (64%) Finished (3/11 Under construction)

As indicated in the table above, during the baseline survey conducted in April 2013, none of the 11 sites had a borehole surrounded by a fence and only two sites had functional soak away pits. The monitoring results conducted in October 2013 revealed that more than 50% of the sites has completed the construction of the fence (five are completed and one is under construction). As for the soak away pit, five were newly constructed and three are under construction; hence, having only one soak away pit that remains “non functional”.

c. Activities 3-3-3 : Standardization and dissemination of a process for the introduction of Area Mechanics

c.1. Kick-Off Meeting among A3 Group Member

Kick-off meeting among A3 group members was held on 14th September 2012 before the commencement of the activities as shown in *Table 3-24*.

Table 3-24: Summary of A3 Kick-off Meeting

Date	14 September 2012, 09:00~11:00
Venue	Mchinji DC office (Room of District Community Development Officer)
Participants	Mchinji DCDO, WMA, Project Team: 4 participants
Objective	<ul style="list-style-type: none"> ● Confirmation of action plan work-sheet ● Schedule of action plan ● Collaboration with other development partners ● Regular meeting for A3 activities
Description	<ul style="list-style-type: none"> ● Confirmation of action plan/worksheets <ul style="list-style-type: none"> ➢ The existing manuals for the area mechanics system are “Implementation Guide Manual for establishment of Area mechanics, Revised Draft November 29, 2006” and “DRAFT TRAINING MANUAL FOR AREA MECHANICS.” The team members confirmed that revision work would be conducted based on this manual. ➢ The current system of the area mechanic was explained using a figure to deepen the understanding by the team members. The Project Team confirmed that the team would acquire knowledge from NGOs (InterAide, EWB, UNICEF, etc.) that are carrying out Area Mechanics activities and, based on it, revise manuals and improve the system for support. ➢ The team members were asked to fill out the confirmation sheet of the support of the area mechanic in order to confirm the current situation of the Area Mechanics support process. ➢ The team members advanced the following opinions on the understanding of the current situation: <ol style="list-style-type: none"> 1) The existing manual is described that there are three contract types: “maintenance contract,” “repair contract,” and “special contract as repair for major failures under the technical guidance of WMA.” However, only the first two types are currently executed. 2) The existing manual is described that Area Mechanics training is given for five days. Actually, the training is given only for two days. ● Confirmation of activity schedule (draft) ● Collaboration with development partners <ul style="list-style-type: none"> ➢ The Project Team confirmed the suggestion for a group meeting to which NGOs will be invited in order to share information and acquire knowledge on the support activities of Area Mechanics. ● About regular meetings of A3 activities <ul style="list-style-type: none"> ➢ The Project Team proposed holding a weekly team meeting in Mchinji District to share the progress and

information of the activity. The Project Team confirmed holding of a meeting every Friday morning.
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c.2. Collaboration Work with NGOs

Regarding Area Mechanics (AMs) support activities, the Project Team requested NGOs that are carrying out activities in Malawi for interview and asked them to respond a questionnaire that the team prepared to collect latest knowledge.

Figure 3-4: Interview List with NGOs

Date of Interview	Name of NGO	Venue
24 September 2012	Engineers Without Borders (EWB)	Lilongwe office
25 September 2012	InterAide	Mponela office
28 September 2012	BASEDA (Basic Services Development Agency)	Lilongwe office
4 October 2012	Concern Universal	Dedza office

c.3. Latest Knowledge about AMs

c.3.1 Collaboration with Engineers Without Borders (EWB)

EWB is an NGO that provided support to AMs in Mzimba District in 2010 and in Mulanje District in 2011. EWB gave us the completed questionnaire regarding AMs support activities that the Project Team had asked them to answer and also shared with us the report of a study implemented by EWB in Mzimba District and the report of support activities being implemented in Mulanje District.

EWB was not directly providing support to fostering of AMs but providing support to the districts in the support for AMs fostering being implemented by development partners.

It seems that EWB sought to find the method of support to the network of AMs by studying what kind of motivation is required for AMs to carry out activities continuously and what kind of resource restrictions exist in the AMs management activities assisted by the districts in the AMs fostering support activities.

The Project Team also analyzed other NGOs’ responses to the questionnaire regarding the AMs support activities and sort out useful knowledge for considering the improvement of an environment for supporting AMs.

c.3.2 Confirmation of Current Situation of AMs Support Process with Mchinji District staff

The Project Team collected the confirmation sheet of the support of the AMs for confirming how the A3 activity team members understand the current situation of the AMs support process.

The responses were received from one Water Monitoring Assistant (WMA) with a close relationship with Area Mechanics while carrying out the roles of the District. Although the responses were given from the viewpoint of a WMA, they describe problems in the appointment of AMs and equipment required for training and AMs activities.

The Project Team analyzed these problems and reflected them in the revision of the existing manuals.

c.4 Analysis of the Latest Knowledge Collected from the NGOs Conducting Support to the AMs

In Malawi, InterAide, Basic Services Development (BASEDA), Engineers Without Borders (EWB) and Concern Universal, all of which are NGOs, are currently conducting support activities for the AMs. The activities of InterAide, BASEDA and Concern Universal are focused on establishment and support for the AMs, while EWB is providing support to the O&M activities implemented by the district, including the AMs network. The catchment areas of activities for these NGOs are described as follows.

Table 3-25: The Catchment Areas of Activities for AMs support by NGOs

NGOs	Catchment area (District) of activities
InterAide	Dowa, Mchinji, Ntchisi, Kasungu, Salima
BASEDA	Lilongwe, Dedza, Chirazulu, Mulanje, Zomba
Concern Universal	Dedza
EWB	Nkhotakota, Nkanta-Bay, Mangochi, Mulanje, Mwanza

In this activity, the current status of the AMs System, including its establishment, AMs training and contract types, was analyzed using the latest knowledge collected from those NGOs.

- As those NGOs are conducting support activities in different districts, differences were observed in their views on the activities due to the difference in geographic conditions. Nonetheless, their activities were compiled as the current status of the support, and classified according to the support procedure.
- The contents of the draft implementation guide manual examined in 2006 (Implementation Guide Manual for Establishment of Area Mechanics, Revised Draft November 29, 2006) were also classified according to the support procedure. The classified contents of the draft guide manual were compared with the current status of the support activities, and the result of the comparison was summarized in a table.
- The team members decided to identify improvement points for role of the key players and contents of the descriptions in the guide manual based on the current status of the support conducted by the NGOs and made the improvement proposal. The views of the WMA were used as reference in the preparation of the improvement proposal.

c.5 Revision of the Guide Manual for Establishment of Area Mechanics (Draft)

Preparation of the guide manual (draft) based on the proposal for the revision prepared on the basis of the results of the analysis of the latest knowledge collected from the NGOs had begun. Preparation of a training manual for the AMs (draft) related to the guide manual had also begun. As the aim of the revision of these manuals were to standardize and disseminate the AMs system in Malawi, the final draft was prepared with the Department of Water Supply Services (DWSS), MoWDI through the discussion at the A3&A4 group workshops mentioned in the following section, and finished in the revision of the document with more practical contents.

c.6 Group Workshops to be held

It was decided that Activities A3 and A4 should be integrated, because both the AMs system and the Hand Pump Spare Parts Supply Chains were closely linked to sustainable O&M of rural water supply facilities by the communities, and that the guide manual should be revised in workshops attended by a group

members including not only the members A3 and A4 teams, but also members of MoWDI and members of the Mchinji DCT, who are to be key players in the rural water supply.

So far, four group workshops had been held for the preparation of the guide manual (draft) for the support to the AMs system and Hand Pump Spare Parts Supply Chains.

Table 3-26: Outline of the A3&A4 Group Workshops

Workshop	Date	Participants	Objective
First workshop	27 th March 2013	MoWDI, RWDO, Mchinji DCT, WMA, JOCV, Project Team: 9 participants	<ul style="list-style-type: none"> To discuss the contents and roles of the key players, the essential points in the preparation of the guide manual (draft) for the support to the Area Mechanics system based on the proposal prepared by the A3 team members. To finalize the improvement points for draft guide manual.
Second workshop	4 th April 2013	MoWDI, RWDO, Mchinji DWDO, WMA, JOCV, Project Team: 7 participants	<ul style="list-style-type: none"> To discuss the contents and roles of the key players, the essential points in the preparation of the guide manual (draft) f for the support to the Hand Pump Spare Parts Supply Chains based on the proposal prepared by the A4 team members. To finalize the improvement points for draft guide manual.
Third workshop	2 nd and 3 rd May 2013	MoWDI, Mchinji DCT, WMA, InterAide, JOCV, Project Team: 12 participants	<ul style="list-style-type: none"> To request a confirmation of the document structures, components and effectiveness of the draft guide manuals (as the first draft) for the support to the Area Mechanics system and for the spare parts supply chains based on the improvement points discussed on last workshops to the group members
Fourth workshop	20 th and 21 st August 2013	MoWDI, Mchinji DCT, WMA, Project Team: 7 participants	<ul style="list-style-type: none"> To discuss and revise the draft guide manual for the spare parts supplies chains in terms of document structures, components and effectiveness. To discuss and revise the draft Area Mechanic Training Manual in terms of document structures, components and effectiveness

Recommendations from group members were as follows:

- i. Comparison between existing draft guide manuals for Area Mechanics System and current situation implemented by NGOs and improvement proposal
- ii. Identification of the role and current actor, and identification of the improvement proposal that can conduct by Government resource on the Area Mechanics system

c.7 To finalize “Draft Guide Manual for the Establishment and Management of Area Mechanic System (ver.1)”

Four group workshops had been held for creation of the Guide Manual (draft) for the establishment of the Area Mechanics System. The summary of the contents of the Guide Manual (draft) is as shown in below.

Table 3-27: Summary of the contents of the Guide Manual (draft)

<p>■ Main document</p> <ol style="list-style-type: none"> 1. Structure of the Area Mechanic System 2. Roles and Responsibilities of Key Players to Support and Maintain the Area Mechanic System 3. Methodology for Establishment and Ongoing Management and Support of Area Mechanic System <ol style="list-style-type: none"> 3.1 Establishment of the Area Mechanic System 3.2 Ongoing Management and Support of the Area Mechanics System 4. Appendices <ol style="list-style-type: none"> 1) Sample of Memorandum of Understanding (MOU) between District level and Development Partners 2) Sample of Contract form and Information/Quotation form 3) Sample Oral Interview Format to Area Mechanic 4) Sample of AM Identification Card 5) Sample of AM Business Card Template 6) Sample of Monthly reporting form and Quarterly monitoring form for AM

-
- 7) Sample of AM Supervision Form for WMAs
- **Supplement document**
1. Training Manual for Area Mechanics
 - 1) Introduction to the training of area mechanics
 - 2) Necessary software skills for area mechanics
 - 3) Afridev handpump parts and function
 - 4) Dismantling and reassembling pump
 - 5) Trouble shooting and diagnosis on Afridev handpump
 - 6) Repairing rising main
 - 7) Regular preventive maintenance checks
 - 8) Training Module
 - 9) Training Timetable
-

In order to share the outputs mentioned above with EWB, which has been supporting the activities of AMs in other districts, and to obtain their opinions, the Project Team had a meeting with them on 11th October, 2013. The table below shows a summary of the meeting.

Table 3-28: Summary of the Meeting with EWB

Date	10:15~11:40, October 11, 2013 (Fri)
Venue	EWB office at Lilongwe
Participants	EWB, Project Team: 3 participants
Objective	To share the "Draft Guide Manual for the Establishment and Management of Area Mechanic System and to discuss about it
Main points discussed	<p>Main points to be discussed are as described below.</p> <ul style="list-style-type: none"> ➤ EWB suggested the complete removal of the history of AM activities, current situation of AM activities and the responses of questionnaire from NGOs because it does not introduce what the user is supported to understand or how the manual should be used. Many of the response are contradictory and may cause confusion if the information is seen as part of the guide itself ➤ EWB suggested that possible solutions should be added in after the challenges in table of "the common steps to be used to ensure action by stakeholders". This is because, usually the Districts are already aware about the challenges they are facing and want to know how to tackle each challenge. Here, the experience and lessons learnt from the NGOs could be added not in a prescription way but rather to "suggest" ideas for the way forward. ➤ EWB suggested that the Appendix should include an example of MoU between District and DPs/NGOs. ➤ EWB said that NGOs do not usually exchange MoU when they want to start their project in the Districts. Instead, NGOs participate in DEC meetings, and provide presentations regarding the activities they intend to support. If their proposal is approved in the DEC meeting, they can start their project. EWB said the MoU between the District and the NGO is very important and should be implemented ➤ EWB mentioned that the monitoring of AMs is not only conducted through monthly meetings with AMs but that some use the ADC meetings (Nkhatabay) as a monitoring of AMs. In Nkhatabay District, 70% of AMs attend the ADC meetings without being provided any allowances as this is a chance for AMs to raise their questions and concerns in the field to the DWDO. ➤ EWB mentioned another example that in Mulanje they are not doing the refresher trainings, rather they are doing one-on-one refresher courses where an Area Mechanic asks questions and the DWDO/WMA responds to their questions on a one by one basis. <p>Based upon above suggestions from EWB, the draft guide manual will be finalized.</p>

After that the Project Team completed the draft final version of the Guide Manual in Japan, which included the opinions expressed in the above-mentioned meeting. C/Ps, EWB and InterAide conducted final confirmation of the draft for the second time in January 2014.

d. Activities 3-3-4 : Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain

d.1 Kick-Off Meeting among A4 Group Member

Kick-off meeting among A4 group members was held on 14th September 2012 before the commencement

of the activities as shown in **Table 3-29**.

Table 3-29: Summary of A4 Kick-Off Meeting

Date / Time	12 September 2012, 09:00~11:45
Venue	Mchinji District hospital
Participants	Mchinji DDEHO, WMA, Project Team: 4 participants
Objective	<ul style="list-style-type: none"> ● Confirmation of action plan work-sheet ● Schedule of action plan ● Collaboration with other development partners ● Regular meeting for A4 activities
Description	<ul style="list-style-type: none"> ● Confirmation of action plan/worksheets <ul style="list-style-type: none"> ➤ The existing manual for the spare parts supply chain is “Implementation Guide Manual for establishment of Borehole Pump Spare Parts Retail Shop, Draft December 4, 2006.” The team members confirmed that revision work would be conducted based on this manual. ➤ The structure of the current supply chain system was explained using a figure to deepen the understanding by the team members. In Mchinji District, it is established by the support from InterAide. The Project Team confirmed that the team would acquire knowledge from InterAide and, based on it, revise manuals and make plans based on future vision. The Project Team also confirmed that the team would acquire information from InterAide by using a questionnaire. ● A team member advanced the following opinions: <ul style="list-style-type: none"> ➤ At present, InterAide is acting the roles of an “implementer” and a “wholesaler” in Mchinji District but there is concern about the continuity after the activities are ended. ➤ The retail shops are making insufficient profits and therefore cutting down on their stock of spare parts. ➤ The retail shops do not have an advertisement medium described in the existing manual. ➤ Without the monitoring by Water Monitoring Assistants, the quality of spare parts cannot be maintained. ➤ The existing manual and guidelines need to be revised according to the current situation of the supply chain. ➤ Mr. Mchipha (A4 team member) mentioned an example of a supply chain that he had observed during the third-country training in the neighboring country Zambia (in the first year) and expressed an opinion whether a similar system can be adopted in the future. ● Confirmation of activity schedule (draft) ● Collaboration with development partners <ul style="list-style-type: none"> ➤ The Project Team confirmed the suggestion for a group meeting to which NGOs will be invited in order to share information and acquire knowledge on the support activities for the spare parts supply chain. ● About regular meetings of A4 activities <ul style="list-style-type: none"> ➤ A proposal was made to hold a weekly team meeting in Mchinji District to know the activity progress and share information. The Project Team confirmed holding of a meeting every Friday morning.

d.2 Collaboration Work with NGOs

Regarding spare parts supply chain support activities, the Project Team requested NGOs that are carrying out activities in Malawi for interview and asked them to answer a questionnaire that the team made to collect latest knowledge.

Table 3-30: Interview List with NGOs

Date of Interview	Name of NGO	Venue
13 September 2012	InterAide	Lilongwe office
28 September 2012	BASEDA (Basic Services Development Agency)	Lilongwe office
4 October 2012	Concern Universal	Dedza office

The Project Team analyzed the collected responses to improve the environment for supporting the spare parts supply chain and revise the guide manual (draft)

d.3 Collection of the Materials for Developing the Spare Parts Supply Chain

To examine the possibility of incorporating existing organizations into the spare parts supply chain, the

Project Team had interviews with the District Health Center and the Central Region Water Board (CRWB).

d.3.1 Mchinji District Health Center

The Project Team wanted to establish the possibility of selling handpump spare parts by Health Centers. A request was made through Mr. Mchipha (A4 team member); the Deputy District Environmental Health Officer (DDEHO) and the following were observed.

- The health centers administer drugs and provide medical care in their healthcare activities free of charge and therefore do not handle any money.
- In the current system, they cannot sell any spare parts because they will need to handle money when selling spare parts.

d.3.2 Central Region Water Board (CRWB)

Although the pipe water supply scheme in Mchinji District is in the charge of the Kasungu Zone office (Kasungu District) of the CRWB, the Project Team asked for an interview with the headquarters of the CRWB in Lilongwe in order to confirm the repair system in the Central Region.

- Since CRWB is operating on a self-financing basis, the water supply facilities are repaired by an organization in CRWB. Minor repairs are done by technical staff using parts stocked in the warehouses of the zone offices.
- Major failures are repaired using parts for which the zone offices apply to the headquarters, which procures them by receiving tenders from suppliers.
- The Project Team asked for information regarding the organizational chart of the technical department of CRWB and the flow of finance regarding maintenance and management. CRWB promised to provide the information at a later date.

The Project Team examined the collected information to find out about the possibility of taking on the spare parts supply chain for hand pumps by CRWB.

d.4 Analysis of the Latest Knowledge Collected from the NGOs Conducting Support to the Hand Pump Spare Parts Supply Chains

Support to the hand pump spare parts supply chains is being conducted by InterAide, BASEDA and Concern Universal, all of which conduct support to the Area Mechanics. EWB has no activity for the spare parts supply chains. The catchment areas of the activities to assist the supply chains of these NGOs are the same as those described in *Table 3-25*.

The analysis was conducted with a process similar to the one used in the analysis of the support activities to the Area Mechanics. Descriptions to be revised in the draft implementation guide manual examined in 2006 (Implementation Guide Manual for establishment of Borehole Pump Spare Parts Retail Shop, Draft December 4, 2006) were identified by content and role of key players, the proposal for the revision was drafted by the team members and finalized after its contents had been verified in an A3&A4 group

workshop.

d.5 Current Status of the Retail Shops Selling the Hand pump Spare Parts in Mchinji District

WMAs of Mchinji District, who were also members of this activity, studied the current status of six retail shops selected among those selling the spare parts by interviewing their owners. The six shops were selected within areas where WMAs can travel by bicycle.

The interviews revealed that the retail shop owners had begun to sell the spare parts in response to the solicitation by InterAide. The margin of profit of the sales of the hand pump spare parts was approx. 20 %, which was smaller than the profit margins of other goods. The result of the interviews also suggested that the spare parts were sold slowly.

Although the retailers were aware of the problems mentioned above, they seemed to be willing to continue selling the spare parts.

d.6 Revision of the Guide Manual (Draft) for the support to the Spare Parts Supply Chains

The final draft of the guide manual for the support to the spare parts supply chains was to be finalized with the process identical to the one used in the revision of the guide manual for the support to the Area Mechanics system mentioned in *Clause c.6 (Activity 3-3-3)*.

d.7 Group Workshops

Because the spare parts supply chains and the Area Mechanics system are closely linked, as mentioned in **Clause c.6**, the revision of the guide manual was carried out in the group workshops. The number of the group workshops held is as mentioned in *Clause c.6 (Activity 3-3-3)*.

Recommendations from group members are as follows:

- i. Comparison between existing draft guide manuals for Spare Parts Supply Chain and current situation implemented by NGOs and improvement proposal
- ii. Identification of the role and current actor, and identification of the improvement proposal that can conduct by Government resource on the Hand Pump Spare Parts Supply Chain

d.8 A Study on an Ideal Organization/Institution to Operate the Spare Parts Supply Chains Sustainably

In Malawi, InterAide and BASEDA (NGOs) are currently supporting activities for the establishment of spare parts supply chain in 10 Districts⁶. However, like any stand-alone project supported by other development partners, these activities do not guarantee sustainability after the project phase out.

In order to establish a nationwide sustainable management system of spare parts supply for Afridev

⁶ Dowa, Mchinji, Ntchisi, Kasungu, Salima: by InterAide
Lilongwe, Dedza, Chirazulu, Mulanje, Zomba: by BASEDA

handpump, it is desirable to involve a permanent Malawian organization and/or institution to take responsibility of the spare parts supply chain. In this regard, the Water Boards might be an ideal institution to take over the roles and responsibilities of activities currently conducted by NGOs as Water Boards are located nationwide and have the required structure and system for urban water supply spare parts management.

On the basis of the viewpoint mentioned above, DWSS, MoWDI has begun to make contact with the Central Region Water Board (CRWB) and InterAide with the possibility of the regional water boards fulfilling some of the roles in the support to the spare parts supply chains which have been provided by the NGOs in future taken into consideration.

d.8.1 Meeting with the Central Region Water Board (CRWB)

DWSS, MoWDI had a meeting with CRWB on 6th August 2013 and assessed the possibility of CRWB playing a part in the operation of the spare parts supply chains in future.

CRWB considered that it had no technical problem in operating the spare parts supply chains for Afridev handpump because it had its own spare parts supply chain for the maintenance of the piped water supply system. However, CRWB considered that there were many operational challenges, because the supply chain of CRWB is for the supply of spare parts used in repair of water supply facilities owned by CRWB and, thus, CRWB has no experience in selling spare parts.

Although members of CRWB wished to visit the sites in Zambia where the spare parts had been used (SOMAP site) to confirm the current status of the hand pump spare parts, they decided to visit InterAide to study actual cases of activities in Malawi at first.

d.8.2 Site Visit of the Activities of InterAide by CRWB

Members of CRWB visited the InterAide project office located in Mponela in Dowa District, a base of the support activities of InterAide, with staff member of DWSS, MoWDI, on 14th August 2013.

InterAide is conducting support to the spare parts supply chains for Afridev handpump in five districts, Dowa, Mchinji, Ntchisi, Kasungu and Salima. Spare parts are stored in a storeroom in the Project Office in Mponela and sent to the maintenance offices in each district. The maintenance office in each district sells spare parts to partner retail shops in the district.

During the site visit, the members of CRWB and MoWDI visited the maintenance office in Ntchisi District and confirmed the stock condition of each spare part. There is an approx. 4m x 2m storage space in Mponela Office and approx. 1.2 m-long lockable wooden box are used for the storage of spare parts in the district maintenance offices. The lockable wooden box of each districts have the same type.

The InterAide maintenance office in Ntchisi District is located in the Office of District Water Development Officer (DWDO). Therefore, the site visit members discussed views with DWDO at the time of visit.

The members also visited Mponela Zone Office and Scheme Office in Ntchisi District of CRWB and confirmed the stock condition of spare parts for the piped water supply at the two offices. Both offices

have storage rooms of the same dimensions (approx. 3.5 m x 2 m) and spare parts for the piped water supply system were stored in the storage rooms. Long pipes were stored outdoors.

The site visit members exchanged views while they were in Mponela and Ntchisi and visited InterAide partner shops (retail shops) in Mponela (Dowa District) and Khuwi (Ntchisi District) while they were travelling. With these activities, the site visit members have deepened their understanding of the activities of InterAide.

d.9 To Finalize “Draft Guide Manual for the Establishment of Hand Pump Spare Parts Supply Chain (ver.1)”

As in the creation of the Guide Manual for the establishment of the Area Mechanics System as mentioned above, four group workshops had been held for creation of the Guide Manual (draft) for the establishment of the Hand Pump Spare Parts Supply Chain.

The 5th group workshop aimed at creation of the final version of the draft was held on 8th October, 2013. The table below shows a summary of the group workshop.

Table 3-31: Summary of the 5th A4 Group Workshop

Date	8:30~16:00, October 8, 2013 (Tue)
Venue	Mchinji District Water Development Office
Participants	MoWDI, Mchinji DWDO, Project Team: 5 participants
Objective	To review the “Draft Guide Manual for the Establishment of Hand Pump Spare Parts Supply Chain”
Main points discussed	<p>Main points discussed are as described below.</p> <ul style="list-style-type: none"> ➤ The member suggested it was not necessary to cover the specific activities by NGOs because this manual will be applied in Malawi thus the name of NGOs and its supported areas were deleted. ➤ The member suggested this manual is for establishment of the spare parts supply chain so that description of roles and responsibilities by related stakeholders should meet only this purpose without including other roles and responsibilities.

After that the Project Team completed the draft final version of the Guide Manual in Japan, which included the opinions expressed in the above-mentioned meeting. The C/Ps conducted final confirmation of the draft for the second time. The summary of the contents of the Guide Manual (draft) is as shown in below.

Table 3-32: Summary of the Contents of the Guide Manual (draft)

<ul style="list-style-type: none"> ■ Main document <ol style="list-style-type: none"> 1. Concept of the hand pump spare parts supply chain 2. Roles and responsibilities of key players to support and maintain the hand pump spare parts supply chain 3. Methodology for establishment of hand pump spare parts supply chain <ol style="list-style-type: none"> 3.1 Administrative Activity 3.2 Activities for Retail Shop 3.3 Activities related to the Supply of Spare Parts 4. Appendices <ol style="list-style-type: none"> 1) Sample of Memorandum of Understanding (MOU) 2) Sample for List of spare parts retail shop 3) List of spare parts suppliers in Malawi as of 2013 4) Form of Request for quotation 5) Sample of Spare parts order card 6) Sample of Spare parts delivery note 7) Sample format of bin card ■ Supplement document <ol style="list-style-type: none"> 1. Training Manual for Hand Pump Spare Parts Retail Shop Owners <ol style="list-style-type: none"> 1) Introduction to the training of retail shop owners

-
- 2) Afridev hand pump parts and function
 - 3) Dismantling and reassembling
 - 4) Entrepreneurship
 - 5) Training Module and Session
 - 6) Training Timetable
-

e. Activities 3-3-5 : Standardization and dissemination of monitoring system for the water supply facilities

e.1 Developing Simple Water Point Monitoring System

e.1.1 Introduction of Water Point Monitoring Database developed by EWB

In Mchinji District, there was no sustainable monitoring and evaluation system for management of water supply facilities, and the district staff did not accurately keep track of the present situation of facilities. Therefore, there was a problem in the process for establishing an annual activity plan for making fair and effective investment in administrative services.

As a solution to this problem, it was decided to consider the possibility of introducing to Mchinji District a simple water supply monitoring system that uses the health management information system (HMIS) of the health sector, which is currently test-running in the eight Districts⁷ including Salima and Chikwawa Districts. For this purpose, the Project Team requested the EWB member in charge, who developed this system, to deliver a presentation to the Mchinji District staff, and it was delivered on September 7, 2012. The outline of this presentation is as follows:

Table 3-33: Summary of the Meeting for Introduction of Water Point Monitoring Database developed by EWB

Date	7 September 2012, 09:30~11:00
Venue	Mchinji DC office (Room of director of planning and development)
Participants	Mchinji DCT, JOCV, EWB, Project Team: 6 participants
Objective	<ul style="list-style-type: none"> ● To introduce water point monitoring database developed by EWB to Mchinji DCT members ● To obtain their needs for water point monitoring database

As a result of the presentation delivered at this time, the Project Team discovered that the C/P has a keen interest in the introduction of this database system (Tool + Data collection method). Therefore, the Project Team determined to have specific discussion with EWB regarding what kind of collaboration is possible in this project.

e.1.2 Developing User Guide and Training Materials for Water Point Monitoring Database

As mentioned above, a policy was adopted to utilize the Excel-based database currently test-running at the Ministry of Health and M&E TWG and developed by EWB in a different project as the monitoring tool for the water supply facilities. The Project Team prepared to recommission (it means sub-contract) to EWB the development of a user's guide for this tool and training materials based on it.

⁷ Salima, Mzimba, Lilongwe, Blantyre, Chikwawa, Ntcheu, Karonga, Mwanza

3. Results of Activities

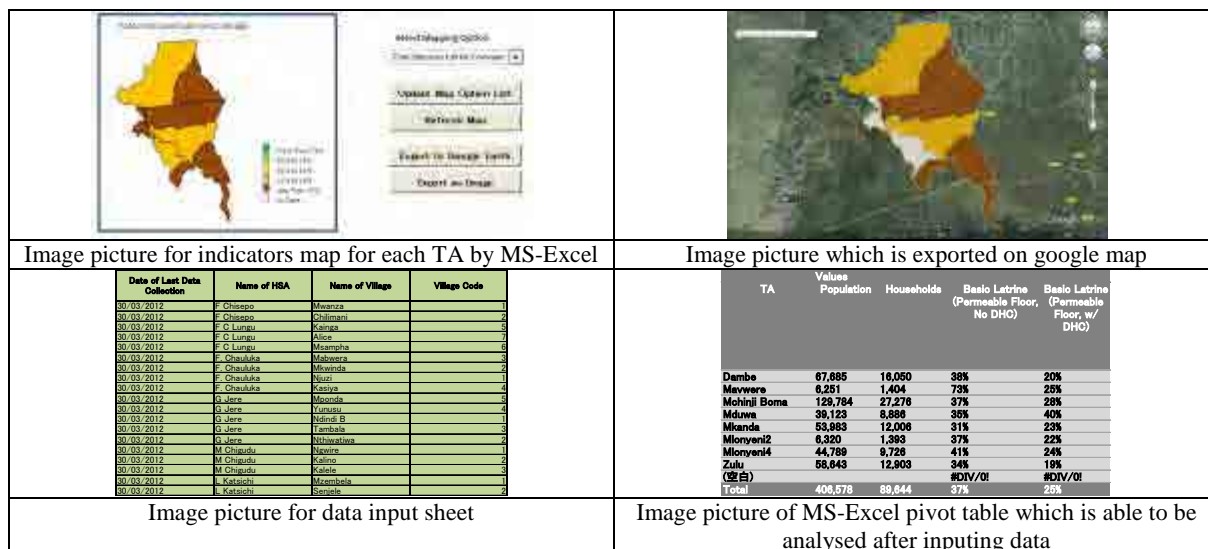


Figure 3-5: Image Pictures for Water Point Monitoring Database

The Project Team concluded a sub-contracting agreement with EWB on the training on databases (DB) for the monitoring of water supply facilities on 7th February 2013. The original contract period was supposed to expire at the end of June 2013. However, the two parties agreed to extend the period to the end of December 2013 for the reasons mentioned below and concluded a revised agreement on 29th May 2013.

- In the original agreement, EWB was to hold a discussion with the members of the DCT of Mchinji District on the indicators required for the O&M in May 2013 and carry out activities for database creation and training activities in accordance with the outcome of the discussion. However, Mchinji DWDO, who was supposed to take responsibility of the O&M of the DB concerned resigned at the end of April 2013 and the vacated post had not been filled by the end of May 2013.
- Participation of the members of the DCT of Mchinji District is essential for the performance of the activities mentioned above. However, since the members were also engaged in the activities in other tests activities, it was difficult to prepare an activity schedule consisting solely of the training activities. Since the C/P's issue of shortage of human resources was not likely to be solved in future, the staff members of the C/P had to be engaged in multiple activities. For these reasons, some extra time was needed in the contract period.

e2. The First A5 Workshop for setting of the O&M Indicators in the Framework

Many of the indicators included in the DB for the monitoring of water supply facilities developed by EWB are the standard indicators established by the Ministry of Health and the database did not include indicators for the O&M of the facilities. Under such circumstances, the officials of Mchinji District involved in WASH and members of EWB and the people involved in the project attended the first workshop and discussed the indicators required for the O&M framework. The table below summarizes the activities in the workshop. In the workshop, indicators required for the O&M framework were identified as follows.

Table 3-34: Outline of the First A5 Workshop

Date	6 th June 2013
Venue	Rewards Lodge at Mchinji District
Participants	Mchinji DCT, WMAs, EWB, JOCV, Project Team: 14 participants
Objective	<ol style="list-style-type: none"> To understand the latest progress of M&E pilot project through sanitation working group in M&E TWG To determine the O&M indicators in Mchinji DC
Contents	<ul style="list-style-type: none"> ➤ Sharing of the latest progress of M&E pilot project ➤ Clarify indicators currently being collected ➤ Structures being set-up under the O&M framework relevant indicators in the M&E framework and prioritization of those indicators ➤ Determine specific requirements for Mchinji District
Summary of the output	<ol style="list-style-type: none"> For what kind of purpose are the indicators for monitoring used? <ol style="list-style-type: none"> ① Planning ② Communicating/sharing ③ Decision making ④ Allocation of resources ⑤ Formulation of new project ⑥ Implementation ⑦ Evidence of action/Evaluation ⑧ Understanding situation ⑨ Reporting ⑩ Priority setting The participants were divided into five groups. The five groups had discussions on the Test Activity A1, A2, A3, A4 and A5, respectively, and presented the outcomes of their discussions. Table 3 shows the major indicators presented in the workshop.

Table 3-35: Draft Indicators required for the O&M Framework

Category	Draft indicators
Test Activity A1: Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly	<ul style="list-style-type: none"> ➤ Collection rate of households / % households that have paid ➤ # meetings of WPC and the user ➤ Balance of funds / Total amount saved ➤ Facility management plan ➤ WPC produced a report and keeps records (financial)
Test Activity A2: Facility design for better O&M and promotion of water point sanitation	<ul style="list-style-type: none"> ➤ Functional WP with clean surroundings ➤ Functional WP without sources of pollution within 30 m. Pollutant List: latrine, rubbish pit, animal, bath shelter, graveyard, pools of stagnant water, others ➤ Functional WP with proper and clean soak away pit ➤ Functional WP with proper fence
Test Activity A3: Standardization and dissemination of a process for the introduction of Area Mechanics	<ul style="list-style-type: none"> ➤ Training for AM (y/n) ➤ Contracts with WPC (#) ➤ Monthly action in villages ➤ Availability of transport (y/n) ➤ Number of meetings per month ➤ Acquisition of spare parts ➤ Causes of borehole breakdown
Test Activity A4: Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain	<ul style="list-style-type: none"> ➤ # of shop owners stocking spare parts ➤ # of shop owners trained ➤ # of shop owners licensed or accredited ➤ # of shops stocking all necessary fast wearing parts ➤ # of shops without fast wearing parts ➤ # of shops replenishing SP once out of stock ➤ # of untrained shop owners
Test Activity A5: Standardization and dissemination of monitoring system for the water supply facilities at the district level	<ul style="list-style-type: none"> ➤ # Functional and non-functional WPs, broken down by type of WP ➤ # of Non-functional WPCs / Total # WPCs ➤ # WPCs who have signed a service agreement with an Area Mechanic ➤ # WPCs who have interacted with an Extension Worker in the last 3 months ➤ Average pump down time ➤ Standard balance in account or equivalent in spare parts ➤ Percentage of WPCs with at least 60% female composition ➤ # of WPCs with bank account with minimum 15,000 MK maintenance fund

e.3 WASH M&E Database Training

e.3.1 Outline of the Training

A training course on the WASH M&E DB was held between 24th and 27th September (for four days) at Rewards Lodge in Mchinji District. This training was implemented by EWB in accordance with the subcontract agreement between EWB and the Project. The following is a summary of the training.

Table 3-36: Summary of the WASH M&E Database Training

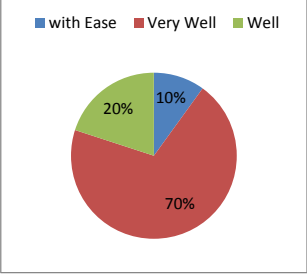
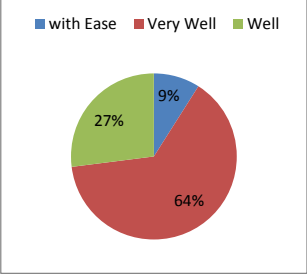
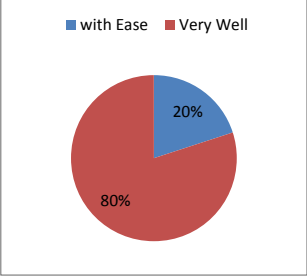
Data	From September 24 to September 27, 2013
Venue	Rewards Lodge at Mchinji
Participants	Trainers : EWB : 3 participants Trainees : MoWDI, Mchinji DWDO, DDEHO, HMIS, MISO, Data Clerk, AEHOs : 18 participants Supervisors : Project Team : 4 participants
Objectives	<ul style="list-style-type: none"> ➤ To understand how to use the WASH M&E Database ➤ To understand basic and advanced training in MS-Excel ➤ To determine the role and responsibilities of the Mchinji' officers for operation and management of the WASH M&E Database
Contents	<p>Day 1</p> <ul style="list-style-type: none"> ✧ Sharing the current progress for WASH M&E at National level ✧ Introduction to WASH M&E database and Basic Excel skills. <p>Day 2</p> <ul style="list-style-type: none"> ✧ How to use the WASH M&E database and pivot table skills for data analysis. <p>Day 3</p> <ul style="list-style-type: none"> ✧ Sharing the WASH M&E indicators at national level ✧ Advanced WASH M&E database (How to add the map, How to link data to the map) <p>Day4</p> <ul style="list-style-type: none"> ✧ Competency evaluation, data collector orientation guideline and District roles and responsibilities and Implementation action plan ✧ Sharing the challenges on WASH M&E Database by other pilot districts ✧ Award a certificate
Comments	<ul style="list-style-type: none"> ➤ Since the training consisted mostly of practical lessons in which all the participants used notebook PCs, many of them participated earnestly in the training. ➤ Almost all the participants understood how to use the WASH M&E Database. ➤ Almost all the participants were able to give correct answers in the verification test given on the fourth day of the training, because the test time was extended from the planned 30 minutes to approx. 90 minutes. However, many participants appeared unfamiliar with basic operation of Microsoft Excel as they occasionally made errors in analyses, because they had entered data incorrectly, and interpretation of simple tables and diagrams.

e.3.2 Training Evaluation

The trainees were requested to fill in a questionnaire on assessment of their level of understanding of the subjects in the training at the end of each training day. The table below shows the results of the self-assessment.

Table 3-37: Self-Assessment Results on the WASH M&E Database Training

Training contents	Intelligibility								
<p>Day 1</p> <ul style="list-style-type: none"> ✧ Sharing the current progress for WASH M&E at national level ✧ Introduction to WASH M&E database and Basic Excel skills. 	<p>Legend: with Ease (blue), Very Well (red), Well (green)</p> <table border="1"> <caption>Self-Assessment Results Data</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>with Ease</td> <td>50%</td> </tr> <tr> <td>Very Well</td> <td>40%</td> </tr> <tr> <td>Well</td> <td>10%</td> </tr> </tbody> </table>	Category	Percentage	with Ease	50%	Very Well	40%	Well	10%
Category	Percentage								
with Ease	50%								
Very Well	40%								
Well	10%								

<p>Day 2</p> <ul style="list-style-type: none"> ✧ How to use the WASH M&E database and pivot table skills for data analysis. 	 <table border="1"> <caption>Evaluation Results for Day 2</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>with Ease</td> <td>10%</td> </tr> <tr> <td>Very Well</td> <td>70%</td> </tr> <tr> <td>Well</td> <td>20%</td> </tr> </tbody> </table>	Category	Percentage	with Ease	10%	Very Well	70%	Well	20%
Category	Percentage								
with Ease	10%								
Very Well	70%								
Well	20%								
<p>Day 3</p> <ul style="list-style-type: none"> ✧ Sharing the WASH M&E indicators at national level ✧ Advanced WASH M&E Database (How to add the map, How to link data to the map) 	 <table border="1"> <caption>Evaluation Results for Day 3</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>with Ease</td> <td>9%</td> </tr> <tr> <td>Very Well</td> <td>64%</td> </tr> <tr> <td>Well</td> <td>27%</td> </tr> </tbody> </table>	Category	Percentage	with Ease	9%	Very Well	64%	Well	27%
Category	Percentage								
with Ease	9%								
Very Well	64%								
Well	27%								
<p>Day 4</p> <ul style="list-style-type: none"> ✧ Competency evaluation, data collector orientation guideline and District roles and responsibilities and Implementation action plan ✧ Sharing the challenges on WASH M&E Database by other pilot districts ✧ Awarding of certificates 	 <table border="1"> <caption>Evaluation Results for Day 4</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>with Ease</td> <td>20%</td> </tr> <tr> <td>Very Well</td> <td>80%</td> </tr> </tbody> </table>	Category	Percentage	with Ease	20%	Very Well	80%		
Category	Percentage								
with Ease	20%								
Very Well	80%								

Note) Number of trainees : 10

Five levels of evaluations (With ease, Very well, well, With difficulty, Not yet able)

The table above suggests that the level of understanding by the trainees of this training module is high according to their self-assessment. However, since it is easy to quickly forget how to use DBs without repeated practice, the trainees will have to practise repeatedly.

e.4 Meeting with EWB to Finalize the User Guide Manual

The EWB and the Project Team held discussions on revision of the first draft of the DB User Guide Manual using the outcomes of the WASH M&E DB Training held in September 2013 as reference information and agreed on the contents of the subsequent work processes. The following is a summary of the discussions.

Table 3-38: Summary of the Meeting with EWB

Date	9:00~10:00, November 19, 2013 (Tue)
Venue	EWB Lilongwe office
Participants	EWB, Project Team: 3 participants
Objectives	<ul style="list-style-type: none"> ➤ To confirm the current progress remaining tasks for sub-contract ➤ To confirm the future support plan for M&E Project through M&E TWG by EWB

Main topics discussed	<p>(1) Work components included in the subcontract which have not been completed</p> <ul style="list-style-type: none"> ➤ The EWB and the Project Team identified the parts in the User Guide Manual (draft) requiring revision. <p>(2) Future development of the M&E Project currently being supported by EWB</p> <ul style="list-style-type: none"> ➤ The M&E Project, which has been implemented for approximately four years, is expected to be completed in April 2014. However, dispatch of individual staff members to each district to provide training is expected to continue in order to extend creation and use of WASH M&E DB (included in the activities of the Hygiene and Sanitation Sub-group of M&E TWG) to all the districts. ➤ While MoH and MoWDI are involved in the WASH M&E DB project supported by EWB within the framework of the M&E TWG, MoH (Ministry of Health) through DEHO (District Environmental Health Office) has taken the initiative in actual operation and maintenance of the database. Therefore, the EWB plans to support conclusion of MOU between MoH and MoWDI to facilitate data sharing between the two ministries in future.
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e.5 Development of M&E Database User Guide Manual for O&M of Water Supply Facilities

The User Guide Manual Draft (Ver.1) for O&M of Water Supply Facilities developed through recommissioning to EWB in the second stage has been completed. In the future, O&M management indicators shall be added to the database and the manual shall be customised toward finalisation.

e.6 The Third A5 Workshop (preparatory meeting to collect WASH M&E Database Indicators)

On 4th December 2014, the third A5 workshop was offered at the Rewards Lodge in Mchinji District for the purpose of preparing the orientation course to be held at 16 health centres in around Mchinji District for making a final confirmation of O&M (operation and maintenance) indicators for water supply facilities and for collecting WASH M&E database indicators. The summary of the workshop is as follows:

Table 3-39: Summary of the Third A5 workshop

Date	December 4, 2014
Venue	Rewards Lodge at Mchinji
Participants	DEHO, DDEHO, AEHOs, Data Clerk, HMISO, JOCV : 20 participants
Objectives	<ul style="list-style-type: none"> ➤ To share finalized M&E framework through M&E TWG and confirm the indicators currently being collected ➤ To develop the schedule and logistics arrangement for orientation of the data collection exercise in each health center ➤ To determine the responsible persons for data verification, data entering, consolidating data, and analyzing & reporting data and data scheduling
Results	<ol style="list-style-type: none"> 1. O&M indicators for water supply facilities <ul style="list-style-type: none"> ➤ For the WASH M&E framework already authorised as the national standards, indicators have been established to look at how water supply facilities are being operated for each type of facilities and participants showed no objection to a proposal to additionally establish indicators for community-based management (CBM), Area Mechanics and a spare parts supply chain which were considered important for operation and maintenance of water supply facilities. ➤ The key points of the proposal to add new indicators were to focus on those indicators that can be directly utilised in decision-making process when developing district O&M plans (the indicators to be simplified as much as possible by reducing the burden of data collection and data entry work). 2. Definition of indicators of the WASH M&E framework <ul style="list-style-type: none"> ➤ Explanatory comments should be made about which items should be chosen, for the case a water source should be chosen for water supply facilities at a public institution and if no water source can be found at the public institution and water has to be transported from a deep well or a public water faucet of some other institution located at a far distance (it is important, as a correct process, to choose “Others” and leave an explanatory note). ➤ Explanatory comments should be given on which item should be chosen, for the case where water is not stored at a washbasin located at each household or public institution (it cannot be considered to function as a hand washing facility). 3. Preparation for data collection orientation course <ul style="list-style-type: none"> ➤ An orientation course was offered at each of 16 health centres around the district for two days from 11th to 12th December 2014 and the course was offered by a total of 3 teams. <p>In the M&E framework, it has been determined that data should be updated by the district to provide the</p>

	updated data to the central government, twice annually, in June and December. Coincidentally, it is now December when the data should be updated and therefore efforts should be made to complete a series of works as soon as possible and present the results of M&E to MoAIWD and MoH, respectively, by the district (Mchinji District has never presented data in the past).
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e.7 Finalisation of the M&E Manuals for District-Level Water Supply Facilities

Results obtained through a series of works for collecting O&M indicators for water supply facilities and data entry which started in December 2014, were reflected in the manuals that were under development and a final draft was completed.

Major improvements made in the above-mentioned final draft and existing database (a database developed in early 2014 under the WASH M&E framework at the central level) are as follows:

(1) Addition of the following indicators that had not been included in those for the WASH M&E framework for communities

- Participation records of CBM training course
- Participation records of CBM refresher training course
- Whether or not preventive maintenance contract was exchanged between AMs

No. of WPC/VHWC	No. of functioning and/or active WPC/VHWC at this moment	No. of WPC/VHWC trained in initial CBM	Year trained in initial CBM	No. of WPC/VHWC trained in CBM refresher	Year trained in CBM refresher course
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No. of preventive maintenance contract between AM and WPC	Year of preventive maintenance contract between AM and WPC
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Figure 3-6: Indicators for Communities Newly Added to Database

(2) Addition of AMs and a Spare Parts Supply Chain Database

Area No.	Name	Sex	Village	Traditional Authority	Contact	Date of Registration
1	Eftone ****	Male	Mikundi	Mduwa	0991 *** **	1/1/2013
2	Edward ****	Male	Chakhalira	Mduwa	0996 *** **	1/1/2013
3	Andrew ****	Male	Mkanda	Mkanda	0999 *** **	1/6/2012
4	Faniel ****	Male	Gumba	Mkanda	0884 *** **	1/6/2012
5	George ****	Male	Chimombo	Mkanda	0993 *** **	1/10/2013
6	Nelson ****	Male	Chipumi	STA Kapondo	0993 *** **	1/10/2013

NO.	NAME OF SHOP	VILLAGE	TRADITIONAL AUTHORITY	Contact	CURRENT SITUATION
1	Pagwanji Enterprise	Bua Trading Centre	Mlonyeni	0991 *** **	Selling
2	R.K. Hardware	Matutu Trading Centre	Mduwa	0996 *** **	Selling
3	Angoni Grocery	Kaigwazanga	Mkanda	0999 *** **	Stopped selling
4	Zuze General Suppliers	Waliranji Trading Centre	Mavwele	0884 *** **	Selling
5	Give and Take	Mikundi Trading Centre	Mduwa	0993 *** **	Selling
6	Yanu Yanu	Kapiri	Dambe	0993 *** **	Selling

Figure 3-7: Newly Added AMs and Supply Chain Database

(3) Addition of Tally Sheets to the data collection form

Name of village									
TA									
GVH									
Village population									
Number of households									
1. Unsatisfactory latrine	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000 00000 00000 00000 00000
Basic latrine 2. Permeable floor, no DHC	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000
Basic latrine 3. Permeable floor + DHC	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000
Basic latrine 4. Impermeable floor, no DHC	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000
Improved Latrine 5. Impermeable floor + DHC	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000
Improved Latrine 6. Composting latrine	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000
Improved Latrine 7. HAs with flush toilets	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000	00000 00000 00000 00000 00000 00000


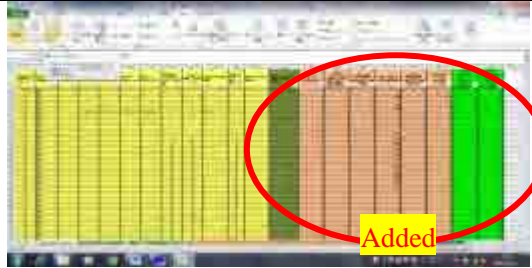

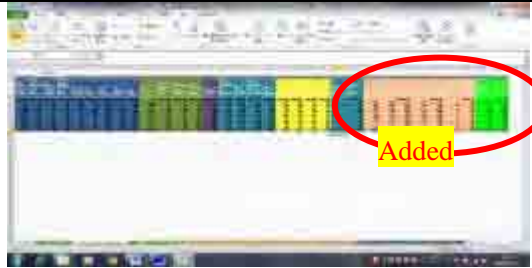

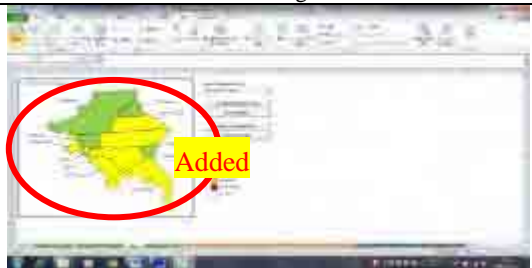
Figure 3-8: Newly Added Data Tally Sheet

(4) Realignment of definitions of technical terms related to Indicators from those found in a glossary for WASH Indicators in Malawi

No	Indicator	Definition from M&E Handbook ²¹	Photo	How to measure
1	Unsatisfactory latrines	Pit Latrines where walls are missing or do not provide "privacy" for the user (e.g. walls are missing or inadequate) and/or there is no roof Hanging toilets Bucket latrine A pit or receptacle of any depth which is not full or over-flowing		Number of Unsatisfactory Latrines

Figure 3-9: Glossary of Indicators Realigned for Manual

Table 3-40: Improvements Made on Original Database

Item	Database of Mchinji District finalised in M&E framework	Database of Mchinji District improved in this project
Data entry sheet		 <p>On the right side of the sheet, areas for participation records of CBM/CBM refresher training course (in pale orange) and the contract with AM (in yellowish green) were added.</p>
Data analysis sheet		 <p>To the right side of the sheet, the following analysis items were added:</p> <ol style="list-style-type: none"> ① The number of WPCs ② The number of active WPCs ③ The number of WPCs participated in CBM training ④ The rate of WPCs participated in CBM training ⑤ The number of WPCs participated in CBM refresher training ⑥ The rate of WPCs participated in CBM refresher training ⑦ The number of WPCs having contract with AMs ⑧ The rate of WPCs having contract with AMs
Map		 <p>New addition of 3 TAs to the map (total: 9 TAs)</p>

f. Activities 3-3-6 : Improvement of the rules on the manuals (use/storage and hierarchical management)

f.1 First A6 Group Meeting

First A6 group meeting was held on 10th August 2012 in order to share the identification of the persons and/or organizations involved. Summary of this meeting is as shown below.

Table 3-41: Summary of First (1st) A6 group Meeting

Date	10 August 2012, 09:20~12:20
Venue	Conference room, MoWDI

Participants	MoWDI, RWDO, Project Team: 12 participants
Objective	<ul style="list-style-type: none"> ● Introduction of the agenda and purpose of the meeting for launching the “A6 Group,” which is responsible for building consensus on what we do ● Identification of the persons / organizations involved ● Review of the challenges to be addressed ● Building consensus on the Action Plan ● Implementation of some first step activities such as definition of key terms and division of work for document profiling
Contents	<ul style="list-style-type: none"> ● Sharing of the review of challenges to be addressed ➤ Sharing of building consensus on Action Plan ➤ Identification of the persons / organizations involved ➤ Identification of definition of the key terms and making hierarchical order of the defined key terms ➤ Division of work for classification of the documents
Results	<ul style="list-style-type: none"> ● List the persons and organizations involved for this test activity ● Hierarchical order of the documents and definition of key terms ● List of division of work for making document profiles

The meeting was chaired by Ms. Mbalame {Deputy Director of Water Supply Services (OMME)} and proceeded in an interactive way, letting the participants contribute to making definitions.

f.2 Second A6 Group Meeting

Second A6 group meeting was held on 6th September 2012. Summary of this meeting is as shown below.

Table 3-42: Summary of Second (2nd) A6 Group Meeting

Date	6 September 2012, 09:20~12:10
Venue	Conference room, MoWDI
Participants	MoWDI, RWDO, Project Team: 12 participants
Objective	<ul style="list-style-type: none"> ● Review of the previous meeting ● Sharing the results of document profiling ● Identification of the key documents and revision process ● Discussion on the approval procedure ● Making the training module formats
Contents	<ul style="list-style-type: none"> ➤ Review of the minutes of the 1st Group Meeting ➤ Generate discussions on the marked column where there are some differences in views such as: classification of documents (need to classify them into the key categories discussed in the 1st meeting); status of the document (draft or final?); usage of the document (most documents are identified as “in use”, but we need to look at them more carefully whether or not they are REALLY in use and uncertain information has also to be looked at ➤ Sharing the suggested hierarchical order of the documents ➤ Identification of the key documents for Field Test Activity 6 ➤ Make sure that the responsible person for the document profiles shall also be responsible for key word classification ➤ Sharing the documents approval procedure ➤ Generate discussions on the proposed module format and session format for the training manual
Results	<ul style="list-style-type: none"> ● Drafted the documents profiling ● Consensus of selection of the key documents for Field Test Activity 6 ● Division of work for key word classification as homework ● Review of proposed training manual format as homework

f.3 Third A6 Group Meeting

Third A6 group meeting was held on 5th October 2012. Summary of this meeting is as shown below.

Table 3-43: Summary of Third (3rd) A6 Group Meeting

Date	5 October 2012, 09:00 – 12:00
Venue	Conference room, MoWDI
Participants	MoWDI, RWDO, NWDP, Mchinji DC, Project Team: 16 participants
Objective	<ul style="list-style-type: none"> ● Sharing the progress of the activities as of now ● Consensus and sharing the output-based plan of actions ● Sharing the CBM manual revision and division of work of home assignments

Contents	<ul style="list-style-type: none"> ➤ Review of the minutes of the 2nd Group Meeting ➤ Sharing the finalized training manual formats ➤ Discussion on the documents approval procedure outline ➤ Sharing and endorsement of the output-based plan of actions ➤ Sharing the CBM manual revision and division of work of home assignments ➤ Sharing of the proposed plans of assessment of the utilization of the technical documents
Results	<ul style="list-style-type: none"> ● Finalized training manual formats ● Endorsement of the output-based plan of actions ● Selection of the CBM manual reviews and division work ● Selection of the survey target organization for assessment of the utilization of the technical documents

Among the planned activities of the Test Activity 6, hierarchical classification and document profile of the technical documents were worked on until September 2012, completing the second update.

The A6 group decided to proceed to the next-step of operations: (1) Establishment of document management guidelines, (2) Establishment of guidelines for official technical document approval process, (3) Revision of training manuals, and (4) Creation of handbooks for utilizing guidelines and manuals. The work plans for these remaining four items were examined and approved in the meeting.

f.4 Workshops on O&M Technical Document Management

f.4.1 First Workshop on O&M Technical Document Management

The first Workshop on WSS Document Management was held on 13th March 2013 in order to share the image of ideal document management system of the technical documents managed under WSS Department. Summary of this meeting is as shown below.

Table 3-44: Summary of the 1st Workshop on WSS Technical Document Management

Date	13 March 2013 08:30~16:30
Venue	Bridge View Hotel
Participants	MoWDI, RWDO, Project Team : 12 participants
Objectives	<ul style="list-style-type: none"> ● To re-activate and encourage progress regarding activities for Test Activity A6 ● To internalize the key documents related to rural water supply operation and maintenance ● To discuss an ideal system for document management (including document approval procedures)
Contents	<ul style="list-style-type: none"> ➤ Review and approval of the meeting minutes of the 3rd A6 Group Meeting ➤ Review of the past activities and assessment of the attainments ➤ Sharing the key documents related to rural water supply O&M ➤ Discussion on the way forward for revision of CBM training manuals ➤ Group Exercise: Ideal way of document management --- from the users' point of view ➤ Discussion and approval of Output-based Plan of Action
Results	<ul style="list-style-type: none"> ● The status and the importance of the key documents related to rural water supply O&M were shared and understood among the participants ● The way forward for the revision of CBM manuals and other outputs was discussed and agreed. ● Consensus was built on an ideal system for technical document management among the members. ● The Output-based Plan of Action was revised and adopted.

f.4.2 Second Workshop on WSS Technical Document Management

The second Workshop on WSS Document Management was held on 22nd August 2013 in Mchinji District to refine the document management guidelines and to launch the preparation process of the document utilization handbook. In the workshop, discussions were held to gain a clearer overall picture of what the Project will achieve, namely to figure out and define the outputs of the Project. Summary of this meeting is as shown below;

Table 3-45: Summary of the 2nd Workshop on WSS Technical Document Management

Date	22 August 2013 08:30~16:30
Venue	Compass Lodge, Mchinji District
Participants	MoWDI, RWDO, Project Team : 12 participants
Objectives	<ul style="list-style-type: none"> ● To discuss and to refine the WSS technical document management guidelines draft ● To discuss the outline of the O&M Document Utilisation Handbook
Contents	<ul style="list-style-type: none"> ➢ Review and approval of the report on the 1st Workshop on O&M Technical Document Management ➢ Review of the past activities and assessment of the attainments ➢ Sharing of the draft WSS Document Management Guidelines and discussion ➢ Discussions to figure out and define the Project outputs ➢ Sharing the suggested outline of the O&M Technical Document Utilisation Handbook and division of work ➢ Discussion and approval of Output-based Plan of Action ➢ Revision of the Action Plan Worksheet
Results	<ul style="list-style-type: none"> ● WSS Technical Document Management Guidelines Draft 2 was discussed and adopted ● The whole picture of the expected project outputs was shared and the discussion was made for sustainable utilization of those outputs ● The outline of the O&M Technical Document Utilisation Handbook was discussed and division of writing work was done. ● The Output-based Plan of Action was revised and adopted. ● The Action Plan Worksheet was revised.

f.5 Improvement of Document Management and Stipulation of Document Approval Procedures

Based on the current practices and experiences of the stakeholders and the existing legal framework, the improved systems of document management and approval procedures were drafted. The process steps were as follows;

f.5.1 Improvement of Document Approval Procedures

The approval procedures of newly created documents, revision and disposal of technical documents was compiled, based on the current practices and experiences, as well as on the literature review. The contents of the compiled draft are incorporated as a part of “the WSS Technical Document Management Guidelines” and reviewed in the 2nd Workshop described in *Clause f.4.2*.

In September 2014, the approval procedure of technical documents was re-confirmed in the PTF Meeting (see the figure below).

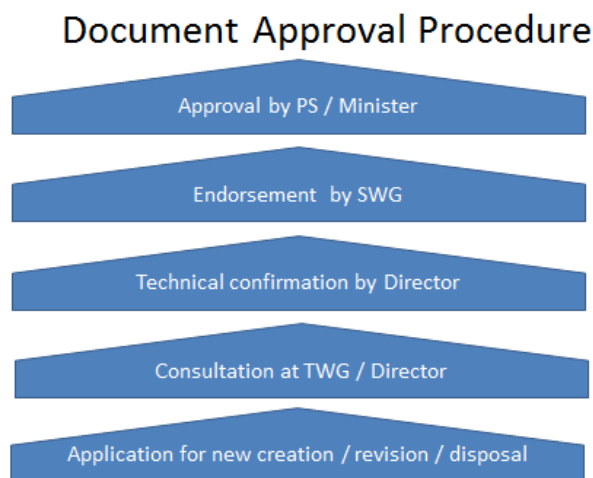


Figure 3-10: Document Approval Procedure

f.5.2 Improvement of Document Management System

The potential venues and organisations for maintaining the collection of hard and soft copies of technical documents were explored with different stakeholders, including National Archives, National Commission for Science and Technology, IT Section of MoWDI, and the counterpart staff of the Project. The potential organisations and systems are shown in the tables below;

Table 3-46: Potential Organisations for Maintaining Hard-Copy Documents

Organisation	Notes
Library of MoWDI	There is a spacy room for keeping and displaying the hard copies of the documents, managed by a full-time librarian. However, the librarian is dispatched through general service of the government and is not hired and supervised directly by MoWDI. The management system of the collection of the library, therefore, is beyond control of the Project.
National Archives	The Malawi law stipulates that every printed publication shall be registered and submitted to National Archives. The headquarters is in Zomba and there is a branch office in Lilongwe. It is possible to retrieve documents from the archives but it may not be realistic to expect an effective reference service to the expected users.
NICE* resource centres / local libraries	NICE has district resource centres all over the country, including Mchinji District, maintained by full-time staff. The centres are open to all people, and it is a great potential to make the documents available to various users.
WES Network	WES has a plan to establish a resource centre in the near future, which will be open to the members of WES Network. The hard copies of the documents will be accessible, in particular by NGOs involved in water sector, from this resource centre once it has been established.

*NICE: National Initiative for Civic Education

Table 3-47: Potential Cyber Networks to Deliver Soft-Copy Documents

Potential Network	Notes
Water SWAP HP of MoWDI	IT Section of MoWDI is managing a web page where important documents can be posted. Sector Performance Reports and other policy documents are linked to this page. The directors can apply to have any documents linked to this site by writing to the Planning Dept.
National Digital Repository (National Library)	NDR is a network managed by the National Library with the support of IDS, Institute of Development Studies of Sussex University, UK. Public and private organisations can become members of this network by undertaking a 5day training course on operation of software, D-Space. The NDR collections can be accessed free from its own web page or links from other web sites related to development studies, e.g. Malawi Development Exchange, ELDIS. There is good potential to be accessed by development practitioners and researchers.
WES Network	WES Network is planning to re-establish a web site and is interested in creating links to the technical documents related to rural water supply.
NICE* ICT Centre	NICE has an ICT Centre in Mchinji District, equipped with 40 computers. It is open to all people and the users may access to the collection of documents provided by NICE. The documents can be uploaded from NICE Head Office in Lilongwe. No printing service is available.

*NICE: National Initiative for Civic Education

f.5.3 Drafting WSS Technical Document Management Guidelines

WSS Technical Document Management Guidelines was drafted. This stipulates how the technical documents, including guidelines and manuals under the management of WSS Department should be managed. The draft was prepared by thoroughly studying Malawian laws, the experiences and opinions of the library/archive experts, and the related documents, such as official document management rules of the Japanese government. The Guidelines is composed of three parts; introduction, document approval procedures, and management of collection. The contents were discussed at the 2nd workshop, and the

revised draft with the reflection of the A6 members' comments.

Table 3-48: Contents of WSS Technical Document Management Guidelines

Chapter I: Introduction	<ol style="list-style-type: none"> 1. Background 2. Objectives of the Guidelines 3. Legal Framework Related to Official Document Management in Malawi 4. Definition of Documents / Scope of the Documents to be Handled in this Guidelines 5. Amendment of this Guidelines
Chapter II: The Guidelines for Technical Document Approval Process (new creation / revision / disposal)	<ol style="list-style-type: none"> 1. Management Structure and Responsible Personnel 2. Approval Procedures 3. Regular Review of the Live Documents
Chapter III: Management of Collection	<ol style="list-style-type: none"> 1. Accessioning and Classification of Documents 2. Maintenance and Management of Library Information 3. Maintenance of the collection and provision of the Documents to Users 4. Management of Digital Documents 5. Reporting 6. Training on Document Management

f.5.4 Finalising WSS Technical Document Management Guidelines

The 3rd version draft of WSS Technical Document Management Guidelines was discussed and approved by the PTF Meeting in September 2013, and was submitted to the Director of Water Supply Services Department in March 2014. The Guidelines has been technically confirmed and approved by the Principal Secretary on 25th February 2015.

f.6 Figuring out the Project outputs and Preparation of O&M Technical Document Utilisation Handbook

f.6.1 Setting the Direction for CBM Training Manual Revision

The A6 Group members identified three key documents related to CBM training, although outdated, through document profiling and making of hierarchical order during the last reporting period, July 2012 – January 2013. These documents are listed in the table below;

Table 3-49: CBM Manuals Requiring Revision

Ref. No.*	Title
8	Community Based Rural Water Supply, Sanitation and Hygiene Education Implementation Manual (1999)
11	Trainer's Guide for Extension Worker Training (1999)
12	Trainer's Guide for WPC/VHWC Training (1999)

*Reference numbers are the serial numbers assigned by the Project.

“Community Based Rural Water Supply, Sanitation and Hygiene Education Implementation Manual (ref. No.8), published in 1999, was widely used in order to promote community based management of rural water supply facilities fitted with hand pumps under the national programme. After more than a decade, CBM has become a norm, and the concept of CBM has now been mainstreamed into the updated documents, listed in the *Table 3-49*.

The documents listed in the *Table 3-50* are confirmed, through the discussions with counterparts, to be the highest priority and most up-to-date documents of MoWDI to provide guidance for rural water supply projects, and MoWDI considers that the role of this implementation manual (ref No.8) is over and this document will be discarded.

Table 3-50: Priority Documents for Rural Water Supply Projects

Ref. No.	Title
1	Water Supply and Sanitation District Operational Manual (2010) (to be published)
2	Implementation Guidelines for Rural Water Supply and Sanitation (2010) (to be published)
3	Implementation Manual for Piped and Point Water Supply System (2010) (to be published)
4	Participatory Sanitation and Hygiene Promotion Implementation Manual (2010) (to be published)
5	Implementation Manual for Town, Market Centre and Surrounding Villages, Piped Water Supply and Sanitation (2010) (to be published)
6	Water Users Association Training Manual (2010) (published)
7	Guidelines for Establishment of Water Users Association in Malawi, Market Centre and Rural Piped Water Supply and Sanitation Programme (2010) (published)

“Trainer’s Guide for Extension Worker Training (ref. No.11)” and “Trainer’s Guide for WPC/VHWC Training (ref. No.12)” in the *Table 3-49* are considered as important documents, and are referred to as the training manuals and are utilised along with “Implementation Manual for Piped and Point Water Supply System (ref. No.3) in the *Table 3-50*. MoWDI intends to update/revise these two documents that were published in 1999 due to the fact that they might contain some outdated information.

f.6.2 Needs for Strengthening O&M for the Existing Water Supply Facilities

Within the current O&M framework of rural water supply, the training of extension workers and water point committees for the existing water points is not institutionalized. The existing documents such as, “Trainer’s Guide for Extension Workers (ref. No.11)” and “Trainer’s Guide for WPC/VHWC Training (ref. No.12)”, stipulate pre-construction and post construction training only for newly constructed water supply facilities, and no training during the O&M phase, which is normally estimated for about 15 years, is considered in rural water supply planning and budgeting process. Considering this situation, WSS Department had an intention to promote the use of the manuals and training materials produced by the Project and to standardize the refresher training to strengthen O&M of the existing water supply facilities along with capacity development of the stakeholders. In light of this, the Department had a keen interest to have a refresher training guide indicating the way to use the manuals and materials produced by the Project, and a similar suggestion was made in the 2nd Workshop in August. The A6 Group, therefore, came to a consensus that the group needs to explore the possibilities in developing such a document.

The counterpart members who are involved in the test activities found that the Project outputs can also be incorporated into the currently held CBM training for new construction. It is therefore preferable for these outputs to be incorporated into the training manuals (ref. No.11 and 12) for new construction of rural water supply projects as well.

Revision of two CBM training manuals (ref. No.11 and 12) is included as an action point in the national WASH Plan, and is likely to be supported upon the request from MoWDI, according to a UNICEF officer.

f.6.3 Figuring out the Project Outputs

In order to clarify the roles of the existing documents and the envisaged project outputs among the stakeholders, the Project Team tried to figure out the hierarchical order and relationships among the key documents related to O&M of rural water supply facilities fitted with Afridev hand pumps.

f.6.4 Preparation of O&M Technical Document Utilisation Handbook

O&M Technical Document Utilisation Handbook was prepared through several discussions and consultations among the A6 Group members. The Handbook contains the following items;

Table 3-51: Contents of O&M Technical Document Utilisation Handbook

Chapter I: Introduction	<ol style="list-style-type: none"> 1. Background 2. Assumptions and limitations 3. How to use this handbook 4. Definition of key terms 5. Hierarchical order of the documents 6. Process steps in community-managed O&M
Chapter II: Introduction of key documents	<ol style="list-style-type: none"> 1. Introduction of key documents by topics and process steps 2. Searching for documents in this handbook

f.7 Establishment of WSS Resource Centre and Management of Document Collection

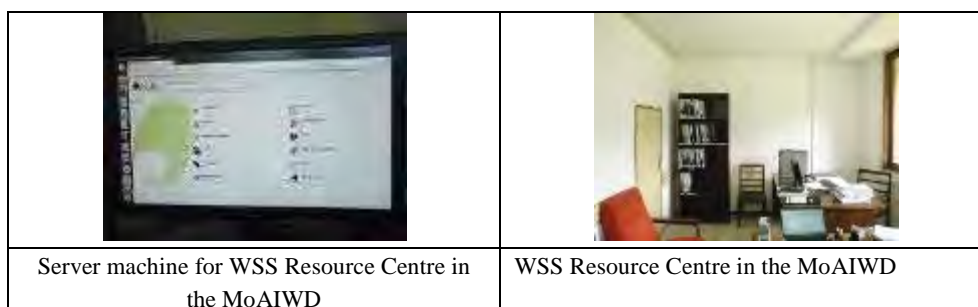
f.7.1 Securing the Space for Document Storage and Organising Collected Documents

Through the Test Activity A6, the Project Team supported WSS Department in establishing the WSS Resource Centre, where the reference service is provided and the storage of technical documents are managed.

Space for the WSS Resource Centre was allocated in one corner of the department. In addition, bookbinding work of each document was carried out with the cooperation of the Ministry of Irrigation Water Development. The bound documents that have been completed are then classified, and it is scheduled to be exhibited in a bookshelf.

The document cataloguing was created with technical assistance of National Library Service. All the data of the collected documents, including title, author, publisher, date and year of publication, reference number and classification marks will be recorded in the on-line catalogue. Koha Integrated Library System, an open resource for library management (<http://koha.org/>), was adopted for the catalogue making, in order to simplify the data processing and management. Koha ILS enables the documents to be searched and retrieved, while linking it with the electronic library, the National Digital Repository (NDR), which will be described later, will enable the electronic documents to be easily accessed.

The list of the collected documents is as attached (*Appendix 3*).



f.7.2 Establishing the System for Document Storage and Disclosure

The Project provided a computer in the 2nd stage and installed Koha ILS. The Project counterpart staff

members have input the information of 241 volumes of technical documents into Koha as of June 2015.

Project Team established a connection of this Koha computer online so that the information can be accessed from outside the Ministry. As the computer network of the government offices, including MoAIWD, is centrally administered by the Accountant General Office, an officer in charge from this office technically supported this process, while it was also supported by System Analyst of Planning Department of MoAIWD and a National Librarian. The establishment of computer network was done all by the Malawian experts, as the Project Team believes that the sustainability of system should be maintained by them after the phasing out of the project.

Meanwhile, the Project Team went through the process of registering a web domain name for making the established library system online, after confirming that MoAIWD would be responsible for the continuous management of the domain after the phasing out of the Project.

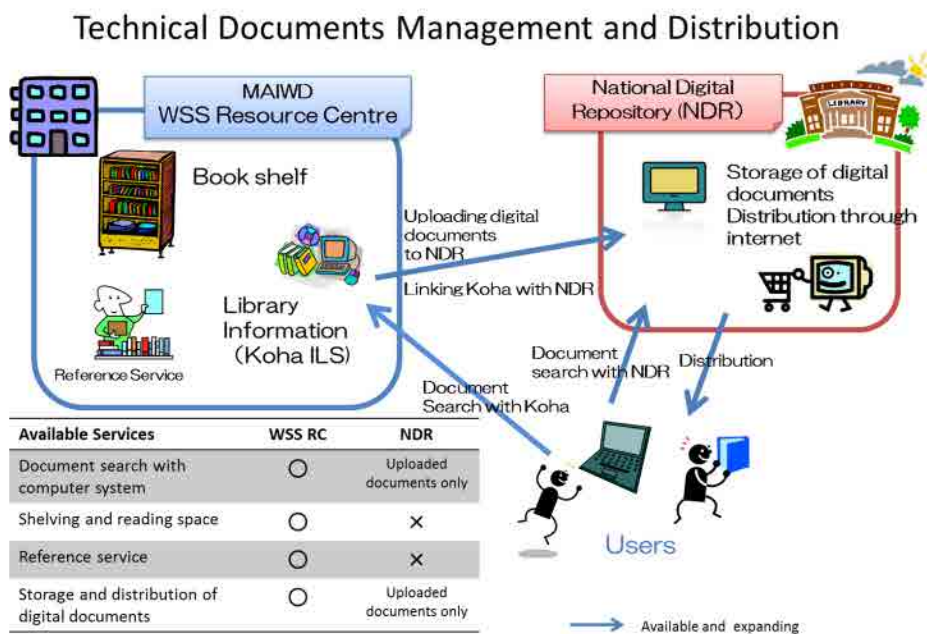


Figure 3-11: Technical Documents Management and Distribution Structure

Due to this computer network, the library information became accessible through local network within MoAIWD. In addition, this catalogue can be accessed from outside MoAIWD through internet (www.wss-resourcecentre.gov.mw). Once connected with Koha catalogue, any user can search the documents in the WSS Resource Centre collection, and the user also have an access to full documents in PDF format that have been uploaded to National Digital Repository through URL link (see *figure 3-12*). This connection also enables the counterpart staff to work on the on-line catalogue with their own computer, while the server computer is placed in a safe place. This arrangement contributed to efficient cataloguing work and unnecessary loss of the original data.

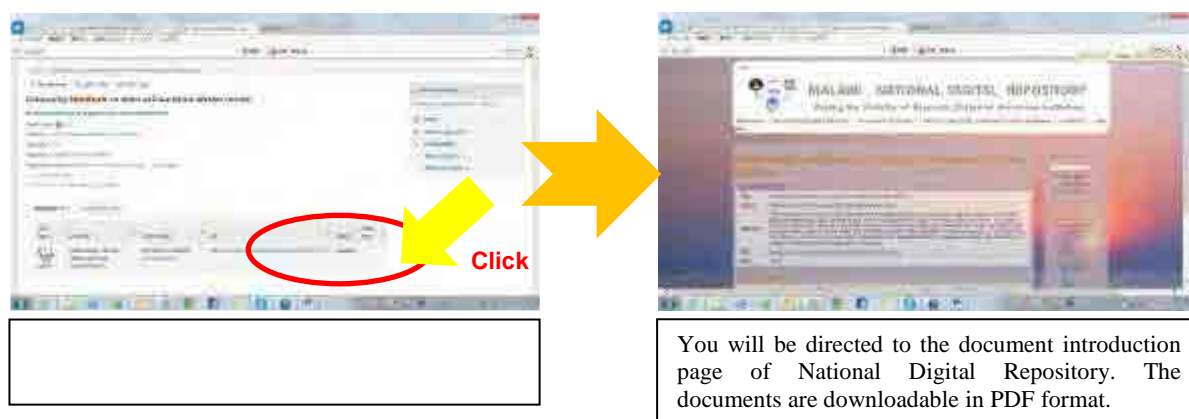


Figure 3-12: Interface with Koha Catalogue and NDR Link Destination

f.8 Delivery of Electronic Documents

f.8.1 Online Distribution of Digital Documents

The Project Team tried to increase the users' access to the important technical documents related to rural water supply by utilizing the existing online networks.

Five technical documents listed 1-5 of the *table 3-50* were distributed electronically, as the first trial of online delivery of the documents. These documents are the manuals and guidelines developed and approved by MoWDI with the assistance of NWDP in 2010. MoWDI placed these documents as the most up-to-date and important guidelines for implementation of rural water supply projects. However, these documents have never been printed and published due to a lack of finance. The Project Team suggested to the WSS Department to make the documents public through an on-line network, and the suggestion was approved by the Director.

In addition to the five documents above, a popular handbook for Afridev handpumps (Community Handbook on Water and Sanitation Afridev Version, issued in 1999) was delivered online.

The procedures for the electronic documents delivery were as follows;

- 1) Verification of the latest and approved version of the document. Conversion of Word documents to PDF form when necessary.
- 2) Issuance of the request letter from WSS Director for delivery of the electronic documents online.
- 3) Handing over the electronic documents to the network administrator with the request letter mentioned above.

After going through the above process, the above documents became accessible online through NDR, at the following URL (<http://www.ndr.mw:8080/xmlui/handle/123456789/987>).

National Digital Repository (NDR) is an online library, managed by the Malawi National Library Service, which was established with the support of the Institute of Development Studies (IDS) of Sussex University in the UK. The Educational institutions, the government institutions and development partners can utilize this service by applying for a membership as "Community". Each member of the community can maintain

their documents online, and the documents can be shared among the community members or placed in public, as the member configures how they would like to handle each document. NDR also has a link with Eldis, an online community for development, where the development practitioners and researchers search and exchange documents related to development. The Project Team encouraged uploading more documents related to O&M of rural water supply and sanitation for public access and 33 documents have been uploaded as of June 2015.

The same documents were also handed over to WES Network and National Initiative for Civic Education (NICE) to put on their website, with the purpose of distribution of the documents to the NGO parties concerned.

	
<p>Website of NDR http://www.ndr.mw:8080/xmlui/</p>	<p>Website of WES Network http://www.wesnetwork.org.mw/Recourses.html</p>
	
<p>Website of NICE http://www.nice.mw/index.php/joomla/o-n-m-guidelines-and-manuals?start=10</p>	

Figure 3-13: Web pages by NDR, NICE and WES Network which are uploaded the MoAIWD's Digital Documents such as Guidelines and Manuals

f.8.2 Cleaning Existing Documents

Prior to the distribution of the electronic documents online, some documents were needed to be cleaned and processed, as they were available only in the form of scanned copies of the old hard copies and were not clear. The counterpart personnel in charge of document management were given instructions by the Japanese Expert on how to clean the scanned documents and worked on it. After removing the noises, the documents were transformed into PDF format and processed with optical character recognition (OCR). The cleaned documents have been uploaded to NDR and WES Network.



Figure 3-14 : Cleaning Existing Documents

F.9 Capacity development of counterpart staff for document management

Document management involves specific knowledge and skills, therefore capacity development of the persons in charge is indispensable. The resources for the training on document management were explored. It was disclosed that National Library, the library of Mzuzu University, Malawi Library Association were capable in providing training on document management and library services.

A counterpart staff, Ms. M. Banda, was assigned as Document Management Officer in July 2013. Capacity building of this officer and the A6 Group members in document management were considered as a part of A6 activities.

f.9.1 Training on Document Management

A four-day hands-on training on document management was held for the counterpart staffs, who are in charge of document management. The staff of the National Library Service facilitated the training. The training was initially designed for three days but extended one day, due to a power cut that occurred on the third day of the training. The outline of the training is presented in the table below:

Table 3-52: Summary of Training on Document Management

Date	January 28-31, 2014 4 days
Venue	National Library, MoWDI
Resource persons	National library : 5 participants
Participants	MoWDI : 2 participants
Objectives	At the end of the training, the participants are able to <ul style="list-style-type: none"> ✓ Register, classify and manage the documents at WSS Resource Centre ✓ Handle the electronic documents ✓ Upload the documents to NDR ✓ Provide reference services at WSS Resource Centre
Contents	<p><Day 1> Lecture: Anglo-American Cataloguing Rules Lecture and exercise: Accessioning Lecture and exercise: Cataloguing and classification using the WSS classification system</p> <p><Day 2> Lecture and exercise: Reference services Lecture and exercise: Shelving and self-reading Lecture: Digital documents and metadata</p> <p><Day 3> Lecture and library tour: User awareness raising and library orientation Lecture and exercise: Koha ILS and Machine-readable Cataloguing (Marc) Lecture: Digital document management and NDR</p>

	<p><Day 4> Exercise: Cataloguing Exercise: On-line cataloguing using Koha ILS</p>
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Through the practical exercises, the actual online catalogue making of the WSS Resource Centre was started. Koha ILS was set up on the computer provided by the Project, and two counterpart members practiced the cataloguing of the WSS collection of the documents, using Koha system.

f.9.2 Workshop on O&M Technical Document Management

Following the document management training provided in January 2014, a workshop on document management was held in February 2014 for persons in charge of document management and concerned staff members from the Ministry. With a librarian from the National Library and other persons, the workshop consisted of lectures and exercises on basic knowledge of document management, information search methods, and knowledge and technology of electronic document management. The summary of the meeting is shown in the following table.

Table 3-53: Summary of the Workshop on Document Management

Item	Contents
Date	February 18 and 19, 2014, 2days
Venue	Bridgeview Hotel (Lilongwe)
Trainers	National library : 6 participants
Participants	MoWDI : 21 participants
Objectives	At the end of the workshop, participants should be: <ul style="list-style-type: none"> ➤ Familiar with the legal framework and the principles of public document management in Malawi ➤ Able to understand the basic knowledge of public document management ➤ Aware of where and how to assess the official technical document related to rural water supply operation and maintenance within MoAIWD
Contents	<p><Day 1></p> <ul style="list-style-type: none"> ➤ Introduction of official records management: importance and best practices ➤ Best practices in handling electronic documents ➤ Access control (Licensing Access Rights) ➤ Information search skills ➤ Discussion, observations and documentations of ideas and resolutions <p><Day 2></p> <ul style="list-style-type: none"> ➤ Policies governing records management system (National Archiving Act; Print Publication Act; National Copy Right Act: records Management Policy) ➤ Using an Online Public Access Catalogue and Digital Repository search facilities ➤ How to handle digital documents ➤ Discussion, observations and documentation of ideas and resolution

The participants actively participated in the lectures and exercises and positively exchanged opinions, in particular, about access rights in document management and handling of electronic documents. On the second day, a meeting was held on specific action plans for the future.

f.10 Koha ILS and NDR Workshops for Document Utilisation

In this project, the information of the WSS document collection has been registered in the library management system (Koha ILS) set up at the WSS resource centre as well as major technical documents have been uploaded onto the National Digital Repository (NDR). Thanks to the cooperation given by the National Library and the Accountant General Office, these information sources have been available on the Internet. In order to promote the use of the Koha online catalogue and digital documents uploaded onto

NDR, on 11th December 2014, a half-day workshop was offered at the National Library targeting at the counterpart staff of MoAIWD and NGOs.

At this workshop, explanations were made about the background and content of activities carried out in the test activity A6 and the guidelines for technical document management, which is one of the outputs of A6, were introduced. Following this, how to use the Koha catalogue and NDR was introduced and exercised. The workshop was facilitated by CEO of the National Library, computer engineers and librarians and when exercising document retrieval, considerations were made in order that participants of the workshop could have hands-on experience in using these information resources via computer. It is expected that these information sources will be utilised by the planners, practitioners and researchers of rural water supply O&M in and outside the country.

g. Activities 3-3-7 : Activities for development of a text of maintenance and rehabilitation for deep wells

g.1 Development of Text of Maintenance and Rehabilitation for Deep Wells

g.1.1 Development of the “Troubleshooting and Diagnosis on Afridev Handpump and Borehole” for the Beneficiaries

The JICA experts collected comments of the DWDO, WMAs and AMs of Mchinji District on the “Draft Troubleshooting and Diagnosis on Afridev Hand Pump and Borehole” which they had prepared with the C/Ps and completed the preparation of the draft version of the document for the field test, with the collected comments taken into consideration. The final version in Chichewa was also prepared.

g.1.2 Development of Borehole Rehabilitation Handbook for EWs

The JICA experts had three discussions with Mr. Chiwaula, who was in charge of A7, on “Draft Borehole Rehabilitation Handbook for EWs” in preparation. At the end of the discussions, they agreed to make Version 5 as the final version of the document.

g.2 Implementation of Training of Trainers for EWs and AMs

The JICA experts provided training on troubleshooting of Afridev hand pumps and rehabilitation of boreholes to DWDO of Mchinji District, WMAs and AMs for two days, 17th and 18th June 2013. The outline of the training is as follows.

g.2.1 Training on Troubleshooting and Diagnosis on Afridev Hand Pump and Boreholes for DWDO and WMA

- (1) Outline of the Training

A summary of this training is as shown in *Table 3-54*.

Table 3-54: Outline of the Training for DWDO and WMAs

Module name/No.		ToT 1/Module A7-A-1
Date		9:30~13:00, 17 th June, 2013
Venue		Rewards Lodge
Pa r t i c i p a n t s	Trainers/ Supervisor	MoWDI / Project Team: 4 participants

3. Results of Activities

	Trainees	Mchinji DWDO, WMAs, InterAide: 4 participants
Objective		<ul style="list-style-type: none"> ➤ To understand the Draft Trouble shooting and Diagnosis on Afridev Handpump and Borehole ➤ To confirm effectiveness of the draft Training text
Contents		<ul style="list-style-type: none"> ➤ Quality assurance of borehole ➤ Discussing on troubleshooting and diagnosis on Afridev pump ➤ Borehole maintenance methods ➤ Making training plan for Area Mechanics
Training method		Lecture (presentation and discussion)

(2) Training Evaluation

The figure below shows the results of the evaluation of the training made by the trainees after the training (with the number of valid responses of 3). A five-grade evaluation system, from A to E, was used in the evaluation (self-evaluation of the degree of understanding). The table below shows the criteria for the grade evaluation.

A	B	C	D	E
With easy	Very well	Well	With difficulty	Not yet able

As a result, trainees' understanding was high except of the topic on “5. Salty water or smelling”.

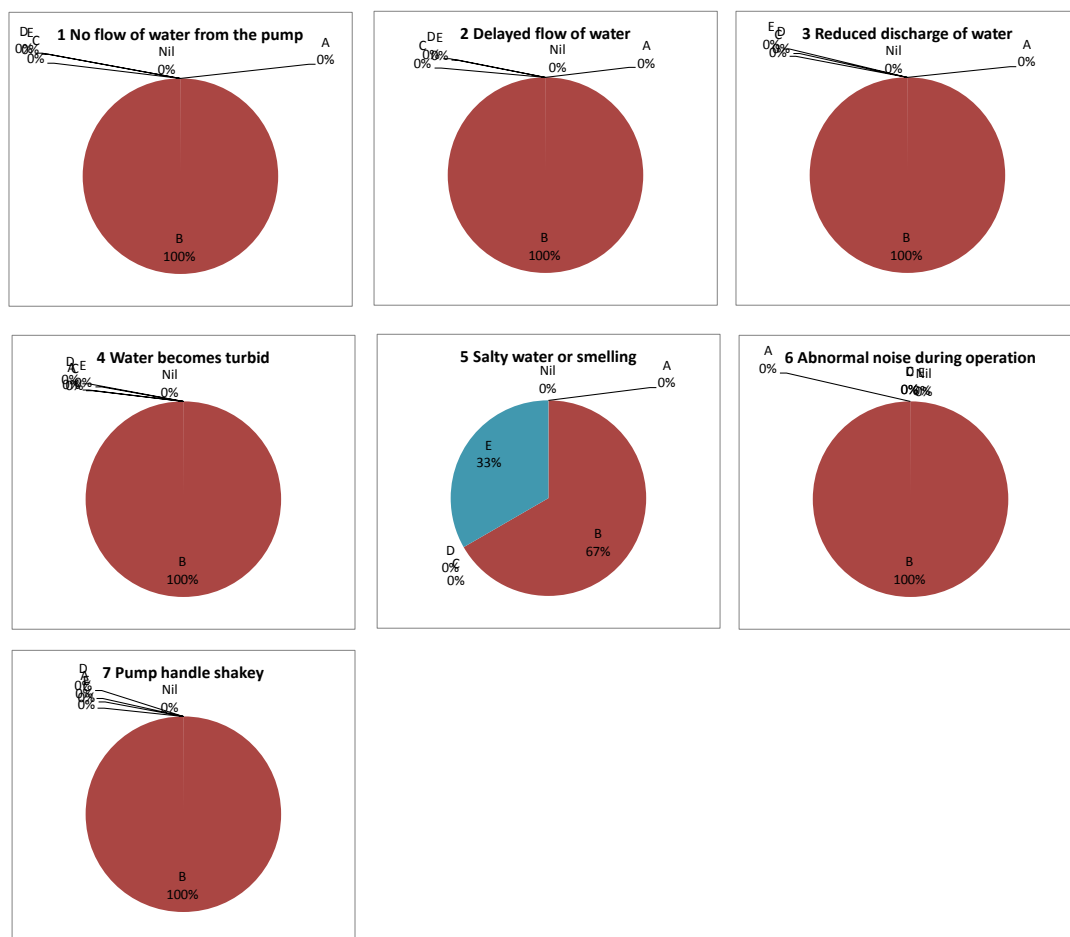


Figure 3-15: Self-Evaluation by DWDO and WMAs

g.2.2 Training on Troubleshooting and Diagnosis on Afridev Hand Pump and Boreholes for AMs

(1) Outline of the Training

A summary of this training is as shown in **Table 3-55**.

Table 3-55: Outline of the Training for AMs

Module name/No.		ToT 2/Module A7-A-2
Date		13:30~17:00, 17 th June, 2013
Venue		Rewards Lodge
Participants	Trainers/Supervisor	Mchinji DWDO, WMAs / MoWDI, Project Team: 8 participants
	Trainees	11 AMs
Objective		<ul style="list-style-type: none"> ➢ To understand the Draft Trouble shooting and Diagnosis on Afridev Handpump and Borehole ➢ To confirm effectiveness of the draft Training text
Contents		<ul style="list-style-type: none"> ➢ Discussing on troubleshooting and diagnosis on Afridev pump ➢ Introduction of trouble shooting and diagnosis on Afridev Hand pumps and boreholes on Area Mechanics ➢ Explanation of training outline for WPC at the 11 pilot sites ➢ Making of training plan for WPC at the 11 pilot sites ➢ Explanation on the arrangement of the field practice ➢ Evaluation for first day training by trainees
Training method		Lecture (presentation and discussion)

(2) Training Evaluation

The figure below shows the result of the evaluation of the training made by the trainees after the training (with the number of valid responses of 11). A five-grade evaluation system, from A to E, was used in the evaluation (self-evaluation of the degree of understanding). The table below shows the criteria for the grade evaluation.

A	B	C	D	E
With ease	Very well	Well	With difficulty	Not yet able

As a result, although about 10 percent of trainees thought that topics of “1. No flow of water from the pump”, “3. Reduced discharge of water” and “5. Salty water or smelling” was difficult, on the whole, trainees’ understanding was high.

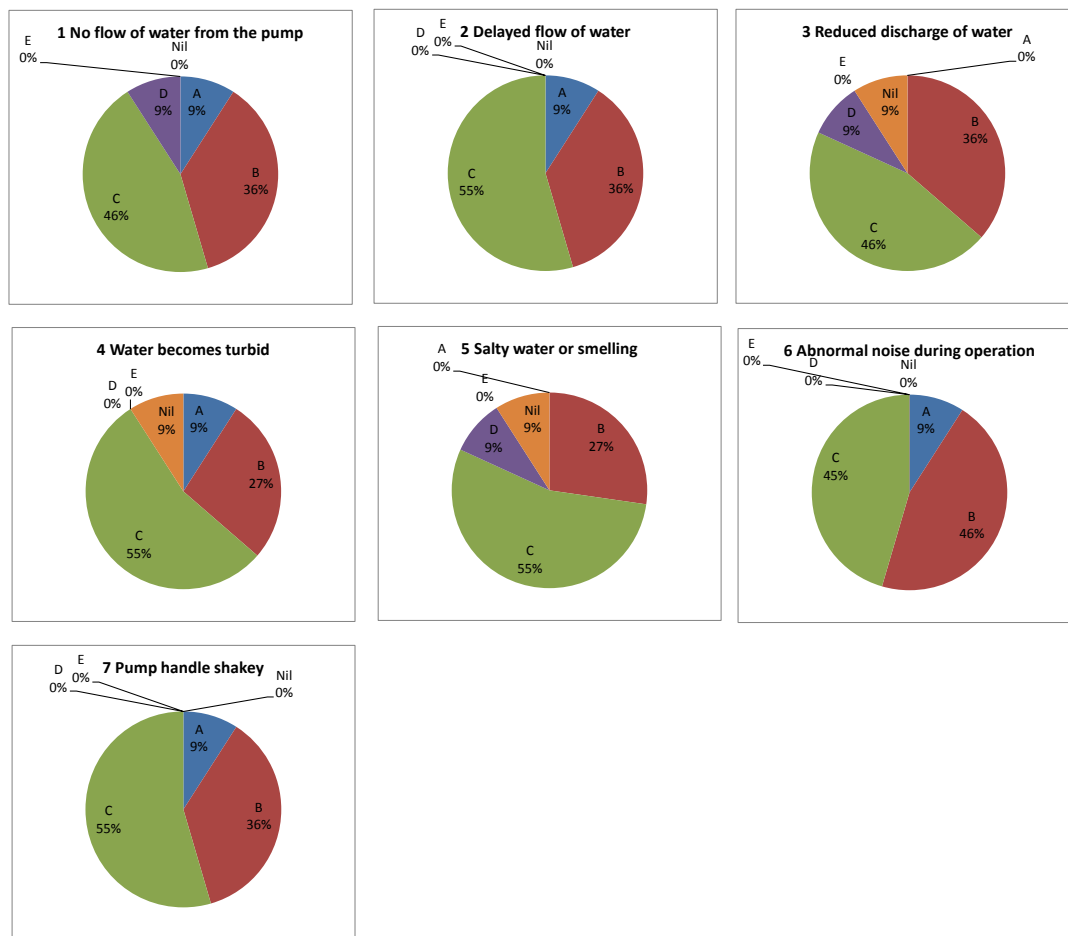


Figure 3-16: Self-Evaluation by AMs

g.2.3 Training on” Borehole Rehabilitation Text for Extension Workers “ to DWDO and WMAs

A summary of this training is as shown in *Table 3-56*.

Table 3-56: Outline of the Training for DWDO and WMAs

Module name/No.	ToT 2/Module A7-A-2
Date	9:30~11:00, 18 th June 2013
Venue	Rewards Lodge
Participants	Trainers/Supervisor
	Trainees
Objective	<ul style="list-style-type: none"> ➤ To have general knowledge about wells and groundwater ➤ To have general knowledge about borehole rehabilitation works
Contents	<ul style="list-style-type: none"> ➤ Classification of wells ➤ To have general knowledge about borehole rehabilitation works ➤ Occurrence and Disposition of Groundwater ➤ Aims of Rehabilitation Works ➤ Cause of Reduction in Well Performance ➤ Solutions to the Reduction in Well Performance ➤ Rehabilitation Procedure ➤ Method of Borehole Rehabilitation
Training method	Lecture (presentation)

g.2.4 Field Practices on Troubleshooting and Diagnosis on Afridev Hand Pump and Boreholes for AMs

A summary of this training is as shown in *Table 3-57*.

Table 3-57: Outline of the Training on Field Practices for AMs

Module name/No.		ToT 2/Module A7-A-2
Date		11:30~15:00, 18 th June 2013
Venue		1. Kapanira village, TA Zulu 2. Mumba village, TA Zulu
Participants	Trainers/Supervisor	Mchinji DWDO, WMAs / MoWDI, InterAide, JOCV, Project Team: 9 participants
	trainees	11 AMs
Objective		To understand the troubleshooting and diagnosis for Afridev handpump
Contents		<ul style="list-style-type: none"> ➢ Dismantling of handpump ➢ Diagnosis and identification of problem ➢ Confirmation of solution ➢ Re-assembling of handpump to the original condition
Training method		Field practice

h. Activities 3-3-8 : Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council

h.1 Implementation of the Capacity Building for RWDO

h.1.1 Examination of the Training Needs

The workshop which targeted RWDO was held in order to analyze the necessary ability so that RWDO supports O&M activities in Mchinji District. The outline of the workshop is described below.

Table 3-58: Outline of the Curriculum Development Based on Ability Structure (CUDBAS)⁸
Workshop

Title	CUDBAS workshop
Date	Day 1: 4 th September, 2012 9:00~12:00 Day 2: 11 th September, 2012 9:00~11:00
Venue	Conference room of MoWDI
Participants	MoWDI, RWDO, Mchinji DCT, Project Team: 13 participants
Purpose	To analyze the necessary ability so that RWDO supports O&M activities in Mchinji District.
Topics	<ul style="list-style-type: none"> ● Identification and classification of duties and ability for support to O&M activities in Mchinji district by RWDO ● Prioritization of the classified duties and abilities
Result	CUDBAS chart, "The necessary abilities so that RWDO supports O&M activities in Mchinji District" was created.

In the Workshop, the duties and necessary ability for supporting O&M activities in Mchinji district were analyzed by all participants through CUDBAS method. Since the duties of RWDO were not so clear originally, it was difficult to go on with the workshop. However, the necessary abilities were analyzed in day 2 and a certain direction of the activities was determined.

As an outcome/result of the workshop, planning ability was identified as the most necessary ability to be

⁸ CUDBAS (Curriculum Development Based on Ability Structure) was developed in 1990 as a method to develop curricula for vocational training. It is a "curriculum development method based on analysis of professional capacities required by professionals."

able to support O&M activity in Mchinji.

In addition, ability of Mchinji to liaison with MoWDI and stakeholders, ability for monitoring and evaluation on O&M activity in Mchinji and other districts were also suggested. A concrete training plan for Test Activity 8 was formulated on the basis of the result of workshop.

h.1.2 Information Gathering from RWDO and MoWDI

On the basis of the CUDBAS workshop, the necessary information for formulation of the training plan for field test activity 8 was gathered through several interviews and data collection. *Table 3-59* shows the interviewees and the topics of interviews.

Table 3-59: Interviewees and the Topics of Interviews

Date	2nd and 3rd October, 2012
Interviewees	MoWDI, RWDO
Topics	<ul style="list-style-type: none"> ● Availability of activity plan of RWDO ● Details of the work ● Contents and expenditure of budget ● Contents of the report from the covered districts and status of the feedback to the districts ● Contents of the quarterly report to MoWDI from RWDO

h.1.3 Preparation of a Framework for the Training Programme

The framework of training programme so that RWDO reinforces supporting ability to O&M activities of Mchinji district was created following the information gathering from RWDO. The details of the training programme will be formulated based on the framework, and it will be conducted.

Table 3-60: Ideas of Training Contents for Test Activity 8

Ideas of the training	<ul style="list-style-type: none"> ● Formulation of annual activity plan to support O&M activity in Mchinji district ● Setting the indicators for evaluation of O&M activities ● Participation to principal test activities ● Proposal of format of monthly report to Mchinji water development office and its adoption to the supporting activity to other covered districts ● Division of the work on rural water supply and sanitation between MoWDI and RWDO
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h.1.4 Formulation of Training Programme

The training programme for RWDO was formulated on the basis of CUDBAS workshop and information gathering which were both conducted in September 2012. The programme was modified several times and finally conducted as follows:

Table 3-61: Training Programme for Test Activity 8

No.	Training Module
1	Verification of planning process related to O&M activities in Mchinji (with Mchinji District Coordination Team; DCT)
2	Monitoring and Evaluation on O&M performance
3	Formulation of activity plan for support to District's Operation and Maintenance(1): Project Design Matrix
4	Formulation of activity plan for support to District's Operation and Maintenance(2): Plan of Operation
5	Preparation of Monitoring and Evaluation sheet for Mchinji O&M
6	Preparation of check sheet for planning
7	Review of training (Preparation of presentation document)

h.1.5 Implementation of Training

In accordance with the training programme developed as described above, training was implemented for officers in charge of O&M in RWDO to strengthen their capabilities in preparing O&M plans for water supply facilities.

Table 3-62: Outline of Training Implemented for Strengthening Planning Capabilities in RWDO

No.	Training module / Date	Trainees	Objectives	Contents
1	Module 1 : Verification of planning process related to O&M activities in Mchinji (with Mchinji DCT) / 22nd, 2nd Feb. 2013	RWDO : 1 participant DCT : 5 participants	<ul style="list-style-type: none"> ➤ To review the habitual planning process related on Operation and Maintenance (O&M) activity. ➤ To verify the necessary elements for effective planning on O&M activity. 	<ul style="list-style-type: none"> ➤ Review the planning process related to O&M activities in Mchinji ➤ Verify the past WASH programme and it's achievement rate ➤ Verify the necessary elements of O&M planning referring to documents of WHO and Sustainable Operation and Maintenance Project for Rural Water Supply (SOMAP) ➤ Identify the improvement points of current district plan through the above works
2	Module 2 : Monitoring and Evaluation of O&M performance / 1st Mar. 2013	RWDO : 1 participant	To strengthen capacity of RWDO in providing support services for O&M activities at the Regional level.	<ul style="list-style-type: none"> ➤ Definition and purpose of M&E ➤ Example of Monitoring indicators ➤ Step of formulation of monitoring plan
3	Module 3&4 : Formulation of activity plan for support to District's O&M / 28th, 27th Jun. 2013	RWDO : 1 participant	<ul style="list-style-type: none"> ➤ To formulate a plan of RWDO to support Mchinji district on their O&M activities in the form of Project Design Matrix (PDM) and Plan of Operation (PO) ➤ To upgrade planning skills of RWDO staff through the formulation of PDM and PO 	<ul style="list-style-type: none"> ➤ Review of the past training modules ➤ Confirmation of Mchinji O&M activities ➤ Formulation of PDM ➤ Formulation of PO
4	<ul style="list-style-type: none"> ➤ Review of Module 3&4 ➤ Module 5: Making of Check Sheet for Formulation of Regional Plan ➤ Module 6: Monitoring and Support of District's Self-Assessment on the Activity of Operation and Maintenance / 26th August 2013 	RWDO : 1 participant	<ul style="list-style-type: none"> ➤ To set the time schedule of the planned activities in the Project Design Matrix (PDM) of RWDO ➤ To reinforce the capacity in planning of RWDO staff through the formulation of Plan of Operation (PO) ➤ To make a useful check sheet for formulation of the plan for support activity to Mchinji District ➤ To reinforce planning capacity of RWDO staff by making the check sheet ➤ To make a monitoring and support system for Mchinji District using the check sheet filled by district with their self-assessment on the activities of Operation and Maintenance (O&M) ➤ To upgrade monitoring ability of RWDO 	<ul style="list-style-type: none"> ➤ Formulation of check sheet ➤ RWDO staff reinforces his own planning capacity by making check sheet and utilizing it ➤ Formulation of monitoring sheet based on the check sheet of Mchinji district ➤ RWDO staff upgrades his monitoring ability for district's O&M activity

h.1.6 Summary of Training Courses

Based on training programmes' having been offered targeting at RWDO, presentation materials were developed mainly composed of lessons learned by Mr. Joloza and how to use the training results in the future. As a conclusion, Mr. Joloza stated that one of key elements for the Mchinji District's O&M activity is close communication between RWDO and the district. In the past, it is no doubt that RWDO had a distant relationship with the district contrary to the role they were expected to play. The fact Mr. Joloza noticed this is one of outputs the training activity brought about.

h.2 Assessment of Operation Status on O&M of RWDO by Means of Performance Indicators (PIs)

h.2.1 Assessment

The performance of RWDO on O&M activity was evaluated by RWDO themselves using performance indicators set in the first stage of the project. The outline of this activity is described below.

Table 3-63: Outline of the Assessment of Performance Indicators

Date	9th October, 2012
Venue	Regional Water Development Office
Participants	RWDO: 2 participants
Method	Interview style
Results	
PI	Results of Assessment
Availability of Regional Water Supply and Sanitation Plan (RWSP: long term plan)	<ul style="list-style-type: none"> ➤ No particular Regional Water Supply and Sanitation plan. ➤ It is difficult to formulate an annual and long term plan because RWDO cannot mobilize the resources of development funds.
Availability of annual water supply and sanitation plan including annual implementation and investment plans	<ul style="list-style-type: none"> ➤ No particular annual plan. ➤ RWDO used to make budget plans of cover districts in order to acquire their ORT on Water Supply and Sanitation activities from Ministry of Finance. However, RWDO has not made any plans for districts since 2006 because of decentralization in Malawi.
Sufficiency of budgetary allocation to activities for supporting O&M of WSS at community level (comparison with budget planned and budget actual)	<ul style="list-style-type: none"> ➤ Currently, it is only ORT which RWDO is eligible to acquire. Ceiling amount of ORT is decided by Ministry of Finance and it is insufficient to carry out supporting activity on O&M at community level. ➤ Although borehole treasure funds as other financial resource is sometimes available, the availability is up to MoWDI to decide. Most of the financial resources for field activities are project based fund.
Availability of performance indicators for DCTs and communities	Performance indicators for DCTs and communities are not set up.
Availability of information of performance from communities	RWDO receives monthly reports from every nine district.
Availability of evaluation guideline for monitoring indicators	Although there is no evaluation guideline and indicators, progress and quality of work on WSS activities of every district are mentioned in the quarterly report to ministry from RWDO.
Feedback and consultation given to communities	Feedback is occasionally done for the reports from districts through the E-mail and hand delivery.
Availability of evaluation reports	RWDO submits quarterly reports to MoWDI. However, the contents are not necessarily evaluation for districts' activities.

i Activities 3-3-9 : Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment Plan

i.1 Implementation of Training for Strengthening Planning Capabilities

i.1.1 Examination of the Training Needs

The workshop which targeted Mchinji DCT members was held to identify their training needs.

Table 3-64: Outline of the CUDBAS Workshop

Title	CUDBAS workshop
Date	22nd August, 2012 9:00~12:30
Venue	Joes Motel Hotel, Mchinji
Participants	RWDO, DCT, WMA, JOCV, Project Team : 10 participants
Purpose	<ul style="list-style-type: none"> ● To analyze the necessary ability so that Mchinji DCT strengthen their O&M framework ● To provide information on training needs of DCT for RWDO and JICA Experts
Topics	<ul style="list-style-type: none"> ● Discussion on the duties of Mchinji DCT for strengthening of O&M framework ● Identification and prioritization of the duties and necessary abilities for strengthening of O&M framework
Results	CUDBAS chart “The necessary ability so that Mchinji DCT strengthens O&M framework” was created.

During the workshop, the priority of their duties on O&M activities and the necessary abilities for carrying out the duties were analyzed by DCT members themselves through CUDBAS method. In addition, Mr. Chilimadzi, RWDO staff, joined this workshop in order to grasp the ideas of Mchinji DCT and to provide ideas from the position of ministry for the workshop.

i.1.2 Information gathering from Mchinji DCT and persons concerned

On the basis of the result of CUDBAS workshop, the necessary information to formulate the training plan for test activity 9 was gathered through several interviews and data collection methods. *Table 3-65* shows the interviewees and the topics of the interviews.

Table 3-65: Interviewees and Topics of the Interviews

Interviewees	Mchinji DCT, WMAs, HSA
Topics	<ul style="list-style-type: none"> ● Basic information of planning process on district development plan ● Community involvement in the planning process of district ● Details of the monitoring activities and participatory planning activities in communities by WMA ● Commitment of DCT to planning process of WASH programme ● Confirmation of a database of each sector on O&M and the data collection system

i.1.3 Preparation of a Framework on the Training Programme

The training of test activity 9 will focus on refining ability of Mchinji DCT on planning for O&M. Currently; it is mainly WASH programme of UNICEF and district development plan which can be improved at Mchinji district’s own discretion. The issues of these two plans were identified through information gathering and analysis of the information, and a framework of training programme was formulated.

i.1.4 Formulation of Training Programme

The training programme for Mchinji District Coordination Team (DCT) was formulated on the basis of CUDBAS workshop and information gathering which were conducted in September 2012. This

programme was modified several times and finally conducted as follows:

Table 3-66: Training Programme for Test Activity 9

No.	Training Module
1	Verification of planning process related to O&M activities in Mchinji (with RWDO)
2	Stakeholder analysis
3	Budget analysis
4&5	Designing Ideal Situation for O&M in Mchinji district
6	Review of the Ideal Situation
7	Formulation of activity plan for support to District's O&M(1): Project Design Matrix
8	Formulation of activity plan for support to District's O&M(2): Plan of Operation and Budget estimation
9	Preparation of check sheet for planning

i.1.5 Implementation of the Training

In accordance with the training programme developed as described above, training was implemented for officers in charge of O&M in Mchinji DCT to strengthen their capabilities in preparing O&M plans for water supply facilities.

Table 3-67: Outline of Training Implemented for Strengthening Planning Capabilities in Mchinji DCT

No.	Training module/Date	Trainees	Objectives	Contents
1	Module 1 : Verification of planning process related to O&M activities in Mchinji (with RWDO) / 22nd, 2nd Feb. 2013	RWDO : 1 participant DCT : 4 participants	<ul style="list-style-type: none"> ➤ To review the habitual planning process related on Operation and Maintenance (O&M) activity. ➤ To verify the necessary elements for effective planning on O&M activity. 	<ul style="list-style-type: none"> ➤ Review the planning process related to O&M activities in Mchinji ➤ Verify the past WASH programme and it's achievement rate ➤ Verify the necessary elements of O&M planning referring to documents of WHO and Sustainable Operation and Maintenance Project for Rural Water Supply (SOMAP) ➤ Identify the improvement points of current district plan through the above works
2	Module 4&5 : Designing an ideal situation for O&M in Mchinji district / 8th Mar. 2013	DCT : 4 participants RWDO : 1 participant	<ul style="list-style-type: none"> ➤ To enable Mchinji DCT to envisage an Ideal Situation for O&M in Mchinji ➤ To motivate Mchinji DCT to make plans for the future 	<ul style="list-style-type: none"> ➤ Analyze stakeholders and budget related to district's O&M ➤ Design the Ideal Situation for O&M in Mchinji district
3	Module 6 : Review of the Ideal Situation / 15th&16th Jul. 2013	DCT : 3 participants RWDO : 1 participant	<ul style="list-style-type: none"> ➤ To review the Ideal Situation identified in the training module 4&5 ➤ To develop the ideas on the Ideal Situation at an adoptable level on Project Design Matrix (PDM) 	<ul style="list-style-type: none"> ➤ Review the ideal situation for O&M activities of Mchinji district ➤ Define and achieve the ideal situation
4	Module 7 : Formulation of activity plan for support to District's O&M-1: Project Design Matrix: PDM / 30th&31th Jul. 2013	DCT : 4 participants RWDO : 1 participant	<ul style="list-style-type: none"> ➤ To formulate a plan of Mchinji district on O&M in the form of PDM ➤ To upgrade planning skills of Mchinji DCT members through the formulation of PDM 	<ul style="list-style-type: none"> ➤ Review the Ideal Situation formulated in module 6 and adopt them to PDM ➤ Set the Inputs, Source of budget, Pre-condition and Important assumptions ➤ Review the district target and overall goal

No.	Training module/Date	Trainees	Objectifies	Contents
5	<ul style="list-style-type: none"> ➤ Module 8 : Formulation of activity plan to support District's O&M-2: Plan of Operation: PO and Budget estimation ➤ Module 9: Confirmation of checklist for O&M planning /13th&14th Aug. 2013 	DCT : 5 participants	<ul style="list-style-type: none"> ➤ To formulate a Plan of Operation (PO) on the basis of the planned activities in the PDM of Mchinji District ➤ To reinforce the capacity in time schedule of planned activities of Mchinji DCT through the formulation of PO 	<ul style="list-style-type: none"> ➤ Review the PDM and define details of activities ➤ Setting the timeline of activities ➤ Making the budget estimation
6	Module 10 : Making presentation	DCT : 1 participant	<ul style="list-style-type: none"> ➤ To improve a capability for making presentations ➤ To explain a importance of O&M activities to the relevant stakeholders 	<ul style="list-style-type: none"> ➤ Making the presentation materials for a importance of O&M activities

i.2 Development of District O&M Planning Handbook

The project formulates “O&M planning handbook” as one of the outputs of the Activity 3-3-8 and 3-3-9. In the 2nd stage of the project, the Activity 3-3-8 and 3-3-9 carried out planning activities with Regional Irrigation and Water Development Office (RIWDO: former “RWDO”) and Mchinji DCT members. Through the activities, practical methods of planning and some remarks on planning were identified. Those methods and remarks are incorporated into this handbook. The principal themes described in the handbook are as follows:

- i. Envisioning the district ideal situation on O&M
- ii. Formulation of a plan using a logical framework
- iii. Scheduling the activities using a Plan of Operation
- iv. Budget estimation

This handbook was formulated in collaboration with the Engineers Without Borders (EWB) who has already experienced working with the project in the Test Activities A3, A4 and A5. Therefore, the outcomes of the EWB through their planning activities in Malawi were also incorporated in the handbook. The district's officers were engaged in the water supply, such as WASH services in rural communities.

i.3 Assessment of the Operation Status on O&M of Mchinji district by Means of Performance Indicators (PIs)

i.3.1 First Assessment

The operation status on O&M in Mchinji district was assessed by Mchinji DCT members by means of performance indicators in workshop style. The outline of workshop is as follows,

Table 3-68: Outline of the Workshop and Evaluation Results on the First Assessment

Date	25th September, 2012 14:00~16:00	
Venue	District Council of Mchinji district	
Participants	Mchinji DCT, Project Team: 8 participants	
Purpose	<ul style="list-style-type: none"> ● The current status of organizational capacity of Mchinji DCT on O&M is grasped by Mchinji DCT members and JICA project team ● The interest in capacity development is facilitated to Mchinji DCT ● Organizational capacity is made possible to be assessed by Mchinji DCT themselves. ● The change of organizational capacity through the project activity is confirmed. 	
Method	Workshop style	
Results		
	PI	Results of Assessment
Availability of data/information on water supply sanitation plan for service, water points and demand of portable water planning.		<ul style="list-style-type: none"> ➤ The data that is available are SEP, DSIP, Mchinji ATLAS, UNICEF annual report, JICA baseline report, District Data Bank (DDB), AMs report, WASH M&E plan. ➤ Most of the data is not updated.
Consolidation of proposal on follow - up and O&M support activities submitted from communities with district plans.		<ul style="list-style-type: none"> ➤ Although Village Action Plan (VAP) exists as proposal from communities, follow up and O&M support activities have not been proposed. ➤ It may be difficult to grasp the needs of community on follow - up activities, because reporting system of EWs is not established well and number of EWs, especially WMAs is not enough. ➤ The monitoring for borehole construction was only done for WASH programme by HSA
Ensuring project budgets from ministries, NGOs, etc.		The plans from VAP mostly they are not utilised due to limited funds availability.
Facilitation of contract works for O&M support with service providers (SP)		<ul style="list-style-type: none"> ➤ There was a contract work among Inter Aide, Area Mechanics and WPC signing the memorandum of understanding (MOU). ➤ Nevertheless, there are no SPs which specialize in O&M and it is difficult to assess.
Facilitation of Extension works for O&M support with sector EWs.		<ul style="list-style-type: none"> ➤ Efficient facilitation of extension work may be challenge, because there are few extension works especially for water sector due to the number of water monitoring assistants is limited. ➤ There is no regular report from EWs as information resources for facilitation. ➤ Some activities on O&M are carried up by HSA, when district wants to collect data.
Supervision and monitoring of contract works with SPs.		<ul style="list-style-type: none"> ➤ No contract work of SPs which specialize in O&M. ➤ Although it is not contract work, the supervision was done under WASH from the funding of UNICEF. ➤ The water monitoring assistants visits communities for supervision but they do not cover the all areas due to limited fund.
Availability of information on performance and results from communities.		<ul style="list-style-type: none"> ➤ Some information such as a situation of boreholes is available through monitoring sheet of EWs. ➤ However, Current monitoring sheets are outdated and need to be updated so that it suits the current situation at the ground.
Availability of evaluation guideline and reports on the progress and status O&M in communities.		<ul style="list-style-type: none"> ➤ No evaluation guideline. ➤ Area mechanics provide report to DWO on boreholes' situation in different areas. ➤ Functionality of borehole is shown in monthly report to RWDO.
Feedback and consultation given to communities.		<ul style="list-style-type: none"> ➤ Feedback is inadequate and not given regularly to communities. ➤ There is no functional M&E system due to inadequate resources for monitoring, such as few EWs. ➤ The other challenge is that there is no financial support for DCT to visit communities for feedback and consultation based on the report of Extension workers.

i.3.2 Second Assessment

By analysing how outputs of the field test (Test Activity A9) on works that were carried out by DCT

members in Mchinji District have been reflected, an evaluation was made on changes of DCT members' operation capability.

(1) Evaluation Method

In this evaluation process, the current status of PI established during the first stage and how far outputs of planning activity carried out during the field test was reflected in the material were selected to be used as evaluation criteria, based on documents for which development DCT members of Mchinji District were engaged in.

(2) Evaluation Results

The results of evaluation are shown in the table below.

Table 3-69: Evaluation Results on the Second Assessment

Item	Evaluation results
Planning capability	Evaluation was made on only limited materials, while it can be judged that DCT members' capability for O&M planning has improved. It is expected that key issues related to O&M analysed by C/P through the field test activities under this project will be included in the document entitled "Socio-Economic Profile" currently under revision. The content included in the "Socio-Economic Profile" is generally presented to be included in the district's development programme later. While, in the past, new investment in facilities was dominant in the programme, if plans for operation and maintenance of facilities are included in the development programme, government officials and DPs will increase their attention to those elements and it will be the first step toward gaining budgets for operation and maintenance activities from administrative bodies. The O&M 5-year plan of Mchinji District developed through the activities (Refer to <i>Appendix 6.</i>) can be included, as the district's development plan, in the "District Strategy and Investment Plan" to be revised in 2016.
Coordination capability related to plan implementation	Evaluation cannot be carried out because no materials which can be a basis of this evaluation item have been developed.
Monitoring and evaluation system	Through the field test activities carried out in this project, the WASH M&E database of Mchinji District and monitoring reports were developed, and as the result, it can be judged that the environment for the WASH M&E system has improved compared to that prior to the field test.

i.3.3 Summary of Capability Development

Following is the summary of activities to enhance capability of DCT members in the district carried out in this project.

- By having experienced an extensive planning work (by identifying works, time and budgets necessary to achieve goals) through this activity, C/Ps should now have an awareness that they could implement actual works more clearly and effectively.
- At the first workshop to share the handbook in which outputs of this activity were incorporated, C/Ps' understanding is considered to have reached to a certain level since it was seen they were presenting the content of the handbook and major points of planning process to participants clearly and appropriately.
- A series of planning tools developed through this activity were the result of C/Ps' own works and they are now able to offer convincing explanations in their promotion activities targeting at other donors.

- When this activity initially started, C/Ps were shifting the blame of the low achievement of annual WASH activity plans in Mchinji District to external factors (for example, passing the responsibility of donors like UNICEF onto someone). Such attitude has not been found since this project's intervention started.
- In the future, it is considered that C/Ps in their daily routine can improve their planning capability further by implementing, entirely or partly, the planning methods adopted during this activity.

j Activities 3-3-10 : Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan

Test Activity A10 consists of provision of the training on the O&M plan in the 11 pilot sites with the teaching materials and manuals developed in the Test Activities in A1, A2 and A7 mentioned above, follow-up and monitoring activities to identify challenges in and lessons learned from the preparation of the plans and improvement of the preparation process with the knowledge of the problems and lessons.

j.1 Development of Template of Village O&M Plan (Facility Management Plan: FMP)

The members in charge of Tests Activities A1 and A2 led the preparation of the draft template form of the Village O&M Plan using the issues discussed in Tests Activities A1, A2 and A7 and the existing manuals of CBM in Malawi as reference. Outcomes of the field test in the 11 pilot villages were used for the improvement of the said template form.

j.2 Implementation of Training of Trainers for EWs

j.2.1 Outline of the Training

Training of trainers on test activities A1, A2 and A10 for Ews who are in charge of the 11 pilot sites was held on 3rd and 4th July 2013 at the Rewardss lodge in Mchinji. A summary of this training is as shown in *Table 3-70*.

Table 3-70: Outline of the Training for EWs

Item		Contents
Date		3 rd July 2013 : 9:30~16:30, 4 th July 2013 : 9:00~16:30
Venue		Rewards Lodge at Mchinji
Participants	Trainers	MoWDI, Mchinji DCT: 3 participants
	Trainees	EWs (WMAs, HSAs and CDAs): 22 participants
Contents		<ol style="list-style-type: none"> 1. Tariff setting for O&M of Afridev handpump <ul style="list-style-type: none"> • Why maintenance is important • How much is required for O&M cost in life span of pump • Who should bear the O&M cost and/or to raise necessary funds • How to set the water tariff 2. Accounting and bookkeeping <ul style="list-style-type: none"> • How to do bookkeeping appropriately • How to do accounting appropriately 3. Practice for tariff setting 4. Practice for accounting and bookkeeping 5. Introduction of informed choice manual for water point sanitation for Afridev handpump <ul style="list-style-type: none"> • Type of fence • Type of soak away pit 6. Introduction of how to make the facility management plan 7. Confirmation of schedule of field test at the 11 pilot sites

	8. Making training plan for WPC and Preparation of WPC training (group work) 9. Trial lesson for WPC training (group work) <ul style="list-style-type: none"> • Trial field training by each group • Evaluation 10. Evaluation for 2 days training
Training method	<ul style="list-style-type: none"> • Lecture, practice • Group work (making plan, trial lesson, evaluation)

j.2.2 Training Evaluation

The figure below shows the results of the evaluation of the training made by the trainees after the training (with the number of valid responses of 14). A five-grade evaluation system, from A to E, was used in the evaluation (self-evaluation of the degree of understanding). The table below shows the criteria for the grade evaluation.

A	B	C	D	E
With ease	Very well	Well	With difficulty	Not yet able

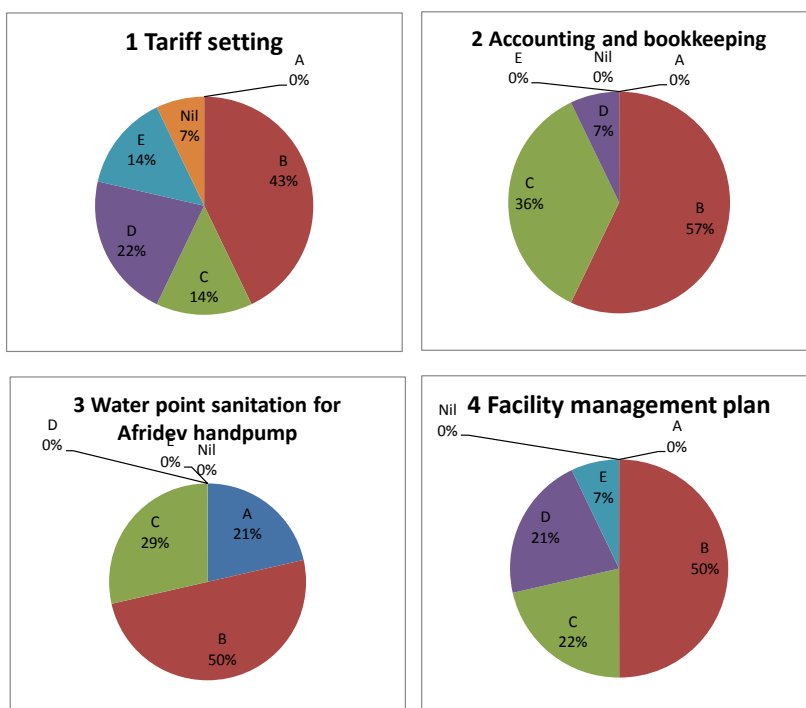


Figure 3-17: Self-Evaluation by the Trainees

The figure above shows that a little more than 20 % of the trainees found the training on “1. Tariff Setting” and “4. Facility Management Plan” difficult. Therefore, there is a need for additional measures such as increasing the time of practice to improve the understanding of trainees on these subjects.

The experts asked the trainees their opinions on what should be done for the improvement of the training contents in future. The following are valuable opinions found in their responses.

- Training days need to be increased to three days.
- It is a good training but allowance should be increased.
- All the topics covered were well understood and the handouts (English and Chichewa version) will be useful as a reference material when we will hold the WPC training.

- It is good because it increases sanitation in villages.
- It is all well.
- I think participants are lacking behind to contribute fully due to lack of motivation, in terms of low allowances.
- The training is good and very important to us extension workers as well as the WPC.
- Please take note the programme is very important to the rural mass but time allocated to each activity is too short. I would suggest 3 days for the training. And again 2 days for field test training.

j.3 Implementation of the WPCs training

j.3.1 Outline of the Training

WPCs training on Test Activates A1, A2, A7 and A10 for 11 pilot sites were held from July to August 2013. A summary of the training is shown in **Table 3-71** below.

Table 3-71: Outline of the WPC training

Item		Contents
Date / Target site		1. July 5 th , 2013, Zandana village, TA Mlonyeni, No.1 2. July 6 th , 2013, NTHONDONI village, TA Mkanda, No.3 3. July 9 th , 2013, Chimkoka village, TA Mlonyeni, No.11 4. July 10 th , 2013, Msauchi village, TA Mavwere, No.10 5. July 11 th , 2013, Gomani 1 village, TA Zulu, No.9 6. July 12 th , 2013, Mchonkhwe village, TA Kapondo, No.6 7. August 26 th , 2013, Mtanga village, TA Zulu, No.7 8. August 27 th , 2013, Nyoka village, STA Nyoka, No.2 9. August 28 th , 2013, Chinyonga village, TA Dambe, No.5 10. August 29 th , 2013, Kanjiyo village, TA Mkanda, No.4 11. August 30 th , 2013, Khwawe village, STA Simphasi, No.8
Participants	Trainers	HSA, WMA, ACDO, CDA and AM
	Trainees	13 trainees : Group village head, Village head, Influential Person, 10 Water Point Committee Members
	Supervisor	Mchinji DWDO, ACDO, Project Team: 4 participants
Contents		1. Tariff setting for O&M of Afridev handpumps 2. Accounting and bookkeeping 3. Introduction of informed choice manual for water point sanitation for Afridev handpump 4. How to make the FMP (facility management plan) 5. Troubleshooting for Afridev handpumps 6. Training evaluation
Training method		<ul style="list-style-type: none"> • Lecture, practice • demonstration

j.3.2 Training Evaluation

The **figure 3-19** below shows the results of the evaluation of the training made by the trainees after the training (with the number of valid responses of 11). A five-grade evaluation system, from A to E, was used in the evaluation (self-evaluation of the degree of understanding). The table below shows the criteria for the grade evaluation.

A	B	C	D	E
With ease	Very well	Well	With difficulty	Not yet able

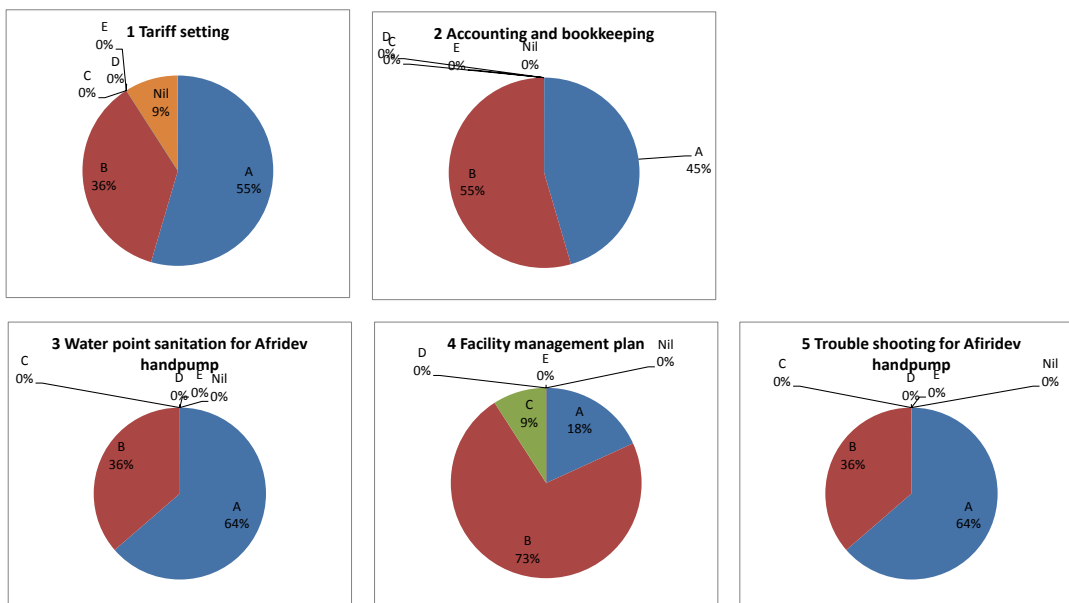


Figure 3-18: Self-Evaluation by the Trainees

The figure above shows that the training has been given the grades of A and B by most of the participants in the 11 villages. A conclusion that the participants have understood the contents of the training very well can be deduced from the result of the questionnaire inquiry. Meanwhile, the project team intends to monitor the activities of the community residents in future to see whether they have put what they have learned in the training into practice or not.

j.4 Evaluation Workshop on WPCs Training

A workshop was held on 12th September 2013 at Rewards Lodge in Mchinji District in order to evaluate the WPCs training facilitated by Extension Workers to increase ownership consciousness in the communities, which was implemented at the 11 pilot sites from July 2013. The following is a summary of the workshop.

Table 3-72: Summary of the Evaluation Workshop on Test Activities A1, A2, A7 and A10

Date	9:00 – 12:00, September 12, 2013
Venue	Rewards Lodge at Mchinji
Participants	MoWDI, Mchinji DCT, WMAs, ACDOs, CDAs, SHSAs, HSAs, AMs, Project Team : 34 participants
Objectives	<ul style="list-style-type: none"> ➤ Extract good points and challenges of the WPC training, ➤ Receive feedback for further improvement in terms of training content and materials, ➤ Share the outcomes of the 11 pilot sites
Contents	<ul style="list-style-type: none"> ➤ Self-assessment as a trainer for WPC training ➤ Group discussion on the WPC training (good points, challenges, need for further improvement) ➤ Preparation for the presentation by each group ➤ Presentation and discussion by each group ➤ Discuss the way forward of WPC training program for the district-wide dissemination from December 2013
Results	<ul style="list-style-type: none"> ➤ Trainees submitted the self-assessment sheets. ➤ Although most of the participants suggested that 2 days of ToT (training of trainees) within the WPC training for district-wide dissemination was suitable, however, finally the participants have agreed on the conclusion of 6th PTF meeting which will be discussed and determined on September 18th 2013 based on the allocation by PSIP budget.

3.3.4 Activities 3-4 To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities.

The recommendations for strengthening the O&M framework to be more practical were extracted.

a. Outline of the Activities 3-4

- Based on the results of monitoring of the test activities as described in Activity 3-3, PDM, the recommendations for strengthening the O&M framework to be more practical were extracted and reflected on the materials such as manuals.
- In addition, in consideration of the result of the test activities, the main factors to strengthen the existing O&M framework more practically were reviewed through discussions with C/Ps.

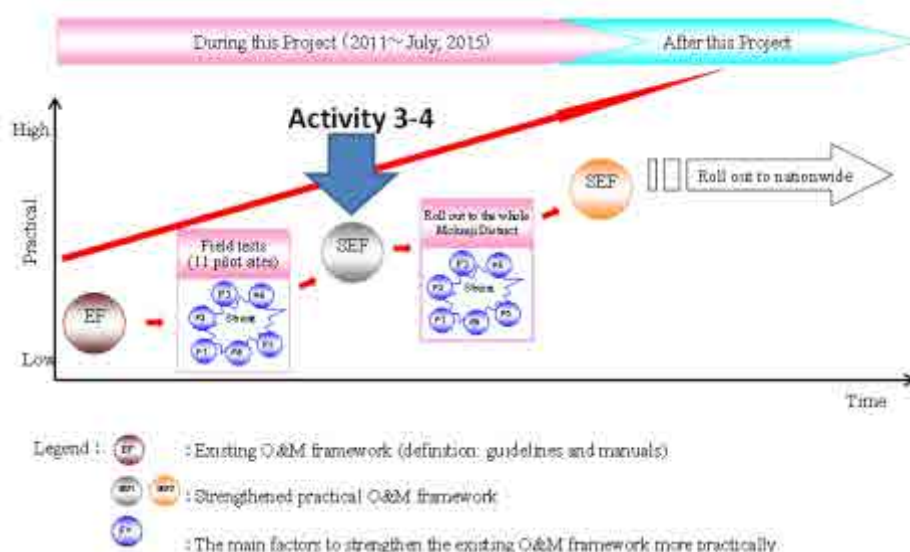


Figure 3-19: The Position of Activities 3-4, PDM in entire Activities

b. Overview of Recommendations

The following table lists the recommendations for strengthening the existing O&M framework and bringing it to a more practical level. The details of these recommendations are shown in **Appendix 5**.

Table 3-73: List of Recommendations to Strengthen the Existing O&M Framework to a More Practical Level

Major Factors Contributing to Strengthening of O&M Framework		Recommendation No.	Description
F1	Increasing community ownership and responsibility (Community contributions)	1-1	Introduction of a Community Based Management (CBM) refresher training
		1-2	Incorporation of educational tools developed through the Project into the current CBM training
		1-3	Trial use of community radio for effective educational activities
F2	Standardisation of spare parts supply chain system	2-1	Establishment of hybrid type of hand pump spare parts supply chain
F3	Standardisation of Area Mechanics (AMs) system	3-1	Definition of division of roles between districts and development partner through the conclusion of an MOU
		3-2	Measurement of improved reliability of AM for the Water Point Committee (WPC)
F4	Management of	4-1	Establishment of document management guidelines as formal

Major Factors Contributing to Strengthening of O&M Framework		Recommendation No.	Description
	guidelines and manuals		regulations and promoting the application of these guidelines
		4-2	Establishment of a resource centre in the Ministry and promotion of its use
		4-3	Promotion of use of guideline / manuals
		4-3-1	Promotion of use and standardisation of important documents (Use of Utilisation Handbook)
		4-3-2	Publication and distribution of major documents and their placement in local offices
		4-3-3	Familiarisation of the content of manuals and guidelines, and provision of training
F5	Strengthening of Monitoring and Evaluation (M&E) system at district level	5-1	Simplification of monitoring data input
		5-2	Definition and prioritisation of methods of using monitoring indicators
F6	Capacity development of Regional/District Coordination Team	6-1	Strengthening of planning capacity using support tools developed using Logframe

3.4 Activities of Output 4

【Output 4: The strengthened O&M framework is applied to the whole Mchinji District.】

3.4.1 Activities 4-1: To make an implementation plan for larger-scale application of the strengthened O&M framework.

a. Activities for Increasing Community Ownership and Responsibility (Community Contributions)

a.1 Discussion for Selection of the Target Water Points for district-wide dissemination (No.1)

The Project Team held discussions with the C/P involved in the WPC training on 30th September 2013 in Mchinji DWDO. The subject of the discussions was a practical method to be used for the selection of target sites for the district-wide dissemination of the WPC training (regarded as CBM refresher training) scheduled for December 2013. The following is a summary of the discussions.

Table 3-74: Summary of the Discussion for Selection of the Target Water Points for District-Wide Dissemination (No.1)

Date	September 30, 2013
Venue	Mchinji DWDO
Participants	Mchinji DWDO, Project Team : 4 participants
Objective	To discuss the selection of the target water points for district-wide dissemination
Contents	<ul style="list-style-type: none"> ➤ Sharing the selection criteria determined by 6th PTF on September 18, 2013 ➤ Confirmation of the concrete process for selection of the target water points
Results	<ul style="list-style-type: none"> ➤ Target water points for implementation of the pre-survey and WPC training in December 2013 and January 2014 will be selected in the catchment areas by the Mchinji District Hospital, TA MLONYENI and Ludzi HC, TA ZULU which are accessible even if it is rainy season. ➤ Selection of the 20 candidate villages for the pre-survey in above 2 health centers will be carried out by 3 senior health surveillance assistants (SHSAs), 2 area mechanics (AMs), DWDO, DDEHO and Project team on October 3 or 4, 2013. ➤ The number of the health centers in Mchinji was corrected from 17 to 16. Thus, target water points per health center were also corrected to 6 or 7 water points. (i.e.: 16 HCs x 6 or 7 water points = 100 water points) ➤ It was confirmed that WPC training will be implemented at 40 water points (covered by 6 HCs) by 2013/2014 budget and at a further 60 water points (covered by 10 HCs) by 2014/2015 budget;

	namely, a total 100 water points will be targeted. ➤ For the meantime, pre-survey for the selection of the 40 water points for 2013/2014 target will be carried out from the catchment areas by 2 health centers per 2 months.
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a.2 Discussion for Selection of the Target Water Points for district-wide dissemination (No.2)

The Project Team held discussions on the selection of the 20 candidate sites in two TAs, TA Zulu and TA Mlonyeni, with SHSAs and AMs, on the basis of the outcomes of the discussions between the C/P and the team held on 30th September, 2013. The table below shows a summary of the discussions.

Table 3-75: Summary of the Discussion for Selection of the Target Water Points for District-Wide Dissemination (No.2)

Date	October 3, 2013
Venue	Mchinji DWDO
Participants	Mchinji SHSAs, AMs, Project Team : 7 participants
Objective	To select the 20 candidate water points for TA Zulu, TA Mlonyeni
Results	<p>1. Strategy for the selection of target sites Accessibility was supposed to be the criterion for the selection of candidate sites in the desk study, a component of the workflow for target site selection approved in the 6th PTF Meeting. In this discussion, it was decided to use the existence of an Extension Worker (HSA in this case) who had been performing her/his regular duties excellently in the village as a prioritised criterion for the selection of candidate sites. The reason for the addition of the new criterion was the potential of such excellent HSAs for voluntary extension of the O&M framework to villages other than the target villages.</p> <p>2. Selection of candidate sites A list of a total 20 candidate villages, 10 each in TA Zulu and TA Mlonyeni, was created.</p>
Comments	<p>1. On the addition of the existence of an excellent EWs as a criterion for selection in the desk study In the projects implemented so far including CLTS, there have been few EWs who have voluntarily worked in villages other than project target villages and, thus, the implementation of CLTS has been limited in the project target areas. Therefore, whatever effort is taken in a project for the capacity development of EWs, use of their capacity will not extend beyond limited areas unless they carry out activities to disseminate their knowledge voluntarily. In principle, HSAs have a duty to improve health and sanitation in villages under their responsibility (two or three villages per assistant in most cases) regardless of whether a relevant project is being implemented or not. The Project Team expects that implementation of an activity (PDM Activity 4-2) for extension of the use of the O&M framework in the entire district will facilitate a change in the attitude of the EWs and result in the use of the framework in villages other than the target villages.</p>

a.3 Creation of the Pre-survey Form

The pre-survey form for district-wide dissemination was developed based on the pre-survey and monitoring form at 11 pilot sites.

a.4 Discussion for Selection of the Target Water Points for District-Wide Dissemination (No.3)

It was decided at the 6th PTF Meeting (held in September 2013) that 100 water points (WPs) in the entire district should be selected for district-wide dissemination and that implementation of a pre-survey for selection of the facilities would begin in October 2013.

However, since the C/P funding (PSIP budget for fiscal 2013/2014), which is the financial source for the above-mentioned activity, has not been allocated, the survey has not been implemented. Since it is not known when the budget will be allocated to the MoWDI at present and the progress of the project is

behind schedule, it is considered very difficult to implement pilot activities at 100 WPs within the project period.

In addition, since the implementation of the project for boreholes rehabilitation in Mchinji with grant aid assistance from Japan is scheduled to begin in March 2014, coordination between the two projects will be required with regard to involvement of the C/Ps in the two projects.

Moreover, the amount of input in the dispatch of Japanese experts will be smaller in the third stage than in the previous stages. In view of these circumstances, the Project Team has concluded that a maximum of 50 is the appropriate number of target water points.

A group workshop was held on 24th January, 2014 in Mchinji District to select the candidate facilities (80 WPs: 16 health centres x 5 WPs) from which the target facilities were to be selected, on the assumption that the pilot project was to be implemented at 50 WPs, though the implementation at 50 WPs was a provisional plan. The table below shows a summary of the group workshop.

Table 3-76: Summary of the Workshop for Selection of the Target Water Points for District-Wide Dissemination

Date	9:00~13:00, January 24, 2014
Venue	Rewards Lodge at Mchinji
Participants	Mchinji DWDO, DDEHO, SHSAs, AMs, Project Team : 37 participants
Objectives	<ul style="list-style-type: none"> ➤ To select the candidate water points for district-wide dissemination ➤ To determine the pre-survey schedule and confirm the logistics for pre-survey
Contents	<ul style="list-style-type: none"> ➤ Sharing the outputs of test activities in 11 pilot sites ➤ Selection of the 80 candidate water points for pre-survey as a paper proposal <p><Selection criteria></p> <ul style="list-style-type: none"> i) Accessibility ii) HSA with an excellent attitude to their job <ul style="list-style-type: none"> ➤ Sharing the drafted whole schedule including the pre-survey, training of trainees for EWs and WPC training ➤ Sharing and finalization of the drafted pre-survey form
Results	<ul style="list-style-type: none"> ➤ 80 candidate sites (16 HCs x 5 sites = 80 sites) for pre-survey were selected. ➤ Tentative schedule for pre-survey was made. ➤ It was confirmed that pre-survey will be implemented organized by 2 teams. ➤ Pre-survey form was finalized.

The provisional plan as mentioned above for district-wide dissemination was discussed in 7th PTF meeting to be held in late February 2014 and a final decision on the plan was made in the 4th JCC Meeting.

a.5. Selection of the 50 Target Water Points (WPs) for Mchinji District-Wide Dissemination

During the JCC meeting held on February 26, 2014, it was decided that 50 WPs will be targeted for the Mchinji District-wide dissemination. This report describes the detail process for the selection of 50 target WPs.

a.5.1 Selection Process

The selection process for 50 target WPs is divided into three steps as follows:

Table 3-77: Selection Process for 50 Target WPs

Step	Contents
Step 1	<ul style="list-style-type: none"> ➤ Select 80 candidate villages for the pre-survey under the following conditions. Select 5 candidate villages per health centre

	5 x 16 health centre = 80 villages
Step 2	<ul style="list-style-type: none"> ➤ Conduct the pre-survey of 80 candidate villages using a questionnaire ➤ Conduct the primary selection based on the selection criteria determined during the 6th PTF meeting in the 2nd stage
Step 3	<ul style="list-style-type: none"> ➤ Quantify the O&M management condition in each of the selected water points in Step 2 ➤ Prioritize and select the 50 target WPs based on the above score

Description of each selection step is as follows:

a.5.2 Step 1

Eighty candidate villages for the pre-survey were selected during the workshop held on January 24, 2014 by Senior Health Surveillance Assistant (SHSAs) from the 16 health centres in Mchinji and Area Mechanics (AMs) working through Mchinji District. The conditions and criteria for the selection are as shown below.

Table 3-78: Conditions and Selection Criteria for Pre-Survey

Conditions	Select 5 candidate villages from each health centre. 16 health centres x 5 villages = 80 villages
Selection criteria	<ul style="list-style-type: none"> ➤ Good access to the village even during rainy season. ➤ Pro-active HSA.

a.5.3 Step 2

(1) Field pre-survey

Field pre-survey was conducted in the following schedule by two teams. One team led by the DWDO and the second by the Deputy District Environmental Health Officer (DDEHO).

Table 3-79: Pre Survey Schedule

Days	Team A	Team B
	Responsible person: Mr. T. Mchipha (DDEHO)	Responsible person: Mr. M. Chilimadizi (DWDO)
1	February 5 ,2014	February 5 ,2014
2	February 6 ,2014	February 6 ,2014
3	February 7 ,2014	February 7 ,2014
4	February 10 ,2014	February 12 ,2014
5	February 11 ,2014	February 13 ,2014
6	February 12 ,2014	February 14 ,2014
7	February 13 ,2014	February 21 ,2014
8	February 14 ,2014 (occasional date)	February 24 ,2014
9	-	February 25 ,2014

As a result of the pre-survey, 109 WPs in 80 candidate villagers were surveyed.

(2) Primary Selection Based on the Selection Criteria

The primary selection was conducted for 109 WPs based on the selection criteria agreed with the C/Ps at the 6th PTF meeting held on September 18, 2013.

One criterion out of 6, which is 'WPC had trained under CBM Programme', was excluded from the selection criteria because the reliability of the data was unreliable. As a result, 62 WPs were chosen.

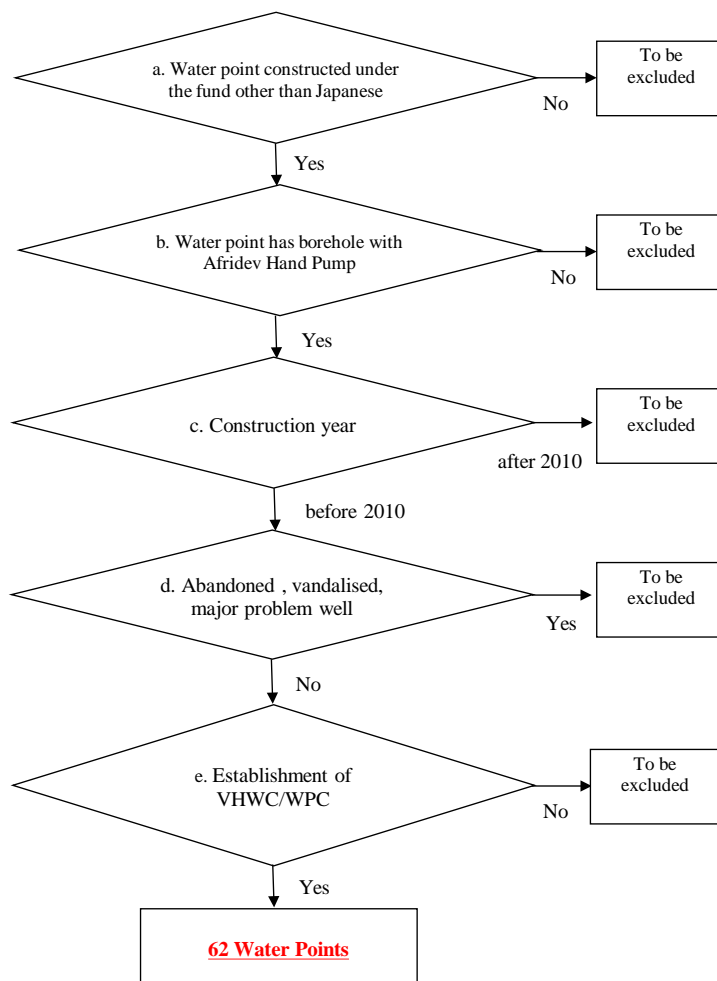


Figure 3-20: Selection Criteria for Primary Selection

a.5.4 Step 3

In order to select the 50 target WPs a second selection was conducted in 62 WPs selected in the Step 2 based on the following:

- The current O&M management conditions of the 62 WPs were quantified using pre-survey data.
- The WPs with high score (meaning O&M by the community is not properly conducted due to poor management) were prioritized for the selection of target facility for receiving the CBM refresher training.
- The numbers of target WPs were equally selected from each health centre to maintain a balanced distribution of target sites.

O&M management indicators and its score for the second selection are shown in the table below.

Table 3-80: O&M Management Indicators and Its Score for the Second Selection

O&M management indicators	Judgment and Score			
	Judgment	Score	Judgment	Score
Availability of soak away pit	Available	0	Not available	1

3. Results of Activities

Availability of fence	Available	0	Not available	1
Surrounding environment	Clean	0	Not clean	1
Regular payment for water	Yes	0	No	1
Regular maintenance	Conducted	0	Not Conducted	1
Awareness of AMs in catchment area	Aware	0	Not aware	1
Awareness of spare parts shop	Aware	0	Not aware	1
	Minimum score	0	Maximum score	8

As a result of the second selection, 50 target WPs for the Mchinji District wide-dissemination was selected.

In addition, 12 WPs out of 62 were selected as alternative WPs. If the conditions in the 50 target WPs change compared to what was observed during the pre-survey period (i.e., become non-functional and requires major rehabilitation, is vandalized or abandoned), this water point shall be excluded from the target and be replaced by one of the 12 alternative sites.

Table 3-81 : List of 50 Target Water Points

No.	ID No.	Team	Health Centre	TA Name	Village Name	Site Name
1	2	A	Kaigwazanga HC	Mkanda	Mphunda	Takondwa School
2	3	A	Kaigwazanga HC	Mkanda	Thendo	Maseche School
3	4	A	Kaigwazanga HC	Mkanda	Nkhalamba	Nkhalamba
4	5	A	Kaigwazanga HC	Mkanda	Mphita	Mphita
5	7	A	Kazyozyo	Mkanda	Kapunula	Kapunula 1
6	8	A	Kazyozyo	Mkanda	Kapunula	Kapunula 2
7	9	A	Kazyozyo	Mkanda	Samphala	-
8	13	A	Mkanda HC	Mkanda	Mpazi	Mkanda Community Day Secondary School
9	14	A	Mkanda HC	Mkanda	Chaponda	Chaponda
10	16	A	Mkanda HC	Mkanda	Nambera	Nambera
11	25	A	Mkanda HC	Mkanda	Mwelekera	Mwelekera Primary School
12	26	A	Mkanda HC	Mkanda	Mphonde	Lombwa LEA Primary School
13	27	A	Mkanda HC	Mkanda	Lombwa	Lombwa
14	18	A	Mkanda HC	Mkanda	Wandikani	Wandikani
15	21	A	Gumba	Mkanda	Kamchere	Ndomba Primary School
16	22	A	Gumba	Mkanda	Kamchere	Kamchere
17	23	A	Gumba	Mkanda	Chifipo	Ngulukira
18	28	A	Kapiri HC	Dambe	Kathobwa	Kathobwa
19	36	A	Chipumi HC	Kapondo	Chizwa	Chizwa
20	37	A	Chipumi HC	Kapondo	Tembenukani	At G.V.H Tembenukani
21	38	A	Chipumi HC	Kapondo	Chagwilira	Chagwilira
22	39	A	Chipumi HC	Kapondo	Baloni	Baloni 1
23	42	A	Mikundi HC	Mduwa	Wilisoni	Wilisoni
24	43	A	Mikundi HC	Mduwa	Mng'ona	Mngóna primary School
25	45	A	Mikundi HC	Mduwa	Chimphuno	Chimphuno
26	48	B	Ludzi HC	STA Nyoka	Mzangawo	Mzangawo
27	49	B	Ludzi HC	STA Nyoka	Mponda	Mponda BH No. 1
28	50	B	Ludzi HC	STA Nyoka	Mponda	Mponda School (Mponda BH No. 3)
29	56	B	Mchinji District Hospital	Mlonyeni	Tsumba	Tsumba BH No.2
30	58	B	Mchinji District Hospital	Mlonyeni	Molosiyo	Molosiyo BH No.1
31	59	B	Mchinji District Hospital	Mlonyeni	Molosiyo	Molosiyo BH No.2
32	60	B	Mchinji District Hospital	Mlonyeni	Molosiyo	Molosiyo BH No.3

3. Results of Activities

No.	ID No.	Team	Health Centre	TA Name	Village Name	Site Name
33	61	B	Kochilira HC	STA Nyoka	Kachamba	Kachamba
34	66	B	Kochilira HC	STA Nyoka	Kapalamula	Kapalamula
35	67	B	Kochilira HC	Zulu	Chaferamthengo	Chafemthengo BH No.1
36	69	B	Tembwe HC	Mlonyeni	Chibonyole (Kacheche)	Chibonyole
37	71	B	Tembwe HC	Mlonyeni	Maliwane	Maliwane Lozaliao 3
38	76	B	Tembwe HC	Mlonyeni	Kalirani	Kalirani
39	77	B	Guilleme HC	Zulu	Chipuliro	Chipuliro 1
40	80	B	Guilleme HC	Zulu	Chinkhutu	Kadagwamtipenya School
41	82	B	Guilleme HC	Zulu	Chinkhota	Guilleme turn off
42	87	B	Chioshya HC	STA Simphasi	Dalias	Daliyasi
43	89	B	Chioshya HC	STA Simphasi	Mphando	Mphanga school
44	90	B	Chioshya HC	STA Simphasi	Msanjama	Msanjama
45	91	B	Nkhwazi HC	Mavwere	Katsenga	Katsenga school (Katsenga BH No.2)
46	93	B	Nkhwazi HC	Mavwere	Nkhwazi	Nkhwazi School
47	97	B	Nkhwazi HC	Mavwere	Kapanga	Kapanga School
48	102	B	Kapanga HC	Mavwere	Nyongani	Nyomgani
49	104	B	Kapanga HC	Mavwere	Kadude	Kadude
50	105	B	Kapanga HC	Mavwere	Nsilombe	Nsilombe

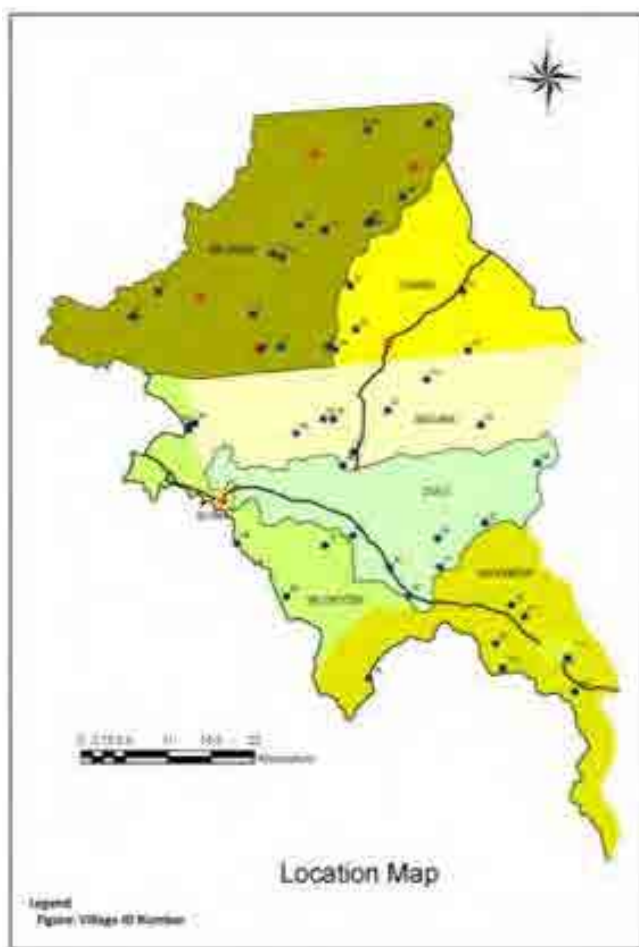


Figure 3-21: Location Map of 50 Target Water Points

b. O&M Radio Programme using a Community Radio Station

According to previous discussions with C/Ps held up to July 2013, the two promotion songs developed by the Project were to be widely disseminated through the local community radio (Mudziwathu) in Mchinji District. Therefore, a number of meetings involving several stakeholders such as UNICEF, NWDP, District Information Officer, Information Education Communication (IEC) Officer, DDEHO and DWDO, were conducted. The summary of each meeting are as follows:

Table 3-82: Meeting with UNICEF regarding the Use of Community Radios

Date	23 October 2013
Place	UNICEF
Participants	UNICEF, Project Team: 7 participants
Objective	➤ Data collection regarding the use of community radios by UNICEF
Content	<ul style="list-style-type: none"> ➤ To learn from UNICEF how community radios are being utilized for the open defecation free (ODF) and hand washing promotion campaign. ➤ To understand the contents and operationalization of the Memorandum of Understanding (MOU) signed between UNICEF and Mudziwathu Radio station. ➤ To discuss possibility of collaboration between UNICEF and JICA on the promotion strategy through the Mudziwathu Radio. ➤ To learn the evaluation method or impact assessment of messages on the community radio programs.
Results	<ul style="list-style-type: none"> ➤ UNICEF works at the national level in collaboration with the Ministry of Information (MoI) and NICE through a working group. The promotion strategy at the district level is managed and coordinated through the Information and IEC offices. Under the leadership of MoI, they have gathered 11 community radios through Malawi and provided guidance on ODF and handwashing during a one day workshop. The community radios were to develop their own programme matrix. ➤ The ODF/Handwashing campaign period was three months (up to November 2013), and MK 35,000 was provided to each community radio as seed money to procure recording and fuel for field activities. ➤ There is no MoU with each community radio but a Letter of Agreement that includes all radios. The Letter of Agreement as well as the Programme matrix was not provided to the Project, the first was lost and the second was developed by each radio station and is not provided to UNICEF. ➤ It is difficult at this point to have a joint UNICEF and JICA radio program but it is important to continue sharing information to streamline messages provided to the community. ➤ The evaluation method or the impact assessment of the radio program is still under discussion. JICA can participate in the evaluation meeting.

Table 3-83: Meeting with IEC Officers at the District Level and Mudziwathu Radio concerning the Possible Use of the Community Radio in Mchinji

Date	29 October 2013
Place	Mchinji Hospital, DWDO, District Council and Mudziwathu Community Radio
Participants	Mchinji DCT, Mudziwathu radio, Project Team: 9 participants
Objective	➤ Information gathering on methods of using the community radio effectively
Content	<ul style="list-style-type: none"> ➤ To follow up with the district teams on issues discussed in a meeting between UNICEF and JICA on the use of Mudziwathu Radio station as a source for disseminating the promotion songs developed through the project and to share experiences of pilot villages on how they become a model village. ➤ To obtain further details from the district counterparts on the utilization of Mudziwathu radio in JICA supported O&M project. ➤ To understand the contents of the MOU signed by Mudziwathu radio with other users of the radio in the past, but most specifically the ones signed with UNICEF on ODF and hand washing strategy. ➤ To learn procedures on how Mudziwathu radio records materials and produce programmes for the clients.
Results	<ul style="list-style-type: none"> ➤ No sample Programme matrix was obtained from any of the meetings held this day, however, it was learnt that the Health radio program as well as the ODF/handwashing program are being broadcasted once a week during 30 minutes program. The 30 minutes program includes interview with experts and community members, play songs and jingles, etc. ➤ A quotation of MK 137,000 per month was provided by Mudziwathu radio to develop the O&M radio program. This includes among other, two staffs' (Producer and Presenter) expert fees, airtime, field trips, recorders, batteries, etc.

	➤ There are several evaluation methods that can be obtained through Radio Listeners Clubs, mobile phones SMS, phone in and vox-pop.
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Table 3-84: Meeting with NWDP regarding the Use of Mass Media

Date	5 th November 2013
Time	NWDP
Participants	NWDP, Project Team: 2 participants
Objective	➤ Information gathering regarding the use of mass media
Content	➤ Learn how NWDP is using the mass media and how a radio programme could be developed
Results	<ul style="list-style-type: none"> ➤ NWDP is currently hiring a consultant from Zodiac to develop a radio program for the water sector. ➤ Kings Multimedia has been hired for the television documentary production. ➤ The radio program is currently on air and will discuss with management to determine whether this information could be shared with the Project.

Table 3-85: Meeting with Mudziwathu Radio Manager

Date	5 th November 2013
Place	Mudziwathu Radio Station
Participants	Mudziwathu radio, Project Team: 6 participants
Objective	<ul style="list-style-type: none"> ➤ Courtesy call to the Radio Manager ➤ Brainstorming in preparation for the O&M radio program
Content	<ul style="list-style-type: none"> ➤ To meet and explain the background of the Project to the radio Manager. ➤ To decide whether the Project could partner with UNICEF to develop a broad WASH radio program or should focus on the promotion of O&M activities. ➤ To determine the capacity and capability of the radio station to air a program during December 2013 - January 2014. ➤ To learn about the cost associated with airing a program on the radio station and the level of engagement expected from the project members. ➤ To agree on the way forward for the development of a program matrix for further implementation through Mudziwathu radio station.
Results	<ul style="list-style-type: none"> ➤ The community radio can just air the two promotion songs developed by the Project but foresees that the impact to the community will be low and difficult to evaluate. ➤ The radio manager suggested that a UNICEF and JICA joint radio program could be complicated. ➤ Instead suggested a radio program fully dedicated to the content of this Project which involves interviewing Experts, involve villagers, sharing experiences from the pilot villagers and airing the two promotion songs as a more effective way of having the desired impact. ➤ The radios are capable of developing an O&M radio program and assign two staffs, Producer and Presenter for a two month trial O&M radio program.

Table 3-86: Meeting regarding the Development of an O&M Radio Programme

Date	9 December 2013
Place	Mudziwathu Radio Station
Participants	Mchinji DC, Mudziwathu radio, Project Team: 9 participants
Objective	<ul style="list-style-type: none"> ➤ Check content of the revised O&M radio matrix ➤ Ultimate details regarding the MoU between Mudziwathu and the Project
Content	<ul style="list-style-type: none"> ➤ To comment on the contents of radio programme matrix and draft MOU and receive feedback and suggestions from the participants on the contents. ➤ To revise the contents of the radio programme matrix and MOU based on feedback and suggestions. ➤ To discuss the way forward for the implementation of the radio programme by Mudziwathu radio station.
Results	<ul style="list-style-type: none"> ➤ To cover all topics in the radio matrix developed by Mrs. Yamada will take no less than six months. ➤ UNICEF's ODF/Hand washing Campaign radio program evaluates the impact that the community radio had on the community. The radio compiles that information from the villagers in a report and this report is submitted to the MoI and from them to UNICEF. ➤ The O&M radio program dates were not fixed but most probably will be aired during one weekday at 18:00 and a repetition on weekend at 14:00 during 30 minutes. ➤ It was suggested that a baseline survey in few Radio Listeners Clubs could be conducted for the evaluation of the O&M program. These Radio Listeners Clubs can also monitor the progress of WPCs in their villagers. ➤ The next step is for Mudziwathu radio to develop a revised O&M radio program matrix with

	<ul style="list-style-type: none"> ➤ episodes for the two month trial as well as conduct the selection of the Radio Listeners Clubs. ➤ At the end of the two month trial and after evaluating the program, it will be decided whether to develop a full-O&M radio program. ➤ Four items were modified in the MoU
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Table 3-87: Kick-off Workshop on the O&M Radio Programme

Date	24 th January 2014
Place	Rewards Lodge
Participants	Mchinji DC, Mudziwathu radio, Project Team: 8 participants
Objective	➤ The way forward for kick-starting the O&M radio program
Content	<ul style="list-style-type: none"> ➤ Discuss and improve the proposed O&M radio matrix ➤ Selection of Radio Listeners' Club ➤ Develop the guiding question (baseline information) to be conducted with the Radio Listener's Club ➤ Discuss about the evaluation of the radio program ➤ Develop a list of activities and a schedule of all activities as well as the objective, content and frequency of information to be released
Results	<ul style="list-style-type: none"> ➤ The radio matrix content was revised and decided that no changes are required. There is also no need to prepare a script for each episode as the episode will be centered in the factual messages of the radio matrix and the stories will come up from the interview with villagers ➤ Five Radio Listeners' Clubs will be selected from two TAs, Zulu and Nyoka. ➤ A guiding questionnaire to conduct the baseline survey in the five Radio Listeners Clubs was developed during the workshop ➤ The evaluation of the radio program will be conducted through baseline and endline survey to the five Radio Listeners' Clubs ➤ The baseline survey is schedule to be conducted during the 29th to the 30th of January. The episodes will be developed by the radio station in collaboration with the Project. The Project needs to conduct a quality check of the episodes before being aired.

In summary, from the several meetings and the workshops conducted with the stakeholders, it was pointed out that the impact of having the two promotions songs just being aired on the community radio would be low. For high impact and effective communication, it was decided with all C/Ps that a full O&M radio program should be developed. It was also suggested that the program should have a duration of no less than six months, however, since there are still many issues that were not clarified such as how best to effectively utilize the community radio, to involve the community and to actually develop the programs, it was decided first to have a two month trial period before coming up with the way forward.

3.4.2 Activities 4-2: To implement recurrent O&M activities following the strengthened O&M framework on a larger scale.

a. Activities for Increasing Community Ownership and Responsibility (Community contribution)

a.1 Implementation of the Training of Trainers on CBM O&M Refresher Course

a.1.1 Implementation of Training

The training of trainers in the O&M Refresher Course currently under development was provided for the EWs and AMs who are in charge of the 50 target WPs selected in Activity 4-1 described above.

Training was provided at Rewards Lodge in Mchinji District for three days from 8th to 10th July 2014. The summary of the training is as follows.

Table 3-88 : Summary of the Training of Trainers on CBM O&M Refresher for EWs &AMs

Item		Contents
Date		8 th , 9 th and 10 th July, 2014 (3 days)
Venue		Rewards Lodge at Mchinji
Participants	Trainees	Total: 90 trainees 【Breakdown】 ① Assistant District Community Development Officer: 3 trainees ② SCDAAs and CDAs: 12 trainees ③ SHSAs and HSAs: 58 trainees ④ WMAs: 2 trainees ⑤ AMs: 18 trainees
	Trainers	Mchinji DWDO and DDEHO
	Supervisors	Project Team
Objectives		At the end of the workshop, participants should be able to: ➤ Gain knowledge and understanding of the CBM refresher Manual ➤ Contribute their views on to the development of the CBM Refresher Manual ➤ Prepare lessons on how they are going to train the targeted 50 water point committees.
Programme		Day 1 ➤ Module 1: Financial Management ➤ Module 2: Water Point Sanitation Day 2 ➤ Module 3: Technical Components ➤ Module 4: Area Mechanic ➤ Module 5: Handpump Spare Parts Supply Chain ➤ Module 6: Role of different Players ➤ Module 7: Planning for Operation and Maintenance ➤ Module 8: Community Mobilization ➤ Module 9: Monitoring and Evaluation Day 3 ➤ Guidance and preparation of 50 WPCs training ➤ Trial lessons for WPC training by 4 groups ➤ Evaluation of the training
Comments		➤ The participation of EWs and AMs, numbering about 90 in total, in the three-day training and roll-out of a certain number of practitioners who understand the manuals developed in the Project are considered to be good achievements. ➤ On the other hand, many EWs who live in Mchinji Boma boycotted the training when they learned that no daily allowance would be paid. It cannot be denied that the existence of an allowance serves as an incentive to participate. ➤ Due to the schedules of the lecturers who are DWDOs and DDEHOs, there was no choice but to gather a total of 90 trainees in one place and provide training of trainers in one session. Therefore, the training was focused on classroom lectures, limiting two-way communication with the trainees. However, it was impressive that many of the participants still listened attentively to the lectures. In the group-based trial lesson given on the third day, only four groups were able to give trial presentations and therefore the presenters were limited to a few representatives from the groups. This situation needs improving next time. ➤ On the other hand, an increase in the duration of the training will lead to an increase in the training cost. It is essential to devise the most appropriate training Programme each time in view of the training purpose (e.g. securing of quality or quantity of trainers), required labour, budget, etc. ➤ In this training, it is hoped that the quality of the trainers will be developed through practice in WPC trainings.

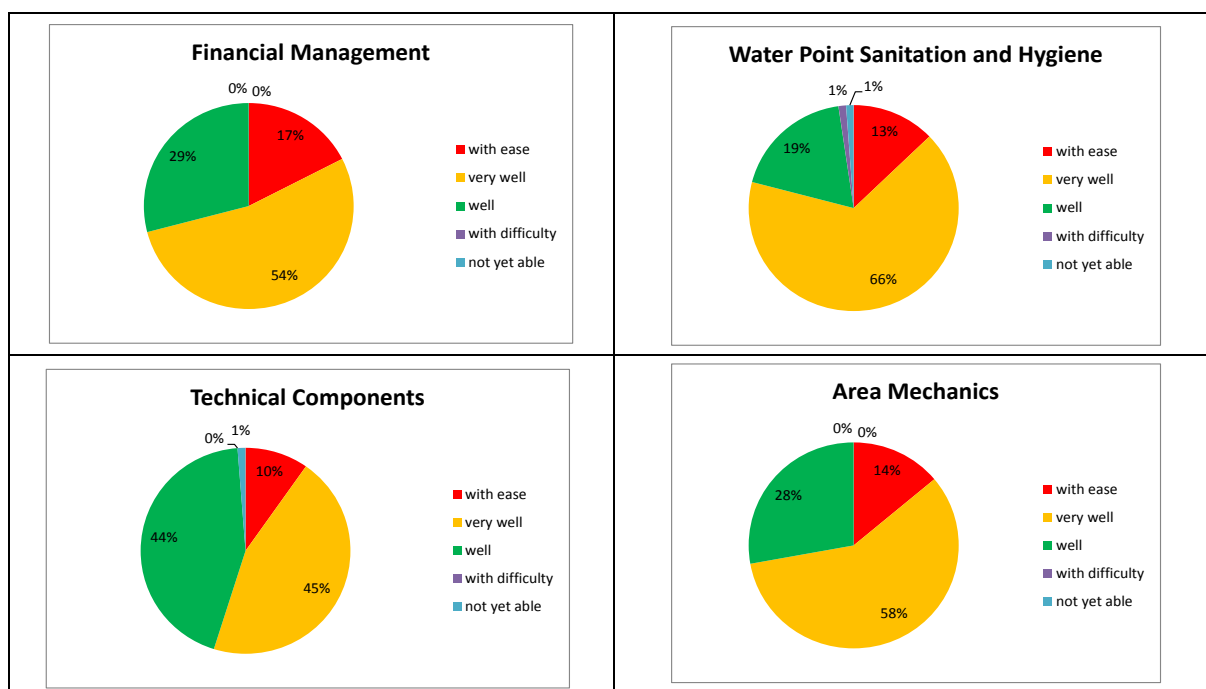
		
Instruction by lecturing	Preparation of the trail lesson by group 1 (SHSAs 1 and HSAs 1)	Preparation of the trail lesson by group 2 (SHSAs 2 and HSAs 2)
		
Preparation of the trail lesson by group 3 (WMAs and AMs)	Presentation of the trial lesson by group 2 (SHSAs 2 and HSAs 2)	Presentation of the trial lesson by group 3 (WMAs and AMs)

a.1.2 Training Evaluation

The table below shows the results of training evaluation made by the trainees about each of the modules (self-evaluated level of understanding) after the training.

This table shows that the level of understanding of the trainees is generally high. Basically, the modules have been further refined since the CBM refresher training that used to be provided in Malawi and seem to be understandable topics for the trainees.

Table 3-89: Self-Assessment Results on the Training of Trainers on CBM O&M Refresher for EWs and AMs



3. Results of Activities



The table below shows the trainees’ typical comments and lessons learned from these comments.

Table 3-90: Comments from the Trainees (EWs and AMs)

Item	Comments
Positive comments	<ul style="list-style-type: none"> ➤ Training was good as we have added new knowledge and skills in operation and maintenance more especially us Area Mechanics and we will improve on our work which will in turn encourage our communities to take full ownership and responsibility of boreholes thereby improving access to safe water in the communities. ➤ It’s good that you involved all stakeholders in this training as such it will give good results when we go back for the actual training in the field since we will work as a team. ➤ Is better to use English than Chichewa during lecturing. ➤ Coordination and frequent supervisions should be strengthened for us to achieve results. ➤ Find something interesting when teaching the WPCs as songs for promoting regular payment and sanitation promotion. ➤ Involvement of GVH during trainings to improve sustainability at Community level during actual implementation of water, sanitation and hygiene activities (i.e.) on fund raising. ➤ Increase number of boreholes to benefit from the Programme. ➤ The WPC should take part in repairing the boreholes especially minor issues, the WPC should make sure that people are contributing water fee all the time so that the committee should have enough money for O & M.
Negative Comments	<ul style="list-style-type: none"> ➤ Training days were not enough, it should be 5 days as such facilitators were rushing during facilitation. ➤ Venue was not good as such food preparation took a long time resulting in long queues for tea and lunch just like school children. ➤ Training allowance was not enough. ➤ In the next training you should fully get prepared to have enough tools and equipment’s for the training. ➤ Trainers were supposed to be divided into two groups for easy management during practical and

Item	Comments
	also classroom space.
Lessons learnt consider	<ul style="list-style-type: none"> ➤ Majority of participants are of the opinion that training duration should be 5 days as compared to the 3 days so that facilitators have enough time to cover all the modules and that training should have involved all extension workers’. ➤ Facilitators were very fast on their lectures during facilitation as such some participants could not understand the module content properly may be due to limited time. ➤ Participants were not happy with logistics part of the training since they complained about classroom space saying that these were crowded and the food preparation took long time as well as the allowance was not enough.

a.2 Implementation of WPC Training on Operation and Maintenance for Water Points (CBM O&M Refresher Course)

a.2.1 O&M Refresher Training for 50 WPs

From 14th July 2014, the EWs and AMs who had received the training of trainers described above formed teams and conducted CBM O&M refresher to the 50 WPs. The training was provided to the trainees by two teams. On 16th September 2014, the training for all 50 WPs was completed. *Table 3-91* shows the monthly implementation quantity. *Table 3-92* shows a summary of the training.

Table 3-91 : Achievement Record for 50 WPs Training

Month	Monthly Achievements (WPCs)	Accumulative Number (WPCs)
July 2014	10	10
August 2014	29	39
September 2014	11	50

Table 3-92 : Summary of the CBM O&M Refresher Training for 50 WPs

Item	Contents
Date / Venue	See Table 3-93
Participants	Trainers EW Team and AMs per one training place (Approx. 5 trainers / one training place) Note) EW Team: ADCDOs, SCDOs, SHSAs, CDAs, HSAs, WMAs
	Trainees 13 trainees: group village head, village head, influential person, 10 WPC members
	Supervisors Project Team
Programme	<p>The training Programme is customised according to the O&M issues encountered by each community. Generally, it covers the following content.</p> <p>Day 1</p> <ul style="list-style-type: none"> ➤ Identifying the O&M issues ➤ Financial Management ➤ Water Point Sanitation and Hygiene ➤ Technical Components ➤ Training evaluation <p>Day 2</p> <ul style="list-style-type: none"> ➤ Roles of Different Players ➤ Developing the action plan on O&M for water point ➤ Training evaluation
Remarks	<ul style="list-style-type: none"> ➤ According to observations about the training provided to the WPCs in Mchinji District, the EWs in this district, particularly the CDAs and the SHSAs, have high capabilities as trainers so they can sufficiently cover even topics outside their areas of specialty. On the other hand, the WMAs, who should play a leading role, have excellent leadership in technical aspects of the facilities but are found not to be able to provide sufficient guidance on soft components such as community mobilisation, water tariff setting, and planning. Therefore, it is essential that the training activities for communities continue to be carried out by a team of extension workers collaborating with and complementing each other to improve the O&M capabilities of the communities. ➤ The quality of O&M training in the communities largely depends on the capabilities of the individual EWs organised for each of the target WPs. Many of the EWs who received training at the 11 pilot sites in the second stage, after gaining experience as trainers, have already mastered the contents of the developed manuals. In nationwide dissemination in the

3. Results of Activities

	<p>future, therefore, it is advisable to utilise these excellent trainers as training lecturers for EWs in other districts or to hold a study tour of the training sessions by excellent trainers in order to make effective use of the human resources in Mchinji.</p> <ul style="list-style-type: none"> ➤ Based on the results of the testing conducted at the 11 pilot sites in the second stage, several WPCs expressed the opinion that follow-up and monitoring after the training provides an important opportunity for behavioural change in the communities. The important point in improving the O&M capability of communities in the future is to conduct monitoring and follow-up of the HSAs and AMs who live near the target sites. The Project Team is also planning to provide assistance for monitoring activities with a focus on this point. It also intends to reflect this point in the manuals. ➤ Many of the EWs (particularly the HSAs) adopt a lecture style in which the important points to be communicated to the communities are written on flip charts and discussed through interactive talk with the WPC members to convey correct knowledge. Since the current manual (Zero Draft) is written in English, the EWs who cannot translate it do not seem to be able to convey the knowledge correctly. Therefore, the development of a Chichewa version of the manual for EWs is considered to be important.
Training methods	<ul style="list-style-type: none"> ➤ Lecture, practice and exercise ➤ Demonstration ➤ Group work

Table 3-93: Training Schedule for 50 WPCs

No.	Date	Team A		Team B		
		Site name (ID No.)	Venue	Site name (ID No.)	Venue	
1	2014/7/14	Mon		Mponda 1 & 3 (ID49, 50)	Mponda school	
2	2014/7/15	Tue				
3	2014/7/16	Wed		Mzangawo (ID48)	Mzangawo	
4	2014/7/17	Thu				
5	2014/7/22	Tue	Mphunda, Thendo (ID2, ID3)	Poko school	Kacheche (Chibonyole) (ID69)	Chibonyole church
6	2014/7/23	Wed				
7	2014/7/24	Thu	Nkhalamba, Mphita (ID4, ID5)	Kawere school	Maliwane (ID71)	Maliwane
8	2014/7/25	Fri				
9	2014/7/30	Wed			Tsuma (ID56)	Tsuma church
10	2014/7/31	Thu				
11	2014/8/4	Mon	Kapunula 1&2, and Samphala (ID7,8,9)	Kapunula	Molosiyo 1,2,3 (ID58,59,60)	Molosiyo
12	2014/8/5	Tue				
13	2014/8/6	Wed	Chaponda, Mpazi (ID 13, 14)	Mpazi	Chaferamthengo (ID67)	Kamwendo school
14	2014/8/7	Thu				
15	2014/8/11	Mon	Namber, Wandikani (ID16,18)	Kamphata school	Kalirani (ID76)	Kalirani
16	2014/8/12	Tue				
17	2014/8/13	Wed	Lobwa, Mphonde, Mwelekeru (ID25,26,27)	Mphonde	Chipuliro (ID77)	Chipuliro
18	2014/8/14	Thu				
19	2014/8/18	Mon	Kamchere 1&2, Chifipo (ID21,22,23)	Kalimanjalo school	Chinkhutu (ID80)	Kagwantipenya school
20	2014/8/19	Tue				
21	2014/8/20	Wed	Kathobwa (ID28)	Kathobwa	Chinkhota (ID82)	Chinkhota
22	2014/8/21	Thu				
23	2014/8/25	Mon	Baloni (ID39)	Baloni	Dalias, Msanjama (ID87,90)	Galeta school
24	2014/8/26	Tue				
25	2014/8/27	Wed	Chagwirira, Chizwa, Tembenukani (ID36,37,38)	Kalulu school	Mphando (ID89)	Mphando school
26	2014/8/28	Thu				
27	2014/9/1	Mon	Chimphuno, Mng'ona, Wilson (ID42,43,45)	Mikundi school	Nkhwazi, Katesnga, Kapanga (ID93,91,97)	Nkhwazi school
28	2014/9/2	Tue				
29	2014/9/3	Wed			Nyongani (ID 102)	Nyongani school
30	2014/9/4	Thu				
31	2014/9/8	Mon			Nsilombe (ID105)	Nsilombe
32	2014/9/9	Tue				
33	2014/9/10	Wed			Kadude (ID104)	Kadude
34	2014/9/11	Thu				
35	2014/9/15	Mon			Kachamba, Kapalamula (ID61, 66)	Mbingwa school
36	2014/9/16	Tue				

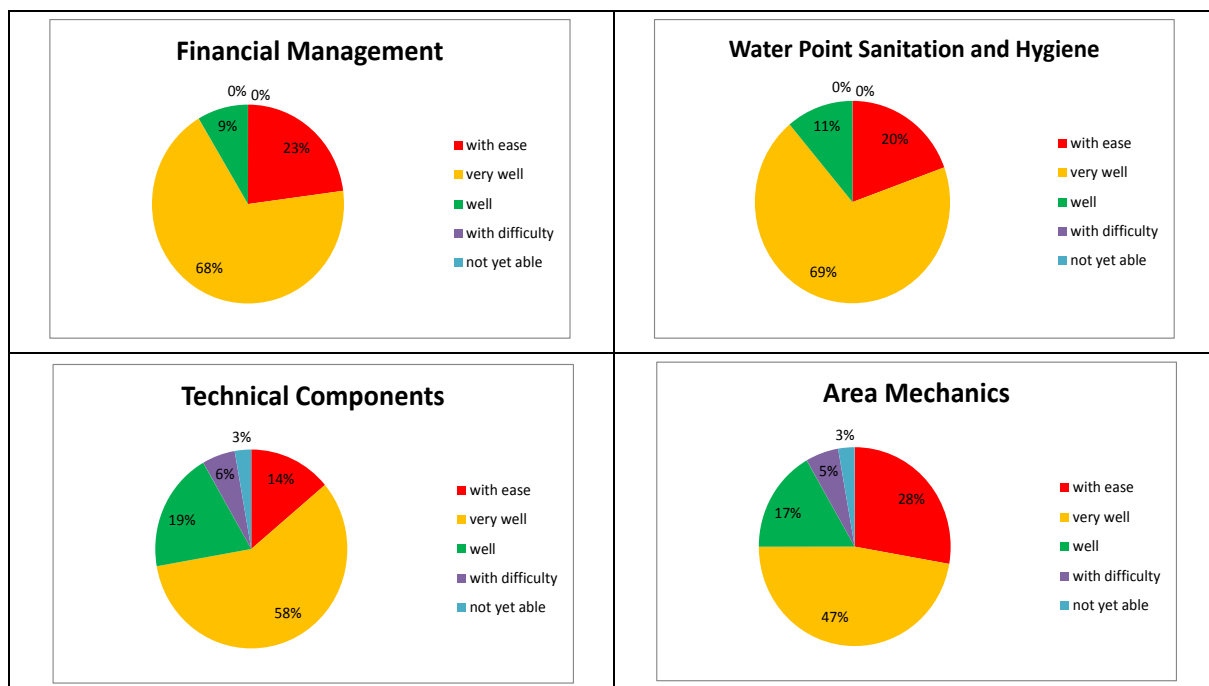
Pictures of the CBM Refresher Training for 50 WPCs

		
Practicing the promotion song by WPC members	Signed Village head consensus form for promotion of regular payment of water fee, and water point sanitation and hygiene	Practicing recode of the cash book by WPC members
		
Explaining the informed choice for fences and soak away pits by SHSA	Group work on discussing the roles of the different players by WPC members	Presenting their action plan for O&M by WPC members

a.2.2 Training Evaluation

The following table shows the results of a questionnaire returned by the trainees (36 valid responses) after the training on their level of understanding of each module.

Table 3-94: Self-Assessment Results on the CBM Refresher Training for 50 WPCs



3. Results of Activities



The table below shows the trainees’ typical comments and lessons learned from these comments.

Table 3-95: Comments from the Trainees (WPC members)

Item	Comments
Positive comments	<ul style="list-style-type: none"> ➤ The refresher training has equipped us with knowledge and skills to operate and maintain our borehole especially on fund raising and record keeping as well as water point sanitation. ➤ The refresher training are conducted at the village site so that during practicals we should be dealing with our own problems from our boreholes. ➤ The books given will help the committees to manage borehole funds successfully and to build trust of the community members. The training has provided a plat form for good borehole management. ➤ We would like to thank the organisers for being punctual for all the days of the training please keep it up. ➤ Kathobwa Village has composed songs for promoting O&M issues and they request JICA to record them as they did with the other radio listening groups. ➤ They asked for regular monitoring so that they should be encouraged as they are doing their work. ➤ The facilitators should also be gender balanced including ladies so that women are also free to express their issues. ➤ Environmental issues are also important to be included in the training issues because nowadays environmental problems are more common. ➤ WPC members said they appreciate the group work exercise is good.
Negative comments	<ul style="list-style-type: none"> ➤ A certain Area Mechanic is not helpful as WPC members said he was supposed to be there for the technical components module since he is the one who knows much of the borehole fault.
Suggestions	<ul style="list-style-type: none"> ➤ Training toolkit and tape or CD should be given to every participant and not just one. ➤ The refresher should be done every 3 years so that we are reminded of the things we forget. ➤ The period of refresher training was not enough we should have been 4 days than the 2days we had. ➤ The training should be conducted away from our village so that we should travel to other places. ➤ The meal allowance should be raised to 2000 and not as it is now.

Item	Comments
	<ul style="list-style-type: none"> ➤ Facilitators were too fast during their lectures. ➤ Members suggested that next time cluster should be conducted close villages not travelling more than 5Km. ➤ Extension workers to supervise them frequently. ➤ WPC said next time the technical components practical should be done at their borehole so that they are aware of the problems they could meet.

a.3 Activities for Monitoring of Pilot Sites

Monitoring of 50 pilot sites selected in the third stage was started on 8th September 2014. Facilities where the O&M training was completed are monitored one after another. So far, four monitoring activities have been carried out in total.

With respect to the 11 pilot sites selected in the second stage, monitoring of these sites was continued in the third stage and a total of 11 monitoring activities have been conducted so far. **Table 3-96** shows a list of monitoring activities.

Table 3-96: List of Monitoring Activities

10 pilot sites selected by the 2nd stage			50 pilot sites selected by the 3rd stage		
No.	Date	No. of target sites	No.	Date	No. of target sites
1st	June 2013	11 sites	1st	15th September 2014~7th October	50 sites
2nd	July 2013	11 sites	2nd	13th October 2014~27th October	50 sites
3rd	August~September 2013	11 sites	3rd	15th December 2014 ~ 22nd December	50 sites
4th	16th October 2013~18th October 2013	11 sites	4th	24th March 2015~21st April	50 sites
5th	30th January 2014/~31st January	11 sites			
6th	17th March 2014~19th March	11 sites			
7th	2nd May 2014~9th May	10 sites ^{*1}			
8th	19th June 2014~25th June	10 sites			
9th	29th September 2014~1st October	10 sites			
10th	23rd December 2014	10 sites			
11th	24th March 2015~21st April	10 sites			

*1 : At first, 11 pilot sites were selected in the second stage. However, since Nyoka village was dropped from the monitoring target, 10 sites are currently monitored. (The pilot well in Nyoka village has failed but is left as is, because a new well was constructed by a parliament member free of charge within the village.)

b. Development of an O&M Educational Community Radio Programme

b.1 Overview

The idea of producing an operation and maintenance (O&M) educational community radio Programme (hereafter referred as O&M radio Programme) started as an attempt to complement the Community Based Management (CBM) training that is being provided to the Water Point Committees (WPCs). Currently, the CBM training is provided to the WPCs only when the water supply facility is first constructed (before and after construction). However, several years could pass after construction before the facility begins to deteriorate and break down, requiring maintenance. Therefore, if the WPC members are not active enough in conducting regular preventive maintenance, chances are high that few years after construction; the WPCs will never use what they have learnt in the CBM training. Under these circumstances, when the water facilities begin to deteriorate, the WPC members who received training may have forgotten what

they learnt, the members in the community may have changed without transferring knowledge to the new members, availability of Area Mechanics (AMs) and spare parts supply retail shops may have also differ from the time when the CBM training was provided.

Additionally, the CBM training was introduced in the 1990's to cover only the newly-constructed water supply facilities; hence, facilities constructed before the introduction of the CBM training have no WPCs formed to look after O&M issues.

To overcome these challenges, the institutionalization of the CBM refresher training was proposed and piloted in Mchinji district. Ideally, all WPCs should receive refresher training once every few years in addition to the training received at the time of construction to help reducing the high non-functionality rate of water facilities and in this way provide continued access to clean and safe water to all communities in Malawi.

With the current financial and human resources constraints in most of the districts in Malawi, a cost-effective approach that could reach a higher audience and create a space for many voices to be heard and for inclusiveness in consensus building among government actors, civil society and communities was felt to be equally important while the CBM O&M refresher training course is institutionalized and established in all districts in Malawi.

Radio is the prime electronic medium of the poor, because it leaps the barriers of isolation and illiteracy, and it is the most affordable electronic medium to broadcast and receive in. The last decades have seen a rapid expansion in the number and popularity of community radio stations.

Community Radio is a distinct media sector and a vital alternative to state owned public broadcaster and commercial private media. Awareness is growing of the social and economic benefits that can result when ordinary people have access to appropriate information. And it is also evident that when people, especially the poor can participate in communication processes and consensus building about issues that affect their lives, it helps them to cast off their traditional state of apathy and stimulates them to mobilize and organize to help themselves, therefore, becoming one of the most powerful tools for community development .

In the 1960s and 1970s, when rural broadcasting was being widely promoted by development agencies, there was much emphasis given to educational possibilities offered by radio. However, experience shows that as an educational medium, radio alone is weak; it needs to be supported by other media, such as printed materials, as well as inter-personal contacts to form a complete educational package. This O&M radio Programme was developed for widely and effective dissemination of the CBM O&M refresher course training and should be used together with the CBM O&M refresher course training manual alongside water and sanitation sector policies, strategy documents, guidelines and other manuals used in the sector.

In order to develop this O&M radio Programme, extensive data collection has been conducted from October 2013 which included meetings with the Ministry of Information (MoI) headquarters and regional office, National Water Development Programme (NWDP), UNICEF, Malawi Broadcasting Corporation (MBC) and Mudziwathu Community Radio Station, in an effort to understand how to develop an effective

educational radio Programme, how to involve the community members, how to produce/record the radio episodes, etc. Unfortunately, very few written information was found as a reference to kick start the process, therefore, it was decided to do a trial radio Programme for two months to understand how the community radio works, and to decide after the evaluation the way forward for the development of a fully fledged radio Programme..

All activities conducted since October 2013 for the development, broadcast, publicity and evaluation of the O&M radio Programmeme are summarized in the below.

b.2 Trial O&M Radio Programme and O&M Educational Community Radio Programme

The details of the two month trial radio Programme are described in the table below:

Table 3-97 : Details of the Trial O&M Radio Programme

Objective	<ul style="list-style-type: none"> ➤ Widely disseminate the content of the strengthened O&M framework (including the content of the CBM refresher training). For the trial two month Programme, the focus is on increasing community ownership towards boreholes ➤ Enhance Operation and Maintenance of boreholes through enhancement of community ownership and responsibility
Target Audience	All villagers who have access to Mudziwathu community radio in the whole Mchinji District
Number of episodes	Eight, including live phone-in Programme
Broadcast period	4 th February 2014 to 29 th March 2014 (two month)
Date and Time	<ul style="list-style-type: none"> ➤ Tuesdays 11:30~12:00 hrs. ➤ Saturdays 14:30~15:00 hrs. (Repetition)
Details of each radio episode	<ul style="list-style-type: none"> ➤ 30 min / episode ➤ 1 episode / week ➤ 2 times/ week (Tuesdays and Saturdays)
Mudziwathu Community Radio Staff	Manager, Producer, Presenter
Development of the Radio Episodes	<ul style="list-style-type: none"> ➤ Interviewees: Experts such as local officers, villagers, WPC members, RLC members, NGOs and Business people (shop owners) ➤ Two promotions songs (payment of water fee and water point sanitation) to be aired along with the interviews in all episodes of the O&M radio Programme
Contents of each episode	<ol style="list-style-type: none"> 1. CBM Programme: Communities are responsible for the maintenance of their borehole 2. Low functionality rate of boreholes and reasons behind it 3. Why paying water fees regularly 4. Benefits of drinking safe water 5. The borehole belongs to the community and not to the government. They have responsibilities 6. What challenges does the community face if the borehole that is not functioning 7. Sharing good operation and maintenance practices from villages 8. Live phone-in Programme
Evaluation of the radio Programme	Five RLCs (Gomani, Kaphande, Mponda, Zulu and Mkanda) will be monitored before and after the trial O&M radio Programme through a baseline and end line survey to assess the level of understanding of the radio Programme as well as collecting relevant feedback for improvement

b.3 Baseline and End-line Survey of the Trial O&M Educational Community Radio Programme

The baseline and end-line survey schedule conducted to the RLCs were is as follows:

Table 3-98 : Survey Schedule

Survey	Date	Target village
Baseline	January 29, 2014	Zulu, Gomani and Gomani1

	January 30, 2014	Mkunda, Mponda and Kaphande
End line	April 3, 2014	Zulu, Gomani, Kaphande and Ngubo
	April 4, 2014	Mkunda, Mponda and Chiti

A questionnaire was used during the baseline survey (before starting the O&M radio Programme) and the end-line survey (at the end of the O&M radio Programme). The question one (1) through seven (7) asked to assess the level of understanding of the O&M radio Programme. As shown in **Table 3-99**, the level of understanding has improved after the introduction of the O&M radio Programme. However, **Table 3-100** shows that the number of audience was very low and that the level of understanding regarding O&M issues has increased even in the villages where the villagers responded not having listened to any of the episodes of the O&M radio Programme. Therefore, increased community level of understanding on O&M issues cannot be solely attributed to the introduction of the community radio Programme, but perhaps the several visits conducted to the villages to inspect boreholes conditions, taking pictures and asking questions have somehow influenced the changes in the level of awareness and interest of villagers towards O&M of their boreholes.

Table 3-99: Summary of the Baseline and End-line Survey Result Conducted to the WPC and RLC Members Regarding the Level of Understanding of the Trial O&M Radio Programme

Question 1 to 7: Assessing the level of understanding on the content of the O&M trial radio Programme	Baseline Survey (%)	End-line Survey (%)
Q1: To whom do you think the borehole belongs to?	67% : belongs to the beneficiaries / communities 16.5%: belongs to the donors 16.5%: have no idea	100%: beneficiaries but some included the Government along with the beneficiaries
Q2: What happens when the borehole breakdown? Who fix it	100%: responded that it is the villagers or the WPC who fix the borehole. No one mentioned the AM at this point	100%: WPC fix the borehole. Among this, 40% added that the WPC fix the borehole but for major issues they call their AM
Q3: Who pays when the borehole needs to be repaired?	100%: households (HHs) in the village contributes when repairs are needed.	100%: communities / beneficiaries pay for the borehole repair
Q4: Do you know what an Area Mechanic (AM) is? If yes, please explain. Also do you know who is the Area Mechanic responsible for your borehole?	80%: know their AM 20%: do not know what an AM is	80%: know their AM 20%: haven't use the AM services, hence do not know
Q 5: Do you know where to buy spare parts for the boreholes? Where is the nearest shop you can find spare parts?	80%: knows where to buy spare parts for the borehole 20%: don't know where to buy spare parts	100%: responded that they know the spare parts retail shops and provided the name and locations of the shops
Q 6: Is there any cleaning roster to keep the borehole clean? If no, who do you think should clean and why?	80%: responded not having a duty roster for cleaning their borehole but some internal rules to maintain it clean 20%: responded having a roster but were unable to show it	100%: responded that they have a cleaning roster or an internal rule in place of who should be cleaning the borehole
Q7: Are community members paying regular water fees? Or how and when is it collected.	60%: responded that community contribute regularly but were unable to prove as there is no documentation 20%: responded paying only as needed basis 20%: responded not having someone appointed to collect the fees at the moment	50%: contributing or started contributing regular monthly fees 50%: contributing only when repair is required

The end-line survey included questions to assess the level of understanding of the O&M radio Programme

along with suggestions on how to improve the community radio Programme, the influence and impact of the radio Programme, what the audience like and dislike, etc. The end-line survey result is summarized in **Table 3-100**.

Table 3-100: End-line Survey Result Regarding the Content of the Radio Programme and Impact to the Communities

QUESTION	SUMMARY OF ANSWERS
Q8: Was the Radio Listening Club able to listen to Umoyo Wathu Programme every week?	0%: None of the villages interviewed were able to listen to the radio every week.
Q9: If no in 8, how many times have managed to listen?	50%: listened once 25%: listened twice 25%: listened three times out of the total 8 Programmes
Q10: Are there any reasons for not being able to listen to the Umoyo Wathu Programme every week?	12,5% mentioned inadequate time of the Programme (mornings are busy) 37,5% claim lack of batteries for the radio 12,5% claim lack of radios and not gathering together at some place but listening at their homes individually 25% were not aware of the existence of the Programme 12,5% were busy with other activities like farming
Q 11: Are the date and time adequate for listening to the radio?	20% responded that date and time was adequate 80% responded that Saturday's time is adequate but Tuesday needs to be changed in the afternoon (25% prefer 13:00, 50% prefer 14:30 and 25% prefer 15:00)
Q12: How many members (in average) managed to listen to the Umoyowathu Programme?	15.4% of the interviewed responded having listened to the Umoyo Wathu Programme, the remaining was not aware of the radio Programme
Q13: What have been learnt through the Programme	1- Importance of cleaning borehole surrounding 2-Risk of water contamination 3-Everybody should take part in taking care of the borehole 4-Need for advance contribution of water fees 5-Better to stock spare parts than cash
Q 14: Was the contents relevant or are there any other topics that should be included or that you would like to hear/discuss in the Programme	<u>Topics were relevant and should include the following topics:</u> 1-Ownership of the borehole 2-How to avoid water-borne, water-washed and water related diseases 3-How to take care the soak away pit (clean, add stones, etc.) 4-How to avoid ground water contamination and water from the borehole to the mouth 5-Adequate distance to the pit latrine, refuse pit, animal cage, etc. 6-How to operate the boreholes (maintain children away, swing gently, etc.) 7-Importance of constructing a fence 8-Gender balance when working towards the borehole 9-Washing basin contamination and risks 10-Village Head (VH) involvement. VH consensus form 11-Hygiene at household level 12-Include traditional songs, drama, poems 13-How to request a new borehole and criteria for qualification as well as procedures
Q15: Was there any improvement in the borehole (this to be also visually checked after the interview and photos to be taken	100% of the villages visited have improved their borehole surrounding (cleanliness), one non-functional borehole became functional, one was repaired to stop water leakage, etc. However, this cannot only be attributed to the radio Programme as two villages that have not listened to the radio have also improved their surrounding area
Q16: Are there any suggestions on how to improve the Programme?	1- Broadcasting time on Tuesday to be changed to afternoon 2-Reduce Skeffa Chimoto's song and increase traditional song and community participation 3-Village Head Consensus Form, explain how to use it. Brief the VH to change mindset 4-Encourage villagers to listen the radio as a group 5-Encourage villagers with radio to invite those without radio to listen the Programme together

QUESTION	SUMMARY OF ANSWERS
Questions would like to ask the Expert	1- Chemicals required for disinfecting water (Chlorine) from hand dug well and how to access those chemicals. 2-Chemical required for applying on the pit latrine and how to access them. 3-If the spare parts required are prohibitively expensive, what can be done? Can the government intervene? 4-Emphasize that the role of the government is not to provide chemicals to treat their water (this should be borne by the villagers)

b.4 Evaluation of the Trial O&M Educational Community Radio Programme

A workshop was organized in order to assess the trial O&M educational community radio Programme aired during February and March 2014. Below is the summary of the first workshop to evaluate the trial O&M radio Programme.

Table 3-101: Summary of the First Workshop for Evaluation of the Trial O&M Radio

Date	April 7, 2014
Venue	Rewardss lodge, Mchinji District
Participants	Mchinji DCT, Mudziwathu radio, Project Team: 8 participants
Objectives	1. Assess the <u>trial</u> O&M radio Programme effectiveness and impact 2. Way forward for the development of the <u>full</u> O&M of boreholes radio Programme
Content	<ul style="list-style-type: none"> ➤ Sharing the outcomes of the five Radio Listening Clubs interviews ➤ Assessing the effectiveness of the process of delivering community radio ➤ Discussing positive aspects and what needs to be improved ➤ Feed-backs from community provided during the live phone-in Programme on Mudziwathu radio ➤ Sample stories of collective actions to solve problems that affect the community – to be incorporated in the next Programme ➤ O&M radio recording and nationwide dissemination ➤ Way forward for the development of a full O&M of boreholes radio Programme
Achievements	<ul style="list-style-type: none"> ➤ Participants agreed on the positive impacts that the trial O&M of boreholes radio Programmes has brought to the community. However, it is difficult to quantify effectiveness and impact from the radio only as other factors may have also contributed. ➤ The effectiveness and impact of the trial radio were difficult to assess as the broadcast period was short (2 months in total) and the level of awareness of the radio Programme was low. ➤ The full O&M radio matrix will developed through two days' workshop to be conducted in Lilongwe during the 22nd and 23rd April 2014.

b.5 Capacity Development of the Community Radio Broadcasters and Development of a Full O&M Radio Programme

The trial O&M radio Programme highlighted the need of conducting capacity development of community radio broadcasters in charge of producing the O&M radio Programme, especially to increase the technical knowledge in order to make sure that the content of the radio Programme is not compromised. Therefore, a second workshop was organized to equip the community radio broadcasters with the required technical knowledge as well as to involve all stakeholders in the design of a full O&M educational radio Programme. Below table summarizes the outcomes of the second workshop and the full report as well as distributed materials and documents developed in the workshop can be found in the Appendices.

Table 3-102: Summary of the Second O&M Radio Workshop for Capacity Development of Community Radio Staff and Radio Matrix Development

Date	28 and 29 April 2014
Venue	Rewardss lodge, Mchinji District
Participants	MoAIWD, RWDIO (C), Mchinji DCT, Mudziwathu radio, Project Team: 11 participants
Objectives	➤ Capacity development of Mudziwathu radio production staff to be conversant with the

	<p>“Enhancement of O&M for rural water supply framework” Project objectives and expected outcomes as well as the messages that needs to be transmitted to the audience</p> <ul style="list-style-type: none"> ➤ Develop a full Operation and Maintenance of Boreholes radio Programme ➤ Develop schedule of activities and responsible parties
Contents	<ul style="list-style-type: none"> ➤ Presentation on the overall of the project, aims, project-components and expected outcomes as part of the capacity development of Mudziwathu community radio broadcasters ➤ Discussion on how to increase Programme awareness and effective ways of increasing community participation ➤ Radio Programme Evaluation and Stakeholders Involvement ➤ Schedule of activities ➤ Memorandum of Understanding (MoU) between Mudziwathu Radio and JICA O&M project ➤ Planning Mtanga Study Tour
Achievements	<ul style="list-style-type: none"> ➤ Mudziwathu community radio production staff familiarized with the Project and the messages that need to be transmitted to the community ➤ The content of 17 new episodes (episode No. 8 to 28 including live phone-in Programmes to be conducted after airing 4 episodes) with specific and factual messages, reference materials, targeted villages and Experts to be interviewed were decided and included in the O&M radio matrix format. ➤ The schedule of future activities and responsible party was developed ➤ A guiding questionnaire for the Mtanga Village study tour was developed ➤ The MoU between Mudziwathu radio and JICA O&M project was drafted

b.6 Recording Radio Episodes

The second O&M radio workshop recommended recording stories from good and bad performing villages to be aired in the O&M radio Programme. Mtanga Village has been chosen as a good performing village while Msauchi and Chinyonga villagers were chosen as bad performing villages. In order to record individual stories from each of these villages as well as to provide a chance for villages to learn from each other, a study tour was planned whereby WPC members from Msauchi and Chinyonga Village were invited to Mtanga Village to appreciate work conducted by this village towards improving operation and maintenance of their boreholes. The summary of this study tour is shown in **Table 3-103**.

The second O&M radio workshop also recommended that the community radio broadcasters and project staffs work together during field recordings and community mobilization to ensure quality and impact of radio episodes. The summary of the second radio recordings conducted in the field are summarized in **Table 3-104**.

Additionally, it was proposed that officers from the central government as well as local government from other districts should also be involved in the O&M radio Programme. Therefore, officers from the MoAIWD, Ntchisi and Salima districts were also interviewed during the CBM refresher training study tour in Silombe Village. The summary of the third radio recording is explained in **Table 3-105**.

Table 3-103: Summary of the Mtanga Study Tour and First Radio Recordings

Date	2 nd May 2014
Venue	Mtanga Village, Mchinji District
Participants	WPCs for Msauchi, Mtanga, Chinyonga villages, Mudziwathu radio, Project Team: 30 participants
Objectives	<ul style="list-style-type: none"> ➤ Provide opportunity to poor performing and good performing villagers to exchange ideas and support each other in order to increase community ownership
Content	<ul style="list-style-type: none"> ➤ Provide opportunity to poor performing villages of Msauchi and Chinyonga to learn from a good performing village, Mtanga ➤ Increase the performance of Msauchi and Chinyonga villages by discussing their problems with their fellow villagers and come up with their own action plans and commitments ➤ Record episodes 8, 11, 24 and 25 of the O&M radio Programme (communities portion only) ➤ Record traditional songs with enhancement of O&M of borehole messages from Mtanga, Msauchi and Chinyonga villages for episode 8
Achievements	<ul style="list-style-type: none"> ➤ Overall, it can be said that Mtanga Study Tour was a success from the point of view of the

	<p>participating villagers as they had the opportunity to ask all their questions to their fellow villagers and learn from each other experiences. The debate between the three villages was especially important and it is suggested to be aired during Episode 8 (first episode after the trial period) together with the explanation from the experts on the Umoyawathu Programme.</p> <ul style="list-style-type: none"> ➤ Msauchi and Chinyonga villages participants committed themselves to hold a village meeting to discuss on ways to overcome their problems (gender inequality, lack of commitment from villagers, etc.) ➤ Episodes 8, 11, 24 and 25 of the O&M radio Programme has been recorded (only community portion, need to complete with Expert's interview) ➤ Traditional songs with enhancement of O&M of borehole messages from Mtanga, Msauchi and Chinyonga villages have been recorded. It was suggested that these songs should replace Skeffa Chimoto's song.
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Table 3-104 : Summary of Second Radio Recordings

Date	5 th to 12 May 2014 (6 days)
Venue	Mchinji District
Participants	Interviewees: WPCs of pilot sites, DDEHO, AMs, EWs, Spare parts supply chain shop owners: 19 organizations Interviewers: Mudziwathu radio, Project Team: 5 participants
Objective	Increase quality of the community radio episodes through a joint effort between the project staff and the community radio broadcasters
Content	<ul style="list-style-type: none"> ➤ Conduct second recording of O&M radio Programmes ➤ Record traditional songs composed by villagers with O&M messages
Achievements	<ul style="list-style-type: none"> ➤ Episodes 8,9,10,13,15,16,18,20,21,23 and 27 of the O&M radio Programme has been partially recorded. The remaining recordings to be conducted after the 3rd of June. ➤ Traditional songs with enhancement of O&M of borehole messages from Msaushi, Gomani 1, Gomani, Chinkoka, Zandana, Khwawe, Mtanga, Mchokhwe, Chinyonga, Kanjiyo-Namangwe and Nthondoni villages have been recorded.

Table 3-105 : Third Field Radio Recording

Date	8-9 September 2014 (2 days)
Venue	Mchinji District, Siombe Village
Participants	Interviewee: RWDIO (c), Ntchisi DWDO and DEHO, Salima DWDO: 4 participants Interviewers: Mudziwathu radio, Project Team: 3 participants
Objectives	<ul style="list-style-type: none"> ➤ Provide opportunity to Radio Mudziwathu producer to attend the CBM Refresher training (2 days) ➤ Record CBM refresher training study tour were Officials from MoAIWD, Salima and Ntchisi Districts attended ➤ Obtain feedback from what other Districts are doing on Operation and Maintenance of Boreholes
Content	➤ Record episode 29
Achievements	<ul style="list-style-type: none"> ➤ Mudziwathu Radio producer was able to attend all sessions of the two days CBM refresher training where he was able to obtain technical knowledge from the Extension Workers providing the training as well as from officials from the Ministry and other Districts outside Mchinji ➤ Recording with representatives from the Ministry, Salima and Ntchisi District was conducted on the 9th of October and will be aired as an additional Episode (probably Episode 29) ➤ Through this interview, the Operation and Maintenance Radio Programme was able to obtain feedback from other Districts outside Mchinji as well as from officials from MoAIWD to further enrich the content of the radio Programme

b.7 Promoting the O&M Radio Programme

The first and second O&M radio workshop emphasized the need for a stronger publicity for promoting the O&M radio Programme to increase awareness of the Programme and hence increasing the audience. One of the suggestions was to develop a poster with relevant information to be distributed and displayed in public places.

An artist was hired for producing the illustrations and the draft posters were sent to counterparts for selection. 580 posters were distributed, displayed and explained in all health centres in Mchinji, several schools, libraries, market centres, certified Afridev spare parts retail shops and RLCs. Teachers and health

workers were also asked to disseminate information to promote the O&M radio Programme.



Picture 3-2: O&M Poster Distribution Photos (3rd to 5th June 2014)

b.8 Collecting Feedback From the Audience

To assess the impact of the O&M Educational Community Radio Programme, four activities are being implemented; i) feedback from RLCs through feedback forms at the end of each episode, ii) water point inspection in villages with active RLCs, iii) monthly live phone-in radio Programme, and iv) phone messages (SMS) from the audience.

b.8.1 Feedback from Radio Listening Clubs

In addition to the five (5) RLCs that were followed during the trial O&M radio Programme, an additional nine (9) RLCs were selected by Mudziwathu Community Radio Station, adding to a total of fourteen (14) RLCs. These RLCs were previously formed by the community radio station and they are the main stakeholders of the radio which serves as conduits for further information dissemination and community mobilization. In the O&M radio Programme, these RLCs also serves as: i) independent observers of activities conducted by the WPC members and borehole users, ii) providers of regular feedback to evaluate the O&M radio Programme and, iii) liaison between the radio Programme and the communities to shift from listening to action which included finding resources needed for O&M

Feedback forms are being collected on a monthly basis to assess the level of understanding of each radio episode, provide regular feedback to the RLCs and WPC members on issues that needs to be clarified and to incorporate any changes required to the O&M radio Programme.

b.8.2 Water Point Inspection

Even though feedback forms provides information regarding the level of understanding of episodes aired through the O&M radio Programme, listening to the radio may not necessarily produce behavior change. Hence, to shift listening into action, water point inspection in the fourteen (14) villages with active RLCs was conducted during 4, 5 and 12 September to assess whether or not there has been some actions regarding O&M of water points..

b.8.3 Live Phone-in Programme

Live phone-in Programme is being conducted on a monthly basis to obtain feedback from the audience. The Programme last for an hour and has been conducted in the following days.

Table 3-106: Live Phone-in Programme Broadcasting Dates

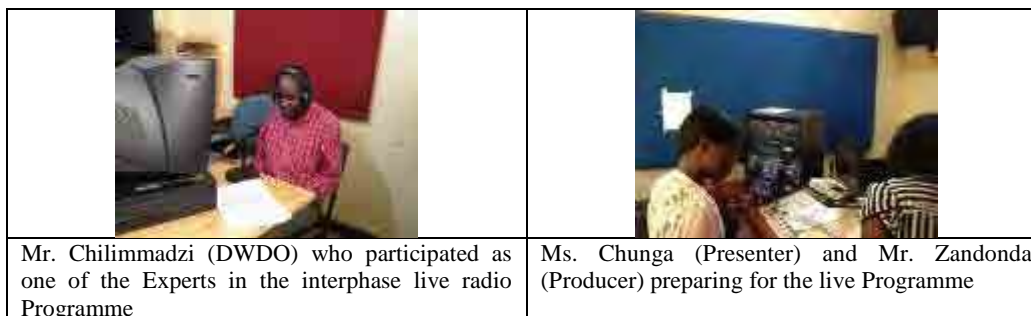
No	Episode number	Date of broadcast	Date of repetition
1	Episode No 8	1/04/2014	5/04/2014
2	Episode No 13	24/06/2014	28/06/2014

No	Episode number	Date of broadcast	Date of repetition
3	Episode No 18	2/09/2014	6/09/2014
4	Episode No 23	7/10/2014	11/10/2014
5	Episode No 28	Schedule for 18/11/2014	Scheduled for 22/11/2014

An interphase live Programme was conducted on the 7th of October 2014, where Mchinji local government officials were invited to directly respond to the questions from the O&M radio listeners. **Table 3-107** is summarizing details of the live interphase radio Programme.

Table 3-107 : Live Interphase Programme

Title	Live Interphase Programme
Date	7 th October 2014
Place	Mudziwathu Community Radio Station, Mchinji District
Participants	Guest: Mchinji DWDO, DDEHO Others: Mudziwathu radio, Project Team: 4 participants
Objective	Provide opportunity to listeners of Umoyo wathu Programme to directly ask questions to the Mchinji District officials on any issues of their interest through an interphase live Programme
Achievements	➤ Several listeners of Umoyo wathu Programme from and outside Mchinji District have called and send messages during the live Programme to ask questions or raise concerns to officials from Mchinji District



Picture 3-3: Pictures of the Live Interphase Radio Programme

b.9 Second Evaluation of the O&M Educational Community Radio Programme

A workshop was organized in order to evaluate the progress, assess the impact and recommend challenge to the O&M educational community radio Programme that is being aired since July 2014. Below is the summary of the workshop.

Table 3-108: Summary of the Second Evaluation of the O&M Educational Community Radio Programme

Date	24th September 2014
Place	Rewardss Lodge, Mchinji District
Participants	MoAIWD, Mchinji DCT, NICE, Mudziwathu radio, Project Team: 13 participants
Objectives	Evaluate the O&M radio episodes aired during the 1 st of July 2014 to 20 th of September 2014 (twelve episodes)
Content	<ul style="list-style-type: none"> ➤ Evaluate the progress of the O&M community radio being aired since the 1st of July 2014 ➤ Discuss quality of the O&M community radio Programme ➤ Come up with the way forward regarding the upcoming episodes to be aired and final product to be developed
Achievements	<p><u>Progress</u></p> <ul style="list-style-type: none"> ➤ The O&M community radio being aired since the 1st of July 2014 is making good progress with few scripts that are lagging behind schedule. <p><u>Quality of the radio Programme</u></p> <ul style="list-style-type: none"> ➤ Quality of the content of the O&M community radio Programme needs to be ensured through active participation of senior government officials as well as interphase Programme (live) these officials and the community. Mr. Chilimadzi (DWDO) and Mr. Mchipha (DDEHO) to

	<p>be present during 7th of October (Tue) live Programme recording.</p> <ul style="list-style-type: none"> ➤ To ensure quality of the Programme, all radio recordings were conducted in coordination with project members and the community radio broadcasters. Additionally, scripts of the episodes are drafted and submitted to the project to check technical content and suggest recommendations to the community radio station before the preparation of the radio recordings. ➤ Feedback from listeners is being collected through different approaches; i) SMSs through a phone number that was assigned for this particular radio Programme, ii) monthly feedback collection from 13 RLCs collected for each of the episodes, iii) water point inspection conducted in villages with active RLCs, and iv) monthly phone-in radio Programme, anyone who is listening to the radio is free to call and provide feedback ➤ The O&M radio Programme covers a vast number of stakeholders such as local government officials from several sectors in different levels beginning with extension workers up to senior supervisory officials as well as NGOs and private entities. <p><u>The way forward</u></p> <ul style="list-style-type: none"> ➤ A new episode recorded during visit of Salima and Ntchisi districts to the CBM refresher study tour was suggested for addition. Mudziwathu radio to provide script of the interview for revision NLT October 3rd (Fri). ➤ Fourteen (14) RLCs were being followed, but two of them will be drop as the type of pump used is elephant pump which is not officially approved by the GoM. Total number of RLCs to be followed is twelve (12). <p><u>Final product of the O&M educational community radio Programme</u></p> <ul style="list-style-type: none"> ➤ It was decided that all documents produced through the O&M radio Programme should be shared with other stakeholders through development of a handbook that contains the O&M radio matrix, scripts and recordings of each episode. A workshop for the development of this handbook should be organized.
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b.10 O&M Radio Final Product Development Workshop

A workshop was organized to develop the final product of the O&M community radio programme. Below is the summary of the workshop.

Table 3-109 : Summary of the O&M Radio Final Product Development Workshop

Date	19 th November 2014
Venue	Rewards Lodge, Mchinji District
Participants	MoAIWD, Mchinji District, Mudziwathu radio, Project Team: 22 participants
Objectives	Discuss about the development of the O&M community radio programme final product
Content	<ul style="list-style-type: none"> ➤ Decide the outline and format of the final product ➤ Discuss information that needs to be incorporated and review content of materials developed so far ➤ Come up with the way forward regarding upcoming calendar of activities for finalizing the O&M radio handbook
Discussions	<p><u>Discussions regarding information that needs to be incorporated and review content of materials in the main text developed so far</u></p> <ul style="list-style-type: none"> ➤ The title was decided to be ‘Guidelines for the Production of an Educational O&M Community Radio Program – Sharing lessons and experiences from Mchinji District –’ ➤ Cover illustration should include hand pump, people being interviewed, fence, or people gathering to listen to the radio around the hand pump area. The draft illustration will be shared with the participants once provided by the artist. ➤ The current document in reporting format should be changed to a ‘guideline’ for the production of the educational O&M radio program including monitoring, evaluation and impact of the radio program. ➤ The document should only provide ‘guide’ and ‘samples from Mchinji district’. ➤ Target readers should not be limited to other community radios in Malawi but to include all stakeholders in the water and sanitation sector ➤ The Preface should be signed by the PS and contained in a single page. The content was reviewed and edited by all participants during the workshop. ➤ Photos used during the handbook can remain as the guideline is not produce for profit making but for the good of Malawians. <p><u>Review content of materials developed so far (O&M radio matrix, scripts, feedbacks from audience)</u></p> <ul style="list-style-type: none"> ➤ Annexes should include feedback forms (blank), baseline and end-line survey forms, water point inspection form (blank) and scripts developed by Mudziwathu community radio ➤ Monitoring and evaluation session needs to explain how feedbacks from RLCs were collected and what support was provided by the project.

	<ul style="list-style-type: none"> ➤ Emphasize the need for regular follow-ups and explain the O&M scoring method. <p><u>Come up with the way forward regarding upcoming calendar of activities for finalizing the O&M radio handbook</u></p> <ul style="list-style-type: none"> ➤ End-line survey of the O&M radio program is schedule for 1st and 2nd December 2014. ➤ Next workshop scheduled for 11th December 2014 in Lilongwe. Venue TBD. ➤ Participants were requested to choose one feedback from the audience to be incorporated to the main text as 'voices from the audience' ➤ The guideline should be finalized by February 2014. <p><u>End-line survey guiding questionnaire</u></p> <ul style="list-style-type: none"> ➤ Participants reviewed the end-line guiding questionnaire developed for the trial radio program. Irrelevant information was removed and missing information added.
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b.11 O&M Radio Impact Assessment and Handbook Revision Workshop

A workshop was organized for conducting the O&M radio impact assessment as well as to review progress of the O&M radio handbook. Below is the summary of the workshop.

Table 3-110 : Summary of the O&M Radio Impact Assessment and Handbook Revision Workshop

Date	17 th December 2014
Place	Rewards Lodge, Mchinji District
Participants	MoAIWD, Mchinji District, Mudziwathu radio, Project Team: 8 participants
Objectives	Share results of the O&M radio programme impact assessment and review progress on the O&M radio handbook
Content	<ul style="list-style-type: none"> ➤ Share results of the O&M radio impact assessment as well as feedback from listeners ➤ Review content of the O&M radio handbook ➤ Come up with the way forward regarding upcoming calendar of activities before the technical confirmation meeting of the O&M radio handbook
Discussions	<p><u>Share results of the O&M radio impact assessment as well as feedback from listeners</u></p> <ul style="list-style-type: none"> ➤ Results of the impact assessment and trend of the scores in the eleven target villages as well as the pictures of improvements before intervention and after the last intervention (December 2014) were presented. ➤ In the same way, an impact assessment for the 50 sites that received CBM O&M refresher training was prepared and the results can be used to compare with those of the O&M radio programme. <p><u>Review content of the O&M radio handbook</u></p> <ul style="list-style-type: none"> ➤ The meeting participants agreed that instead of a guideline a handbook could be developed to share experience of the O&M community radio in Mchinji district. This is so because a guideline dictates the way things needs to be conducted whereas the experiences in Mchinji are not to dictate ways of doing things but to share what has been done in Mchinji. <p><u>Way forward regarding upcoming calendar of activities before the technical confirmation meeting of the O&M radio handbook</u></p> <ul style="list-style-type: none"> ➤ The technical confirmation meeting scheduled tentatively for early March 2015. ➤ Monitoring and follow-ups with the Radio Listening Clubs and Water Point Committees needs to be conducted by the District Coordination Team (DCT members) and/or Extension Workers Team (EWT) as it has been proved that the frequent monitoring has created an impact in several communities targeted through the radio programme. The meeting recommends that ORT for conducting monitoring and follow-ups are secured by the government. The government should also provide guidance to DPs and NGOs to allocate funding for follow-ups in projects or programmes in the Districts as an attempt to tackle the dependency syndrome of communities. ➤ Visits to community radios in Mzimba and Nkhotakota were recommended to see whether or not the O&M radio handbook is relevant and to assess the possibility of rolling out the O&M programme in other community radios, receive feedback on the content of the handbook and figure out the way forward. ➤ Visit to Mzimba is tentatively scheduled for the 22nd of December (Mon) ➤ Visit to Nkhotakota for the 23rd of December (Tue). ➤ Appointment with UNICEF C4D and WASH Officer is also scheduled for the 23rd December 2014 (Tue) to assess possibilities of UNICEF to support the roll-out of the O&M radio programme through the rest of the community radios in Malawi. ➤ Based on conversations with other community radios and UNICEF, it might be necessary to hold an O&M radio handbook sharing workshop and invite officials from MoI, UNICEF, NGOs and community radios.

b.12 Feedback Request to Improve Content of the O&M Radio Handbook

A series of meetings with Mzimba Community Radio, Nkhotakota Community Radio and UNICEF were held in order to request feedback on the content of the O&M radio handbook and decide on the way forward for its finalization. The summary of the meetings can be found in the following three tables.

Table 3-111 : Summary of Interview with Mzimba Community Radio

Date	22 nd December, 2014
Place	Mzimba Community Radio Station, Mzimba District
Participants	Mzimba Community Radio, Project Team: 3 participants
Objectives	Request feedback for the O&M community radio handbook
Content	<ul style="list-style-type: none"> ➤ Collect information regarding Mzimba community radio ➤ Find out availability and importance of radio programmes pertaining to water ➤ Find out availability of information regarding the water sector ➤ Introduce the O&M radio handbook and its content and find out feasibility of broadcasting Umoyo wathu programme through Mzimba community radio station ➤ Request feedback on the O&M radio handbook
Discussions	<p><u>Collect information regarding Mzimba community radio</u></p> <ul style="list-style-type: none"> ➤ Established in 2006 ➤ Radio service population and area: 3,600,000 people from the entire Mzimba district and part of Nkhata Bay, Rumphu, Likoma and Kasungu ➤ Business hours: 06:00~24:00 ➤ Radio Programmes currently being aired: health, education, agriculture, security and infrastructure development ➤ Funding: there is no support from NGO and all staffs are volunteers working on allowances paid by sponsors and DPs ➤ Staff's Capacity: All new staffs receive training every year from experienced staff and have the capacity to produce and broadcast new programmes. ➤ Interaction with the community: there is currently 32 Radio Listening Clubs (RLCs) at the community level that reports to Radio Action Groups (RAGs, around 10 members) that reports to the community radio. Basically, new programmes start in one TA and discuss problems pertaining to that specific area. Other TAs are added later on after broadcasting the programmes and receiving request from the TAs to participate. Area of coverage (number of TAs) increases upon demand from the communities. <p><u>Find out availability and importance of radio programmes pertaining to water</u></p> <ul style="list-style-type: none"> ➤ Currently there is no radio programme regarding water ➤ Water issues in Mzimba are due to its large area (10,430 km²) with a population of 610,944, few number of boreholes and many being abandoned for non-functionality ➤ Politicians promise provision of boreholes during campaign period. Hence, even the Deputy Radio Manager being interviewed thinks that the government is responsible for provision of boreholes and its O&M. Lack of ownership towards boreholes seems to be rampant <p><u>Find out availability of information regarding the water sector</u></p> <ul style="list-style-type: none"> ➤ There is not only lack of information regarding the water sector but from all sectors. Information is kept by the government and therefore the Community Radio relies on district officers and extension workers for provision of technical information. ➤ "Facts for Life" published by UNICEF covers a range of issues for the reduction of child mortality and is focused on health, education, sanitation and hygiene but no information on water and O&M of water points <p><u>Introduce the O&M radio handbook and its content and find out feasibility of broadcasting Umoyo wathu programme through Mzimba community radio station</u></p> <ul style="list-style-type: none"> ➤ It is not possible to air Umoyowathu programme developed in Mchinji district as it is in Chewa language whereas in Mzimba should be aired in Tumbuka language. ➤ If the O&M radio matrixes as well as the scripts are included in the handbook, Mzimba community radio is capable of producing an O&M radio programme for their area of coverage. However, allowances for staffs to go to the field (MK 2,000) as well as transportation cost and broadcasting fee (MK16,000 for 30 min programme) should be provided by a sponsor or DP. <p><u>Request feedback on the O&M radio handbook</u></p> <ul style="list-style-type: none"> ➤ Mzimba community radio agreed to send feedbacks by 14th of January 2015.

Table 3-112 : Summary of Interview with Nkhotakota Community Radio

Date	23 rd December, 2015
Place	Nkhotakota Community Radio Station, Nkhotakota district

Participants	Nkhotakota Community Radio, Project Team: 4 participants
Objectives	Request feedback for the O&M community radio handbook
Content	<ul style="list-style-type: none"> ➤ Collect information regarding Nkhotakota community radio ➤ Find out availability and importance of radio programmes pertaining to water ➤ Find out availability of information regarding the water sector ➤ Introduce the O&M radio handbook and its content and find out feasibility of broadcasting Umoyo wathu programme through Nkhotakota community radio station ➤ Request feedback on the O&M radio handbook
Discussions	<p><u>Collect information regarding Nkhotakota community radio</u></p> <ul style="list-style-type: none"> ➤ Established in 1998 by UNESCO and the Ministry of Information (2nd in Malawi) ➤ Radio service population and area: 800,000 people in the entire Nkhotakota district and part of Mzimba, Kasungu, Ntchisi and Salima ➤ Business hours: 06:00~22:00 (Mon – Sun, no holidays) ➤ Radio programmes being currently broadcasted: health, education, agriculture and security ➤ Funding: No support from NGOs. Staffs are all volunteers ➤ Interaction with the communities: Radio Listening Clubs (RLCs) are established based on different topics and themes. For the production of new programmes, existing RLCs can be used but at least two representatives from each RLC should be invited to develop the radio matrix to ensure ownership of the new programme. Additionally, it is important to visit the target villages to explain the programme to the remaining RLC members. <p><u>Find out availability and importance of radio programmes pertaining to water</u></p> <ul style="list-style-type: none"> ➤ Currently no water programme ➤ In 2013, UNICEF supported a sanitation and hygiene programme around Lake Malawi in order to come up with innovative technologies for latrine construction in the sandy soil areas around the lake and disseminate importance of hand-washing with soap. This programme received an award from the National Media Institute of Southern Africa (NAMISA) due to the high impact to the community created through Nkhotakota community radio programme ➤ As can be seen in Nkhotakota District Sector Economic Plan (SEP) and District Investment Plan (DIP), the water sector is very important. ➤ It is important to produce an O&M radio programme in order to overcome lack of community ownership towards their borehole as well as high non-functionality rate of boreholes. <p><u>Find out availability of information regarding the water sector</u></p> <ul style="list-style-type: none"> ➤ No information regarding the water sector was found in the radio station at the time of the visit. <p><u>Introduce the O&M radio handbook and its content and find out feasibility of broadcasting Umoyo wathu programme through Nkhotakota community radio station</u></p> <ul style="list-style-type: none"> ➤ Nkhotakota community will not be happy to listen to a radio programme developed in another district. Community ownership increases because the community themselves takes part in the development of the radio programme. Hence, broadcasting something produced elsewhere will have a low impact in their communities. ➤ Availability of sample radio matrix and script are important. With this information, Nkhotakota community radio will be able to produce their own O&M radio programme. <p><u>Feedback request</u></p> <ul style="list-style-type: none"> ➤ Nkhotakota Community Radio agreed to send feedbacks on the handbook by 14th of January 2015

Table 3-113 : Summary of the Meeting with UNICEF regarding the O&M Radio Handbook

Date	23 rd of December, 2014
Place	UNICEF
Participants	UNICEF WASH, UNICEF C4D, Project Team: 4 participants
Objectives	Provide the O&M radio handbook and request feedback
Content	<ul style="list-style-type: none"> ➤ Share progress on the O&M radio programme ➤ Request feedback on the content of the O&M radio handbook
Discussions	<p><u>Share progress on the O&M radio programme</u></p> <ul style="list-style-type: none"> ➤ Discussions with UNICEF regarding the O&M radio programme started around November 2013. Progress has been regularly shared through meetings, workshops and emails. ➤ The zero draft of the O&M radio handbook was provided to UNICEF WASH and Communication for Development (C4D) officers and the content of the handbook was explained. ➤ Timeframe for completion of the O&M radio handbook was explained to be March 2015 when the MoAIWD, PS would be signing the Preface to endorse its content. Hence it was explained that feedbacks from all key stakeholders were very important. ➤ UNICEF informed that they have funded a WASH radio programme in March 2013 where information packages on WASH were distributed to community radios. Monitoring and follow-ups are currently being conducted through the Ministry of Information and District Information Officers. ➤ UNICEF has signed a contract with Malawi Institute of Journalism to provide training to community radios in the near future. <p><u>Request for feedback</u></p>

	➤ UNICEF agreed to provide feedbacks on the O&M radio handbook by the 14 th of January 2015.
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c. Activity for Strengthening of Monitoring and Evaluation (M&E) System at District Level

c.1 Preparation of Orientation Course for O&M Indicators Collection for Water Supply Facilities

As determined at the third A5 workshop held on 4th December 2014, preparation works were carried out for the orientation course for WASH M&E data collection planned to be offered for two days on 11th and 12th December. The summary of the preparation work was as follows:

Table 3-114: Summary of Preparation of Orientation Course for O&M Indicators Collection

Preparation works	① Preparation of distribution materials for 350 HSAs ② Packaging
Distribution materials	① Guide to the National Rural Water Supply and Sanitation M&E System ② Community form, data tally sheet and entry example ③ Public Premises form, data tally sheet and entry example ④ Learning Institutions form, data tally sheet and entry example ⑤ Health Centre form, data tally sheet and entry example ⑥ Glossary of Indicators Realigned for Manual
No. of distributions and cost	No. of distribution materials : 400 sets Photocopy cost: Approx. MK550,00
Comments	In this project, the construction of an M&E system at the district level has been supported, by adding O&M elements to the national level M&E framework which was already approved through discussions made at M&E TWG. As the result, the orientation course this time naturally needs to be offered by members of District Coordination Team (DCT) as well as preparation works need to be made by those members. Based on experience we had this time, we found some concerns regarding sustainability as follows: (1) Cost of data sheets Printing of about 400 sets of data sheets was contracted to independent printing companies and it cost about MK550,000. Since the annual budget for an Water Development Office is about MK1,000,000 on average (working budget), it is difficult to cover the cost of updating M&E data twice a year with this working budget. (2) Printing of data sheets There is no printing company with which an order can be placed for printing of several thousand pages at one time in the district. In addition, the District Office has no multifunctional printer of their own, which makes it difficult to print data sheets. (3) Packaging of data sheets In this project, data sheets were bundled in a package to deliver them to HSAs without problem when the orientation course for data collection was given but the packaging process done by two local staff members took about two days. It is uncertain whether or not the packaging work can be done by DCT members.



c.2 Orientation Course for O&M Indicators Collection for Water Supply Facilities

The orientation course for WASH M&E data collection was offered to HSAs at 16 health centres for two

days on 11th and 12th December 2014. The summary of the orientation course is as follows:

Table 3-115: Summary of Orientation Course for O&M Indicators Collection

Item		Contents		
Date		11th and 12th December 2014		
Venue		16 health centers		
Participants	facilitators	Team-1: DDEHO, AEHO: 5 participants	Team-2: AEHO, Project Team: 4 participants	Team-3: AEHO, Project Team: 4 participants
	trainees	HSAs: 292 participants		
Main agenda		<ul style="list-style-type: none"> ➤ Introduction of M&E framework ➤ Understanding the collected indicators ➤ Confirmation of the person in charge of the data collection for catchment villages and institutions ➤ Determination of the schedule such as data collection and submission 		
Results		<ul style="list-style-type: none"> ➤ The second and third week of December is when all personnel in the health sector are busy with other activities and therefore, only two days could be secured for the orientation course. As the result, each of teams of instructors (3 teams in total) had to visit two to three health centres a day which did not allow them to spend sufficient time on the orientation course. Consequently, HSAs need to be given a follow-up for the work they have done on a continuing basis. ➤ Data collection done on site by HSAs started on the day after the orientation course ended. Although the deadline for submitting data sheets varied among health centres, the final deadline targeted was planned to be early January of 2015. ➤ It had been decided at the workshop on 4th December that data collected by each health centre would be entered by AEHOs. Confirmation was made, however, about who would be the responsible personnel for the work once again and a list of personnel in charge of data entry was developed. 		

		
Orientation at Chipumi health centre (From 11 th to 12 th December, 2014, Mchinji)	Orientation at Mchinji District Hospital (From 11th to 12th December, 2014, Mchinji)	Orientation at Mikundi health centre (From 11th to 12th December, 2014, Mchinji)

c.3 Support for Collection of O&M Indicators for Water Supply Facilities in around Mchinji District

After the orientation course for data collection offered at the end of December 2014 (for two days on 11th and 12th December 2014), collection of WASH M&E indicators started by about 300 HSAs in villages they were in charge of. According to what the project team found in the progress during the on-site inspection on 13th January 2015, however, data collection of HSAs had not progressed well and a number of issues were identified. Some of major issues identified are as follows:

Table 3-116: Major Issues Related to Data Collection and their Solution

Key item	Details	Solution (proposed)
On-site data collection was not carried out correctly by HSAs.	<ul style="list-style-type: none"> ➤ Data for health-related indicators of villages were to be collected using the primary tally sheets. Some HSAs did not understand how to use the tally sheets correctly and therefore, the resulting entry in the data sheet was incorrect. ➤ The data collection work was conducted in the same 	<ul style="list-style-type: none"> ➤ During the data collection orientation course, exercise of entry should be done using real data sheets. ➤ AEHOs should monitor

Key item	Details	Solution (proposed)
	<p>period as winter holidays. Some HSAs had not done data collection correctly, because they forgot what they learned at the orientation course.</p> <ul style="list-style-type: none"> ➤ Data of villages (particularly villages in remote areas) where no personnel were in charge of collection were ignored by both AEHOs and HSAs. There was no one to pay attention. 	<p>the progress of data collection regularly and should offer advice to SHSAs or instruct them to make correction as necessary.</p>
<p>Capability to supervise the data collection work was not sufficient enough on the side of AEHOs.</p>	<ul style="list-style-type: none"> ➤ AEHOs who are to control the data collection work do not correctly understand the definitions of data. ➤ AEHOs offer almost no support for the data collection work done by HSAs. 	<ul style="list-style-type: none"> ➤ Deputy District Environmental Health Officers (DDEHOs) should supervise the management done by AEHOs and should offer advice or instruct to make correction as necessary.

3.5 Activities of Output 5

【Output 5: The strengthened framework is widely understood.】

3.5.1 Activities 5-1: To make the strengthened O&M framework acknowledged officially by MoWDI.

a. Technical Confirmation Meeting

a.1 First Technical Confirmation Meeting

The First Technical Confirmation Meeting was held on the 11th of September, 2014 at the Bridgeview Hotel in Lilongwe in order to obtain technical approval of eight guidelines and manuals developed by the Project. A summary of the first meeting is shown in the table below.

Table 3-117: Summary of the First Technical Confirmation Meeting

Item	Contents
Date	31 st October 2014, 9:00~17:00
Venue	Bridgeview Hotel at Lilongwe
Participants	MoAIWD, RWDIO(c), Mchinji DC, Project Team: 14 participants
Main topics	<ul style="list-style-type: none"> ➤ Technical Confirmation of the O&M guidelines and manuals ➤ Developing a calendar for the final approval as well as plans for the finalization of the remaining guidelines and manuals
Main topics for discussion	<p><u>1. Technical Confirmation of the O&M guidelines and manuals</u></p> <ul style="list-style-type: none"> ➤ Some changes were incorporated in the 'Preface' and it was decided that the name of district councils and institutions should appear in the 'Acknowledgements' section. Additionally, the 'List of Participants' should not be placed after the Acknowledgements but at the end of the manual as an Appendix. ➤ All other changes were directly incorporated into the documents. <p><u>2. Developing a calendar for the final approval as well as plans for the finalization of the remaining guidelines and manuals</u></p> <ul style="list-style-type: none"> ➤ After all changes have been incorporated as per recommendations of this technical confirmation meeting, one copy of each document will be submitted to the director of DWSS for comments. ➤ The hard copies can be distributed to the districts, DPs/NGOs during the Regional and National Joint Sector Review (JSR) meetings in November and December 2014. For the districts, at least one copy should be provided to all DWDOs. If funding is available a second copy should be provided to the DPD offices. ➤ For the NGOs, one hard copy should be provided to WES Network as well as uploading the soft copies to their website. ➤ For the CBM refresher manuals, copies for DEHOs and DCDOs should also be considered.

a.2 Second Technical Confirmation Meeting

The Second Technical Confirmation Meeting was held on the 9th of December, 2014 at the Bridgeview Hotel in Lilongwe in order to obtain technical approval of the O&M planning handbook developed by the Project. A summary of the second meeting is shown below.

Table 3-118: Summary of the Second Technical Confirmation Meeting

Item	Contents
Date	9 th December, 2014
Venue	Bridgeview Hotel at Lilongwe
Participants	MoAIWD, RWDIO(c), Ntchisi, DPs, NGOs, Project Team: 14 participants
Main topics	<ul style="list-style-type: none"> ➤ Share the revised parts of draft handbook with key stakeholders; ➤ Consult with the key stakeholders on the revised parts and finalize the handbook
Main topics for discussion	<ul style="list-style-type: none"> ➤ Most changes were directly incorporated in the documents. ➤ Participants generally accepted the draft handbook and agreed to finalize it after incorporating any comments of the participants into the document.

a.3 Third Technical Confirmation Meeting

The Third Technical Confirmation Meeting was held on the 17th of March, 2015 at the Bridgeview Hotel in Lilongwe in order to obtain technical approval of the remaining three guidelines and manuals developed by the Project. A summary of the third meeting is shown below.

Table 3-119: Summary of the Third Technical Confirmation Meeting

Item	Contents
Date	17 th March 2015, 13:00~16:00
Venue	Bridgeview Hotel at Lilongwe
Participants	MoAIWD, RWDIO(c), Mchinji DC, Project Team: 11 participants
Main topics	<ul style="list-style-type: none"> ➤ Technical Confirmation of the O&M guidelines and manuals ➤ Developing a calendar for the final approval
Main topics for discussion	<ul style="list-style-type: none"> ➤ Most changes were directly incorporated in the documents. ➤ Participants generally accepted the draft documents.

b. Finalisation of the Guidelines / Manuals developed in this project

A total of 14 guidelines / manuals for the O&M framework developed in this project were approved by the Principal Secretary of MoAIWD and it is determined to be published as national documents, as shown in the table below.

Table 3-120: Approval data of the 14 Guidelines / Manuals

Documents	Date of approval
Rural Water Supply Operation and Maintenance Series 1~9	25 th February 2015
Rural Water Supply Operation and Maintenance Series 10~12	31 st March 2015
Rural Water Supply Operation and Maintenance Series 4&6 (Chichewa version)	9 th April 2015

c. Printing and Binding of Approved Documents

A total of about 3,800 copies of approved documents were printed and bound funded by JICA to distribute the completed manuals to those involved in the water sector throughout Malawi. Printed copies of each manual are shown in the table below.

Table 3-121: Printed Copies of each Manual developed in this Project

Series No.	Title	Qty
1	Community Based Management (O & M Refresher Course) Training Manual	645
2	Community Based Management (O & M Refresher Course) Tool Kits	670
3	Guide Manual for the Establishment and Management of Area Mechanic System	179
4	Training Manual for Area Mechanics	170
5	Guide Manual for the Establishment of an Afridev Hand Pump Spare Parts Supply Chain	177
6	Training Manual for Afridev Hand Pump Spare Parts Retail Shop Owners	177
7	Borehole Rehabilitation Handbook for Extension Workers	179
8	Water Supply Service Technical Document Management Guidelines	93
9	District O&M Planning Handbook	289
10	EDUCATIONAL COMMUNITY RADIO PROGRAMME FOR ENHANCING O&M FOR RURAL WATER SUPPLY	364
11	User Guide Manual on Monitoring and Evaluation Database for Water Points	321
12	O&M Technical Document Utilisation Handbook	250
4	Training Manual for Area Mechanics (Chichewa version)	167
6	Training Manual for Afridev Hand Pump Spare Parts Retail Shop Owners (Chichewa version)	167
Total		3,848

3.5.2 Activities 5-2: To disseminate the strengthened O&M framework by seminar/workshop.

(1) Sector Sharing Workshop on “Enhancement of Operation and Maintenance of Rural Water Supply” for the Nationwide Dissemination

The Project Team with C/Ps held a workshop in Lilongwe with invited development partners and NGOs active in the water sector in Malawi and neighbouring districts. This workshop was held as the first step to disseminate the achievement of improvement of the O&M framework currently being addressed in the project. In the workshop, the progress of the project activities were shared by the C/Ps and the discussions on future activities was made. The following is a summary of the workshop.

Table 3-122: Summary of the Sector Sharing Workshop on “Enhancement of Operation and Maintenance of Rural Water Supply” for the Nationwide Dissemination

Date	September 19, 2013
Venue	Bridgeview Hotel
Participants	MoWDI, DPs, NGOs, WES Network, Dedza & M'mbelwa & Chikhwawa & Mchinji DC, Project Team: 45 participants
Objectives	<ul style="list-style-type: none"> ➤ To share the progress made so far in the Project ➤ To discuss ways forward for nationwide dissemination of the O&M framework with the stakeholders
Contents	<ul style="list-style-type: none"> ➤ Presentation on the overview of the project, challenges and analysis of the present status ➤ Presentation on status of implementation of 10 test activities classified by 6 factors for strengthening the O&M framework <ul style="list-style-type: none"> • Factor 1: Increasing community ownership and responsibility (A1, A2, A7, A10) • Factor 2: Standardization of Area Mechanics System (A3) • Factor 3: Standardization of the spare parts supply chain system (A4) • Factor 4: Management of Manuals and Guidelines (A6) • Factor 5: Strengthening the M&E at the District level (A5) • Factor 6: Capacity development of the Regional/District Coordination Team (A8, A9) ➤ Group discussion about each 6 factors based on the guiding questions ➤ Presentation on above results by each group ➤ Plenary dissection including the way forward.
Results	The presentations for sharing the progress of the Project were made effectively by the C/Ps and the outputs for strengthening of the O&M framework in rural water supply which has so far been tackled in the Project was able to be shared with the related stakeholders widely.

(2) Sector Consultative Workshop for the Development Guide Manuals for

Establishment of Area Mechanic System and Supply Chain System (draft)

So far, a guide manual for establishment of an area mechanic system and hand pump spare parts supply chain and a training manual have been developed in the Project. The manuals were shared by relevant institutions in the water sector and a sector consultative workshop to review and finalise the contents was held over two days on 12th and 13th March in the capital, Lilongwe.

Table 3-123: Summary of Sector Consultative Workshop Regarding the Guide Manuals for Establishment of Area Mechanic System and Spare Parts Supply Chain

Item	Contents
Objective	12 th and 13 th March 2014 (2 days)
Venue	Bridgeview Hotel at Lilongwe
Participants	DPs, NGOs, MoAIWD, Ntchisi&Salima&Lilongwe&Mchinji DC, RWDO, Project Team: 19 participants
Main topics	<ol style="list-style-type: none"> 1. Share key information from the following four documents: i) "Guide Manual for the Establishment and Management of Area Mechanics Systems", ii) "Training Manual for Area Mechanics", iii) "Guide Manual for the Establishment of Afridev Hand Pump Spare Parts Supply Chain" and iv) "Training Manual for Afridev Hand Pump Spare Parts Retail Shop Owners"; 2. Discuss key concepts, proposed systems, roles and responsibilities of key players; 3. Discuss the establishment of Area Mechanics and Spare Parts Supply Chain System that could be applied through the country; 4. Provide feedbacks on the above mentioned documents before they are shared with the entire sector and finally approved by the MoWDI for wider distribution;
Main topics for discussion	<ol style="list-style-type: none"> 1. Content of manuals Many comments on the content of the manuals were received from the participants, revisions were made in the meeting and the agreement of the participants was finally obtained. 2. Future response The final version based on the comments raised in the workshop will be shared with the members of the Water Supply Technical Working Group (WS TWG) as the final version.

(3) Sector Consultative Workshop for the Development of the CBM (O&M Refresher Course) Manual (Zero Draft)

Based on the agenda for the first PTF meeting held on 24th June 2014, a workshop aimed at sharing the zero draft and reviewing the content of the CBM O&M refresher training manual currently under development was held over two days on 3rd and 4th July. The technical persons of the DPs and NGOs were invited. A summary of the workshop is shown below.

Table 3-124: Summary of Sector Consultative Workshop for the Development of the CBM O&M Refresher Training Manual

Item	Contents
Date	3 rd and 4 th July 2014 (2 days)
Venue	Riverside Hotel at Lilongwe
Participants	DPs, NGOs, MoAIWD, RIWDO(c), Mchinji DC, Project Team, 24 participants
Objective	<ul style="list-style-type: none"> ➤ Consult with key stakeholders on the content of two documents: i) "CBM Refresher Course Training Manual" and ii) "CBM Refresher Course Tool Kits"; ➤ Discuss key modules, sessions and activities of the training manuals; ➤ Discuss content of tool kits developed; ➤ Provide feedbacks on the above mentioned documents before they are shared with the entire sector and finally approved by the MoAIWD for wider distribution;

Main points discussed	<p>1. Main items to be added to zero draft manual</p> <p>① Items on HIV/AIDS, gender and the environment in the existing manual will be added as crosscutting issues</p> <p>② Security system to prevent vandalism of the water supply facilities will be added as the responsibilities of the community</p> <ul style="list-style-type: none"> ➤ Security system will be included in the community mobilization, Module 8 ➤ Boxed text will be added to the manual by reference to the locking system supported by InterAide and Concern Universal <p>③ Information that is lacking on O&M monitoring/evaluation and planning (Module 7 and 9) will be added</p> <p>④ Criteria for selecting target WPs for CBM refresher training will be added</p> <p>⑤ Modules for analysing/identifying O&M problems faced by communities will be added</p> <p>2. Determining length of CBM O&M refresher course</p> <p>The CBM refresher course is targeted at existing water supply facilities and the training content (Programme and length) should be determined according to the O&M issues faced by the facilities. Deputy Director Water Supply Services expressed the view that the refresher training, therefore, does not need to cover all the modules contained in the manual, and the agreement of the participants was obtained.</p>
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(4) Sector Consultative Workshop for the Development of the O&M Planning Handbook

A sector consultative workshop (WS) for the Development of the O&M planning handbook described in Activities 3-3-9 was conducted in order to obtain agreements of stakeholders related to rural water supply in Malawi. *Table 3-126* shows the outline of the WS.

Table 3-125: Summary of the Sector Consultative Workshop for the Development of the O&M Planning Handbook

Date	27 th , August 2014
Venue	Bridgeview Hotel, Lilongwe
Participants	MoAIWD, RIWDO, Mchinji DCT, DWDO (Salima, Nkhotakota, Ntchisi), NGOs, WES network, Project Team: 21 participants
Objectives	<ul style="list-style-type: none"> ● Share the draft handbook and introduce the project's planning activity; ● Consult with key stakeholders on the content of the handbook; ● Request stakeholders to provide their feedback on the handbook;
Sessions	<ol style="list-style-type: none"> 1. Explanation of background of the handbook creation 2. Introduction of the handbook (1) "Ideal situation" 3. Introduction of the handbook (2) "Log frame" 4. Introduction of the handbook (3) "Plan of operation" 5. Introduction of the handbook (4) "Budget estimation" 6. Introduction of the handbook (5) "Maximizing resources"
Comments	<p>The participation of most donors who are engaged in O&M planning activity in Malawi let the project start preferably towards the approval of government to the handbook. In addition, small exercises in the WS brought the project experts new challenges and suggestion for the improvement of the handbook. For example:</p> <ul style="list-style-type: none"> ● While the question to the participants is "Ideal image of O&M", the participants provide problems ● Although facilitator requests the participants to provide lots of ideas, the participants often begin to discuss particular theme. ● It is essential to describe the methods in the handbook in order to avoid the tendencies mentioned above.

In this workshop, contents of the handbook were presented by RWDIO and Mchinji DCT members. Similarly, they facilitated simple exercises of planning based on the handbook in each session. JICA experts also supported RWDIO and Mchinji DCT members in facilitating the exercises.

The handbook was finalized based on the improvement point confirmed by JICA experts and comments from the participants in the workshop.

(5) Study Tour of CBM O&M Refresher Training

A study tour of the CBM O&M refresher course currently implemented at 50 target WPs was held over two days on 8th and 9th September 2014. Officers from Salima and Ntchisi Districts were invited to attend.

A summary of the study tour is shown below.

Table 3-126 : Summary of the CBM O&M Refresher Training Study Tour

Item	Contents
Date	8:00~17:00, 8 th September 2014, 8:00~16:00, 9 th September 2014
Venue	Jim Town Baptist church (Silombe (ID 105), TA Mavwere)
Participants	MoAIWD, RIWDO, Mchinji, Salima, Ntchisi DC, Project Team: 15 participants
Trainers	SCDA, SHSA, CDA, HSAs, WMAs, AM: 6 participants
Objectives	<ul style="list-style-type: none"> ➤ To share the content of the CBM refresher training with officers from other districts and to obtain the necessary input and feedback (initiatives in response to suggestions from the mid-term evaluation team) ➤ To allow officers from other districts to experience and understand the content of the strengthened O&M framework by observing activities in the field in order to assist smooth dissemination
Feedback from the participants	<ol style="list-style-type: none"> 1. Content of manuals <ul style="list-style-type: none"> ➤ The teaching materials newly developed in the Project, such as setting of water tariffs, financial management of water tariffs, promotion song, teaching materials for promotion of hygienic habits, informed choice regarding fence/soak way pit, and village head consensus form, were uniformly highly appraised and the approval of other districts was obtained. ➤ Regarding the current draft version, several participants suggested that it would be better to include other content as well as community leadership skills and sanitation (handwashing, installation of toilets, CLTS). 2. Systematisation of CBM refresher course <ul style="list-style-type: none"> ➤ A number of participants suggested that the course should last for three days. (The basic concept of the refresher course is that the training content is customised to suit the current situation of community O&M. It was found that it is important to get the extension workers to fully understand this in the training of trainers.) ➤ With the exception of one participant, the majority were of the positive opinion that the CBM refresher course can be systematised.

(6) Practical Workshop on O&M Planning Handbook

A two-day practical workshop was offered targeting at DCT members in Nkhotakota District for the purpose of testing the second draft of O&M planning handbook developed in August 2014 and obtaining feedback. The summary of the workshop is as follows:

Table 3-127: Summary of Practical Workshop on O&M Planning Handbook

Item	Contents
Date	From 3 rd to 5 th November, 2014
Venue	Nkhotakota District
Participants	Nkhotakota DC, EWB, Project Team: : 6 participants
Trainer	EWB: 1 person
Objectives	<ul style="list-style-type: none"> ➤ Envision the future of O&M in Nkhotakota district and develop part of the roadmap to achieve it; ➤ Test the understandability and practicality of the draft handbook through a planning session facilitated by Nkhotakota DCT based on the handbook contents; ➤ Get insights from both Nkhotakota and Mchinji DCT members on where the handbook can be improved based on their user experience.
Contents	<ol style="list-style-type: none"> ① Recognize Principal O&M Elements ② Envision the Ideal Situation ③ Formulate an O&M Plan ④ Formulate a Schedule of Activities ⑤ Estimate Budget of the Plan
Results	<p>Considerations made</p> <ul style="list-style-type: none"> ➤ Ideas presented by participants of the practical workshop were mainly more abstract in nature and

	<p>there was an impression that the same situation experienced in the field test carried out in Mchinji District in this project was again found.</p> <p>The reason why the ideas were presented in rather an abstract expression lies in the fact that a habit to utilise feedback (lessons) gained through actual experience in the PDCA cycle (plan-do-check-act) was not established. In addition, there was a tendency that insufficient use of feedback was made attributable to a shortage of human, physical and financial resources. As the result, people easily fall into a similar pattern every time and their way of thinking is fixed, which creates an environment where more detailed ideas are not developed. To remedy the situation, it is particularly important for facilitators to offer appropriate guidance when making plans using the handbook but, for the time being, it is necessary for donors, NGOs or private consultants to support the district's planning process since no suitable facilitators can be found in the administrative agencies.</p> <p>➤ Using the O&M 5-year plan of Mchinji District developed through last year's training activities as a reference material, it had been planned to attach the plan to the handbook. A comment was made, however, during the discussions between expert teams that more careful judgment should be made about it (users of the handbook could copy the plan, which might steal chances to create their own ideas from them).</p> <p>Meanwhile, if any reference material is not given, detailed ideas cannot be developed as mentioned above, which could result in fairly unfeasible plans. As the final conclusion, it was determined that the output obtained in Mchinji District would be incorporated in the handbook as a reference case.</p>
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(7) Sector Consultative Workshop for the Development of an Educational Community Radio Programme

A sector consultative workshop was organized to involve as many stakeholders as possible in the development of the O&M radio handbook as well as to enrich its content. The summary of the workshop is presented in the following table.

Table 3-128 : Sector Consultative Workshop for the Development of an Educational Community Radio Programme

Date	19 th February, 2015
Place	Bridgeview Hotel, Lilongwe
Participants	MoAIWD, Mchinji District, Community Radios, DPs/NGOs, Project Team: 22 participants
Objectives	Consult with key stakeholders on the content of the "Educational Community Radio Programme for Enhancing O&M of Rural Water Supply"
Content	<ul style="list-style-type: none"> ➤ Discuss key steps and experiences from Mchinji District; ➤ Provide feedbacks on the documents before they are shared with the entire sector and finally approved by the MoAIWD for wider distribution
Discussions	<p><u>Discuss key steps and experiences from Mchinji District</u></p> <ul style="list-style-type: none"> ➤ The content of the O&M radio handbook was presented by Mr. Chilimadzi (Mchinji, DWDO), Ms. Munthali (Mchinji, DIO), Mr. Chimutu (Mudziwathu Community Radio), Mr. Chipeta (RWDIO, Central) and Mr. Nyirenda (Mchinji, NICE) through slide presentations followed by question and answer session. ➤ Active discussions were formulated around whether the handbook can be applied to other water facilities beside Afridev, the availability of an advisor for producing the radio programme, the involvement of communities during radio matrix formulation and copyrights of songs, illustrations and recordings. <p><u>Provide feedbacks on the documents before they are shared with the entire sector and finally approved by the MoAIWD for wider distribution</u></p> <ul style="list-style-type: none"> ➤ It was agreed that further comments and feedback should be submitted by the 23rd of February 2015

(8) Project Final Seminar

A final seminar was held on 13th May 2015 at the Crossroads Hotel in Lilongwe, which was aimed at sharing the 14 guidelines and manuals newly developed under this project among those involved in the subsector of rural water supply and sanitation and officials of 27 districts and later at helping MoAIWD to diffuse the manuals among those interested in order that those manuals can be used in the O&M

framework at hand-pump water supply facilities in the future. The summary of the final seminar is as follows.

Table 3-129 : Summary of the Project Final Seminar

Item	Contents
Date	13 th May, 2015
Venue	Cross Roads Hotel
Participants	DPs, NGOs, 27 District officials, Media, Project Team: 9 Participants
Objective	The aim of the Seminar was: <ul style="list-style-type: none"> ➤ To orient the participants on the new Manuals and Guidelines for CBM refresher course. ➤ To disseminate the Enhanced O&M Framework to the whole of Malawi districts. ➤ To distribute Guidelines and Manuals for the Enhanced O&M Framework to all Districts, Development Partners and NGOs working in the Water Sector ➤ To determine the way forward on the possible rollout of the enhanced O&M framework to the whole of Malawi. ➤ To lobby development partners and NGOs in the water sector to incorporate O&M issues in their plans and they work in various districts.
Contents	<ul style="list-style-type: none"> ➤ Introduction of the 12 guidelines and manuals developed by the Project ➤ Plenary Discussions & Way Forward for the Country Wide Roll-Out & Collection of Feedback Forms from all participants
Results	<ul style="list-style-type: none"> ➤ The participants had a common understanding of the Guidelines and Manuals for the O&M Framework ➤ The seminar managed to disseminate and distributed hard copies and digital copies of all 14 Manuals and Guidelines to 27 districts, two region offices and Water for People and DAPPS (NGO) that were in attendance coming out of Lilongwe.

3.6 Impact Survey on O&M for Rural Water Supply and Sanitation

Impact survey on O&M for rural water supply and sanitation was conducted through the monitoring activities at 50 target WPs in order to grasp the effectiveness of O&M framework through field tests strengthened by this Project.

3.6.1 Outline of the Impact Survey on CBM O&M Refresher Training

The data used in the analysis was based on the results of the second and fourth monitoring survey conducted two and seven months after completion of the O&M training at 50 target WPs respectively.

Outline of the impact survey is as shown in the table below.

Table 3-130 : Outline of the Impact Survey

Item	Contents	Remarks
Objective	To evaluate the situation on increasing community ownership and responsibility after the CBM refresher training and to share these results with related stakeholders in water sector	-
Targets for impact survey	Target of 50 water points for the District-wide dissemination	-

Item	Contents	Remarks
Methods for impact survey	Pre-and post-survey	Since it cannot be remove some influences of external factors occurring between pre- and post-interventions, this method generally has a low reliability in estimating the causal relationships. However, from the considerations among the results of the baseline, monitoring and pre-survey conducted in the 1st and 2nd stages, it seems that the reasons for improving the O&M management by the communities such as the fund raising and construction of fences and soak away pits is due to interventions by this Project, and other factors are considered relatively small. So this Project is adopted by the model of pre- and post-survey for the impact survey.
Implementers	Internal evaluation by the Project team	-
Objective	To evaluate the situation on increasing community ownership and responsibility after the CBM refresher training and to share these results with related stakeholders in water sector	-

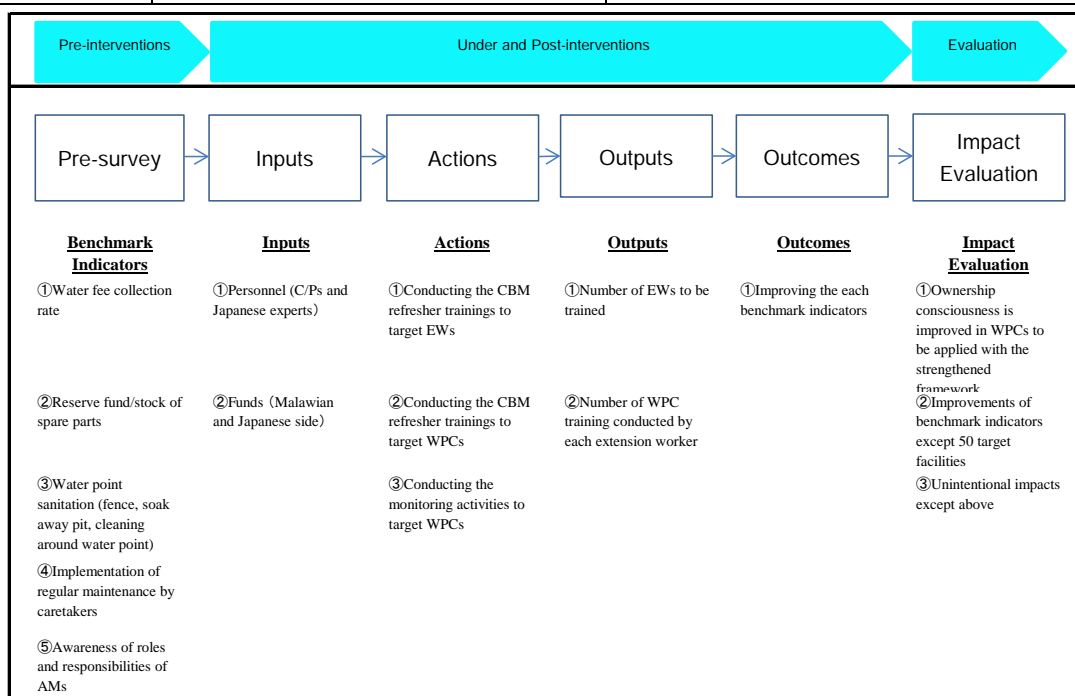


Figure 3-22 : Flowchart on the Impact Survey

a. Data Used for the Impact Assessment

O&M refresher training for 50 WPs was completed on 16th September 2014 and monitoring was carried out four times between then and the end of April 2015.

The data from the pre-survey conducted in February 2014 was utilised in the impact evaluation as project pre-intervention data, and the results of the second and fourth monitoring conducted in October 2014 (two months after training) and April 2015 (seven months after training) as post-intervention data.

The activity history from the preliminary survey until the fourth monitoring is summarised in the table below.

Table 3-131: History of the Data Collection for Impact Assessment

Activity	Period	Used data	Remark
1. Pre-survey	From the 5th of February to the 25th of February, 2014	✓	
2. CBM O&M refresher training for 50 WPCs	From the 14th of July to the 16th of September, 2014	-	
3. 1st monitoring	From the 15th of September to the 7 th of October	-	
4. 2nd monitoring	From the 13th of October to the 27th of October, 2014	✓	two months after training
5. 3rd monitoring	From the 12th of December to the 22nd of December, 2014		
6. 4th monitoring	From the 24th of March to the 21st of April, 2015	✓	seven months after training

b. Impact Measurement Method

From the perspective of conducting the impact survey quantitatively and easily, impact evaluation is carried out utilising “Ownership consciousness is improved in WPCs to which the strengthened framework is applied”, one of the three PDM indicators established to measure the degree of achievement of the project purpose.

More precisely, the five benchmarks (see *Table 3-132*) established to measure the indicators are subdivided as shown in *Table 3-133*, weighted according to level of difficulty for communities to implement and points allocated.

Impact evaluation, therefore, is carried out by comparing the total number of points for each indicator before and after project intervention based on the point allocation table (see *Table 3-133*).

Table 3-132: Five PDM Benchmarks Established to Measure Achievement of Project Purpose

No.	Benchmark indicators	Means of verification	Remarks
1	Collection rate of water tariffs	Confirmation by interviews with WPCs or account books	<ul style="list-style-type: none"> The collection rate of water tariffs is calculated based on data on the number of households when the tariff was last collected from users by the WPC and the total number of user households As the data is collected by interviews, reliability is likely to a problem.
2	Reserve fund / stock of hand pump spare parts	<ul style="list-style-type: none"> Confirmation by interviews with WPCs or account books Confirmation of actual stock parts 	<ul style="list-style-type: none"> As few WPCs actually keep cash books, most data is collected by interviews. Hence the reliability of the data is likely to a problem.
3	Water point sanitation (fence, soak away pit and cleaning around water point)	Confirmation of sanitation around hand pumps	<ul style="list-style-type: none"> In addition to on-site confirmation, cross-checking is performed using photographs
4	Implementation of regular maintenance by caretakers	Interviews with WPCs	-
5	Awareness of roles and responsibilities of AMs	Interviews with WPCs	-

Table 3-133 : Point Allocation of Impact Evaluation Indicators

(1) Indicator 1 for impact assessment : Collection rate of water tariff

Collection rate (%)	Weight	Score	
		Without considering weight	Considering weight

3. Results of Activities

0%	2	0	0
1~49%		1	2
50~79%		2	4
80~100%		3	6

(2) Indicator 2 for impact assessment: Saving deposit or Stock of the spare parts

Indicator 2-1 : Saving deposit of the O&M funds

Amount of saving deposit (MK)	Weight	Score	
		Without considering weight	Considering weight
0	2	0	0
1~999 MK		1	2
1,000~9,999 MK		2	4
10,000 MK~		3	6

Indicator 2-2 : Stock of the spare parts

Status	Weight	Score	
		Without considering weight	Considering weight
Spare parts are procured in advance and stock	1	1	1
No spare parts stock		0	0

(3) Indicator 3 for impact assessment : Water point sanitation

Indicator 3-1 : Construction of fence

Status	Weight	Score	
		Without considering weight	Considering weight
Fence is available	1	2	2
No fence or non-functional		0	0
Under construction		1	1

Indicator 3-2 : Construction of soak way pit

Status	Weight	Score	
		Without considering weight	Considering weight
Soak away pit is available	1	2	2
No soak away pit or non-functional		0	0
Under construction		1	1

Indicator 3-3 : Surrounding environment

Status	Weight	Score	
		Without considering weight	Considering weight
Clean surrounding area (absence of sources of pollutions such as stagnant water, latrine, bath shelter, refuse pit, cultivation)	1	1	1
Not clean		0	0

(4) Indicator 4 for impact assessment : Regular maintenance

Indicator 4-1 : Weekly maintenance

Status	Weight	Score	
		Without considering weight	Considering weight
Caretakers or area mechanics conducting weekly maintenance of the handpump	1	1	1
No weekly maintenance conducted		0	0

Indicator 4-2 : Monthly maintenance

Status	Weight	Score	
		Without considering weight	Considering weight
Caretakers or area mechanics conducting monthly maintenance of the handpump	1	1	1
No monthly maintenance conducted		0	0

(5) Indicator 5 for impact assessment : Awareness of roles and responsibilities of AMs

Collection rate (%)	Weight	Score	
		Without considering weight	Considering weight
Aware of the area mechanic and know how to contact them	1	1	1
Not aware of the area mechanic		0	0

Maximum and Minimum score

Maximum score	21
Minimum score	0

c. Results

The scores for the 50 target WPs before and after intervention were calculated based on the above table (*Table 3-136*). The average scores for the 50 target WPs before and after intervention are shown in *Table 3-134* and *Figure 3-24*, and changes in the scores (increases and decreases) are shown in *Table 3-135*.

Table 3-134: Average Scores for 50 Target WPss before and after Project Intervention

Measurement period	Before project intervention	After project intervention	
	Preliminary survey	Second monitoring	Fourth monitoring
Average Scores	9 points	14 points	11 points

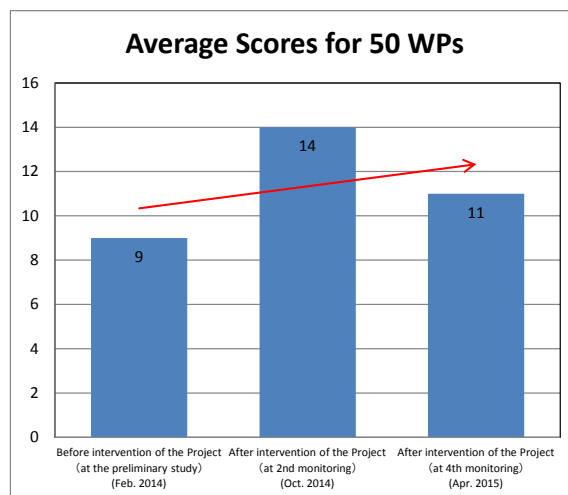


Figure 3-23: Average Scores for 50 Target WPs before and after Project Intervention

Table 3-135: Changes in Scores for 50 Target WPs before and after Project Intervention

Increase/decrease in score	Changes in Scores before and after Project Intervention	
	Second monitoring (Oct. 2014)	Fourth monitoring (Apr. 2015)
Score increased compared to before project intervention	44 WPs (88%)	29 WPs (58%)

3. Results of Activities

Score was unchanged compared to before project intervention	3 WPs (6%)	3 WPs (6%)
Score decreased compared to before project intervention	3 WPs (6%)	18 WPs (36%)

As shown above, the average score increased from 9 points (February 2014) to 11 points (April 2015) compared to before project intervention, and looking at changes in the score, the score increased at 29 out of 50 WPs (about 60% of total).

It can be inferred from this that the ownership awareness of residents was enhanced by the training and feedback activities implemented in the Project, and as a result, a positive impact (O&M is appropriately implemented at water supply facilities) was seen at approximately 60% of the water supply facilities.

The following can be the main reasons why the scores of some benchmark indicators decreased right after the project intervention started:

- After the project intervention started, most facilities collected operation and maintenance fees from users and constructed fences (improved 2% → 80%; under construction or constructed) or soak away pits (improved 26% → 94%; under construction or constructed) that had been underdeveloped and therefore, it was found that the amount of savings of the Water Point Committees decreased when the fourth monitoring was carried out (April 2015).

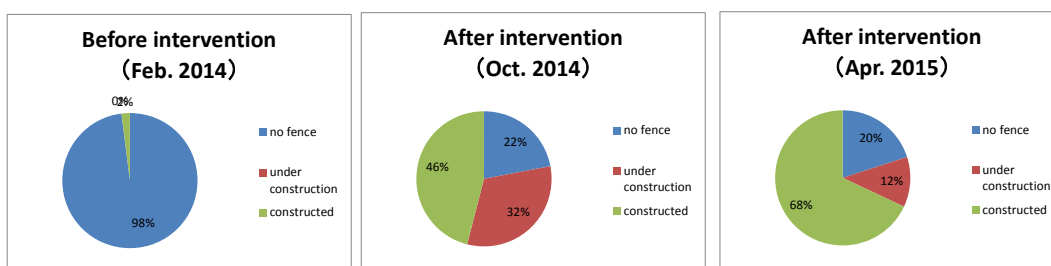


Figure 3-24: Variations in Status of the Construction of Fence at 50 Sites before and through the Project Intervention

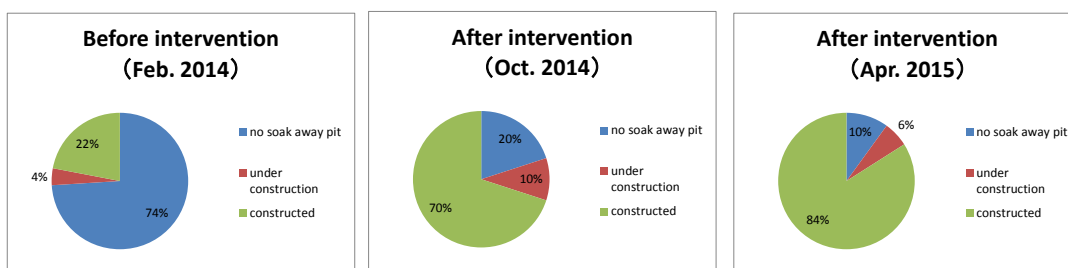


Figure 3-25: Variations in Status of the Construction of Soak Away Pit at 50 Sites before and through the Project Intervention

- March and April, when crops are not yet harvested, are months when users have difficulties to earn hard cash. As a result, the rate of fees successfully collected from users temporarily declined, which was the largest factor that leads to a lower score as a whole.

Even at facilities where the score got worse, the sanitation environment has been improved significantly

when compared from that of prior to the intervention and it can be considered that positive impact has been made in an overall evaluation.

Table 3-136: Changes in Scores for each 50 Target WP before and after Project Intervention

ID No.	Village Name	Site Name	Before intervention of the Project (Feb. 2014)	After intervention of the Project	
				Oct. 2014 (after 2 month)	Apr. 2015 (after 7 month)
2	Mphunda	Takondwa School	9	11	16
3	Thendo	Maseche School	8	10	6
4	Nkhalamba	Nkhalamba	8	11	11
5	Mphita	Mphita	12	18	13
7	Kapunula	Kapunula 1	12	16	19
8	Kapunula	Kapunula 2	12	19	16
9	Samphala	-	9	15	8
13	Mpazi	Mkanda Community Day Secondary School	10	13	8
14	Chaponda	Chaponda	10	18	10
16	Nambera	Nambera	4	20	19
18	Mwelekerera	Mwelekerera Primary School	5	19	13
21	Mphonde	Lombwa LEA Primary School	9	15	7
22	Lombwa	Lombwa	9	13	6
23	Wandikani	Wandikani	5	9	7
25	Kamchere	Ndomba Primary School	2	9	14
26	Kamchere	Kamchere	8	17	12
27	Chifipo	Ngulukira	11	18	15
28	Kathobwa	Kathobwa	11	16	13
36	Chizwa	Chizwa	16	12	10
37	Tembenukani	At G.V.H Tembenukani	8	10	13
38	Chagwilira	Chagwilira	12	13	19
39	Baloni	Baloni 1	4	9	9
42	Wilisoni	Wilisoni	15	18	15
43	Mng'ona	Mngóna primary School	12	12	11
45	Chimphuno	Chimphuno	12	17	11
48	Mzangawo	Mzangawo	12	13	21
49	Mponda	Mponda BH No. 1	4	16	19
50	Mponda	Mponda School (Mponda BH No. 3)	10	11	11
56	Tsuma	Tsuma BH No.2	12	12	7
58	Molosiyo	Molosiyo BH No.1	8	18	9
59	Molosiyo	Molosiyo BH No.2	11	18	9
60	Molosiyo	Molosiyo BH No.3	6	15	17
61	Kachamba	Kachamba	0	14	9
66	Kapalamula	Kapalanula	15	11	11
67	Chaferamthengo	Chafemthengo BH No.1	3	3	12
69	Chibonyole (Kacheche)	Chibonyole	13	20	9
71	Maliwane	Maliwane Lozaliao 3	7	18	11
76	Kalirani	Kalirani	13	18	9
77	Chipuliro	Chipuliro 1	11	7	3
80	Chinkhutu	Kadagwamtipenya School	10	14	5
82	Chinkhota	Guilleme turn off	7	18	9
87	Dalias	Daliyasi	12	16	11
89	Mphando	Mphanga school	7	12	13
90	Msanjama	Msanjama	1	11	2
91	Katsenga	Katsenga school (Katsenga BH No.2)	6	7	5
93	Nkhwazi	Nkhwazi School	5	12	8
97	Kapanga	Kapanga School	4	11	5
102	Nyongani	Nyongani	7	12	7
104	Kadude	Kadude	9	12	11
105	Nsilombe	Nsilombe	9	12	6
Average score			9	14	11

3.6.2 O&M Educational Community Radio Programme Final Impact Assessment

This document assesses the impacts of the O&M educational community radio programme on the operation and maintenance of handpumps fitted with Afridev handpumps. The target villages and their intervention period are summarized in the below table:

Table 3-137: Target villages and their Intervention Period

Name of the site (11 in total)	Intervention period
Five sites targeted during the whole period of the radio programme: Mkunda, Mponda, Gomani, Kamuri, Zulu School (Five sites in total)	January 2014 to April 2015 (whole period)
Six sites added after starting the radio programme: Chiti (One site) Ngubo, Kabuthu, Chikoza, Chiti, Peni, Tapela (Five sites in total)	April 2014 to April 2015 September 2014 to April 2015

This impact assessment employed monitoring data, using data generated from 11 sites with availability of Radio Listening Clubs (RLCs) and Afridev handpumps. Initially, only five RLCs were targeted for monitoring during the trial O&M radio programme. However, additional six RLCs were identified during live radio programmes and subsequently added up to the final number of 11 sites.

The monitoring of these 11 sites informed the difficulties of RLCs to listen to all episodes broadcasted every week. Hence, it was decided that the episodes aired during February to March 2014 (trial O&M radio programme) as well as those aired during July to November 2014 should be re-broadcasted.

The methodology used for this impact assessment has been aligned with the 50 sites that received CBM (O&M) refresher training to compare results and draw recommendations for roll-out in other Districts of the country through other community radios.

a. Overview of the O&M Radio Impact Assessment

An overview of the O&M radio impact assessment as well as the impact assessment activities flow are summarized as follows.

Table 3-138: Overview of the O&M Radio Impact Assessment

Item	Content	Remark
Objective of the Impact Assessment	Evaluate community ownership and responsibility towards the O&M of handpumps through broadcasting an educational O&M radio programme in order to assess the effectiveness of the O&M framework and share these results to all stakeholders in the Water Sector	—
Target	Eleven (11) sites	During the initial trial radio programme (broadcasted during Feb to Mar 2014) only 5 sites were targeted. The rest of the six (6) sites were identified in the course of the full radio programme and ended up to a total of 11 sites.
Methodology for data collection	Data generated from baseline surveys, end-line surveys, feedback from listeners and water point inspections	Baseline survey was conducted only for 5 sites. The remaining 6 sites were added on a later stage; hence data before intervention of the Project is from September 2014.
Evaluators	Internal assessment conducted by Project team members and Radio Station	—

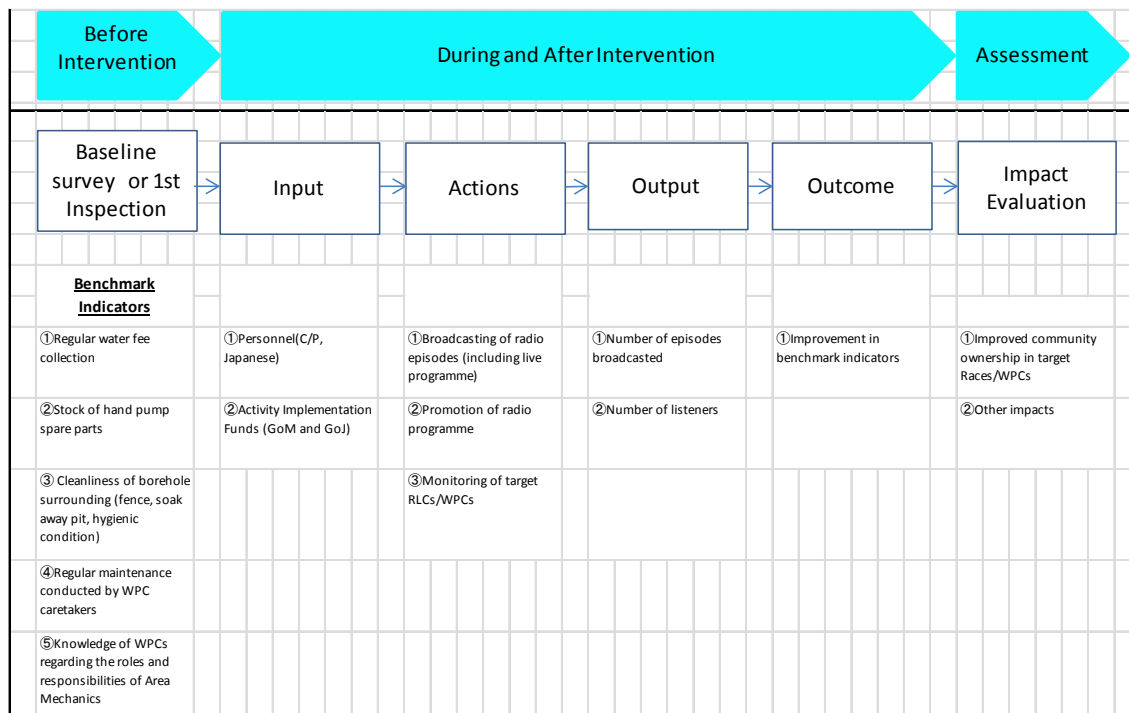


Figure 3-26: Impact Assessment Activities Flow Chart for the O&M radio

b. Data used for the O&M Radio Impact Assessment

As mentioned above, the 11 target sites first intervention dates differ from each other while the final intervention date is April 2015 for all sites.

The following table provides details of intervention dates for each site targeted for the O&M impact assessment.

Table 3-139: Project Intervention Dates

Name of the site	First intervention date	Last intervention date
Mkunda, Mponda, Gomani, Kamuri, Zulu School (Five sites in total)	January 2014 (baseline survey for the trial O&M radio programme)	April 2015
Chiti (One site)	April 2014 (end-line survey of the trial O&M radio programme)	
Ngubo, Kabuthu, Chikoza, Chiti, Peni, Tapela (Five sites in total)	September 2014	

c. Methodology

In order to assess the impact of the O&M radio, one of the three project purpose indicators stated in the PDM “Ownership consciousness is improved in WPCs to be applied with the strengthened framework” was quantified. For this purpose, five benchmark indicators (refer to *Table 3-140*) were selected and further subdivided as presented in *Table 3-141* and scored based on the level of difficulty of achieving each indicator. Finally, the total scores before and after the last intervention is compared to assess the impact.

Table 3-140: Five Benchmark Indicators Selected for achieving the Project Purpose

No.	Benchmark Indicators	Data collection methodology	Remarks
1	Regular collection of water fees	Interview survey to RLC and WPC members and visual check user contribution records	Reliability of data can be questioned as data is collected through interview to community members
2	Stock of handpump spare parts	<ul style="list-style-type: none"> ● Interview survey to RLCs and WPCs and visual checks of cash book records ● Visual checks of spare parts stocked 	Very few villages are actually managing to fill some form of records on user contributions and cash flows. Therefore, the data heavily relies on statements provided by the interviewees.
3	Water point sanitation (presence of fence, soak away pit and cleanliness of surrounding area)	Conduct water Point Inspection through interview to RLC and WPC members as well as visual inspection of water points	Apart from visual checks, photos of water points are used to crosscheck results
4	Regular (preventive) maintenance	Interview survey to RLCs and WPCs	Reliability of data can be questioned as data is collected through interview to community members
5	Awareness of the roles and responsibilities of area mechanics	Interview survey to RLCs and WPCs	Reliability of data can be questioned as data is collected through interview to community members

Table 3-141: Impact Assessment Indicators Scoring

Situation	Weight	Score	
		Without considering weight	Considering weight
1. Impact Assessment Indicator 1: Regular collection of water fees being collected for O&M purposes			
Water fee was set up and is being regularly collected for O&M purposes	2	1	2
Water fee is not collected or is only collected when borehole is non-functional		0	0
2. Impact Assessment Indicator 2: Availability of stock of handpump spare parts			
Spare parts are procured in advance and stock	1	1	1
No spare parts stock		0	0
3. Impact Assessment Indicator 3: Water Point Sanitation			
Indicator 3-1: Fence			
Fence is available	1	2	2
Fence is under construction		1	1
No fence or non-functional		0	0
Indicator 3-2: Soak away pit			
Soak away pit is available	1	2	2
Soak away pit under construction		1	1
No soak away pit or non-functional		0	0
Indicator 3-3: Cleanliness of borehole surrounding area			
Clean surrounding area (absence of sources of pollutions such as stagnant water, latrine, bath shelter, refuse pit, cultivation)	1	1	1
Not clean (presence of sources of pollution)		0	0
4. Impact Assessment Indicator 4: Conduction regular (preventive) maintenance of handpump			
Caretakers or area mechanics conducting regular maintenance of the handpump	1	1	1
No regular maintenance conducted		0	0
5. Impact Assessment Indicator 5: Awareness of roles and responsibilities of Area Mechanics			
Aware of the area mechanic and know how to contact them	1	1	1
Not aware of the area mechanic		0	0

Scoring of indicators 1 to 5

Highest score	10
Lowest score	0

d. Results

Based on the scoring system mentioned in **Table 3-141** above, the total score for 11 sites before and after each intervention has been calculated and summarized in **Table 3-142** and **Figure 3-28** below and changes presented in **Figure 3-29**.

The decreased O&M score during January to March 2015 can be attributed to: i) a surprise inspection without any previous notice to the villagers conducted on March 2015, ii) farming season when villagers are busy working in the field and cleaning and maintenance work at the borehole becomes a lower priority activity, iii) difficulty to pay water fee since there are no harvest to sell, and iv) falling off of grass and timber fence due to heavy rains.

Table 3-142: Variations in Total Score at 11 sites before and through the Project Intervention

No.	Village name	Jan-14	Apr-14	Sep-14	Nov-14	Dec-14	Jan-15	Mar-15	Last intervention Apr 2015	Trend (after first and last intervention)
1	Ngubo		4	5	8	6	5	4	6	↗
2	Kabuthu			6	7	10	8	3	8	↗
3	Mkunda	1	2	3	2	6	6	6	8	↗
4	Mponda	1	3	6	8	9	7	7	6	→
5	Chikoza			1	4	4	7	6	7	↗
6	Chiti			9	6	9	10	4	5	↘
7	Peni			2	10	10	10	10	10	↗
8	Gomani	2	3	4	5	7	6	5	5	↗
9	Kamuri			4	3	5	9	7	9	↗
10	Zulu School	3	3	2	5	6	6	5	8	↗
11	Tapela			0	5	7	7	6	4	↗
Average Score		2	3	4	6	7	7	6	7	

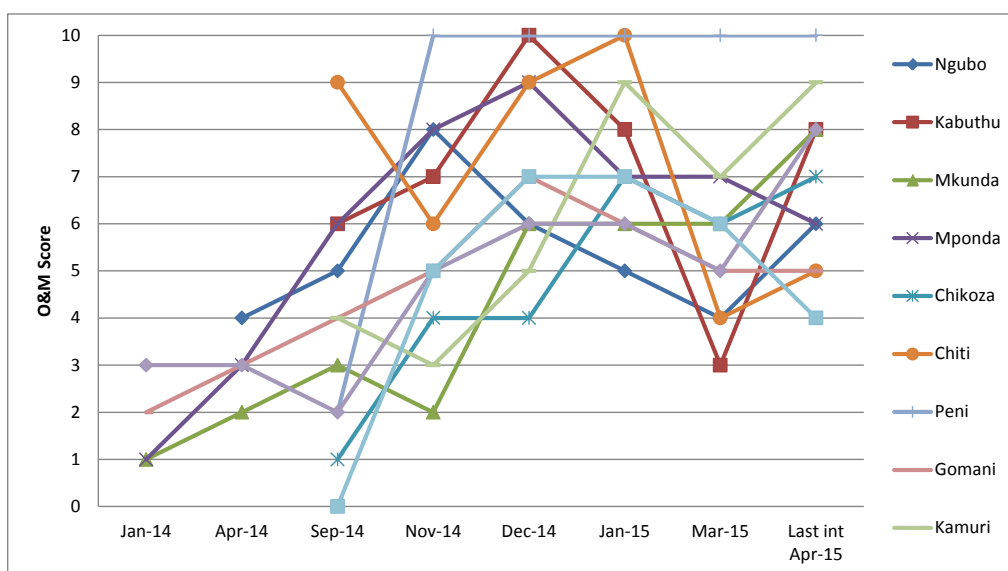


Figure 3-27: Score Changes before Intervention and through the Monitoring Period

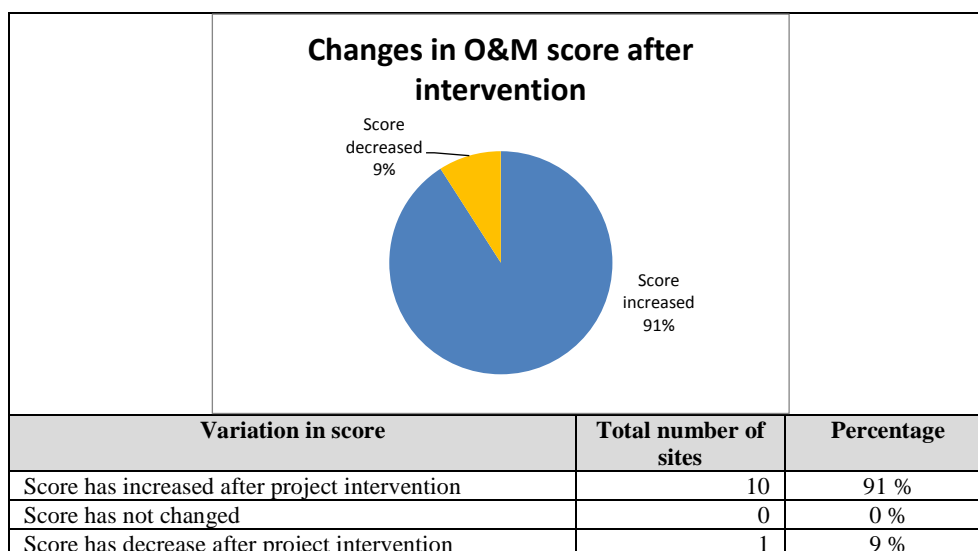


Figure 3-28: Changes in O&M Sore after Project Intervention

The final impact assessment shows that 10 out of the 11 sites have increase total scores after project intervention.

Hence, it can be concluded that in 91% of the sites, the educational O&M radio programme has increased community ownership towards the operation and maintenance of their boreholes.

Chiti village is the only site where the O&M score decreased. In this site, there were several issues that arose during the intervention period such as: i) a major high cost hand pump technical problem, ii) falling of grass fence during the rainy season, and iii) another ongoing project for the construction of school for the village which was of higher priority for the villagers. Therefore, it can be mentioned that the financial and human resources constraints during the period of intervention has affected the operation and maintenance of handpumps in this village. Nonetheless, there has been other positive impact in the surrounding areas of other target sites (Mponda village) including Chiti village where neighboring villages has been inspired for the construction of fence and operation and maintenance of their borehole. Hence it can be mentioned that the O&M radio educational community radio programme has also positively contributed to the O&M of non-target sites.

3.7 Summary of Results of the Mid-term Review

3.7.1 Outline of the Results

The Japanese Mid-Term Review Team organized by JICA visited the Malawi from May 12th to May 30th, 2013 for conducting the mid-term review of the Project. The Malawian Mid-Term Review Team and the Japanese Mid-Term Review Team carried out intensive study and analysis of the activities and achievements of the Project, and prepared the Joint Mid-Term Review Report attached hereto, and presented it to the 3rd JCC held on May 29th, 2013.

Five evaluation criteria were adopted for the mid-term review. Summary of the result is shown in **Table 3-143**.

Table 3-143: Summary of the Results

Five evaluation criteria	Results
Relevance	<p>High</p> <ul style="list-style-type: none"> ● The increase in access to safe water through improving the operation and maintenance of rural water facilities is in line with: <ul style="list-style-type: none"> ➢ Needs of the Malawian people ➢ Malawi Government's development and water sector policies <ul style="list-style-type: none"> ✓ Malawi Vision 2020 and the Malawi Growth and Development Strategy II 2011-2016 (MGDS II) ✓ National Water Policy (2005), the National Sanitation Policy (2008), the National Decentralization Policy (1998), etc. ➢ Japanese Government's aid Policy to Malawi <ul style="list-style-type: none"> ✓ Country Assistance Policy for the Republic of Malawi ● The Project strategy is also appropriate for improving access to safe water.
Effectiveness	<p>High</p> <ul style="list-style-type: none"> ● There is a clear logical sequence from the five Outputs to the Project Purpose. <ul style="list-style-type: none"> ➢ Outputs 1-4 are mainly for strengthening the O&M framework. ➢ Output 5 is for strengthened O&M to be officially accepted for nationwide dissemination. ● A steady progress towards the achievement of the Project Purpose has so far been made. <ul style="list-style-type: none"> ⇒ The prospect for the Project Purpose to be achieved by the end of the project is promising. ⇒ The level of increase in the framework's practicality is dependent on the extent to which planned deliverables/products are tested in 10 pilot sites and improved based on feedback from trial use.
Efficiency	<p>Relatively High</p> <ul style="list-style-type: none"> ● Project activities have been conducted as planned without any significant delay. ● Most inputs have been allocated as planned and converted to Outputs. <ul style="list-style-type: none"> ➢ Coordination/collaboration among DCT members ➢ Thorough studies on the existing O&M framework to use existing knowledge, information and human resources available ➢ Cooperation with NGOs ➢ Application of knowledge obtained in the Study Tour to Zambia
Impact	<p>Premature to be Assessed</p> <ul style="list-style-type: none"> ● The implementation of the 10 test activities have not fully started. <ul style="list-style-type: none"> ➢ It is premature to assess the prospect for achieving the framework's nationwide dissemination within three to five years of the project's completion and the project's impacts at the community. ● Some positive effects of the Project felt among C/Ps. <ul style="list-style-type: none"> ➢ C/Ps' mindset of involving the private sector in supporting O&M activities of water supply ➢ Increased DCT members' awareness of the importance of O&M issues in planning ● But, it is uncertain whether some of Important assumptions for achieving the Overall Goal with be fulfilled in due time. <ul style="list-style-type: none"> ⇒ Needs for an effective coordination and an even stronger leadership by MoWDI and District Councils than even in pooling necessary financial and human resources.
Sustainability	<p>Moderate</p> <ul style="list-style-type: none"> ● Institutional sustainability: relatively high <ul style="list-style-type: none"> ➢ The need for improving O&M of water supply facilities is widely affirmed in relevant policy documents. ➢ But, there is no discussion forum at the central level that is specifically for O&M of rural water supply. ● Organizational sustainability: challenge <ul style="list-style-type: none"> ➢ The vacancy rate of water supply and sanitation sub-sector stood at 71.2% (2011/12 Sector Performance Report) ➢ No Mchinji DWDO at the time of Mid-term Review ● Technical sustainability: relatively high <ul style="list-style-type: none"> ➢ Deliverables have been developed with a special focus paid to making them user-friendly to community members based on comprehensive studies on rural water supply: illustrations and songs ➢ Significant contribution by C/Ps in producing the deliverables ● Financial sustainability: challenge but efforts have been made. <ul style="list-style-type: none"> District level <ul style="list-style-type: none"> ➢ Despite being responsible for financing O&M of water supply and sanitation facilities, the district budget is limited in size. ➢ Efforts have been made at the district level to secure funding <ul style="list-style-type: none"> ✓ Planned inclusion of O&M of rural water supply for the Mchinji District's Socio-Economic Profile (SEP) and the District Development Plan Central level

Five evaluation criteria	Results
	<ul style="list-style-type: none"> ➤ In the 2013/14 budget, it has secured MK 50 million from PSIP for the JICA Supported Program. ➤ For the nationwide dissemination of the strengthened O&M framework, it will require substantially larger amount.

3.7.2 Response to Recommendations

Efforts made in the project to respond to recommendations made by the mid-term evaluation team are as follows:

Table 3-144: Summary of the Response to Recommendations

Recommendations	Results of the action
Development of a Roadmap for the Nationwide Dissemination of the Strengthened O&M Framework	At the second PTF meeting on 11 th September 2014, discussions were made between C/Ps concerning the roadmap for the nationwide dissemination and a draft roadmap was developed.
Soliciting More Inputs about Non-Pilot Districts' Lessons Learned to Further Strengthen the O&M Framework	Feedback obtained from other districts was incorporated to improve the O&M framework, for example, by inviting officials of neighbouring districts to workshops offered in this project and by organising study tours for CBM training (O&M refresher course) and workshops for hands-on exercise of the O&M planning handbook.
Greater Initiative by MoWDI and Mchinji District Council in Project Implementation	<ul style="list-style-type: none"> ➤ Workshops organised for development partners and NGOs were all operated by C/Ps and presentation and Q&A sessions offered as part of such workshops were completed without any problem. ➤ CBM training (O&M refresher course) offered to 50 target facilities were operated by C/Ps, Extension Workers and Area Mechanics without any problem, although they had to be prepared in a short time of period, about 2 and a half months.
Securing Sufficient Budget Allocation to the District Level for O&M Activities	Although the PSIP budget was allocated to JICA programmes including this project, by the Ministry of Finance, Economic Planning and Development, it was not executed and as the result, the Malawi side could not fulfil their responsibility.
Revision of PDM	Discussions took place on the revision of PDM at the fifth to seventh PTF meetings held in the second year and a revised PDM was approved at the fourth JCC (held on 26 th February 2014) as PDM ver.3.

3.8 Summary of Results of the Terminal Evaluation

3.8.1 Outline of the Results

The Japanese Terminal Evaluation Team organized by JICA visited the Malawi from Nov. 24th to Dec. 8th, 2014 for conducting the terminal evaluation of the Project.

Summary of the results is shown in *Table 3-145*.

Table 3-145: Summary of the Results

Five evaluation criteria	Results
Relevance	<p>High</p> <p>1) Consistency with Policies in Malawi The Overall Goal and the Project Purpose of the Project are reasonable and aligned to the national development plan, sector plans and other relevant policies in Malawi.</p> <p>2) Needs The Project Purpose is consistent with the needs of the target group.</p> <p>3) Consistency with policy of Japan In "The Republic of Malawi Country Assistance Policy" which was formulated in 2012, improvement of basic social services has become a priority area (Medium Goal).</p> <p>4) Utilization of experience of technical cooperation The experience and the knowledge from similar project conducted by JICA were utilized for the Project.</p>
Effectiveness	<p>High</p> <p>1) Achievement level of Project Purpose</p>

Five evaluation criteria	Results
	<p>It is expected to achieve the Project Purpose. Good results have been obtained in the test activities and the possibility to achieve the indicator is high.</p> <p>2) Important assumptions Important assumption has not been fulfilled.</p> <p>3) Contributing factors</p> <ul style="list-style-type: none"> ➤ The second fiscal year and the third fiscal year were not divided and regarded as the second stage. This arrangement has allowed conducting activities at the end of Japanese fiscal year that would be otherwise being interrupted. ➤ Information was regularly shared between the Malawi side and the Japanese side through the Project based on the lessons learnt, and it can be said that all project activities has been jointly conducted and have hence created a high sense of ownership towards the Project by the Malawian side.
Efficiency	<p>Relatively High</p> <p>1) Fulfillment of Project Activities Indicators for Output have been already achieved or are expected to be achieved and it is considered that sufficient activities have been carried out as planned and all activities contributed to the achievement of Outputs.</p> <p>2) Appropriateness of Inputs</p> <ul style="list-style-type: none"> ➤ Long-term expert were dispatched for the Project and there were several benefits such as smooth execution of project activities without interruptions during renewal of contract period, continuous dissemination of information to C/Ps as well as relevant stakeholders, building good relationships with C/Ps, etc. ➤ C/Ps learned the situation of rural water sector in Zambia and it was effective by the third country training. ➤ Number and assignment condition of C/Ps was not appropriate. ➤ Malawian side funding disbursement was not adequate.
Impact	<p>Moderate</p> <p>1) Probability of Achievement of the Overall Goal The roadmap to achieve the Overall Goal was prepared and application for PSIP budget has started within MoAIWD. However there are several uncertain factors and it is difficult to foresee expectation of the achievement.</p> <p>2) Unexpected positive factor In Mchinji District, an approach was tried to utilize a community radio to enlighten the village people for the O&M of rural water supply facilities. Through the activities, effectiveness of utilization of community radio was confirmed.</p>
Sustainability	<p>Moderate</p> <p>1) Political and Institutional Aspect Sustainability of Political and Institutional aspect is high. The medium-term plan of MGDS II 2011-2016 is valid until 2016 and the current policy will be continued even after the project completion.</p> <p>2) Organizational Aspect Sustainability of organizational aspect is moderate. Organizational capacities are insufficient to disseminate activities to other districts in Malawi after completion of the Project.</p> <p>3) Financial Aspect Sustainability of financial aspect is moderate. It is necessary to continue lobbying activities for securing the necessary financial resources.</p> <p>4) Technical Aspect Sustainability of technical aspect is moderate. Most of the technical capacity will be retained by C/Ps, but cooperation from development partners and NGOs is still necessary.</p>

3.8.2 Response to Recommendations

The table below describes the efforts made by the Project Team with respect to the recommendations from the Terminal Evaluation Team.

Table 3-146: Summary of the Response to Recommendations

Recommendations	Results of the action
Assisting refining and implementation of the roadmap	At the fourth PTF meeting on 17th March 2015, discussion was carried out on the refinement of the roadmap for nationwide expansion of the O&M framework and the roadmap was revised with the C/P.

Officially approving the guidelines and manuals as soon as possible and guide the Development Partners and NGOs for the utilization	A total of 14 national guidelines/manuals developed in this project were approved by the Principal Secretary of MoAIWD and officially recognized. A total of about 3,800 copies of guidelines/manuals were distributed to about 100 entities. The digital form of above-mentioned guidelines/manuals can also be downloaded by anyone from the page of MoAIWD on the digital library website of the Malawi National Library.
Organizing a SWG meeting by the end of the Project	In response to the recommendations from the Terminal Evaluation Team, it was scheduled to share the O&M framework improved at the SWG meeting in December 2014 with DPs and NGO. Since the meeting was postponed, however, sharing of the framework was carried out at the final seminar organised on 13 th May 2015.
Assessment of the effectiveness of using community radio (continuation of the impact study)	The final impact survey of the community radio was implemented and the effectiveness of the activity was verified.

3.9 Other

3.9.1 Public Relations

(1) Project Homepage

As a publicity activity, the Project's homepage has been updated frequently with the assistance from the JICA. (URL : <http://www.jica.go.jp/project/malawi/002/news/index.html>)

(2) O&M Community Radio Programme

See *Clause 3.4.2, Activities 4-2, b. Development of an O&M Education Community Radio Programme.*

(3) Delivery of Electronic Documents

See *Clause 3.3.2, Activities 3-2, f8.1 Online Distribution of Digital Documents.*

(4) Participation in the Event during the Week for the World Water Day in Malawi

As part of the project's publicity activity, at the event for the World Water Day in Malawi held at the Grand Palace Hotel in the northern city of Muzuzu on 20th to 22nd March, this project had a booth to present a summary and outputs of this project.

		
President and his wife, WASAMA President, and Minister of Agriculture Irrigation and Water Development, visiting the O&M Project pavillion (22nd March 2015, Muzuzu)	Government officials visiting the O&M project pavillion (22nd March 2015, Muzuzu)	Project pamphlets (trifold), educational materials (calender type), digital O&M documents CD, O&M promotional songs CDs and O&M radio recordings DVDs distributed to visitors

(5) Creation of Calendar for Troubleshooting on Afridev Hand Pump

The troubleshooting on Afridev hand pump, which was developed in Field Test A7 of this project, was edited in the style of a desk calendar and distributed to the parties concerned with the water sector and WPCs of the pilot sites.



(6) Creation of Project Pamphlet



Project pamphlets summarising the outline of the O&M framework (guideline and manual) improved in this project were created and distributed to relevant personnel on the occasions of the World Water Day and the final seminar.



(7) Installation of Commemorative Sign at Model Site

A commemorative sign was installed at 37 pilot sites that performed particularly excellent maintenance activities⁹ to honour their achievement and expect that they will continue such activities as model sites.

The list of model sites is shown in *Appendix 8*.

	
Commemorative sign (Kadude village, ID104)	Commemorative sign (Chinkhutu village, ID80)

3.9.2 Utilisation of Similar Project

Of the manuals developed in this project, documents necessary for parts stock management and financial management by retail store owners of the hand pump spare parts supply chain were created by referring to the templates of the manuals developed in the “Project of Capacity Development for Maintenance of Rural Water Facilities in Zambia”, which is similar to this project.

⁹ Sites where both the brick fence and the soak away pit have been constructed.

4. Devisal and Lessons Learnt in Project

4.1 Devisal in Project

(1) Improvement of accessibility to technical documents related to operation and maintenance of rural water supply and efforts for sustainability

The Planning Department of MoAIWD is the entity responsible for technical document management at the ministry and the ministry's library is under the control of the Planning Department. Although, documents developed in or obtained by the ministry are primarily supposed to be registered and stored at the library and made accessible within the ministry, unfortunately the fact is that most of the library's primary services are not functioning.

In this project, considering the above-mentioned situation, efforts were made to manage documents at the Department of Water Supply Services on a trial basis. The department has no personnel who are in charge exclusively of document management and currently two draftspersons are appointed to be responsible for the work at the WSS Resource Centre which is supported in this project. These draftspersons have no expertise in document management and information processing, the department has not accumulated knowledge and techniques for document management and, therefore, the draftspersons are unable to obtain enough advice or instruction concerning document management from their supervisor, which, it is considered, limits the establishment of a system of sustainable document management. Under such a circumstance, in this project, it is judged important to expand accessibility to necessary documents and create a linkage to a document management system not being dependent only on an internal system, in order to disperse accessibility to necessary documents and mitigate risks associated with loss of documents and personnel relocation. It is determined to adopt a method to provide access to documents to anyone, free of charge, by offering major documents to the National Digital Library (NDR) operated by the National Library. It is also determined that the members' website on the WES network will be utilised as an information source for NGOs engaged mainly in the water and sanitation sector. By utilising existing networks as mentioned above, it is now possible to secure a sustainable centre for document management and an information source.

(2) Content incorporated into the O&M Framework to Ensure Sustainability

Efforts implemented in this project for ensuring sustainability in Malawi in the future can be grouped in three segments, for the policy and institutional element, the organisational and financial element and the technological element.

Table 4-1: Content Incorporated into O&M Framework to Ensure Sustainability

Evaluation item for sustainability	Output incorporated into the strengthened O&M framework (guideline manuals)	Supplementary explanation
1. Policy and institutional element	Document management guidelines to be used at the Department of Water Supply Services of MoAIWD in charge of operation and	There are a variety of manuals and guidelines, new and old, related to water supply services in the water sector. In addition, a range of versions of documents of similar content such as draft version and approved versions are in use as well as documents unapproved by MoAIWD are distributed with the ministry's name on them, which makes

Evaluation item for sustainability	Output incorporated into the strengthened O&M framework (guideline manuals)	Supplementary explanation
	<p>maintenance of water supply facilities in Malawi were developed and rules to handle documents on water supply facilities O&M were established.</p>	<p>it difficult for users to choose which version they should refer to. Furthermore, it cannot be said that manuals and guidelines issued by MoAIWD are commonly shared and some institutions are in a confusing situation as they develop similar documents or operate on their own not following guidelines without knowing manuals and guidelines have already been established. For solving the above issues, this project developed a draft “document management guidelines” to set up rules for development of new documents and updating or disposal of existing documents. These rules will be adopted as the ministry’s rules to be shared commonly. In addition, the rules will be shared among development partners involved in water services in order that partners’ unnecessary labour for document development will be reduced and water services will be offered in accordance with uniform guidelines.</p>
	<p>A concept for CBM refresher training for water facilities operation and maintenance was introduced.</p>	<p>CBM training for beneficiary residents has been offered only when water supply facilities are constructed. Water supply facilities get degraded, become out of order and require maintenance when several years have passed from their construction and since what was learned through CBM training was not utilised during those years, the facilities are left unattended and no appropriate methods for operation and maintenance are made. In this project, a recommendation was made to establish a system for refresher training to follow up CBM training. In addition, a road map was developed together with C/P to establish a system for refresher training and support is being given for that purpose.</p>
<p>2. Organisational and financial element 2-1. Organisational element</p>	<p>Development of a framework with a view to utilising HSAs, who are the most abundant human resource at the district level.</p>	<p>The number of WMAs is insufficient not only at the Mchinji District Water Development Office but also any other District Water Development Offices and almost no monitoring is carried out regularly for water supply facilities (another reason for this is financial difficulties). Meanwhile, within the district government organisation, HSAs working for the District Environmental Health Office (under the control of the MoH) are appointed at the rate of 1 assistant per five villages (in case of Mchinji District), which is the largest wealth of human resources, and they have primarily been in charge of health and sanitation of each village. This is why a proposal was made to offer support to residents (follow-ups, monitoring, etc.) utilising the largest human resources.</p>
<p>2-2. Financial element</p>	<p>It was determined that cost-efficient framework should be established. Details of the framework are as follows: Development of the CBM refresher manuals and toolkits.</p>	<p>In order to reduce financial burden related to operation and maintenance of water supply facilities the central and district governments have, it is most important that communities themselves manage such facilities with a sense of ownership, bear the operation and maintenance cost and carry out maintenance regularly and in 1990s, Malawi introduced CBM to realise the idea. As pointed out in the 2008 JSR, however, only around 70% of existing water supply facilities are operating and one of the issues is that those facilities are not appropriately</p>

Evaluation item for sustainability	Output incorporated into the strengthened O&M framework (guideline manuals)	Supplementary explanation
		operated and maintained due to lower sense of ownership among residents. In this project, therefore, efforts were made to identify issues that inhibit appropriate CBM, develop manuals and tools to help solve such issues and support residents' sense of ownership.
	Development of educational tools to inspire residents to use community radio broadcast.	Even if a system is established to incorporate existing CBM and refresher training courses, it would be extremely difficult to offer refresher training targeting at all villages within a certain limited time, only with the current government and district budget and human resources. As the result, in this project, a proposal was made to utilise community radio broadcast as an effective means to complement a shortage of budget and human resources.
	Diffusion of major MoAIWD documents utilising digital repository of the National Library and the website of the WES network.	As found through an analysis of issues made in the first year, documents have not been managed in an organised manner at MoAIWD and in many cases, officials manage documents independently. In addition, it is unclear who manages what documents and as the result, documents developed with a large amount of budget and time have not been used and they are often just being stored. As a solution of this issue, in this project, efforts are made to utilise the National Digital Repository (NDR) of the National Library and the website of the WES network as a trial. In implementing the trial utilisation, since there is a limitation to personnel and budgets, it is considered that document management not only should be the responsibility of internal function of MoAIWD but also existing mechanisms operated by independent organisations should be used so that the function of document management can be supported multiply and hence an effective means for document management and distribution can be secured for the future.
3. Technological element	Development of CBM refresher manuals and toolkits (including a promotion song) as well as manuals that are based on the users' needs and can be used by users including multi-layered stakeholders engaged in water supply facilities O&M.	A total of five guidelines and manuals developed in the National Development Plan in 2010 and positioned as the important documents for the water sector in future Malawi were not developed targeted at Extension Workers and NGOs who offer O&M training to residents. To solve this issue, in this project, efforts were made to develop documents and tools that can meet the needs of main users [to develop tools that can further contribute to residents' decision-making process (visual and audio teaching materials, etc.), by identifying high-priority issues and incorporating merits of existing manuals in a participatory approach].

4.2 Lessons Learnt in Project

(1) Selection of Indicators

In this project, in order to measure how far project purpose has been achieved, an indicator was selected by which changes in facilities' functionality rates before and after the intervention would be measured. It is necessary to pay attention, however, as this indicator has the following specific characteristics:

- Among hardware-based issues found in functioning facilities, there are a range of failure incidents from large-scale ones to small-scale ones. For larger-scale failure incidents, even if the project

offers soft-based interventions, it would not improve the failed hardware and hence it would be difficult to improve the operating rate with such an intervention.

- In some cases, the facilities cannot function even if the facilities happen to have a minor failure and in other cases, the facilities are functioning when the inspection is made even though the facilities have serious failure due to deteriorated hardware. Attention should be paid to the fact there can be difference between the facilities functioning and those not functioning, depending on the timing the inspection is made.
- The functionality rates of multiple facilities all close to the end of their useful life can deteriorate almost at the same time, unless their equipment/facilities are upgraded (hardware-based measures).

Based on the specific characteristics above, points to which attention should be paid when establishing indicators are found as follows:

- **The outputs and purpose need to have a clear causal relationship between the indicators to be measured.**

As described above, in order to improve the functionality rate of the facilities, in some cases an intervention has to be made for both hardware and software. To this end, attention should be paid when selecting, as an indicator, changes in the facilities' functionality rate. Firstly it is necessary to study what measurement can be expected to present direct behavioural changes of those facilities, if some software-based intervention is made under a technical cooperation project.

- **The indicator selected needs to offer measurement easily on a continuing basis.**

For measuring the achievement of project purpose, although a study was made concerning selecting downtime as an indicator to measure changes (time required for recovery from failure to resumption of operation at the facilities), it was decided not to select this indicator because it would be difficult to obtain highly reliable data. In a case where more than 1,000 facilities exist in the target area as in this project, it is required to ensure a certain large number of Extension Workers to obtain necessary data regularly as well as sufficient examination should be made about whether data can be obtained easily or not, when selecting the indicator.

(2) Lessons concerning the Baseline Survey

The baseline survey to identify the most recent status of the water supply facilities in Mchinji District was carried out in the form of local subcontracting work in the first stage. After having completed the survey locally, it was found through an examination there were data entry mistakes here and there in the draft submitted. Following this, a check-up of the database against survey slips was made by an expert team. This check-up process highlighted issues that can arise often in field surveys and database development like this one, where a large number of subjects are surveyed in a wide area in the form of subcontracting work.

- In many cases, those who are contracted with the subcontracting work employ students to work as field survey workers to complete the survey within a limited time and those workers do not often have professional knowledge about water and sanitation. As the result, even though they had received training prior to the start of the survey, it was found in some cases they made mistakes

when making entries in survey sheets or they made wrong entries by misunderstanding the questions.

- The field survey and data entry were carried out separately by different worker groups and there are cases in which those responsible for making entries in the database did not notice apparent mistakes made by field survey workers and entered incorrect data. In addition, responsible supervisors often did not examine entries sufficiently and overlooked entry mistakes.

From the above, the following lessons can be learned.

- Field survey workers were not professionals specialised in the work and since they were employed temporarily for each survey occasion, potential mistakes should be expected and their work should be well followed up.
- Those contracted with the subcontracting work have only a limited number of professional surveyors and therefore, it is not easy to give necessary guidance to all field survey workers. Under such circumstances, it is difficult to increase the number of field survey workers to complete a survey in which a large number of targets need to be surveyed in a wide area in a limited amount of time. It is important to implement surveys to the extent supervisors can offer instruction with the capacity they have now and to set up an appropriate time frame for completion.
- Although the survey was administered by assistants to professionals or supervisors working for those contracted with the subcontracting work, they mostly lacked skills necessary for a careful implementation and therefore it is found necessary for JICA experts who can be engaged exclusively in the survey work to offer guidance during the survey period.

(3) Advantages and Disadvantages when conducting similar projects in the same area¹⁰

In Mchinji District, the O&M Technical Cooperation project and a Grant Aid project “The Project for Selected Market Centres and Rural Water Supply in Mchinji and Kasungu District” have been carried out at the same time in the same district. A synergy effect was expected such as the Grant Aid project covers the hard aspects while the Technical Cooperation project covers soft aspects. In fact, there have been positive effects such as utilization of training manuals developed in the Technical Cooperation Project (the Project) for the software component activities of the Grant Aid project. On the other hand, there were also some negative effects such as competing over C/Ps to attend project activities and generating a sense of unfairness among neighboring communities where communities supported by the Grant Aid had boreholes rehabilitated free of charge whereas communities supported by the Project were requested to bear the full cost of O&M of hand pumps as well as construction of sanitation facilities which has hampered activities of the Project. Thus, when projects are carried out in the same area, at the same time, it is necessary to think about the advantages and disadvantages and plan ahead accordingly to avoid or reduce the challenges.

¹⁰ This lesson learnt is extracted from “Joint Terminal Evaluation Report”.

5. Recommendations

5.1 Recommendations by Terminal Evaluation Team¹¹

(1) Establishment of Coordination Mechanism for Implementing the Roadmap

Currently, a roadmap for nationwide dissemination of O&M framework has been developed. However, it is necessary to request assistance from DPs as more than 90% of financial resources in the current roadmap are required for planning and implementing the O&M Five-Year Plan in all districts as well as for monitoring and evaluation activities. The current roadmap does not clarify ways of securing necessary budget or which entity could coordinate the support from different Development Partners. It is therefore desirable to establish a coordination mechanism to implement the roadmap.

(2) Increasing the Number of WMAs at the District Level

In Malawi, shortage of personnel is a serious concern at the national and District level, but lack of WMAs at the District level is the most serious concern. Involvement of WMAs is essential to disseminate the O&M framework and as such it is important that the Malawi government increases the number of WMAs at the District level.

5.2 Recommendations by Project Experts

(1) Emphasis on the Reinforcement of Monitoring of Communities

In this project's practical tests, it was found that continued intervention made by outside entities through monitoring increased the community's willingness to participate in the operation and maintenance activities and led to motivation for the community to make efforts to maintain fences/soak away pits and keep surrounding facilities clean.

These kinds of monitoring activities are highly important as such activities can not only clearly identify how water facilities are operated and maintained but also create the sense of ownership among people in the community. Based on this knowledge, it is necessary for those involved in the water sector to put an emphasis on the reinforcement of monitoring activities.

- **Ministries and Regional Offices:** As the monitoring activities implemented by each district are to be promoted, support related to budgets and human resources will be provided.
- **At the district level:** Not only by waiting for support to be provided by the central government but also by using existing resources (Health Surveillance Assistants, Senior Health Surveillance Assistants, Community Development Assistants and Water Monitoring Assistants) effectively, monitoring activities at the district level will be carried out on a continuing basis.

(2) Further Development of Support for Area Mechanics (AMs) at the Central and District Levels

Although AMs are important as a resource that can substitute for WMAs working at the District Water

¹¹ These recommendations are extracted from "Joint Terminal Evaluation Report".

Development Office, there are some districts where such an AM system has not been introduced. MoAIWD should give guidance proactively in order that such districts can have the area mechanic system as soon as possible.

Meanwhile, in districts where the system has already been in place, it is important that explanations useful to facilitate the contract procedures should be provided to residents and TAs to increase the number of preventive maintenance contracts concluded, in addition to support to improve AMs' technical capability. At facilities which have concluded a maintenance contract and are receiving regular inspections, even if they have some troubles related to the facilities' operation, the downtime until the facilities resume operation is short and as the result, the risk of being unable to use for a long time can be decreased, while the level of residents' satisfaction is high.

(3) Future Efforts for Realising a Sustainable Supply Chain System

It is an indispensable element for a sustainable O&M system to construct a supply chain system. In Malawi, a range of models (a system managed by the government, the private sector or NGOs) have been adopted on a trial basis. At present, however, the optimal model has not been identified and therefore, it is necessary to try to find the optimal model well-suited to the nation's environment, as such a model is often greatly affected by different environments such as the government's political framework, the society and social infrastructure.

Retail shops which have been supported by InterAide continue to operate under a private organisation established by them, RUWASO, and through a private retail chain (Chipiku), some spare parts can be purchased. In areas where no spare parts supply chain has been developed, however, the lobbying activity to attract NGOs should be implemented under the leadership of MoAIWD.

Under this project, a model to utilise the Water Board was studied. In relation with this, it is also important to review the feasibility of the model, as a future option, to utilise the Water Board, not relying on support of development partners (DPs) or NGOs, in a pilot test to be led by MoAIWD.

Table 5-1: Supply Chain System Utilising the Water Board (proposal)

Diagram of model	
Scenario	The Water Board procures hand pump spare parts from domestic suppliers or directly from India, temporarily stores at the Zone Offices and sells at retail shops.
Advantages	- The Zone Offices are familiar with inventory and accounting management for spare parts

	<ul style="list-style-type: none"> - and can use their know-how for the purpose. - Retail shops can be developed in rural areas, which offer the easiest access to spare parts for residents in rural areas.
Drawbacks	<ul style="list-style-type: none"> - An organisation to be in charge of the development and management of retail shops will be necessary. - The management process between Zone Offices and retail shops can be complicated and difficult (for inventory, delivery and accounting management, etc.).

Diagram of model	<p>The diagram illustrates the supply chain structure. At the top is 'Manufacturers (India)' (Private). Below it is 'Supplier' (Private). The 'Supplier' connects to 'CRWB Head Quarters' (Semi-public) and 'MoWDI' (Public). 'CRWB Head Quarters' connects to five 'CRWB Zone office' boxes: Kasungu, Salima, Mponela, Dedza, and Likuni. 'MoWDI' connects to 'Districts' (Public). Each 'CRWB Zone office' connects to three 'Scheme office' boxes. At the bottom, a box labeled 'VHW/WPC' is connected to all 'Scheme office' boxes.</p>
Scenario	The Water Board procures hand pump spare parts from domestic suppliers or directly from India, temporarily stores at the Zone Offices and sells at the Scheme Offices.
Advantages	<ul style="list-style-type: none"> - The Zone Offices are familiar with inventory and accounting management for spare parts and can use their know-how for the purpose. - The Zone Offices and the Scheme Offices belong to the same organisation and they can use the existing communication route.
Drawbacks	<ul style="list-style-type: none"> - Each Scheme Office has only a limited number of staff members and, therefore, it is necessary to employ a staff exclusively to manage the supply chain. - The management process between Zone Offices and Scheme Offices can be complicated and difficult (for inventory, delivery and accounting management, etc.).

(4) Continued Use of Existing Platforms for Document Sharing such as NDR, NICE, WES-network, etc.

A system to distribute documents using existing websites, which has been supported under this project, offers access to such documents to anyone who has connection over the Internet and users, including those who are involved in the water sector now, are able to obtain important O&M documents easily. In addition, this mechanism utilising existing websites operated by other institutions can reduce the burden of MoAIWD in document management and hence it can be considered sustainable. Since this kind of environment development process is a prerequisite for a new system or new guidelines to be diffused around the entire nation, personnel in charge at MoAIWD should continue to make efforts on the above-mentioned document distribution.

(5) Review of Manuals Developed by the Project Based on “WSS Technical Document Management Guidelines” and improvement of their content

The guidelines and manuals developed under this project are planned to be used in the entire nation of Malawi and it is necessary that new issues and lessons identified or learned through the adoption of such manuals and guidelines should be shared among those who are involved in the water sector as well as

reviewed and revised, as appropriate, based on the timing for such review or revision set forth in the “**WSS technical document management guidelines**”.

In particular, for a supply chain system, a network has been constructed on a trial basis, under the leadership of the private sector, by InterAide, and know-how is being accumulated. In addition, as neighbouring countries have been using a range of technologies (for example, technology for a data collection system using mobile phones) for M&E data tools, etc., Malawi will possibly adopt those technologies in the future.

To this end, it is necessary for MoAIWD to regularly diffuse guidelines which are realistic and suitable to needs and conditions of the frontline of each district and of those who are involved in water operation and maintenance.

(6) Utilisation of Resources of Mchinji District for Nationwide Dissemination

In order to disseminate the strengthened O&M framework nationwide, it is essential that there should be trainers who understand the content of the framework very well and in addition that there should be budgets and guideline manuals. Starting in the second stage in this project, the reinforcement of capability of the DCT of Mchinji has been given a central focus among other activities and efforts were made to encourage the coordination team members to participate in all activities to increase their sense of ownership. As the result, the majority of workshops carried out under this project were operated by C/Ps and they have mastered how to use developed tools, too.

In addition, the CBM training programme (O&M refresher course) was offered in the third stage in which, Training of Trainers (ToT) was given to a total of about 90 EWs and AMs. Later, since those who received the training such as EWs and AMs offered the training to members of the WPCs repeatedly, their teaching ability also improved and skilled trainers were developed.

From this experience, it is desirable that MoAIWD will actively utilise these new resources in order to efficiently promote the dissemination of the strengthened O&M framework throughout the nation.

Appendices

Appendix 1:
Minute of Meeting for JCC Meeting

MINUTES OF MEETINGS
ON THE FIRST JOINT COORDINATING COMMITTEE FOR
THE PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE FOR
RURAL WATER SUPPLY IN MALAWI

According to the Record of Discussions (hereinafter referred to as "R/D") for the Project for Enhancement of Operation and Maintenance for Rural Water Supply in Malawi (hereinafter referred to as "the Project") signed by both Japan International Cooperation Agency (hereinafter referred to as "JICA") and Ministry of Irrigation and Water Development (hereinafter referred to as "MoIWD") on 18th February 2011 in Lilongwe, JICA dispatched the Expert Team (hereinafter referred to as "the Team") headed by Mr. Yuji Une, Chief Advisor, for the Project.

The first Joint Coordinating Committee (hereinafter referred to as "JCC") Meeting was held by the initiative of MoIWD and the Team presented the Draft Work Plan for the Project on the 1st of August, 2011 in Lilongwe. As the result of the discussion in JCC, both sides agreed on the matters referred in the document attached hereto.

宇根 雄二

Yuji Une
Chief Advisor
The Project for Enhancement of
Operation and Maintenance for Rural
Water Supply in Malawi



Lilongwe, August 2, 2011

Sandram C. Y. Maweru
Principal Secretary for Irrigation and
Water Development,
Ministry of Irrigation and Water
Development,
The Republic of Malawi



A.K. Phiri
District Commissioner
Mchinji District
The Republic of Malawi

Witnessed by:

星野 明彦

Akihiko Hoshino
Deputy Resident Representative
Malawi Office,
Japan International Cooperation
Agency, Japan

No.	AGENDA ITEM	RESPONSIBILITY
1.	<p>OPENING</p> <p>The meeting started at 14:30 with introduction of the members present. The Director of Ceremonies Mr. B.N.C Gondwe (DWSS) introduced the PS, DAF and the DC for Mchinji District Council on the Government side. Later, other members were requested to make self-introductions.</p>	DWSS
2.	<p>AGENDA</p> <ol style="list-style-type: none"> 1. Introductions 2. Opening Remarks by PS (MoIWD) 3. Remarks by Japanese Embassy/ JICA Representative 4. Presentation of the Work Plan for the 1st Year by Chief Advisor of JICA Experts 5. Discussion on the Work Plan 6. Any Other Business 7. Closing 	
3.	<p>OPENING REMARKS</p> <p>In his opening remarks the PS gave a background to the Project. He stated that the Government of Malawi, through the Ministry of Irrigation and Water Development, applied for technical cooperation to the Government of Japan on the project for “the Enhancement of Operation and Maintenance for Rural Water Supply”. The PS went further to say that purpose of the project was to improve the level of functionality and sustainability of water facilities through wider application of Operation and Maintenance principles and also to apply lessons learnt from past projects in order to improve operation and maintenance systems in Malawi. The project was be piloted in Mchinji District for a period of four years before rolling out the framework to a larger scale.</p> <p>Furthermore he said that in response to the request, Japanese Government entrusted the preparation of the technical cooperation of the project to JICA, the official agency in implementation of the Japanese Government’s technical cooperation. Hence, JICA conduct a detailed planning survey. Upon completion of the survey, records of discussions were signed by both parties before commencement of the project.</p> <p>With reference to past meetings with JICA, the PS acknowledged that as agreed in the record of discussions between Japan International Cooperation Agency and Authorities of the Government of Malawi on Japanese Technical Cooperation for Enhancement of Operation and Maintenance for Rural Water Supply Project, the Joint Coordination Committee (JCC) was established to ensure effective and successful implementation of the technical cooperation for the project. The</p>	PS (MoIWD)

	<p>functions of the JCC among others he reiterated that were to review and adopt annual work plan, and had its composition defined under the chairmanship of the Principal Secretary of the Ministry of Irrigation and Water Development.</p> <p>The PS in addition communicated to members that the Japanese experts for the Project arrived in the country on the 25th July 2011. To kick start the activities of the project, the first JCC meeting had been planned. The aim of the meeting was to discuss and in principle agree on the draft work plan for the first year of the project.</p> <p>The meeting was also aimed at discussing and agreeing on policy and logistical issues in the implementation of the project in addition to the technical issues as presented in the draft work plan.</p> <p>Members were therefore urged to critically look at the issues that are presented in the work plan and any other issues that may have a bearing on the smooth implementation of the project bearing in mind the decentralised nature of the project.</p> <p>In conclusion, it was the PS' sincere hope that at the end of the meeting the team of experts and the Malawian technical counter parts working on the project would have been guided on implementation of the project during the first year of operation.</p>	
<p>4.</p>	<p>Presentation of the Work Plan for the 1st Year</p> <p>The Chairperson requested the JICA team to make their presentations, which progressed as follows:</p> <p>Chapter 2 Basic Policies for Implementation of the Project</p> <p>Direction on most of the issues in this section was already commented by the DWSS. Therefore, the Director's comments were acknowledged by JICA when they referred to 'strategies' in the section and not 'policies' during this presentation.</p> <p>Chapter 3 Project Implementation Methodology</p> <ul style="list-style-type: none"> • Capacity Assessment <p>JICA discussed capacity assessment by defining the term capacity in which reference was made to:</p> <ul style="list-style-type: none"> ✓ Core capacity – deals with the attitude towards the objective ✓ Technical capacity – to do with the skills, knowledge and equipment and ✓ Environment – referring to existing policies, guidelines <p>This capacity can be identified in the clusters of an institution in terms of the personnel, organization and society.</p> <p>In the O&M project capacity assessment will be conducted to on the stakeholders in water sector by formulating an approach and methodology. According to the JICA Experts, capacity will for example be assessed subjectively (by those being assessed) and objectively (another person or institution assessing a different entity) The existing capacity in the stakeholders will be compared to the situation after implementing interventions.</p> <ul style="list-style-type: none"> • Baseline Survey <p>The baseline survey was discussed with reference to matrix on page 31 of the Draft Work Plan for the 1st Year. The study will look at both soft field e.g. socio-economic</p>	<p>JICA Experts</p>

	<p>and hard field i.e the water facilities (involves dismantling and assembling the pump components to identify problems).</p> <p>Items of the baseline are as presented on page 17 of the 1st Year Draft Work Plan as follows:</p> <ul style="list-style-type: none"> ✓ Social status survey ✓ Diagnosis survey ✓ Survey to collect basic information on administrative organization <ul style="list-style-type: none"> • Study of past projects <p>Past projects will be studied to obtain lessons for improvement of the current O&M project</p> <ul style="list-style-type: none"> • O&M Framework Examination <p>Some challenges faced in the implementation and use of O&M framework of rural water supply are stated in the Table 3 on Pages 7.</p> <p>Chapter 5 Items to be Discussed</p> <p>These items (9 in number) are in Chapter 5, page 35 of the work Plan. All of the items were agreed upon with MoIWD except for item number 6, which was rather difficult to conclude. In the final analysis it was suggested that the JCC should continue dialogue in order to find the way out.</p> <ul style="list-style-type: none"> • Conclusion <p>The draft Work Plan was shared with all participants and generally accepted in JCC for Kick-Off the Project. Besides, it is pointed out that Malawian side would review the draft Work Plan thoroughly and some of issue raised in the meeting shall continue further discussion for smooth implementation of the Project.</p>	
7.	<p>AOB</p> <p>On any other business JICA thanked the Ministry and Mchinji District Council for their dedication in the project, and hoped that this would continue.</p>	ALL
8.	<p>CLOSING REMARKS Mr. S.C.Y Maweru (PS-MoIWD) acknowledged the commitment of the members to the meeting and requested for more participation in next meetings on the ‘Project for the Enhancement of Operation and Maintenance for Rural Water Supply in the republic of Malawi.’ The meeting ended at 17:04 Hours.</p>	PS (MoIWD)

MINUTES OF MEETING

ON THE SECOND JOINT COORDINATING COMMITTEE ON
THE PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE FOR
RURAL WATER SUPPLY IN MALAWI

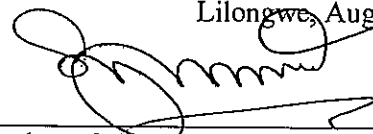
According to the Record of Discussions (hereinafter referred to as "R/D") signed by both Japan International Cooperation Agency (hereinafter referred to as "JICA") and Ministry of Water Development and Irrigation (hereinafter referred to as "MoWDI") on 18th February 2011 in Lilongwe, on the Project for Enhancement of Operation and Maintenance for Rural Water Supply in Malawi (hereinafter referred to as "the Project"), JICA dispatched a Team of Experts on the Project by end of March 2012.

The second Joint Coordinating Committee (hereinafter referred to as "JCC") Meeting on the Project was held on the 3rd of August, 2012 in Lilongwe. The purpose of the meeting was to review and approve the Draft Work Plan for 2nd phase of project activities and to review and adopt the Project Design Matrix and the Plan of Operation (hereinafter referred to as PDM and PO, respectively). Japanese Team of Experts headed by Mr Yuji Une, the Chief Advisor of the Project, presented the Draft Work Plan for the Project and proposed the modification of PDM and the PO. The JCC approved the Draft Work Plan and agreed on the proposed modification to the PDM and the PO details of which are referred to in the attached document in Annex1 and the PDM ver.2 and PO ver.2 shown in Annexes 2 and 3 attached hereto.

宇根 雄二

Yuji Une
Chief Advisor
The Project for Enhancement of
Operation and Maintenance for Rural
Water Supply in Malawi

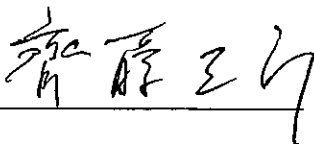
Lilongwe, August 3, 2012



Sandram C. Y. Maweru
Principal Secretary for Water
Development and Irrigation
Ministry of Water Development and
Irrigation

DISTRICT COMMISSIONER
DISTRICT COUNCIL
The Republic of Malawi
26 NOV 2012
7107
Gaston T. Macheka
District Commissioner
Mchinji District
The Republic of Malawi

Witnessed by:



Katsuro Saito
Resident Representative
Malawi Office,
Japan International Cooperation
Agency, Japan

AGENDA

1. Introductions
2. Opening Remarks by PS (MoIWD)
3. Remarks by JICA Representative
4. Explanation of Revision of PDMver.1 and POver.1
5. Presentation of the Draft Work Plan for the 2nd Phase by Mr Yoshikawa of JICA Experts
6. Presentation of Draft Implementation Plan for Test Activities (2nd Phase) by members of Project Task Force
7. Discussion on the Work Plan (2nd Phase)
8. Any Other Business
9. Closing Remarks

1 OPENING REMARKS

In his opening remarks, the Chairman for the meeting, Principal Secretary for Water Development and Irrigation Mr. S. C. Y Maweru, welcomed the members to the first Joint Coordination Committee (JCC) meeting for the second phase of the Project for Enhancement of Operation and Maintenance for Rural Water Supply in Malawi. He therefore reminded the members that a Joint Coordination Committee (JCC) was established to ensure effective and successful implementation of the project. The functions of the JCC among others were to review and adopt annual work plan and track its progress; and give guidance on the major policy and logistics issues that may arise during implementation of the project.

He further said that he was aware that a number of baseline activities has been conducted in accordance with the adopted work plan for the first year and that the project team identified the good practices and the challenges for operation and maintenance of water supply facilities and improvements in sanitation.

The PS in addition communicated to members that the Second Phase test activities are about to commence and in accordance with the agreement of the project implementation, the JCC meeting has therefore been called among other issues to: Review and approve the draft work plan for the Second Phase of Project Activities; and Review and adopt the Project Design Matrix (PDM) and the Plan of Operation (PO).

Members were therefore urged to critically look at the issues that are presented in the work plan and any other issues that may have a bearing on the smooth implementation of the project bearing in mind the decentralised nature of the project.

He finally asked the Resident Representative of JICA to make his remarks to the meeting.

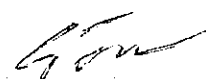
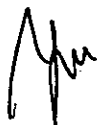
2. REMARKS BY RESIDENT REPRESENTATIVE / JICA MALAWI OFFICE

The JICA Resident Representatives, Mr. Saito, thanked everyone for coming to attend this meeting and briefly outline the main purpose of the meeting. He also gave a brief report on how the project is going so far and hoping that the next phase which has started will be much better. He emphasised that the main focus of the Project is the capacity building of the counterpart, and that the success of the Project depends on the sense of ownership of of the project by them.

3. PRESENTATION OF THE REVISED PDM AND PO

The Chief Advisor, Mr. Une, expressed his deepest gratitude to all participants for coming to the meeting especially for people who came from Mchinji. He then gave a presentation on Revised PDM and PO.

After the presentation, the Chairman asked participants if they had comments or recommendations regarding the revised PDM and PO. There were no comments or recommendations regarding this issue.



4. PRESENTATION OF THE DRAFT WORK PLAN FOR THE 2ND STAGE

The Chairperson requested the JICA team to make their presentations on the Draft Work Plan for the 2nd Stage.

Mr. Yoshikawa made the presentation on Draft Work plan which comprised of the following three topics:

1. Summary of results of the 1st Stage
2. Implementation Schedule for 2nd Stage
3. Implementation methodology for each Test Activity.

5. PRESENTATION OF THE DRAFT IMPLEMENTATION PLAN FOR TEST ACTIVITIES FOR THE 2ND STAGE

The Deputy Director Water Supply Services, Ms. E. Mbalame, also gave a brief presentation on Action Plan for Test activity No. 6 which is on the Improvement of the rules on Operation and Maintenance (O & M) manuals (use / storage and hierarchical management) as a sample of the total 10 Action Plans proposed on behalf of the Project Task Force members. In summary she presented the content of the propose test activity which included among others; the revision of existing manuals, preparation of user's guide for the use of existing manuals, preparation of a database of the manuals and drafting manual management rules and improvement of a system for approval and update of manuals.

6. DISCUSSION ON THE WORK PLAN FOR THE 2ND STAGE

After the presentation, the Chairman opened the floor for discussion on the work plan. The Deputy Director Ground Water, Mr. P. Mleta wanted to know the criteria that was used in selecting the pilot communities where the test activities will be done, and he also wanted to find out whether there are plans in the project to produce manuals in several languages so that they can be user friendly to the intended users.

In response, Mr. Yoshikawa presented the criteria they used in selecting the pilot sites which included the following features;

1. Afridev Hand pump (Yes/No)
2. Functional water point (Yes/No)
3. Establishment of VHWC/WPC (Yes/No)
4. Balance of collection fees (Less than/more than 3000MK)
5. Existing of the latrine within 30 meters from the water point (Yes/No)
6. Unequipped with soak away pit (Yes/No)
7. Unequipped with fence (Yes/No)
8. Borehole (Yes/No)

Using these criteria, 16 candidate sites were selected and shared with the counterparts in the 1st stage of the project. Then the final 10 pilot sites will be selected from these to conduct field survey by experts and counterparts in 2nd stage.

On the question of whether the manuals will be produced in different languages, Mr. Yoshikawa's responded that was the project plans to produce user friendly manuals and for the community level, they might consider the possibility of translating the documents in Chichewa through the Test Activity where necessary. In addition, Mr. Une added that they are considering use of drawings to illustrate the manuals for people to easily understand them.

There were no more questions regarding this section and the Chairman, concluded the discussion by commending the presenters for the detailed presentations

7. OTHER ISSUES FOR DISCUSSION

Mr. Yoshikawa presented other issues which were also to be discussed in the meeting as follows:-

1. Confirmation of the appointment of the counterpart in-charge of each Test Activities.
2. Confirmation of the scheduled dates of the Project Task Force meetings.
3. Confirmation of the budgetary contribution to the Test Activities by the Malawian side.
4. Confirmation that the Malawian side will facilitate document and data collection at relevant Government Offices.

It was confirmed during the discussions by Mr. Yoshikawa that items No.1 and No.2 had already been resolved in the Project Task Force (PTF) Meetings. And the house confirmed item No.4 with the Malawian side agreeing to the facilitation.

The Malawian side confirmed that there was no budgetary allocation as requested in item 3 in this financial year's budget but hoped that the project would be considered in next year's budget. The Malawian side further explained that currently the project activities for this stage have just started with no minimal expenditure but in this stage there are a lot of field activities to be done which will necessitate a budgetary allocation. The Chairman also said that this year's Ministry budget has been drastically reduced and that the Government is in a fix as this year seems to be a difficult year. He, however, assured the meeting that this should not pull the implementation of the Project down but as Government, they will do everything possible to ensure continuation of the project implementation.

JICA wanted to know the line of the budget that Malawian side are supposed to contribute in this technical cooperation. In response, the Malawian side said the budgetary line items include fuel allocation, and allowances for field staff. JICA, however, said that looking at the budget, it is difficult to meet the allowances for government officials though it is a major component of the test activities in this stage. They further added that they will have to liaise with the Japanese Project Experts as to how much will be required for expenses like fuel but allowances for Government Officials may be difficult to be considered.

Mr. Saito in his contribution on the same budget issue asked the Malawian Counterparts to be transparent by ensuring that the Japanese Government knows how much funds the Government of Malawi has allocated for this project.

Mr. Maweru answered that the some budget has already been allocated into portions in different projects including the Project for Groundwater Development for Mwanza and Neno. Though the Ministry submitted all the on-going projects including new ones to Ministry of Finance for possible funding, some projects were not considered and the Project for Enhancement of O & M for Rural Water Supply in Malawi, is one of them. The reasons given were due to the budgetary constraint that the country is going through. However the PS, Mr. Maweru, added that the Counterpart side have an assignment to sit down and see if they can manage the situation they are in.

The Chairman concluded by suggesting that this issue could not be concluded within this meeting and therefore asked both sides to explore the possibilities of securing the necessary funding, and the house agreed to his suggestion.

Finally members agreed that the phases of this project as it has been used by both parties be changed to "stages" to avoid confusion and therefore the current period of project implementation was to be called second stage of phase 1.

The Director of Water Supply Services, Mr. B.N.C. Gondwe commended the Japanese Expert on the good job they are doing. He further said that recently the Team of Experts were out of the country but managed to put up a good plan of what they intend to do in this stage, which just shows their commitment on this project.

The Chair of the meeting, Mr. Maweru, finally asked the members for a resolution on whether the Work Plan, the PDM and the PO were to be approved. The Director of Administration and Finance, Mr D. Chione proposed and was seconded by Mr. Macheke and Mr. Mwafulirwa.

8. CLOSING REMARKS

The Chair of the meeting, Mr. Maweru thanked all the members for availing themselves and commended the team of experts for their well-articulated presentation and their hard work. He further encouraged the Japanese Experts to continue having a good working relationship with the Malawian Counterpart in order to make this project a successful one. He also informed the DC of Mchinji that the team will keep on relying on him as the project is taking place in his District. He finally promised to assist wherever his assistance would be required and declared the JCC meeting officially closed.

ANNEX 2 PDM ver.2

M

[Handwritten signature]

Project Name: The Project for Enhancement of Operation and Maintenance for Rural Water Supply
 Target Area: Mchinji District
 Target Group: Staff of District Council, MoWDI

Project Duration: 4 years from July 2011
 Version 2
 Date: 3, August, 2012

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal The strengthened practical O&M framework is applied nationwide.</p>	<p>The strengthened practical O&M framework is applied in CBM trainings by MoWDI and districts.</p>	<p>- Joint Sector Review Report - District's annual report</p>	
<p>Project Purpose The existing O&M framework is strengthened practically for subsequence nationwide dissemination.</p>	<p>- The strengthened practical O&M framework is stated in Sector Working Group Reports and/or Joint Sector Review Reports.</p> <p>- **% of non-functional water supply facilities measured by a baseline survey in Mchinji District are functioning. (** will be determined based on the result of baseline survey which will be conducted in 6 months after the start of the project.)</p>	<p>- Sector Working Group Report - Joint Sector Review Report - Project Report (Result of impact survey) (Result of baseline survey)</p>	<p>- The policies on rural water supply are not significantly changed. - The O&M of rural water supply facilities is financed by the government. - Adequate financial resources are allocated to District Council and MoWDI. - NGO activities in rural water supply are reported to and coordinated by MoWDI and District Council. - An action to be taken by MoWDI: to distribute the strengthened practical O&M framework to all the districts in Malawi. - An action to be taken by District Coordination Teams in Malawi: to make the strengthened practical O&M framework known to all implementation partners in each district.</p>
<p>Outputs (1) Implementation structure for strengthening the</p>	<p>- The frequency of the meeting of Project Task Force taken place at</p>	<p>- Project Report - M/M of Project</p>	<p>- Personnel transfers of counterparts are not frequent during the project</p>

<p>existing O&M framework for rural water supply is set up.</p> <p>(2) Present situation and challenges of O&M for rural water supply are investigated.</p> <p>(3) The existing O&M framework is strengthened based on the field test in Mchinji District.</p> <p>(4) The strengthened O&M framework is applied to the whole Mchinji District.</p> <p>(5) The strengthened framework is widely understood.</p>	<p>least 4 times a year</p> <p>- The report of the present situation and challenges is made. - The report is shared with the Project Task Force.</p> <p>- The strengthened practical O&M framework based on lessons from the result of the test activities is made.</p> <p>- Number of communities trained following the strengthened practical O&M framework reaches ** communities. (* ** will be determined based on Malawian budget to be allocated for this output.) - Degree of understanding of the counterparts after training improves.</p> <p>- The strengthened practical O&M framework is shared by all of the stakeholders in the Sector Working Group (SWG). - The number of the stakeholders which participate in the SWG above. - The strengthened practical O&M framework is endorsed by SWG. - The number of addresses for distribution of the strengthened practical O&M framework. (The number will be determined after the third year of the project.)</p>		<p>Task Force</p> <p>- Joint Sector Review Report</p> <p>- Project Report</p> <p>- M/M of Project Task Force</p> <p>- Project Report</p> <p>- The products of the project</p> <p>- Project Report</p> <p>- The result of the pretest and the post-test of the counterparts about the implementation of the strengthened practical O&M framework.</p> <p>- The performance report of the counterparts</p> <p>- Report of the seminar/ workshop</p> <p>- Endorsement by SWG</p> <p>- Project report</p>	<p>period.</p>
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Activities	Inputs	Preconditions
<p>(1-1) To set up the Project Task Force to discuss the strengthening of existing O&M framework for rural water supply in MoWDI.</p> <p>(1-2) To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.</p> <p>(2-0) To collect basic information on Hygiene and Sanitation</p> <p>(2-1) To collect existing policies, guidelines, implementing manuals, training manuals, etc.</p> <p>(2-2) To collect good practices and lessons learned from past projects</p> <p>(2-3) To conduct a baseline survey</p> <p>(2-4) To survey actual conditions of O&M for rural water supply in Mchinji District</p> <p>(2-5) To conduct capacity assessment</p> <p>(2-5-1) To hold the workshop-style training</p> <p>(2-5-2) To set up the performance indicators</p> <p>(2-6) To analyze good practices and challenges</p> <p>(2-7) To identify challenges in order to make the framework more practical</p> <p>(2-8) To share findings at the project task force and compile the report based on the dialogue</p> <p>(3-1) To select recurrent O&M test activities and target communities following the framework</p> <p>(3-2) To make an implementation plan of test activities</p> <p>(3-3) To implement selected test activities at the selected communities in target communities</p> <p>(3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly</p> <p>(3-3-2) Facility design for better O&M and promotion of water point sanitation</p> <p>(3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics</p> <p>(3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain</p> <p>(3-3-5) Standardization and dissemination of monitoring system for the water supply</p>	<p>Inputs</p> <p>Japanese side:</p> <ol style="list-style-type: none"> 1. Japanese Experts (1) Chief Advisor (2) Rural Water Supply (3) Training (4) O&M of Rural Water Supply Facilities I and II (5) Project Coordination/ Hygiene & Sanitation <p>2. Machinery and Equipment</p> <ol style="list-style-type: none"> (1) Office equipment (Photocopier, Scanner, Facsimile, Computer, Printer and Projector) (2) Vehicle (4WD Station Wagon) (3) GPS (4) Motorbike <p>Malawian side:</p> <ol style="list-style-type: none"> 1. Counterpart (C/P) Personnel determined according to the C/P list submitted by MoWDI 2. Facilities (1) Office spaces in Mchinji District and facilities such as furniture and telephone lines necessary for the Japanese experts (2) Meeting rooms or lecture rooms for the training (3) Other facilities mutually agreed upon as necessary 3. Local cost (1) Allowances and transportations for the Malawian counterpart personnel and any participants for the training provided and business trips in the Project (2) Utility cost for the project offices (3) Operational expenses for customs clearance, storage and domestic transportation for the equipment provided by the Japanese side (4) Expenses for maintenance of equipment (5) Recurrent cost for O&M in Mchinji District 	<p>Preconditions</p> <p>- The budget for the project to be borne by Malawian side is available.</p>

2. 2nd JCC

facilities

- (3-3-6) Improvement of the rules on the manuals (use/storage and hierarchical management)
 - (3-3-7) Activities for development of a text of maintenance and rehabilitation for deep well
 - (3-3-8) Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council
 - (3-3-9) Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment Plan
 - (3-3-10) Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan
 - (3-4) To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities
 - (4-1) To make an implementation plan for larger-scale application of the strengthened O&M framework
 - (4-2) To implement recurrent O&M activities following the strengthened O&M framework on a larger scale
 - (5-1) To make the strengthened O&M framework acknowledged officially by MoWDI
 - (5-2) To disseminate the strengthened O&M framework by seminar/workshop
- *The O&M framework means the guidelines and implementation manuals of rural water supply.

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ANNEX 3 PO ver.2



Plan of Operation

Project Name: The Project for Enhancement of Operation and Maintenance for Rural Water Supply
 Project Duration: July 2011 ~ June 2015

Version 2
 Date: 3, August, 2012

	2011		2012				2013				2014				2015	
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
(1) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.																
(1-1) To set up the Project Task Force to discuss the strengthening of existing O&M framework for rural water supply in MoWDI.	█															
(1-2) To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.			█		█	█	█	█	█	█	█	█	█	█	█	█
(2) Present situation and challenges of O&M for rural water supply are investigated.																
(2-0) To collect basic information on Hygiene and Sanitation		█	█													
(2-1) To collect existing policies, guidelines, implementing manuals, training manuals, etc.	█	█	█													
(2-2) To collect good practices and lessons learned from past projects	█	█	█													
(2-3) To conduct a baseline survey	█	█	█													
(2-4) To survey actual conditions of O&M for rural water supply in Mchinji District			█													
(2-5) To conduct capacity assessment	█	█	█													
(2-5-1) To hold the workshop-style training	█	█	█													
(2-5-2) To set up the performance indicators		█	█													
(2-6) To analyze good practices and challenges			█													
(2-7) To identify challenges in order to make the framework more practical			█													
(2-8) To share findings at the Project Task Force and compile the report based on the dialogue			█	█												
(3) The existing O&M framework is strengthened based on the field test in Mchinji District.																
(3-1) To select recurrent O&M test activities following the framework			█													
(3-2) To make an implementation plan of test activities			█	█	█											
(3-3) To implement selected test activities at the selected communities in target communities					█	█	█	█	█	█	█	█	█	█	█	█
(3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly					█	█	█	█	█	█	█	█	█	█	█	█
(3-3-2) Facility design for better O&M and promotion of water point sanitation					█	█	█	█	█	█	█	█	█	█	█	█

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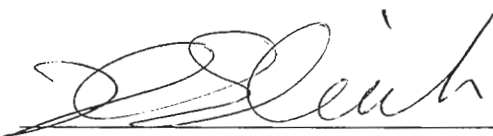
	2011		2012				2013				2014				2015	
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
(3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics																
(3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain																
(3-3-5) Standardization and dissemination of monitoring system for the water supply facilities																
(3-3-6) Improvement of the rules on the manuals (use/storage and hierarchical management)																
(3-3-7) Activities for development of a text of maintenance and rehabilitation for deep well																
(3-3-8) Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council																
(3-3-9) Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment																
(3-3-10) Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan																
(3-4) To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities																
(4) The strengthened O&M framework is applied to the whole Mchinji District.																
(4-1) To make an implementation plan for larger-scale application of the strengthened O&M framework																
(4-2) To implement recurrent O&M activities following the strengthened O&M framework on a larger scale																
(5) The strengthened framework is widely understood.																
(5-1) To make the strengthened O&M framework acknowledged officially by MoWDI																
(5-2) To disseminate the strengthened O&M framework by seminar/workshop																

* Malawi fiscal year starts in July and Japanese fiscal year starts in April.
 ** MoWDI and DWO prepare budget arrangement in January and February.
 *** Rainy season is from December to April.

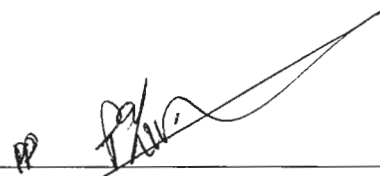
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MINUTES OF MEETING
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
MINISTRY OF WATER DEVELOPMENT AND IRRIGATION
OF THE REPUBLIC OF MALAWI
ON
THE JAPANESE TECHNICAL COOPERATION
FOR
THE PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE FOR
RURAL WATER SUPPLY

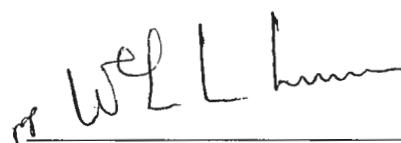
Lilongwe, May 29th, 2013



Toru Shimoda
Leader,
Mid-Term Review Team,
Japan International Cooperation Agency (JICA)
Japan



Sandram C.Y. Maweru
Principal Secretary for Irrigation and
Water Development,
Ministry of Water Development and Irrigation
The Republic of Malawi



James Kanyangalazi
District Commissioner
Mchinji District Council
The Republic of Malawi

The Japanese Mid-Term Review Team organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") visited the Republic of Malawi (hereinafter referred to as "Malawi") from May 12th to May 30th, 2013 for conducting the mid-term review of "the Project for Enhancement of Operation and Maintenance for Rural Water Supply" (hereinafter referred to as "the Project").

The Malawian Mid-Term Review Team and the Japanese Mid-Term Review Team (hereinafter jointly referred to as "the Team") has carried out intensive study and analysis of the activities and achievements of the Project, and prepared the Joint Mid-Term Review Report attached hereto (hereinafter referred to as "the Report"), and presented it to the 3rd Joint Coordinating Committee (JCC) held on May 29th, 2013.

After discussion on the major issues pointed out in the Report as described below, the JCC accepted the Report and took note of the recommendations made in the Report. The representatives of the Japanese side and the Malawian side agreed to report to their respective authorities concerned the matters referred to in the Report to ensure that necessary measures are taken for the smooth and successful implementation of the Project.

1. The both sides confirmed to take necessary actions to actualize the points recommended in the Report.
 - a) Development of a Roadmap for the Nationwide Dissemination of the Strengthened O&M Framework

The Team recommended that MoWDI takes an initiative to develop a roadmap of nationwide dissemination of the strengthened O&M framework, which should include;

- Clarification of activities, starting from printing and distributing of revised guidelines, manuals and training materials (including the ones to be printed and distributed to Mchinji District);
- Mapping out on-going and upcoming projects in rural water supply;
- Identification and mobilizing financial and human resources (including Japan Overseas Cooperation Volunteers) that can be mobilized for the nationwide dissemination; and
- Identification of responsible parties for each activity.

- b) Soliciting More Inputs about Non-Pilot Districts

As a part of the initiative to develop the nationwide dissemination roadmap, the Mid-term Review Team recommends that MoWDI uses the Ministry's existing channels for consultations to solicit inputs from non-pilot Regional and District Water Development Offices and development partners.

- c) Greater Initiative by MoWDI/Mchinji District Council in Project Implementation

In the latter half of the project period, the test activities at the community level, the dissemination of the strengthened O&M framework to the whole Mchinji District, and the discussion on the framework's nationwide dissemination are planned to be conducted. In order to ensure successful implementation of upcoming activities, it is even more vital than before that the Project is conducted with a strong organizational and financial commitment of MoWDI and

Mchinji District Council. The Mid-term Review Team recommends that MoWDI and Mchinji District Council take even greater initiative in implementing these activities. For the Project's smooth implementation and the nationwide dissemination of the O&M framework, it is essential that sufficient human resources and funding are made available to implement O&M activities of rural water supply.

d) Securing Sufficient Budget Allocation to the District Level for O&M Activities

Since district councils are the authority responsible for financing O&M of water supply and sanitation facilities, it is indispensable that sufficient funding is allocated to the district level in conducting daily operation of O&M activities. The Mid-term Review Team recommends that MoWDI continue its efforts to duly engage the Ministry of Local Government and Rural Development, the Agriculture and Natural Resources Committee of the Parliament, the Ministry of Economic Planning and Development, and the Ministry of Finance to ensure that sufficient budget is allocated and distributed to the district level for the Project's implementation and the nationwide dissemination of its O&M framework.

e) Revision of PDM

The current PDM has three indicators (Project Purpose, Output 3 and Output 5) of which the target figures are yet to be set. The Mid-term Review Team recommends the Project revise the PDM in a timely manner so that all indicators provide clear benchmarks for the achievement of the Project Purpose and the production of Outputs.

2. Both sides confirmed to modify the Project Design Matrix (PDM) and Plan of Operation (PO) to PDM Ver.3 and PO Ver.3, following the review of them by PTF which will be held on 3rd June, 2013.
3. The Malawian side confirmed that Acting Director of Water Supply Services, Ministry of Water Development and Irrigation, was assigned as Project Manager and the responsibilities remain the same as agreed upon in the Record of Discussions dated February 18th, 2011. Japanese side accepted the change.
4. The Japanese side requested to the Malawian side to assign a personnel responsible for document management. The Malawian side agreed with this request and has further requested that he/she should be trained accordingly.

END

Attached Document:

1. Joint Mid-Term Review Report



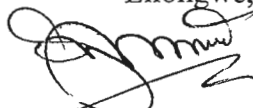
MINUTES OF MEETINGS

ON THE FORTH JOINT COORDINATING COMMITTEE FOR
THE PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE
FOR RURAL WATER SUPPLY IN MALAWI

According to the Record of Discussions (hereinafter referred to as "R/D") signed by both Japan International Cooperation Agency (hereinafter referred to as "JICA") and Ministry of Water Development and Irrigation (hereinafter referred to as "MoWDI") on 18th February 2011 in Lilongwe, the Project for Enhancement of Operation and Maintenance for Rural Water Supply in Malawi (hereinafter referred to as "the Project") has been conducted since the end of July 2011.

The forth Joint Coordinating Committee (hereinafter referred to as "JCC") Meeting was held by the initiative of MoWDI. The Japanese Expert Team headed by Mr Yuji Une, the chief advisor of the Project, presented the proposed modification of the Project Design Matrix (hereinafter referred to as PDM) followed by a presentation on the recommendations and draft future activities of the Project by the District Water Development Officer, Mr. Mike Chilimadzi during the 26st of February, 2014 in Lilongwe. As the result of the discussion in the JCC, both sides agreed on the matters referred in the document shown in Annex 1 and to the PDM ver.3 shown in Annex 2 attached hereto.

Lilongwe, February 26, 2014



for

Yuji Une
Chief Advisor
The Project for Enhancement of
Operation and Maintenance for
Rural Water Supply in Malawi

Sandram C. Y. Maweru
Principal Secretary for Water
Development and Irrigation,
Ministry of Water Development
and Irrigation,
The Republic of Malawi



Yamikani Chitete
District Commissioner
Mchinji District
The Republic of Malawi

Witnessed by:



Katsuro Saito
Resident Representative
Malawi Office,

Japan International Cooperation
Agency, Japan

ATTACHED DOCUMENT

ANNEX 1

**MINUTES OF THE 4th JCC MEETING FOR THE SECOND STAGE OF THE
PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE FOR
RURAL WATER SUPPLY IN MALAWI**

1. **DATE:** 26th February 2014
2. **TIME:** 10:00 am – 12:45 pm
3. **VENUE:** Conference Room (MoWDI)
4. **AGENDA DISCUSSED**
 - (1) Explanation of Revision of PDM ver.3
 - (2) Presentation of the recommendations and draft future activities for the 3rd Stage (from April 2014 to June 2015) by counterpart

5. LIST OF PARTICIPANTS

(1) MINISTRY OF WATER DEVELOPMENT AND IRRIGATION

- | | |
|-------------------------|--|
| — Mr. Sandram Maweru | Principal Secretary of Water Development and Irrigation |
| — Mr. Norman Mwambakulu | Director of Administration |
| — Mr. Steve Mwanza | Director of Water Supply Services |
| — Mrs. Emma Mbalame | Deputy Director of Operation Maintenance Monitoring and Evaluation |
| — Mr. Prince Muleta | Deputy Director of Groundwater |
| — Mr. Richard Malata | Chief Economist |
| — Ms Edith Kunje | Principal Economist |
| — Mr Synoden Kautsi | Civil Engineer |

(2) REGIONAL WATER DEVELOPMENT OFFICE (CENTRE)

- | | |
|---------------------|---|
| — Mr. Peter Chipeta | Regional Water Development Officer (Centre) |
|---------------------|---|

(3) MCHINJI DISTRICT COUNCIL

- | | |
|------------------------|--------------------------------------|
| — Ms. Yamikani Chitete | District Commissioner |
| — Mr. Walter Chikuni | Director of Planning and Development |
| — Mr. Mike Chilimadzi | District Water Development Officer |

(4) **JICA MALAWI OFFICE**

- | | |
|---------------------|-----------------------------------|
| — Mr.Jintaro Yazaki | Assistant Resident Representative |
| — Mr.G. Kapalamula | Senior Program Officer |

(5) **JICA EXPERT TEAM**

- | | |
|-------------------------|---|
| — Mr.Yuji Une | Chief Advisor |
| — Mr.Takeshi Yoshikawa | Rural Water Supply |
| — Ms.Akino Kitazume | O&M of Rural Water Supply Facilities I |
| — Mrs.Noriko Yamada | Hygiene and Sanitation / Project Coordination |
| — Mr Wilson Lakudzala | Assistant |
| — Mr. Cyrus Mkandawire | Assistant |
| — Mrs.Emmanessa Mandowa | Secretary for the Team |

6. OPENING REMARKS

The Director of Administration, Mr. Norman Mwambakulu opened the JCC meeting on behalf of the Chair, Mr.Maweru. He informed the participants that there is an Agenda that was circulated and they will follow that, he asked if there's anything which needs to be changed before the meeting starts.

He then asked the members to introduce themselves.

In reviewing the Agenda, it was pointed out that the item schedule for 10:10, should read as "Assistant Resident Representative" instead of "Resident Representative".

7. REMARKS BY RESIDENT REPRESENTATIVE / JICA MALAWI OFFICE

Mr. Yazaki began by welcoming everyone to the meeting and apologised for the absence of the Resident Representative of JICA who was out of the country. He continued by mentioning that he felt happy and honoured to address the participants on behalf of JICA on this important occasion.

He further said that it's been two years since the project began and that there is only one and a half years left for the project to phase out, the remaining years being crucial as there are still many tasks that need to be undertaken before the completion of the project.

In his speech he mentioned that there are two important issues which need to be focused which are related to the sustainability of the project. The first issue is to hand over the initiatives on the implementation of the project activities from JICA Experts to Malawian Counterpart as we get closer to the end of the scheduled period of the project so that they should continue taking stock on what have been realised and what has not. He added that while Malawian Counterpart continue to stock these experiences through the project, they should also start assuming more prominent responsibilities, because it is through this process that the sustainability of the project activities after the close of the project will be ensured. He added that it is JICA's sincere call that all measures will be put in place to facilitate the commencement of this hand-over process.

The second issue is regarding financing of the project implementation, which was agreed that it should be a joint implementation between Malawian Government and Japan and arrangements were made to finance phase I&II (2012/2013 to 2013/2014). JICA noted with pleasure that PSIP part II funding for this phase (2013/2014) has been allocated, however, the project have been experiencing hard times because the part II funding from the government of Malawi was not being disbursed to the project activities and hence has seriously hinder the implementation of the project activities. In order to minimise the negative impact, JICA had to take initiative to finance the missing components. He added that it is a great concern as it create fears of project activities collapsing after June 2015 when the projects ends due to lack of funding from the government of Malawi who will have to finance the project activities by themselves from them onwards.

The only hope in these financial hiccups is that it is temporal in nature as it has been caused by the financial problems that the country is going through. It is hope that once these issues have been sorted out, the operations of the project will be back to normal.

It was also emphasized that JICA would like to appeal to the Ministry of Water Development and Irrigation to engage officially with the Ministry of Finance to lobby for more commitment from the government of Malawi in honouring its financial obligations.

Lastly, on behalf of JICA, he assured the government of Malawi that JICA is still committed to the successful implementation of the project and that they will always be willing to discuss issues that the government could have. He finally wished the participants successful discussions during the meeting and successful implementation of the remaining project activities.

8. COMMENTS ON JICA's SPEECH

The Chair of the meeting thanked Mr. Yazaki for the speech he made which outlined the issues that needed to be considered during the meeting. He highlighted that the Government of Malawi had difficulties to honour its obligation towards the financing of project activities that are very important and cannot be ignored during the discussion in the meeting. This was as a result of the financial problems the country was facing. He added that mechanism should be put in place so that when the project phase out the government of Malawi, should be able to sustain the framework.

Commenting on this issue the Director of Water Supply Services, Mr. Mwanza started by thanking the Chair of the meeting and said that the O&M Project is very important to Malawi and added that they have already started seeing fruits. He also mentioned that it is indeed a concern that the counterpart funding from the Government of Malawi is not forth coming but they have been promised that some funding might come to support the project. The Government of Malawi acknowledged the need to fulfil its obligation. Lastly, he pointed out that, the commitment of the Japanese Government is appreciated.

Mrs Yamada, JICA Expert, said that the handing over of the framework from the JICA Expert to the project counterpart needs to start gradually to ensure the sustainability of the framework.

Regarding the issue of finance, Mr Malata, Chief Economist, MoWDI commented that some of the JICA O&M team members attended the PSIP meeting last year and indeed the

Ministry included around MK55 million to be shared among three JICA Projects. However, due to cash flow problems, the Projects have not been supported this financial year. The Ministry hopes that in the next fiscal year, The Projects will be supported.

9. MEASURES TO BE PUT IN PLACE FOR THE SUSTAINABILITY OF THE PROJECT

The Chair of the meeting asked participants to provide inputs regarding measures that can be put in place for the sustainability of the project.

Ms Mbalame, Deputy Director Water Supply Services (OMME), commented that the design of the project is that for all project activities they have counterparts from the Government of Malawi side who are working on this project to ensure the transfer of knowledge for sustainability. Sustainability will, therefore, not be an issue because most of the counterparts and staff have been involved in the project activities.

The Chair of the meeting asked if there are any observations from JICA part because during the discussion the counterparts were saying that they have been actively involved in the activities of the project.

Mr Yazaki Assistant Resident Representative from JICA acknowledged that counterparts have been actively involved but what is asked is not only to participate but to take over the project activities. For instance, one of the Experts, Mr Yamashita, has finished his assignment for this project last year so the input in terms of workforce from the JICA Experts will decrease from now onwards hence the need of the full support from the Malawian side to make up the portion of Experts that will decrease.

10. PRESENTATION ON REVISION OF PDM FOR VERSION 3

Mr. Une, JICA Expert Chief Advisor, gave a presentation on the revised PDM. After the presentation Ms Mbalame provided additional explanation regarding the reduction of the number of WPC that was reduced to 50 instead of the initial idea of 100. During the 6th PTF meeting that was held in September 2013, 100 WPCs were targeted. But looking at what has been happening on counterpart funding and the consequent delay in project activities, the meeting decided to reduce the number to 50 since the activities involved counterpart funds from the Malawian government which has not been forthcoming.

Mrs Yamada added that since the Chief Economist was present in the meeting, she sought clarification on the meaning of the sentence "endorsement of the project framework documents by the Sector Working Group". During discussions in the previous PTF meeting, it was raised that the Project team don't have any control towards the Schedule or the Agenda of the Sector Working Group. However, the endorsement in the SWG is important as this is a national sector policy guidance platform and the overall goal of the project is to disseminate the operation and maintenance framework that was enhanced through this project to all stakeholders.

She added that in September 2013, a workshop with all stakeholders involved in rural water supply was conducted which was a very important step for disseminating information. The Sector Working Group, on the other hand, helps reaching a large number of participants that might not be directly working on Operation and Maintenance of Rural Water Supply but

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could have a chance to learn what has been done and to take over for rolling-out in their Districts. She further added that it was important that endorsement of framework is done by the SWG as such requested how the Enhanced O&M for Rural Water Supply Project could be included on the SWG meeting agenda.

11. REACTIONS REGARDING THE ENDORSEMENT OF THE SECTOR WORKING GROUP

In response, Mr Malata said that it is important that people recognise the existence of the Sector Working Group. He added that the Sector Working Group is a forum where issues related to the sector are approved. For this to happen, the best way is for the Project to circulate the documents to all members of the Sector Working Group to see and provide comments and then discuss these issues during the meeting and consequently endorse the documents.

The Principal Secretary for MoWDI, Mr Maweru, added that what is crucial is what the Director of Planning has already said, what needs to be done is to circulate the documents, seek what you want the members to do with the document and when they look at it they make their comments and during the Sector Working Group meeting they can add recommendations which they will look at in summary and endorse it.

The Director of Water Supply Services, Mr Mwanza, commented that the Sector Working Group is an advanced stage and at a lower stage, there is a Technical Working Group. Therefore, documents need to be embraced with the Technical Working Group of Water Supply and from here it will be easier to be taken to the level of the Sector Working Group.

12. DISCUSSIONS REGARDING THE SELECTED 50 WPCs


Mr. Kapalamula, JICA Senior Program Officer, wanted to be clarified on the issue of 50 WPC which has been selected as a new indicator. The allocation and further disbursement of counterparts funding is still uncertain, hence even if the WPC sites were reduced from 100 to 50 due to last year funding constraints, is funding adequate to achieve the 50 WPCs.

Mr Une Chief Advisor of the O & M Project answered that 50 WPCs are achievable, if the Government funds comes now numbers might even change and he refers the matter of funding to the Principal Secretary.

The Principal Secretary answered that the number 50 is a base which has been taken as an assumption of the available funding but if the government funding becomes available then chances are to increase the number of WPCs to be targeted.

Mr Chipeta, the Regional Water Development Officer (Central), clarified that during PTF meeting where the reduction of the WPCs was agreed, it was pointed out that the selection was going to be strategic to have a representative sample of Mchinji as a district. He then suggested that, the WPCs that are near to each other could also be included to be trained in clusters, in this way, it might be possible to achieve more than 50 sites during the same period.

13. PRESENTATION OF RECOMMENDATIONS TO FURTHER STRENGTHENING THE OPERATION AND MAINTENANCE FRAMEWORK



Mr. Mike Chilimadzi, Mchinji District Water Development Officer made the presentation on framework developed under the project.

The Chair thanked the presenter for the extensive and detailed explanation provided and asked the floor for observations. He also mentioned the need for circulating the materials before the JCC meeting so the audience can have time to read and prepare questions for clarification.

Before taking questions from the members, Mr. Yoshikawa, JICA Expert, presented the draft remaining activities to be conducted in the 3rd stage of the project to project closure.

14. DRAFT FUTURE ACTIVITIES FOR THE 3RD STAGE (April 2014 to June 2015)

Mr. Yoshikawa, in his presentation of the draft future activities for the 3rd Stage, which is the final stage of this Project, reported that half of the planned activities in Activity 3-3 in PDM have been conducted and there is half remaining and also Activity 4-2, 5-1 and 5-2.

15. RECOMMENDATIONS/ COMMENTS AFTER BOTH PRESENTATIONS

The Chair of the meeting asked the participants for comments or questions regarding the two presentations by Mr Chilimadzi and Mr Yoshikawa respectively.

Mr Mwanza emphasized the importance of the project and added that all activities conducted and those intended to be conducted in the near future have been outlined and that the fruits are already visible. The improvements in most pilot villages on how they should operate and maintain their boreholes are impressive although half of the project activities has been undertaken, hence, he believe that when the project phased out, there will be a greater impact. He therefore hoped that the Government of Malawi would provide the counterpart funds for the project's success.

Mr Chilimadzi agreed to what Mr Mwanza said regarding the impact the project is bringing to the rural community. The coming of the O&M radio programme broadcasted by Mudziwathu Community Radio since January 2014 is complimenting what the project is doing through the different activities, most of the rural community listen to the programme and some have managed to build fences around their boreholes using their own resources thereby instilling the sense of ownership and sustainability.

Mr Malata wanted to find out if the M&E Project which is being implemented by the Ministry of Water Development and Irrigation and is being piloted in 3 Districts was consulted. He further wanted to find out if the Ministry of Health was also consulted on the database they are developing with the support of Engineers Without Borders to avoid duplication of effort in M & E.

Mr Chilimadzi in response said that, according to his understanding, the M & E Project in the Ministry being piloted in three districts will be rolled out through the country. Consultation on the databases by both the Ministry of Water Development and Ministry of Health were done and there are no duplication of efforts.

On the issue of programme aired on Mudziwathu Community Radio, Ms Yamikani Chitete, District Commissioner for Mchinji commented that she thinks the programme is not a "trial" as they are actually using the community radio station and results are showing.

The District Commissioner also wanted to be clarified on issues of Area Mechanic standardization since this was the first JCC meeting that she was attending. She wanted to know if there are some measures which are put in place to avoid cases of theft. She gave an example of a case in Ntchisi District where Area Mechanics were involved in stealing spare parts and selling them to other villages. This she thought was as a result of AMs having skills on assembling and dismantling borehole and also have information on villages which are looking for a particular spare part.

Mr Mwanza responded by saying that CBM Approach empowers the community to be able to operate and maintain their water facility which can be achieved by building the capacity of the communities through training. In this way, it is not only the AM who has the required knowledge but the community themselves.

The PS added that it is really a challenge and what they need to do is to intensify community policing to curb the issue of vandalism and theft. He also said that the communities need to empower and sensitised procurement of spare parts from authorised shops only and in so doing they will be killing unauthorised markets for spare parts where the stolen spare parts find their way into.

The DC also commented that signing of Memorandum of Understanding (MoU) between the District Councils and NGOs which will be implementing projects such as training of Area Mechanics in the district could help curb the issue of vandalism and theft of water points. She pointed out that almost all the District Councils are in the process of signing or have already signed MOUs with the CSO Network at district level. If an NGO is operating in a district, then they are already part of the MOU which was already signed with the CSO Network. Hence, a new NGO must first go through this CSO Network which already has an MOU with the District Council, so there is no need to duplicate signing MOUs with particular NGOs when they have already signed that MOU with an Umbrella Organisation covering all the NGOs.

Mrs Yamada commented on what the DC said regarding the radio programme as a trial. She said that the trial of radio programme is for 2 months as they had a contract for 2 months only because they were not sure whether they will have to go through a full radio programme or just try and see if this will be effective or not. It is now becoming clear that it is effective and that there are some positive things which are coming out of the radio programme. She pointed out that one of the things that were discussed during the last PTF is whether to proceed with producing a standard radio program through contract with national radio programme and have it on National radio stations or to continue with the development of the radio program through the Mchinji community radio. In short it was decided to stick to the community radio as Mchinji is a special district since it already has the support from NGOs and has established their Area Mechanics and Spare parts Supply Chain system, so other districts could learn from Mchinji through the radio program. She pointed out the word "trial" was coming in because the effectiveness of the program needed to be tested before airing to the wider community.

Regarding Community Policing, mentioned by the PS, Mrs Yamada mentioned that this issue was raised as one of the “Undertakings for the year 2014” in Regional Joint Sector Review (JSR) as well as in the National JSR meeting.

She also talked about the Area Mechanic guide manual that is being developed through the Project which includes among others; i) the roles and responsibilities of Area Mechanic, ii) what type of qualifications they need to have, iii) who will interview them to become Area Mechanics, iv) the training content for area Mechanics, v) how often this have to be conducted, vi) the Area Mechanics Licence, etc. One recommendation mentioned in the training guide is that once the Area Mechanics is reported to be involved in theft or vandalism, then the licence should be revoked.

Mr Mkandawire, JICA O&M Project Assistant, commented that on the issue of security of boreholes, communities are encouraged to be locking their boreholes as a means of securing their borehole.

Mrs Yamada also talked about the “stakeholders’ network” being discussed by Engineers Without Borders. The idea behind it is that one DWDO and the few WMAs (two in the case of Mchinji) cannot directly take care of each and every borehole in Mchinji which is more than 2,000. Therefore, it is important to increase the participation of communities, like engaging the local structures such as ADCs or VDCs as one way of communicating / pass information on the boreholes from the communities to the DWDO which is actually happening in other districts. Mchinji is currently not engaging the ADCs as they are only relying on Area Mechanics for the reporting to DWDO on issues concerning boreholes but it could be a good idea to see whether it could be beneficial to network with them.

Mr Yoshikawa, Japanese Expert, also wanted to know what processes are necessary for authentication of documents officially by MoWDI and how long will it take to get acknowledgement in terms of Activity 5-1 in the PDM.

The Director of Water Water Supply Services, Mr Mwanza, responded that there is need to share some of the information to stakeholders as a sector, where the forum can look at that issue together and once that forum has agreed to that, it comes to the Ministry for endorsement.

16. CLOSING REMARKS

The PS thanked all the participants and apologised for coming late as he was caught up in another meeting. He then thanked the team for the presentation made and reminded everyone that this is a partnership therefore they will have to continue sharing the experiences and directions so that when the experts leave, they should embrace to the capacities left with them. He also thanked the DC and staff for supporting the project. He also pointed out that Mchinji District being a pilot for this project, would be expected to be a model and therefore they should continue working hard. He further said that if there are issues, they should not hesitate to contact the Ministry.

Lastly, he thanked the Deputy Director for Water Supply Services (OMME) and her team for the continuous support towards the project despite the challenges the project has been facing.

(END)

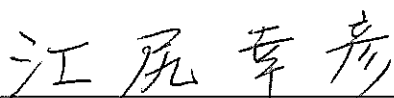
MINUTES OF MEETING
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
MINISTRY OF AGRICULTURE, IRRIGATION AND WATER
DEVELOPMENT OF THE REPUBLIC OF MALAWI
ON
THE JAPANESE TECHNICAL COOPERATION
FOR
THE PROJECT FOR ENHANCEMENT OF OPERATION AND
MAINTENANCE FOR RURAL WATER SUPPLY

The Terminal Evaluation Team (hereinafter referred to as “the Team”) organized by the Japan International Cooperation Agency (hereinafter referred to as “JICA”) visited the Republic of Malawi (hereinafter referred to as “Malawi”) from November 24th to December 8th, 2014 for the purpose of reviewing the progress and the achievements of the Project for Enhancement of Operation and Maintenance for Rural Water Supply (hereinafter referred to as “the Project”).

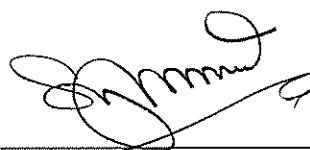
During its stay in Malawi, the Team visited the Project area, exchanged views and opinions with stakeholders on the Project and had a series of discussions with the officials of the Malawian organizations concerned. And the Joint Coordination Committee (hereinafter referred to as “the JCC”) was held on December 8th, 2014.

As a result of discussions, the Team submitted the Joint Terminal Evaluation Report as attached and both sides agreed on the matters referred to in the report.

Lilongwe, December 8th, 2014



Mr. Yukihiro EJIRI
Leader
Terminal Evaluation Team
Japan International Cooperation Agency



Mr. Sandram C.Y. Maweru
Principal Secretary (Irrigation and Water
Development)
Ministry of Agriculture, Irrigation and
Water Development



Ms. Yamikani Chitete
District Commissioner
Mchinji District Council

Joint Terminal Evaluation Report
on
the Project for Enhancement of Operation and Maintenance
for Rural Water Supply
in the Republic of Malawi

Lilongwe, 8th December 2014

Joint Terminal Evaluation Team

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Table 4: Average ownership consciousness score for 50 water points before and after intervention of the Project

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Table 6: Changes in ownership consciousness before and after the O&M radio programme

Abbreviations

AfDB	African Development Bank
CBM	Community Based Management
C/P	Counterpart
DFID	Department of International Development, United Kingdom
DWDO	District Water Development Office
EWB	Engineers Without Border
HSA	Health Surveillance Assistant
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JSR	Joint Sector Review
MGDS II	Malawi Growth and Development Strategy Phase II
Mkw	Malawi Kwacha
MM	Man Month
M/M	Minutes of Meeting
MoAIWD	Ministry of Agriculture, Irrigation and Water Development
MOU	Memorandum of Understanding
NGO	Non-Governmental Organization
O&M	Operation and Maintenance
PDM	Project Design Matrix
PO	Plan of Operation
PSIP	Public Sector Investment Programme
PTF	Project Task Forces
R/D	Record of Discussions
RWDIO	Regional Water Development and Irrigation Office
SHSA	Senior Health Surveillance Assistant
SOMAP	The Project for Support in National Roll-out of Sustainable Operation and Maintenance Programme
SPR	Sector Performance Report
SWAp	Sector Wide Approach
SWG	Sector Working Group
TWG	Technical Working Group
UNICEF	The United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WES Network	Water and Environmental Sanitation Network
WPC	Water Point Committee
WSS	Water Supply Service

1. Outline of the Evaluation

1-1 Background of the Project

In the Republic of Malawi (hereinafter referred to as Malawi), the water supply coverage in rural areas is about 70% while 30% of the facilities are not functional. The access rate to safe water in rural areas is about 50% (JSR2008). The low access to water supply results in spending a great deal of time and effort in collecting water by the rural population. Hence rural population does not fully engage in economic or development activities for their wellbeing and the nation. In addition, the rural population access unprotected water source which affect their health status as they are exposed to water borne diseases.

The non-functionality of water facilities is mainly attributed to inappropriate Operation and Maintenance (herein after referred to O&M) system of water supply facilities, aging facilities, destruction or theft, lack of capacity at district level, inadequate evaluation and monitoring system and insufficient spare parts supply chain among others.

According to “Malawi Growth and Development Strategy II (MGDS II) 2011-2016”, irrigation and water resources development is one of the nine priority areas. The strategy mentions that access to the water source within a one way walking of 500m should be realized as a medium-term goal and that coverage should be increased to 86% by 2016.

In addition, the strategy is also aimed to enhance the capacity of O&M of water supply facilities that is carried out through improving existing “Community Based Management (CBM)” which was introduced in the 1990s and to improve functionality rate of water supply facilities.

Based on the background mentioned above, the Malawi government aims to disseminate (roll out) the O&M framework which is a part of CBM nationwide, and a technical cooperation project proposal was submitted to the Japanese government to strengthen the contents more practically. In response to the proposal, the Japanese government is assisting in the implementation of “the Project for Enhancement of Operation and Maintenance for Rural Water Supply” by the Ministry of Agriculture, Irrigation and Water Development (hereinafter referred to as MoAIWD) and Mchinji District Council for four years from July, 2011 to June, 2015.

1-2 Purpose of the Evaluation

The evaluation activities were performed as follows:

- (1) To collect necessary information and confirm the progress of inputs, activities and implementation process on the basis of Project Design Matrix (PDM) and Plan of Operation (PO) of the Project for Enhancement of Operation and Maintenance for Rural Water Supply (hereinafter referred to as “the Project”)
- (2) To assess the achievement of Outputs, Project Purpose and Overall Goal
- (3) To analyze and evaluate the overall effect of the Project by the five evaluation criteria

(Relevance, Effectiveness, Efficiency, Impact and Sustainability)

- (4) To make recommendations based on the results of evaluation and identify useful lessons learnt for new projects and/or other ongoing projects

1-3 Outline of the Project

- (1) Summary of the Project

The Project design is drawn in the PDM (attached as Annex 1). Its summary is as follows:

- 1) Overall Goal

The strengthened practical O&M framework is applied nationwide.

- 2) Project Purpose

The existing O&M framework is strengthened practically for subsequence nationwide dissemination.

- 3) Outputs

- a) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.
- b) Present situation and challenges of O&M for rural water supply are investigated.
- c) The existing O&M framework is strengthened based on the field test in Mchinji District.
- d) The strengthened O&M framework is applied to the whole Mchinji District.
- e) The strengthened framework is widely understood.

- (2) Duration of the Project

Four (4) years from July 2011 to June 2015

- (3) Implementing Agency of the Project

Ministry of Agriculture, Irrigation and Water Development (MoAIWD)

- (4) Target Areas of the Project

Mchinji District

1-4 Members of the Terminal Evaluation Team

The Joint Terminal Evaluation Team (hereinafter referred to as “the Team”) consists of the following members;

- (1) Malawian Government members

Name	Title	Position in the Team
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Mr. John Kumwenda	Deputy Director, Department of Water Supply Services	Member
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(2) JICA mission members

Name	Title	Role in the Team
Mr. Yukihiro EJIRI	Senior Assistant Director, Water Resources and Disaster Management Group, Global Environment Department, Japan International Cooperation Agency	Team Leader
Mr. Yuji UNE	Internal Support Committee Member	Rural Water Supply
Mr. Koji SHIMIZU	Water Resource Management Team 2, Global Environment Department, Japan International Cooperation Agency	Cooperation Planning
Mr. Satoshi NAGASHIMA	ICONS Inc.	Evaluation Analysis

1-5 Evaluation Schedule

The schedule of the mission is indicated as below;

Date	Day	Japanese Team	Malawian Team
24 th Nov	Mon	Courtesy call to MoAIWD (Principal Secretary) Interview with Japanese experts	
25 th Nov	Tue	Explanation of evaluation method to members of Joint Evaluation Team Interview with Project Manager (Director of Department of Water Supply Services) Interview with C/Ps (Department of Water Supply Services, Department of Water Resources)	
26 th Nov	Wed	Interview with C/Ps of MoAIWD - Department of Planning - Department of Sanitation - Regional Water Development and Irrigation Office (RWDIO)	
27 th Nov	Thu	Interview with District Water Development Office (DWDO) Salima Interview with InterAid Interview with DWDO Ntchisi	
28 th Nov	Fri	Interview with DFID	
29 th Nov	Sat	Preparation of evaluation report	
30 th Nov	Sun	Preparation of evaluation report	
1 st Dec	Mon	Courtesy call with District Commissioner Interview with C/Ps of Mchinji District - Director of Planning and Development - Deputy District Environmental Health Officer - Water Monitoring Assistant	
2 nd Dec	Tue	Interview with UNICEF Interview with WES-network Interview with African Development Bank (AfDB)	

3 rd Dec	Wed	Field visit (Pilot sites) Interview with Area Mechanics Interview with DWDO officer of Mchinji District	
4 th Dec	Thu	Interview with Engineer Without Boarders (EWB)	
5 th Dec	Fri	Discussion on Evaluation Report among Joint Evaluation Team Finalization of Evaluation Report and Minutes Explanation about Evaluation Report and Minutes to Project Manager	
6 th Dec	Sat	Revising Evaluation report	
7 th Dec	Sun	Revising Evaluation report	
8 th Dec		Preparation for JCC Finalization of Evaluation Report and the Minutes JCC (including the signing the Minutes at the end of the JCC)	

1-6 Methodology of the Evaluation

The Project was evaluated by the Team. The Team was composed by four (4) of the Japanese side and one (1) from the Malawian side. The Team visited the Project sites and carried out a series of interviews and discussions with C/Ps of MoAIWD, RWDIO and Mchinji district etc. The evaluation was designed to verify the following aspects based on the PDM and PO:

- 1) Achievements of the Project on the basis of indicators of PDM (Annex 1) and Evaluation Grid (Annex 3);
- 2) Process of the Project implementation; and
- 3) The five evaluation criteria.

Definitions of the five criteria are as follows:

Relevance	Relevance of the plan for the Project has been reviewed in terms of validity of the Project objective and overall goal, in connection with the development policy of the Government of Malawi, the foreign assistance policy of the Government of Japan, the needs of beneficiaries, and the logical coherence of the Project.
Effectiveness	Effectiveness is considered by assessing the extent of achievement of the Project objective and the clarification of the relationship between the Project purpose and the outputs.
Efficiency	Efficiency of the implementation of the Project is analyzed with focus on the relationship between outputs and inputs in terms of time, quality and quantity of inputs.
Impact	Impact of the Project is evaluated on expectation level to achieve the Overall Goal and the basis of direct or indirect, positive or negative, intended or unintended influences generated by the Project.
Sustainability	Sustainability of the Project is evaluated on the political, institutional, financial and technical aspects for examining how the achievements of the Project would

	be sustainable after the period of the Project.
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2. Achievements and Implementation Processes

2-1 Records of Inputs

(1) Input from Malawian side

1) Assignment of C/Ps

Thirty one (31) C/Ps in total were assigned by Malawian side. See “Annex 4: Summary of Inputs” for the detail.

2) Facilities and utilities

Office space was provided by Malawian side.

3) Operational cost

Budget of Public Sector Investment Programme (PSIP) was allocated as JICA supporting programme.

(2) Input from Japanese side

1) Japanese experts

Chief Advisor, Project Leader/Rural Water Supply, O&M of Rural Water Supply Facilities I & II, Rural Water Supply Training II, Training I, O&M Rural Water Supply Facilities (Boreholes), Project Coordination/Hygiene & Sanitation (Total MM is 107.9MM as of 1st October 2014). See “Annex 4: Summary of Inputs” for the detail.

2) Machinery and Equipment

Machinery and Equipment such as Copy Machine, 4WD Station Wagon, Motorbikes, PC were provided by Japanese side (JPY7,337,000). See “Annex 4: Summary of Inputs” for the detail.

3) Trainings in the third country

Eleven (11) C/Ps attended the trainings. See “Annex 4: Summary of Inputs” for the detail.

4) Operational cost

JPY54,542,000 was borne by Japanese side as the operational cost. See “Annex 4: Summary of Inputs” for the detail.

2-2 Achievements of the Outputs

Output 1: Implementation structure for strengthening the existing O&M framework for rural water
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supply is set up.

Output 1 is expected to be achieved. The Project Task Force (PTF) meetings were held sufficiently and it can be said that implementation structure for strengthening the existing O&M framework for rural water supply has been set up.

(1) Indicator 1-1: The frequency of the meeting of Project Task Force taken place at least 4 times a year.

VI 1-1 is likely to be achieved.

Frequency of the PTF meeting is as follows; there were three PTF meetings in the first stage, seven PTF meetings in the second stage and two PTF meetings in the third stages until November 2014.

Output 2:

Present situation and challenges of O&M for rural water supply are investigated.

Output 2 has been achieved. Lessons learnt and problems on O&M of water supply facilities and improvement of sanitation were identified and the present situation and challenges on O&M of rural water supply facilities were shared with C/Ps of the Project. Therefore, it can be said that the present situation and challenges of O&M for rural water supply have been investigated.

(1) Indicator 2-1: The report of the present situation and challenges is made.

VI 2-1 has already been achieved.

Lessons learnt and problems on O&M of water supply facilities and improvement of sanitation were identified based on the results from Activity 2-1 to 2-7 and information was shared with members through the second and the third PTF meetings. Based on the discussions, "The report of the present situation and challenges on operation and management of rural water supply facilities" was prepared.

(2) Indicator 2-2: The report is shared with the Project Task Force.

VI 2-2 has already been achieved.

Findings of the present situation and challenges on O&M of rural water supply facilities were shared with C/Ps of the Project in the second PTF meeting implemented in the first year.

Output 3:

The existing O&M framework is strengthened based on the field test in Mchinji District.

Output 3 has already been achieved. Ten test activities were carried out based on the measures to solve the problem and O&M framework (comprehensive series of guidelines and manuals) has been developed. Therefore it can be said that the existing O&M framework has been strengthened based on the field test in Mchinji District.

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(1) Indicator 3-1: The strengthened practical O&M framework based on lessons from the result of the test activities is made.

VI 3-1 has been already achieved.

Measures which make existing O&M framework more practical and sustainable were identified based on the analysis of the present situation of water supply facilities, and these were categorized as six factors to be reinforced. In addition, ten test activities were carried out based on the measures for problem solving. As a result of the activities, O&M framework was reinforced and developed.

Table 1: Relationship between six major factors and test activities

Major factors		Test activities	
F1:	Enhancement of community ownership	A1:	Setting standard utilization fee of hand pump water supply facilities and promotion of sanitary habit to promote payment of water utilization fee
		A2:	Measures of facility design considering O&M and promotion of hygiene around water supply facilities
F2:	Establishment of spare parts supply chain system	A4:	Standardization and establishment on introduction process of supply chain of spare parts
F3:	Establishment of area mechanic system	A3:	Standardization and establishment on introduction process of area mechanics
F4:	Arrangement of manuals and guidelines	A1:	Setting standard utilization fee of hand pump water supply facilities and promotion of sanitary habit to promote payment of water utilization fee
		A2:	Measures of facility design considering O&M and promotion of hygiene around water supply facilities
		A3:	Standardization and establishment on introduction process of area mechanics
		A4:	Standardization and establishment on introduction process of supply chain of spare parts
		A5:	Standardization and establishment on monitoring system of water supply facilities
		A6:	Activities on setting rules (utilization, keeping and level management) for manuals
		A7:	Activities on development of textbook on O&M of deep well
F5:	Reinforcement of Monitoring & Evaluation system at district level	A5:	Standardization and establishment of water supply facility monitoring system
F6:	Capacity development of district/regional water development office	A8:	Activities on preparation of annual activity plan to assist O&M activities in Mchinji district by regional water development and irrigation office (center) (RWDIO)
		A9:	Activities on preparation of O&M plan of rural water supply and sanitation in Mchinji district
		A10:	Activities for assisting preparation of O&M plan in pilot villages by Mchinji district coordination team and water monitoring assistants

Source: Completion report

Output 4:

The strengthened O&M framework is applied to the whole Mchinji District.

Output 4 is expected to be achieved. O&M training for Water Point Committees (WPCs) (refresher's courses) had been carried out in 50 WPCs based on the strengthened O&M framework. CBM O&M trainer's training (refresher's courses) was carried out for 90 extension workers and the number of WPCs training conducted by each extension worker has been increasing. In addition, preparations of the five-year plan of O&M, activities of the community radio have been carried out. Trainings are also planned to be conducted for extension workers on monitoring and evaluation of O&M for water supply facilities. Therefore, it can be said that the strengthened O&M framework is expected to be applied to the whole Mchinji District.

- (1) Indicator 4-1: Number of communities trained following the strengthened practical O&M framework reaches 50 communities.

VI 4-1 has been achieved.

O&M training for WPCs (refresher's courses) has been carried out in 50 WPCs¹ as of September 2014. The detail is shown in the trainings list attached as Annex 5.

Due to efforts of the project team, it has also been agreed that the refresher's course manuals which were developed in the Project will be utilized in the O&M trainings for 330 target sites of an ongoing Japanese Grant Aid project "The Project for Selected Market Centres and Rural Water Supply in Mchinji and Kasungu District". Therefore, it is expected that number of communities trained following the strengthened practical O&M framework will exceed the indicator.

- (2) Indicator 4-2: Number of extension workers to be trained according to the strengthened practical O&M framework increases.

VI 4-2 has been achieved.

CBM O&M refresher training of trainers was carried out for three days (from 8th July to 10th July 2014) for 90 of extension workers (Senior Health Surveillance Assistances (SHSAs), HSAs, Water Monitoring Assistants and Community Development Assistants) and Area Mechanics.

- (3) Indicator 4-3: Number of WPC training conducted by each extension worker according to the strengthened practical O&M framework increases.

VI4-3 has been achieved.

¹ The selection of 50 sites was going to be strategic to have a representative sample of Mchinji as a district.

The number of Water Point Committees (WPCs) trained by Extension Workers (EWs) and Area Mechanics by using the strengthened practical O&M framework is as follows.

Table 2: Distribution of EWs and number of training conducted²

Number of EWs that conducted one training	25
Number of EWs that conducted two trainings	17
Number of EWs that conducted three trainings	29
Number of EWs that conducted four trainings	5
Number of EWs that conducted five trainings	3
Number of EWs that conducted six trainings	4
Number of EWs that conducted seven trainings	2
Number of EWs that conducted 10 trainings	1
Number of EWs that conducted 17 trainings	1
Number of EWs that conducted 21 trainings	1
Number of EWs that conducted 22 trainings	1
Number of EWs that conducted 30 trainings	1
Total	90

Source: Materials provided by the project team

- (4) Additional Factor³: Number of activities which applied the strengthened practical O&M framework to whole Mchinji District except dissemination activities in community increase

These additional factors should also be considered.

At the time of the terminal evaluation, some activities had already been conducted such as preparation of the five-year plan of O&M to be incorporated as a part of Mchinji's mid-term district plan and awareness raising activities through a community radio. In addition, trainings have been planned for extension workers on monitoring and evaluation of water supply facilities in whole Mchinji District from December 2014.

Output 5:

The strengthened framework is widely understood.

Output 5 is expected to be achieved. A workshop for development partners and NGOs was held for the nationwide dissemination of O&M framework and a number of relevant stakeholders attended. The O&M guidelines and manuals developed are in the process of obtaining official approval by the MoAIWD and it has not yet been distributed. But it will be distributed by the end of the Project. Therefore it can be said that the strengthened framework will be widely understood.

² Number of trainings in total was 50. However, extension workers formed teams and implemented the trainings several extension workers join a training. Therefore number of trainings in total and number of trainings which each extension workers have conducted in total are not same number.

³ This additional factor has been added to better reflect the achievements of the project without limiting it to the CBM O&M refresher training

(1) Indicator 5-1: The strengthened practical O&M framework is shared by all of the stakeholders in the Sector Working Group (SWG).

VI 5-1 is likely to be achieved.

Several workshops were held to share the contents with relevant stakeholders. The detail is as follows. The contents of the O&M framework have already been shared to relevant stakeholders including SWG members and is expected to be endorsed when SWG meeting is held.

- 1) A workshop for development partners and NGOs was held in September 2013 for the nationwide dissemination of O&M framework.
- 2) In order to share the final draft of some guidelines/manuals, major development partners and NGOs (19 in all) were invited to a workshop in March 2014.
- 3) Development partners and technical personnel of the NGOs were invited (24 in all) to a workshop from 3rd to 4th July 2014 (2 days) for the purpose of the content sharing and review of the draft version of the CBM refresher's training manual and tool kits which were under formulation.

(2) Indicator 5-2: The number of the stakeholders which participate in the SWG above.

VI5-2 is likely to be achieved.

Workshops with development partners and NGOs including SWG members were held as shown in the table below. Ten to fifty major donors who are involved in the rural water sector attended the workshops. The purpose of the workshops was to obtain technical feedbacks from relevant stakeholders through sharing the contents of the documents (When SWG is held, the O&M framework is expected to be shared with relevant stakeholders).

Table 3: Number of participants in each workshop

Name of workshops	Contents	Date	Number of participants*
First workshop on "Enhancement of Operation and Maintenance of Rural Water Supply" for the nationwide dissemination	Information sharing of midterm result of the Project to relevant stakeholders	19 th September 2013	45
Sector sharing workshop regarding the establishment of area mechanics system and spare parts supply chain system	Information sharing of draft version of guide manuals on area mechanic and spare parts supply chain to relevant stakeholders	12 th -13 th March 2014	25
Consultative workshop regarding the CBM refresher training manual and tool kits	Information sharing of version 0 draft of a manual and a tool kit for CBM refresher's course to relevant stakeholders	3 rd -4 th July 2014	24
Consultative workshop regarding the O&M planning handbook	Information sharing of version 0 draft of O&M planning handbook to relevant	27 th August 2014	30

	stakeholders		
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*Including Development Partners, NGOs, staff of other districts, member of project team and C/Ps

Source: Materials provided by the project team

(3) Indicator 5-3: The strengthened practical O&M framework is endorsed by SWG.

VI5-3 is likely to be achieved.

At the time of the terminal evaluation, the strengthened practical O&M framework was in the process of obtaining official approval from MoAIWD. However, there is a high possibility to be supported by SWG (or Technical Working Group (TWG)) because the contents of documents have already been technically confirmed by relevant stakeholders.

(4) Indicator 5-4: The number of addresses for distribution of the strengthened practical O&M framework.

VI5-4 is likely to be achieved.

The final version of the O&M guidelines and manuals (they will be 12 in total) has not passed the official approval process of the MoAIWD yet and they have not been distributed. However, draft versions of manuals have been already distributed to relevant stakeholders who are currently working in the rural water supply sector. In addition, the number of copies to be printed and distributed will be determined taking into consideration available of funding.

Apart from the above activities, all latest guidelines/manuals developed through the Project will be uploaded on the website at the WSS resource center in the MoAIWD, the national library, and WES Network⁴, in addition to other useful documents that were already uploaded. Therefore it is possible to disseminate the O&M framework beyond the target area.

2-3 Prospects for Achieving the Project Purpose

Project purpose:

The existing O&M framework is strengthened practically for subsequence nationwide dissemination.

The project purpose is likely to be achieved. O&M framework was stated in the Joint Sector Review (JSR) report in 2013 and also discussed to be stated in 2014. Eight guidelines/manuals out of 12 are in the process of official approval and remaining four will be approved by March 2015. Ownership consciousness is likely to be improved in WPCs through application of the strengthened O&M framework. Therefore it can be said that the existing O&M framework is likely to be strengthened practically for subsequent nationwide dissemination.

⁴ WES Network is a network of all partners working in the WASH sector in Malawi

(1) Indicator 1: The strengthened practical O&M framework is stated in Sector Working Group Reports⁵ and/or Joint Sector Review Reports

VI 1 is likely to be achieved.

The strengthened practical O&M framework was stated in the JSR in 2013 and the Sector Performance Report (SPR) in 2012/2013. The strengthened practical O&M framework was explained by CPs of the Project in the regional JSR in November 2014 and the national JSR in December 2014. The strengthened practical O&M framework was already stated in the national JSR in 2014 and is likely to be stated in the SPR in 2013/2014.

(2) Indicator 2: The strengthened practical guidelines/manuals/training materials are officially acknowledged by Ministry of Agriculture, Irrigation and Water Development (MoAIWD)

VI 2 is likely to be achieved.

The process and the schedule of final approval for 12 guidelines/manuals were discussed at the second PTF meeting held on 11th September 2014. As a result, eight out of 12 guidelines/manuals were technically confirmed through discussions in the workshop held on 31st October 2014. In addition, the work is in progress for the remaining four guidelines/manuals by March 2015.

(3) Indicator 3: Ownership consciousness is improved in WPCs to be applied with the strengthened framework

The data is being monitored.

According to the CBM refresher training's interim impact assessment conducted in 50 WPCs, ownership consciousness has improved after project intervention and it is likely that this trend will continue. Improvement in ownership consciousness has been quantified through scoring five benchmark indicators where the minimum score was zero and the maximum 20 (the higher the score the higher the ownership consciousness).

The following tables show the average ownership consciousness score as well as the variation of scores in the 50 WPCs before and after provision of the CBM O&M refresher training.

Table 4: Average ownership consciousness score for 50 water supply facilities before and after intervention of the Project

Time of survey	Average score
Before intervention of the Project (at the Preliminary study, February 2014)	9
After intervention of the Project (at	14

⁵ Sector Performance Report (SPR) is the official report of Sector Working Group.

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Second monitoring, October 2014)

Source: Materials provided by the project team

Table 5: Changes in ownership consciousness score before and after provision of CBM (O&M) refresher training in 50 water WPCs

Situation of increase or decrease of the score	Number of target water supply facilities	Percentage in target 50 facilities
Increase score quantified outputs after intervention of the Project	44	88%
Same score on quantified outputs after intervention of the Project	3	6%
Decrease score on quantified outputs after intervention of the Project	3	6%

Source: Materials provided by the project team

The monitoring of 50 WPCs is still ongoing and will be conducted for an additional two times before the Project phase out and the result will be presented in the final report.

In addition, to the CBM O&M refresher training, an educational O&M community radio programme (herein after referred as the O&M radio) was developed and aired during a total period of 7 months. A similar interim impact survey was also conducted in an additional 11 sites to assess the impact of the O&M radio. These 11 sites were selected based on the presence of Radio Listening Club and WPCs in the village.

The result of the interim assessment also shows improvement in ownership consciousness in 64% of the sites as summarized in the below table. Monitoring of the 11 sites is still ongoing and the impact assessment will be updated and presented in the final report.

Table 6: Changes in ownership consciousness before and after the O&M radio programme

Variation in score after the O&M radio programme	Total number of sites	Percentage (%)
Ownership consciousness has increased	7	64
Ownership consciousness has not changed	1	9
Ownership consciousness has decreased	3	27

Source: Material provided by the project team

2-4 Prospects for Achieving the Overall Goal

Overall Goal:

The strengthened practical O&M framework is applied nationwide.⁶

⁶ Definition of nationwide in the Overall Goal is that the strengthened practical O&M framework is applied to all districts (it does not mean to apply to the all communities).

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There are several uncertain factors and it is difficult to foresee expectation of the achievement at the time of the terminal evaluation.

(1) Indicator 1: The strengthened practical O&M framework is applied in CBM trainings by MoAIWD and districts.

Preparation of a roadmap (a scenario toward nationwide dissemination of the framework) to achieve the Overall Goal was discussed in the second PTF meeting held on the 11th of September 2014 and a draft road map was prepared. However there are several uncertain factors and it is difficult to foresee expectation of the achievement. It is necessary to make a best effort by the Malawi government to achieve the indicator.

To implement the roadmap, financial and technical assistance by development partners and NGOs is necessary, and it is essential to conduct lobby activities by C/Ps. In addition, the Project team carried out awareness raising activities of the O&M framework to disseminate it to other districts through various meetings.

According to the department of water supply services in MoAIWD, the framework of the Project will be utilized in the “Sustainable Rural Water and Sanitation Project for Improved Health and Livelihood” by AfDB (the project period will be 2014-2019, the target districts are five).

2-5 Implementation Process of the Project

There are some difficulties in the implementation process.

(1) Project Management System

Technical transfer was conducted properly.

Technical transfer was conducted properly due to efforts and ideas of each project team member even though there were several difficulties such as transfers of C/Ps, nonfulfillment of C/P budget, overlap of human resources with soft-component activities of the Japanese Grant Aid project, etc.

Communication between both sides was generally good.

The Joint Coordination Committee (JCC) is held once or twice in a year and it functions as all the decision-making on the project activities.

In the Project, information on planned activities was shared through weekly meeting, telephone, e-mail etc. With such a dense communication among the project stakeholders, good relationship between MoAIWD and Mchinji district has been built.

There was a little difficulty on reporting line.

The project manager of the Malawian side is the director of the department of water supply services in the MoAIWD but directions have been normally provided by the deputy director because the deputy director was the chair person for Project Task Force.

However, not all Mchinji district C/Ps are in a position to follow orders and instructions from the MoAIWD and hence instructions by Japanese expert were required.

(2) Ownership of the Project

Ownership of the Project by Malawian side is high but contribution of human resources in terms of time allocation and financial resources are insufficient.

The C/Ps who has not been transferred during the project period contributed sufficiently to the project activities. On the other hand, there are a number of constraints such as insufficient number of C/Ps, unreleased C/P budget (Public Sector Investment Programme (PSIP Part II)) and C/P's direct involvement to other development projects, personnel changes etc. Therefore it was difficult for most of the C/Ps to fully contribute to the project activities and consequently time spent for project activities by C/Ps has been limited. Time spent and efforts to adjust schedule of activities were high and sudden cancellation of activities frequently occurred.

In 2011/2012, there was no budget allocation to the Project from the PSIP. Therefore, Malawi side was not able to bear the full cost of the Project due to financial constraints. In 2012/2013, 50 million Mkw was allocated as annual budget of PSIP (for JICA Supported Programme) but the budget was not disbursed. In 2013/2014, allocation of 55 million Mkw was approved for PSIP (for JICA Supported Programme) but the budget was again not disbursed for the Project. Therefore, in order to ensure continuity of planned activities, JICA have signed a Memorandum of Understanding (MOU) to cover activities that supposed to be covered by the Malawian side C/Ps from March to June 2013 as temporary measures just before the 2013/2014 fiscal year started.

In addition, the budget allocation to the overall O&M activities in Mchinji district was also limited and the budget source was only from the district Official Recurrent Transaction budget.

3. Results of the Evaluation based on the Five Criteria

3-1 Relevance

Relevance of the Project is high due to the following reasons.

(1) Consistency with Policies in Malawi

The Overall Goal and the Project Purpose of the Project are reasonable and aligned to the national development plan, sector plans and other relevant policies in Malawi.

The water development sector has been mentioned as one of the key priority areas in the national medium-term plan of MGDS II 2011-2016, Development Strategy II, National Water Policy of 2005,

Sanitation Policy of 2008, and Decentralization Policy of 1998. The goal is to improve water access through a comprehensive water management system, and it aims to achieve access to water sources within an average 500m from the community.

(2) Needs

The Project Purpose is consistent with the needs of the target group.

In order to improve access to safe water, it is necessary to improve the functionality rate of rural water supply facilities. In Malawi, Development Partners and NGOs are assisting in the water supply sector to improve the situation, but it was not well organized. Therefore, it was necessary that contents of past cooperation had to be scrutinized and integrated, and establish a practical O&M framework.

(3) Consistency with policy of Japan

In "The Republic of Malawi Country Assistance Policy" which was formulated in 2012, improvement of basic social services has become a priority area (Medium Goal). In the goal, it was stated to promote sustainable water use and management and to support water supply facilities. In addition, in the "Work Development Plan for the Republic of Malawi", the Project is placed under the "Program for safe and sustainable water supply".

(4) Utilization of experience of technical cooperation

JICA has conducted lots of technical cooperation projects on the rural water supply O&M in African countries such as Zambia and the experience and the knowledge were utilized for the Project.

3-2 Effectiveness

Effectiveness of the Project is high as following reasons.

(1) Achievement level of Project Purpose

It is expected to achieve the Project Purpose.

Good results have been obtained in the test activities and the possibility to achieve the indicator is high. However the result of one of the indicator on "Ownership consciousness is improved in WPCs to be applied with the strengthened framework" is an interim result and monitoring of WPCs is still ongoing hence the final result will be presented before the project completion.

For Output 1-3, sufficient results have been observed. Concerning Output 4, CBM refresher's trainings were conducted in 50 WPC sites and the manuals developed will also be utilized for the trainings of 330 WPC sites of the Japanese Grant Aid project in Mchinji District. Furthermore, additional O&M activities have been conducted such as awareness raising activities through an educational O&M community radio programme, preparation of five-year plan of O&M for the whole

Mchinji District and monitoring and evaluation activities for water supply facilities targeting all extension workers in Mchinji District is planned.

To achieve Output 5, dissemination of O&M guidelines and manuals is currently being prepared, and at the time of the terminal evaluation, the guidelines and manuals have not yet being officially approved by MoAIWD but it is expected to be officially approved and disseminated before the phase out of the Project.

Therefore, it can be said that all outputs have contributed to the achievement of the Project Purpose.

(2) Important assumptions

Important assumption has not been fulfilled.

In the Project, C/Ps were frequently transferred and hand over of capacity developed through the project has not been adequately transferred.

(3) Contributing factors

There are (were) some positive factors to achieve the Project Purpose.

(3)-1 Contributing factors

- 1) In the Project, the second fiscal year and the third fiscal year were not divided and regarded as the second stage. This arrangement has allowed conducting activities at the end of Japanese fiscal year that would be otherwise being interrupted. As a result, it became easier to continue with project activities such as monitoring the result of the field test activities.
- 2) Information was regularly shared between the Malawi side and the Japanese side through the Project based on the lessons learnt, and it can be said that all project activities has been jointly conducted and have hence created a high sense of ownership towards the Project by the Malawian side.

3-3 Efficiency

Efficiency of the Project is relatively high due to the following reasons.

(1) Fulfillment of Project Activities

Indicators for Output have been already achieved or are expected to be achieved and it is considered that sufficient activities have been carried out as planned and all activities contributed to the achievement of Outputs.

(2) Appropriateness of Inputs

1) Dispatch of Japanese experts

Long-term expert were dispatched for the Project and there were several benefits such as smooth execution of project activities without interruptions during renewal of contract period, continuous dissemination of information to C/Ps as well as relevant stakeholders, building good relationships with C/Ps, etc.

However, C/Ps' low attendance of project activities have hampered short-term experts project activities as activities were delayed or cancelled during their dispatch period.

2) Third country training

Third-country training was carried out in Zambia and participants visited the project site of "The Project for Support in National Roll-out of Sustainable Operation and Maintenance Programme (SOMAP)". Though the training, participants learned the situation of rural water sector in Zambia and it was effective.

3) Assignment of Counterparts

Number and assignment condition of C/P was not appropriate.

The technical capacity of C/Ps of Malawian side was appropriate. However, low motivation due to undisbursed C/P fund was observed at times.

In addition, the number of C/P was also insufficient since there is a high vacancy rate in the sector and C/Ps are conducting multiple activities simultaneously.

4) Local cost supported by Malawian side

Malawian side funding disbursement was not adequate.

According to the R/D, it was agreed that C/Ps activity cost will be allocated through PSIP part II funding but there has been little disbursement of funds for project activities.

3-4 Impacts

Impact of the Project is expected to be moderate for the following reasons.

(1) Probability of Achievement of the Overall Goal

The roadmap to achieve the Overall Goal was prepared and application for PSIP budget has started within MoAIWD. However there are several uncertain factors and it is difficult to foresee expectation of the achievement. It is necessary to make a best effort by Malawian government to achieve the Overall Goal.

(2) Unexpected positive factor

In Mchinji District, an approach was tried to utilize a community radio to enlighten the village people for the O&M of rural water supply facilities. In some villages, listeners of the programme deliver the message of the programme to whole village people and village people have already started to improve the O&M for their water supply facilities such as construction of a fence surrounding their facilities. Through the activities, effectiveness of utilization of community radio was confirmed.

3-5 Sustainability

Sustainability is moderate due to the following reasons.

(1) Political and Institutional Aspect

Sustainability of Political and Institutional aspect is high.

The medium-term plan of MGDS II 2011-2016 is valid until 2016 and the current policy will be continued even after the project completion.

For the nationwide dissemination of the strengthened O&M framework, a roadmap was prepared and regional workshops are being planned. However some factors are still uncertain in the current version such as identification of financial sources. To achieve the Overall Goal, it is necessary to refine the roadmap and continue the effort for the nationwide disseminate.

In Mchinji District, Five Year Plan to enhance O&M if rural water supply was prepared and efforts are ongoing for inclusion in Mchinji district's mid-term plans.

(2) Organizational Aspect

Sustainability of organizational aspect is moderate.

Organizational capacities are insufficient to disseminate activities to other districts in Malawi after completion of the Project.

The department of water supply services of the MoAIWD has responsibility to share the strengthened practical O&M framework and to institutionalize to the whole Malawi. The RWDIO (C) can conduct technical assistance to districts in the region to ensure dissemination of the outputs of the Project. In addition, Mchinji District C/Ps can serve as trainers for rolling-out the Mchinji district experience to other districts, with the support of other donors and NGOs.

However, the department of water supply services currently has only two technical officers allocated for the O&M of water supply facilities and this number is insufficient.

Moreover, there are very few (one or two in average) WMAs in each District and it is impossible to cover whole Districts with this level of staff. This project team used SHSAs, HSAs and Area Mechanics for supplementing the limited number of WMAs but there is a pressing need of increasing the number of WMAs in all districts.

(3) Financial Aspect

Sustainability of financial aspect is moderate.

It is necessary to continue lobbying activities for securing the necessary financial resources.

According to O&M framework dissemination roadmap budget estimation developed by the project team, the estimated cost is 1billion 152 million Mkw. Among this, around 23 million Mkw is

required for organizing three regional workshops to disseminate the O&M framework to all districts in the countries. The regional workshops are to be funded by the PSIP Part II allocated to JICA Supported Program. An additional 23 million Mkw is also required for monitoring each district implementation activities by the water supply services department through the Ministry's recurrent budget. However, according to the interview with the department of water supply services, it is difficult to cover the cost of the last through recurrent budget.

It is also important to secure 1 billion 60million Mkw (96% of the total cost) from Development Partners for organizing water supply TWG meetings and to implement the O&M five-year plan in 28 Districts. The O&M framework developed through the Project will be used by the AfDB project in five districts as well as by UNICEF WASH Programme. However, efforts should continue to find other partners to cover the rest of the Districts. According to the water sector's leading donor, DFID, it is not difficult to share the cost if guidance from the Government of Malawi is clear and there is good coordination among the different stakeholders.

According to "Mchinji District Enhancement of O&M for Rural Water Supply Five Year Plan" which was prepared as a part of capacity development activities (The plan is not officially approved but Mchinji District at the moment and is planned to be included in Mchinji's mid-term plans), in order to carry out the present plan that aims to disseminate O&M framework to an additional 500 Water Points in the District in five years period, around eight million Mkw is required per each year. On the other hand, recurrent budget (ORT funds) allocated to Districts in Malawi is on average 1 million Mkw per year (2-4 million Mkw in 2014 due to degradation of local currency) and therefore, it seems to be difficult to cover the cost of O&M activities with ORT funds. It is therefore important that Districts prepare their own O&M five-year plan and conduct lobbying activities to donors to support the implementation of those activities.

For all water supply facilities in Mchinji District, monitoring and evaluation activities is planned to be conduct through the existing health sector system. If the monitoring system is functional, there is no extra cost. However, there are some health extension workers who do not work unless allowance is provided. Therefore it seems to be difficult to carry out these activities without additional cost.

(4) Technical Aspect

Sustainability of technical aspect is moderate.

Most of the technical capacity will be retained by C/Ps, but cooperation from development partners and NGOs is still necessary.

O&M monitoring should became part of routine work of SHSAs and HSAs officers trained in the Project through activities in Mchinji District, and it is expected that monitoring activities continue even after the Project phase out.

Most of the techniques transferred in the Project are also applicable in other districts.

The outputs of the Project are to enhance the O&M framework of rural water supply for the subsequent nationwide dissemination. What is still remaining is to verify whether the technical contents of the manuals are 100 % applicable to other districts.

There is a mechanism in the Project to disseminate the techniques to other area but improvement is also necessary.

Five guidelines and manuals that have been developed in 2010 by the National Water Development Programme (supported by World Bank) have not been officially approved and distributed yet as budget for printing and binding were not secured. In this Project, the DWSS webpage was set-up to gain access to electronic files of guidelines and manuals that have been developed in the Project.

In addition, the national and regional JSRs which representatives from other districts gather the project team explained the O&M framework to other Development Partners and NGOs through MoAIWD and Mchinji District C/Ps.

4. Conclusion

The existing O&M framework was strengthened practically for the subsequent nationwide dissemination through continued efforts of the project team and at the moment, many stakeholders are aware of the result of the Project and showing high level of interest. Therefore, it can be concluded that the effectiveness of the Project is high.

There are many outputs such as implementation structure for strengthen the existing O&M framework for rural water supply has been established (Output 1), present situation and challenges of O&M for rural water supply have been investigated (Output 2), field tests in Mchinji District were conducted to strengthen the O&M framework (Output 3), the strengthened O&M framework has been applied to the whole Mchinji District (Output 4) and the strengthened framework has been widely understood by relevant to stakeholders (Output 5).

However, there is still room for improving the sustainability of the Project. To disseminate the strengthen O&M framework as Overall Goal, a roadmap has been prepared but at the time of the terminal evaluation, the implementing structure (organizational and/or financial aspects) is still uncertain. Human resources are scarce in the headquarter level and at District level and financial resources are limited as analyzed in the chapter of Sustainability. It is therefore necessary to plan properly to form a firm implementing structure to coordinate and carry out the roadmap for nationwide dissemination of the strengthen O&M framework.

5. Recommendations and Lessons Learnt

5-1 Recommendations

The evaluation team recommends the following points:

(1) Recommendation by the end of the Project

1) Assisting refining and implementation of the roadmap

As recommended by the mid-term review, the roadmap for the nationwide dissemination of the O&M framework has been prepared in order to achieve the Overall Goal. However, in order to ensure implementation of the roadmap, it is necessary to refine the roadmap before the Project completion to achieve the Overall Goal.

2) Officially approving the guidelines and manuals as soon as possible and guide the Development Partners and NGOs for the utilization

Most of development partners interviewed during the terminal evaluation indicated their willingness to use the developed manuals/guidelines. The Government of Malawi should officially approve the guidelines and manuals as soon as possible and guide the Development Partners and NGOs for the utilization

3) Organizing a SWG meeting by the end of the Project

To achieve Output 5, it is necessary to be shared the contents of the O&M framework. In addition, it is also necessary to be officially shared the contents of the roadmap mentioned above in the SWG meeting. Therefore, it is desirable to organize a SWG meeting by the end of the Project.

4) Assessment of the effectiveness of using community radio (continuation of the impact study)

Human and financial resource of the Malawi government are limited and hence institutionalizing the CBM refresher training as well as implementing this training to all WPCs in the country might not be timely conducted. In the meantime, utilizing community radio could be an effective tool for enhancing community ownership and responsibility towards the O&M of water supply facilities. Currently, an interim impact assessment study was conducted in 11 sites and the effectiveness of the O&M radio programme has been verified. It is also necessary to continue monitoring these sites and verify and compare results with those receiving conventional classroom training.

(2) Recommendation after completion of the Project (for MoAIWD)

1) Establishment of coordination mechanism for implementing the roadmap

Currently, a roadmap for nationwide dissemination of O&M framework has been developed. However, it is necessary to request assistance from DPs as more than 90% of financial resources in the current roadmap are required for planning and implementing the O&M Five-Year Plan in all

districts as well as for monitoring and evaluation activities. The current roadmap does not clarify ways of securing necessary budget or which entity could coordinate the support from different Development Partners. It is therefore desirable to establish a coordination mechanism to implement the roadmap.

2) Increasing the number of WMAs at the District level

In Malawi, shortage of personnel is a serious concern at the national and District level, but lack of WMAs at the District level is the most serious concern. Involvement of WMAs is essential to disseminate the O&M framework and as such it is important that the Malawi government increases the number of WMAs at the District level.

5-2 Lessons Learnt

(1) Advantages and disadvantages when conducting similar projects in the same area

In Mchinji District, the O&M Technical Cooperation project and a Grant Aid project “The Project for Selected Market Centres and Rural Water Supply in Mchinji and Kasungu District” have been carried out at the same time in the same district. A synergy effect was expected such as the Grant Aid project covers the hard aspects while the Technical Cooperation project covers soft aspects. In fact, there have been positive effects such as utilization of training manuals developed in the Technical Cooperation Project (the Project) for the software component activities of the Grant Aid project. On the other hand, there were also some negative effects such as competing over C/Ps to attend project activities and generating a sense of unfairness among neighboring communities where communities supported by the Grant Aid had boreholes rehabilitated free of charge whereas communities supported by the Project were requested to bear the full cost of O&M of hand pumps as well as construction of sanitation facilities which has hampered activities of the Project. Thus, when projects are carried out in the same area, at the same time, it is necessary to think about the advantages and disadvantages and plan ahead accordingly to avoid or reduce the challenges.

(2) Setting the relevant indicators

In the PDM of the Project, there are many vague expressions in the narrative summary such as “The strengthened O&M framework is applied to the whole Mchinji District (it is uncertain whether the Project should intervene in all Water Points or to some Water Points for trial)”, and “The existing O&M framework is strengthened practically for subsequence nationwide dissemination (it is uncertain whether the MoAIWD have to disseminate all Water Points in all districts or to some Water Points in all districts)”. It was difficult to understand expected achievement level from the narrative summary and the indicators also do not clearly express the meaning of the narrative summary. Therefore it was necessary to define the narrative summary

exactly and quantitatively and the indicators should be set concretely to evaluate the project properly.

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ANNEX 1: Project Design Matrix

Project Name: The Project for Enhancement of Operation and Maintenance for Rural Water Supply
 Target Area: Mchinji District
 Target Group: Staff of District Council, MoWDI

Project Duration: 4 years from July 2011
 Version 3
 Date: 26 February 2014

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal The strengthened practical O&M framework is applied nationwide.</p>	<p>The strengthened practical O&M framework is applied in CBM trainings by MoWDI and districts.</p>	<p>- Joint Sector Review Report - District's annual report</p>	
<p>Project Purpose The existing O&M framework is strengthened practically for subsequence nationwide dissemination.</p>	<ul style="list-style-type: none"> - The strengthened practical O&M framework is stated in Sector Working Group Reports and/or Joint Sector Review Reports. - The strengthened practical guidelines/manuals/training materials are officially acknowledged by MoWDI. - Ownership consciousness is improved in WPCs to be applied with the strengthened framework. 	<ul style="list-style-type: none"> - Sector Working Group Report - Joint Sector Review Report - Approved documents by MoWDI - Project Report (Result of investigation before and after intervention¹) 	<ul style="list-style-type: none"> - The policies on rural water supply are not significantly changed - The O&M of rural water supply facilities is financed by the government. - Adequate financial resources are allocated to District Council and MoWDI. - NGO activities in rural water supply are reported to and coordinated by MoWDI and District Council. - An action to be taken by MoWDI: to distribute the strengthened practical O&M framework to all the districts in Malawi. - An action to be taken by District Coordination Teams in Malawi: to make the strengthened practical O&M framework known to all implementation partners in each district.

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¹ Items to be measured for ownership consciousness are, 1. Collect rate for water tariff by beneficiaries, 2. Reserve fund/stock of spare parts, 3. Water point sanitation (fence, soak away pit, cleaning around water point), 4. Implementation of regular maintenance by caretakers, 5. Awareness of roles and responsibilities of Area Mechanics

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A1 - 063

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Outputs</p> <p>(1) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.</p> <p>(2) Present situation and challenges of O&M for rural water supply are investigated.</p> <p>(3) The existing O&M framework is strengthened based on the field test in Mchinji District.</p> <p>(4) The strengthened O&M framework is applied to the whole Mchinji District.</p> <p>(5) The strengthened framework is widely understood.</p>	<ul style="list-style-type: none"> - The frequency of the meeting of Project Task Force taken place at least 4 times a year. - The report of the present situation and challenges is made. - The report is shared with the Project Task Force. - The strengthened practical O&M framework based on lessons from the result of the test activities is made. - Number of communities trained following the strengthened practical O&M framework reaches 50 communities. - Number of extension workers to be trained according to the strengthened practical O&M framework increases. - Number of WPC training conducted by each extension worker according to the strengthened practical O&M framework increases - The strengthened practical O&M framework is shared by all of the stakeholders in the Sector Working Group (SWG). - The number of the stakeholders which participate in the SWG above. - The strengthened practical O&M framework is endorsed by SWG - The number of addresses for distribution of the strengthened practical O&M framework. 	<ul style="list-style-type: none"> - Project Report - M/M of Project Task Force - Joint Sector Review Report - Project Report - M/M of Project Task Force - Project Report - The products of the project - Project Report - The reflection sheets of the counterparts - Report of the seminar/ workshop - Minutes of Meeting of SWG - Project report 	<ul style="list-style-type: none"> - Personnel transfers of counterparts are not frequent during the project period.



Activities	Inputs	Preconditions
<p>(1-1) To set up the Project Task Force to discuss the strengthening of existing O&M framework for rural water supply in MoWDI.</p> <p>(1-2) To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.</p> <p>(2-0) To collect basic information on Hygiene and Sanitation.</p> <p>(2-1) To collect existing policies, guidelines, implementing manuals, training manuals, etc.</p> <p>(2-2) To collect good practices and lessons learned from past projects.</p> <p>(2-3) To conduct a baseline survey.</p> <p>(2-4) To survey actual conditions of O&M for rural water supply in Mchinji District.</p> <p>(2-5) To conduct capacity assessment.</p> <p>(2-5-1) To hold the workshop-style training.</p> <p>(2-5-2) To set up the performance indicators.</p> <p>(2-6) To analyze good practices and challenges.</p> <p>(2-7) To identify challenges in order to make the framework more practical.</p> <p>(2-8) To share findings at the project task force and compile the report based on the dialogue.</p> <p>(3-1) To select recurrent O&M test activities and target communities following the framework.</p> <p>(3-2) To make an implementation plan of test activities.</p> <p>(3-3) To implement selected test activities at the selected communities in target communities.</p> <p>(3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly</p> <p>(3-3-2) Facility design for better O&M and promotion of water point sanitation</p> <p>(3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics</p> <p>(3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain</p> <p>(3-3-5) Standardization and dissemination of monitoring system for the water supply facilities</p>	<p>Inputs</p> <p>Japanese side:</p> <ol style="list-style-type: none"> 1. Japanese Experts <ol style="list-style-type: none"> (1) Chief Advisor (2) Rural Water Supply (3) Training (4) O&M of Rural Water Supply Facilities I and II (5) Project Coordination/ Hygiene & Sanitation 2. Machinery and Equipment <ol style="list-style-type: none"> (1) Office equipment (Photocopier, Scanner, Facsimile, Computer, Printer and Projector) (2) Vehicle (4WD Station Wagon) (3) GPS (4) Motorbike <p>Malawian side:</p> <ol style="list-style-type: none"> 1. Counterpart (C/P) Personnel determined according to the C/P list submitted by MoWDI 2. Facilities <ol style="list-style-type: none"> (1) Office spaces in Mchinji District and facilities such as furniture and telephone lines necessary for the Japanese experts (2) Meeting rooms or lecture rooms for the training (3) Other facilities mutually agreed upon as necessary 3. Local cost <ol style="list-style-type: none"> (1) Allowances and transportations for the Malawian counterpart personnel and any participants for the training provided and business trips in the Project (2) Utility cost for the project offices (3) Operational expenses for customs clearance, storage and domestic transportation for the equipment provided by the Japanese side (4) Expenses for maintenance of equipment (5) Recurrent cost for O&M in Mchinji District 	<p>Preconditions</p> <p>- The budget for the project to be borne by Malawian side is available.</p>

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(3-3-6) Improvement of the rules on the manuals (use/storage and hierarchical management)

(3-3-7) Activities for development of a text of maintenance and rehabilitation for deep well

(3-3-8) Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council

(3-3-9) Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment Plan

(3-3-10) Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan

(3-4) To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities.

(4-1) To make an implementation plan for larger-scale application of the strengthened O&M framework.

(4-2) To implement recurrent O&M activities following the strengthened O&M framework on a larger scale.

(5-1) To make the strengthened O&M framework acknowledged officially by MoWDI.

(5-2) To disseminate the strengthened O&M framework by seminar/workshop.

*The O&M framework means the guidelines and implementation manuals of rural water supply.

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Annex 2: Plan of Operation

Project Name: The Project for Enhancement of Operation and Maintenance for Rural Water Supply
 Project Duration: July 2011 ~ June 2015

Version 2
 Date: 3 August 2012

	2011		2012				2013				2014				2015	
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
(1) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.																
(1-1) To set up the Project Task Force to discuss the strengthening of existing O&M framework for rural water supply in MoWDI.	■															
(1-2) To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.			■	■	■	■	■	■	■	■	■	■	■	■	■	■
(2) Present situation and challenges of O&M for rural water supply are investigated.																
(2-0) To collect basic information on Hygiene and Sanitation.		■	■													
(2-1) To collect existing policies, guidelines, implementing manuals, training manuals, etc.	■	■	■													
(2-2) To collect good practices and lessons learned from past projects.	■	■	■													
(2-3) To conduct a baseline survey.	■	■	■													
(2-4) To survey actual conditions of O&M for rural water supply in Mchinji District.	■	■	■													
(2-5) To conduct capacity assessment.	■	■	■													
(2-5-1) To hold the workshop-style training.	■	■	■													
(2-5-2) To set up the performance indicators.	■	■	■													
(2-6) To analyze good practices and challenges.		■	■													
(2-7) To identify challenges in order to make the framework more practical.		■	■													
(2-8) To share findings at the Project Task Force and compile the report based on the dialogue.		■	■													
(3) The existing O&M framework is strengthened based on the field test in Mchinji District.																
(3-1) To select recurrent O&M test activities following the framework.			■													
(3-2) To make an implementation plan of test activities.			■	■												
(3-3) To implement selected test activities at the selected communities in target communities.			■	■	■	■	■	■	■	■	■	■	■	■	■	■
(3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly			■	■	■	■	■	■	■	■	■	■	■	■	■	■
(3-3-2) Facility design for better O&M and promotion of water point sanitation			■	■	■	■	■	■	■	■	■	■	■	■	■	■
(3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics			■	■	■	■	■	■	■	■	■	■	■	■	■	■
(3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain			■	■	■	■	■	■	■	■	■	■	■	■	■	■

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	2011		2012				2013				2014				2015	
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
(3-3-5) Standardization and dissemination of monitoring system for the water supply facilities																
(3-3-6) Improvement of the rules on the manuals (use/storage and hierarchical management)																
(3-3-7) Activities for development of a text of maintenance and rehabilitation for deep well																
(3-3-8) Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council																
(3-3-9) Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment																
(3-3-10) Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan																
(3-4) To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities.																
(4) The strengthened O&M framework is applied to the whole Mchinji District.																
(4-1) To make an implementation plan for larger-scale application of the strengthened O&M framework.																
(4-2) To implement recurrent O&M activities following the strengthened O&M framework on a larger scale.																
(5) The strengthened framework is widely understood.																
(5-1) To make the strengthened O&M framework acknowledged officially by MoWDI.																
(5-2) To disseminate the strengthened O&M framework by seminar/workshop.																

* Malawi fiscal year starts in July and Japanese fiscal year starts in April.
 ** MoWDI and DWDO prepare budget arrangement in January and February.
 *** Rainy season is from December to April.

Legend:
 [Dotted pattern] Plan
 [Solid grey pattern] Actual

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Annex 3: Evaluation Grid for Terminal evaluation

Project for Enhancement of Operation and Maintenance for Rural Water Supply in the Republic of Malawi

Verification of Achievement Level

Items of Evaluation		Evaluation Question	Necessary Data	Source	Acquisition Means
Input provided	Japanese side 1. Dispatch of Japanese Experts 2. Equipment 3. Training in the third country 4. Financial support for local cost	Are the quantity, quality and timing of input as planned?	Quantity, quality and timing of input	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
	Malawian side 1. Counterpart (C/P) 2. Facilities and utilities provided 3. Financial support				
Achievement level of Outputs	Output 1: Implementation structure for strengthening the existing O&M framework for rural water supply is set up.	Is VI ¹ 1-1 "The frequency of the meeting of Project Task Force taken place at least 4 times a year." likely to be achieved?	The frequency of the meeting of Project Task Force	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
	Output 2: Present situation and challenges of O&M for rural water supply are investigated.	Is VI 2-1 "The report of the present situation and challenges is made." likely to be achieved?	Current status of preparation on the report of the present situation and challenges	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Is VI 2-2 "The report is shared with the Project Task Force." likely to be achieved?	Whether the report of the present situation and challenges has been shared with the Project Task Force or not.	- Result of questionnaire survey and interviews with the project manager of Malawian side	
Output 3 : The existing O&M framework is strengthened based on	Is VI 3-1 "The strengthened practical O&M framework based on lessons from the result of the test activities is made." likely to be achieved?	Whether the strengthened practical O&M framework based on lessons from the result of the test activities has been made or not.	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey	

¹ VI: Verifiable Indicator

ANNEX3-1

	the field test in Mchinji District.			- Result of questionnaire survey and interviews with the project manager of Malawian side	
Output 4: The strengthened O&M framework is applied to the whole Mchinji District.	Is VI 4-1 "Number of communities trained following the strengthened practical O&M framework reaches 50 communities." likely to be achieved?	Number of communities trained following the strengthened practical O&M framework	- Project reports - Result of questionnaire survey and interviews with Japanese experts - Result of questionnaire survey and interviews with the project manager of Malawian side	- Document survey - Interview - Questionnaire survey	
	Is VI 4-2 "Number of extension workers to be trained according to the strengthened practical O&M framework increases." likely to be achieved?	Number of extension workers to be trained according to the strengthened practical O&M framework			
	Is VI 4-3 "Number of WPC training conducted by each extension worker according to the strengthened practical O&M framework increases." likely to be achieved?	Number of WPC training conducted by each extension worker according to the strengthened practical O&M framework			
Output 5: The strengthened framework is widely understood.	Is VI 5-1 "The strengthened practical O&M framework is shared by all of the stakeholders in the Sector Working Group (SWG)." likely to be achieved?	Whether the strengthened practical O&M framework has been shared by all of the stakeholders in the SWG or not.	- Project reports - Result of questionnaire survey and interviews with Japanese experts - Interview with stakeholders of Technical Working Groups (TWG)	- Document survey - Interview - Questionnaire survey	
	Is VI 5-2 "The number of the stakeholders which participate in the SWG above." likely to be achieved?	The number of the stakeholders which participate in the SWG			
	Is VI 5-3 "The strengthened practical O&M framework is endorsed by SWG." likely to be achieved?	Whether the strengthened practical O&M framework has been endorsed by SWG			
	Is VI 5-4 "The number of addresses for distribution of the strengthened practical O&M framework." likely to be achieved?	The number of addresses for distribution of the strengthened practical O&M framework			
Achievement level of Project Purpose	The existing O&M framework is strengthened practically for subsequence nationwide dissemination.	Is VI 1 "The strengthened practical O&M framework is stated in Sector Working Group Reports and/or Joint Sector Review Reports" likely to be achieved?	Whether the strengthened practical O&M framework has been stated in Sector Working Group Reports and/or Joint Sector Review Reports or not.	- Project reports - Result of questionnaire survey and interviews with Japanese experts and the project manager of Malawian side	- Document survey - Interview - Questionnaire survey
		Is VI 2 "The strengthened practical guidelines/manuals/training materials are officially acknowledged by Ministry of	Whether the strengthened practical guidelines/manuals/training materials have been officially		

ANNEX3-2

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		Agriculture, Irrigation and Water Development (MoAIWD)" likely to be achieved?	acknowledged by MoAIWD or not.		
		Is VI 3 "Ownership consciousness is improved in WPCs to be applied with the strengthened framework" likely to be achieved?	Whether Ownership consciousness is improved in WPCs to be applied with the strengthened framework		
Achievement level of Overall Goal	The strengthened practical O&M framework is applied nationwide.	Is VI 1 "The strengthened practical O&M framework is applied in CBM trainings by MoAIWD and districts." likely to be achieved?	Whether the strengthened practical O&M framework has been applied in CBM trainings by MoAIWD and districts.	- Project reports - Result of questionnaire survey and interviews with Japanese experts and the project manager of Malawian side	- Document survey - Interview - Questionnaire survey
Precondition		The budget for the project to be borne by Malawian side is available	Whether the budget for the project to be borne by Malawian side properly or not	- Project reports - Result of questionnaire survey and interviews with Japanese experts and the project manager of Malawian side	- Document survey - Interview - Questionnaire survey

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Verification of Implementation Process

Items of Evaluation	Evaluation Question	Necessary Data	Source	Acquisition Means
Method of technical transfer	Has the technical transfer properly been made to C/P?	Result of activities Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Malawian side and C/Ps of Mchinji District, MoAIWD and RWDO ('C)	- Document survey - Interview - Questionnaire survey
Relation between stakeholders	Have regular meetings between the Malawian C/Ps and Japanese Experts sufficiently contributed to solving problems that occurred in the implementation process? Have the Malawian C/Ps and Japanese Experts adequately communicated with each other to share information regarding the project management and activities?	Opinion from stakeholders	- Result of questionnaire survey and interviews with Japanese experts, the project manager of Malawian side and C/Ps of Mchinji District, MoAIWD and RWDO ('C)	- Document survey - Interview - Questionnaire survey

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	Are proper system of command chain and clear demarcated structure established for the project management?			
Ownership of the Project	Have the Malawian staffs (C/Ps) adequately participated in project management and activities?	Result of activities Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Malawian side and C/Ps of Mchinji District, MoAIWD and RWDO ('C)	- Document survey - Interview - Questionnaire survey
	Has the Malawian implementing organization (Mchinji district, MoAIWD and RWDO ('C)) allocated and spent sufficient budget for the Project activities?	Financial condition Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Malawian side and C/Ps of Mchinji District, MoAIWD and RWDO ('C)	- Document survey - Interview - Questionnaire survey
	Does the Malawian Government (Mchinji District, MoAIWD, Regional Water Development Office (Center) (RWDO('C)) understand the contents of the Project well?	Level of understanding on the contents of the Project by stakeholders of the Project	- Result of questionnaire survey and interviews with stakeholders of Mchinji District, MoAIWD and RWDO('C)	- Interview
Collaboration with Other Projects	Has the Project adequately collaborated with other projects implemented either by JICA or other donors?	Contents of collaboration with other donors Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts and the project manager of Malawian side - Result of questionnaire survey and interviews with C/Ps of Mchinji District, MoAIWD and RWDO('C) - Result of interviews with donors such as UNICEF, InterAide etc.	- Document survey - Interview - Questionnaire survey
Factors affecting the Implementation Process	Have restructuring of implementing organizations or reshuffling of the Project Manager and C/Ps affected the implementation of the Project?	Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Malawian side and C/Ps of Mchinji District, MoAIWD and RWDO('C)	- Document survey - Interview - Questionnaire survey
	Are there unpredictable factors which have adversely affected the Project implementation process?			

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Evaluation based on Five Evaluation Criteria

Items of Evaluation		Evaluation Question	Necessary Data	Source	Acquisition Means
Relevance	Necessity	Is the Project Purpose and the needs of Malawian side (target group) corresponded?	Development plan Related documents Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts and the project manager of Malawian side - Result of questionnaire survey and interviews with C/Ps of MoAIWD and RWDO('C)	- Document survey - Interview - Questionnaire survey
		Is the Project Purpose corresponded with the needs of target area and social situation?	Sector development plan Opinion from stakeholders		
	Priority	Are the Overall Goal and the Project Purpose consistent with the National Development Plan, Sector development plan, other relevant policies?	Documents concerning the policy of the sector Opinion from stakeholders		
		Is the project objective consistent with Japan's aid policy and country cooperation plan of JICA?	Aid policy of Japan		
	Suitability as a Means	Is the Project's approach was appropriate.	Result of project activities Result of project implemented by other donors Opinion from stakeholders	- Result of questionnaire survey and interviews with Japanese experts	- Interview - Questionnaire survey
		What kind of synergy has been with other donors?			
		Is the selection of target groups appropriate?	Opinion from stakeholders		
		Does the effect of the project spread other than target groups now or is there possibility to spread in the future?	Result of project activities		
		Is the benefit of the effect or the burden of the cost distributed fairly?	Result of project activities Opinion from stakeholders		
		Is the experience of technical cooperation projects of JICA utilized?	Experience of similar project (The project in Zambia) Opinion from stakeholders		
Is the experience of Japan utilized?		Advantage of Japan's experience Opinion from stakeholders			
Others	Is there any change on the environment (policy, economy and society) surrounding the project ?	Opinion from stakeholders			
Effectiveness	Achievement level of Project Purpose(Forecast	Is the Project Purpose likely to be achieved?	Project reports Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire	- Document survey - Interview - Questionnaire survey
		Is the setting up of indicators of Project Purpose appropriate?			

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	Causal Relations	Are outputs of the project contributed to achieve the project objective? (Achievement of project outputs has been caused by the Outputs.)	Project reports Opinion from stakeholders	survey and interviews with Japanese experts	
		Is there other necessary matter to achieve the objective of the project?	Project reports Opinion from stakeholders		
		【Important assumption】Personnel transfers of counterparts are no frequent during the project period.			
		Is there other important assumption?			
		What are the inhibiting or contributing factors to achieve the Project Purpose?			
Efficiency	Achievement of output	Is the Output likely to be achieved as planned by adequate activities? If not, what is the inhibiting factor?	Achievement level and time of the Output Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		It the indicators for each Output level appropriate?	Achievement level Causal relation with Project Purpose		
	Appropriateness of Inputs	Was the dispatch of Japanese experts appropriate in terms of number, expertise, length and timing of their assignment?	Result of dispatch of Japanese experts Opinion from stakeholders	- Project reports - Result of questionnaire survey and interviews with Japanese experts, the project manager of Malawian side and C/Ps of Mchinji District, MoAIWD and RWDO('C)	- Document survey - Interview - Questionnaire survey
		Was the provision of equipment from Japanese side appropriate in terms of types, quantity and timing of procurement?	List of procured equipment Opinion from stakeholders		
		Has the training of C/Ps in third country appropriately undertaken in terms of number of trainees, contents (relevancy to the project activities), length and timing of dispatch?	Result of Trainings Opinion from stakeholders		
		Has the local cost support by the Japanese side been appropriate in terms of amount, use, and timing of disbursement?	Situation of C/P assignment Opinion from stakeholders		
		Has the assignment of C/P been appropriate in terms of number, position and competency?	Result of local cost Opinion from stakeholders		
		Has the local cost supported by the Malawian implementing organization been appropriate in terms of amount, use, and	Result of local cost Opinion from stakeholders		

ANNEX3-6

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		timing of disbursement?				
Cost	Comparing to the similar projects (cooperation conducted by the JICA project and other donors), the Output and the Project Purpose are commensurate with the input costs?		Project budget Budget of similar project Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey	
		Were the local resources utilized effectively?	Were the existing organizations or facilities utilized effectively? Were the results of previous similar projects utilized effectively?	Project reports Opinion from stakeholders	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts	- Document survey - Interview - Questionnaire survey
		Factors which affect the effectiveness of implementing process of the Project	Were there any causes which obstruct the effectiveness of the project			
Impact	The Prospect of the Overall Goal Achievement	Is the Overall Goal expected to be achieved? Is the achievement of the Overall Goal expected to influence the development policy of the sector?	Opinion from stakeholders of stakeholders of the Project	- Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts and the project manager of Malawian side	- Document survey - Interview - Questionnaire survey	
		<p>【Important assumption】The policies on rural water supply are not significantly changed.</p> <p>【Important assumption】The O&M of rural water supply facilities is financed by the government.</p> <p>【Important assumption】Adequate financial resources are allocated to District Council and MoAIWD.</p> <p>【Important assumption】NGO activities in rural water supply are reported to and coordinated by MoAIWD and District Council.</p>	Opinion from stakeholders of the Project	- Result of questionnaire survey and interviews with C/Ps of MoAIWD and RWDO('C)		

	<p>[Important assumption]An action to be taken by MoAIWD: to distribute the strengthened practical O&M framework to all districts in Malawi</p> <p>[Important assumption]An action to be taken by District Coordination Teams in Malawi: to make the strengthened practical O&M framework known to all implementation partners in each district</p>				
	Is there other factor to inhibit the achievement of the Overall Goal?	Existence of inhibiting factors			
Causal relationship	Isn't there significant gap between the Overall Goal and the Project purpose? Does the achievement of the Project purpose contribute the achievement of the Overall Goal?				
Ripple effect	Is there other positive or negative effect except the Overall Goal?	Opinion from stakeholders			
Sustainability (prospect)	<p>Will current policy of Malawian government continue after termination of the cooperation?</p> <p>Do the activities of pilot sites include a system to disseminate after the completion of the Project?</p>	<p>Policy, Strategy, law and Ministerial order</p> <p>Plan of Malawi government</p>	<ul style="list-style-type: none"> - Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts, the project manager of Malawian side - Result of questionnaire survey and interviews with C/Ps of MoAIWD and RWDO('C) 	<ul style="list-style-type: none"> - Document survey - Interview - Questionnaire survey 	
	Organizational Aspect	Are there organizational capacities likely to disseminate the output and the activities to other area (appropriate number of staff assignment and capacities of staff) after the technical cooperation terminates?	Organizational structure Opinion from stakeholders of stakeholders of the Project	<ul style="list-style-type: none"> - Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts and the project manager of Malawian side - Result of questionnaire survey and interviews with C/Ps of Mchinji district, 	
	Financial Aspect	Is necessary financial source likely to be secured to continue project activities?	Financial condition Opinion from stakeholders of stakeholders of the Project		

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			MoAIWD and RWDO('C)
Technical Aspect	Will transferred technics be sustained by C/Ps?	Opinion from stakeholders of the Project	<ul style="list-style-type: none"> - Project reports - Related documents - Result of questionnaire survey and interviews with Japanese experts and the project manager of Malawian side
	Is the transferred technique suitable to disseminate to other areas?	Opinion from stakeholders of the Project	
	Is the mechanism to disseminate the transferred technique to other area included in the Project?	Opinion from stakeholders of the Project	
Social, Cultural and Environmental Aspect	Is there any factor to inhibit the sustainability on Social, Cultural and Environmental aspects?	Opinion from stakeholders of the Project	<ul style="list-style-type: none"> - Result of questionnaire survey and interviews with C/Ps of Mchinji District, MoAIWD and RWDO('C)

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Annex 4: Summary of Inputs to the Project**1. Japan Side**

(1) List and Assignment Terms of Japanese Experts

1) First year (July 2011-March 2012)

	Name	Field in Charge	Duration		M/M
			From	To	
1	Mr. Yuji UNE	Chief Advisor	24 th Jul 2011	22 nd Sep 2011	2.03
			24 th Nov 2011	23 rd Dec 2011	1.09
			19 th Jan 2012	19 th Mar 2012	2.03
2	Mr. Takeshi YOSHIKAWA	O&M of Rural Water Supply Facilities	24 th Jul 2011	26 th Sep 2011	2.17
			6 th Nov 2011	30 th Nov 2011	0.83
			8 th Jan 2012	9 th Mar 2012	2.07
3	Mr. Shinji YAMASHITA	Rural Water Supply Training II	24 th Jul 2011	9 th Aug 2011	0.57
			20 th Nov 2011	26 th Dec 2011	1.23
			13 th Jan 2012	18 th Mar 2012	2.20
4	Mr. Takahiro KATO	Training I	24 th Jul 2011	31 st Aug 2011	1.30
			18 th Oct 2011	7 th Dec 2011	1.70
5	Mr. Takayuki Ohno	O&M Rural Water Supply Facilities (Boreholes)	21 st Jan 2012	6 th Feb 2012	0.57
6	Ms. Maki YOSHIDA	Project Coordination/Hygiene & Sanitation	24 th Jul 2011	31 st Mar 2012	8.37
Total M/M					26.16

2) Second year (April 2012-March 2013)

	Name	Field in Charge	Duration		M/M
			From	To	
1	Mr. Yuji UNE	Chief Advisor	20 th May 2012	11 th Jun 2012	0.77
			18 th Jul 2012	17 th Aug 2012	1.03
			24 th Oct 2012	24 th Nov 2012	1.07
			4 th Feb 2013	13 th Mar 2013	1.30
2	Mr. Takeshi YOSHIKAWA	Rural Water Supply	18 th Jul 2012	15 th Sep 2012	2.00
			15 th Oct 2012	13 th Dec 2012	2.00
			21 st Jan 2013	16 th Mar 2013	1.83
3	Mr. Shinji YAMASHITA	O&M of Rural Water Supply Facilities II	29 th Aug 2012	11 th Oct 2012	1.47
			21 st Nov 2012	20 th Dec 2012	1.00
			27 th Feb 2013	31 th Mar 2013	1.10
4	Ms Akiko KITAZUME	O&M of Rural Water Supply Facilities II	18 th Jul 2012	30 th Sep 2012	2.50
			16 th Feb 2013	17 th Mar 2013	1.00
5	Mr. Jun SUGAI	Training	18 th Jul 2012	23 rd Oct 2012	3.27
			19 th Jan 2013	13 th Mar 2012	1.80
6	Ms. Maki YOSHIDA	Project	1 st Apr 2012	31 st Mar 2013	12.17

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		Coordination/Hygiene & Sanitation			
Total M/M					34.31

3) Third year (April 2013-March 2014)

	Name	Field in Charge	Duration		M/M
			From	To	
1	Mr. Yuji UNE	Chief Advisor	13 th May 2013	5 th Jun 2013	0.80
			25 th Aug 2013	24 th Sep 2013	1.03
			17 th Nov 2013	16 th Dec 2013	1.00
			8 th Feb 2014	6 th Mar 2014	0.90
2	Mr. Takeshi YOSHIKAWA	Rural Water Supply	5 th May 2013	19 th Jul 2013	2.53
			19 th Aug 2013	2 nd Oct 2013	1.50
			7 th Nov 2013	6 th Dec 2013	1.00
			15 th Jan 2014	8 th Mar 2014	1.77
3	Mr. Shinji YAMASHITA	O&M of Rural Water Supply Facilities II	1 st Apr 2013	11 th May 2013	1.37
			3 rd Jul 2013	31 st Aug 2013	2.00
			26 th Sep 2013	27 th Oct 2013	1.07
4	Ms Akiko KITAZUME	O&M of Rural Water Supply Facilities II	10 th May 2013	8 th Jun 2013	1.00
			24 th Jul 2013	5 th Sep 2013	1.47
			23 th Nov 2013	21 st Dec 2013	0.97
			19 th Jan 2014	1 st Feb 2014	0.47
			17 th Feb 2014	8 th Mar 2014	0.67
5	Mr. Jun SUGAI	Training	22 nd Jun 2013	31 st Aug 2013	2.37
6	Ms. Maki YOSHIDA	Project Coordination/Hygiene & Sanitation	1 st Apr 2013	23 rd Jul 2013	3.80
7	Ms. Noriko YAMADA	Project Coordination/Hygiene & Sanitation	6 th Jul 2013	31 st Mar 2014	9.97
Total M/M					35.69

4) Fourth year (April 2014-September 2014 [as of 1st October 2014])

	Name	Field in Charge	Duration		M/M
			From	To	
1	Mr. Takeshi YOSHIKAWA	Project Leader / Rural Water Supply	16 th Jun 2014	16 th Aug 2014	2.07
			1 st Sep 2014	30 th Sep 2014	1.00
2	Ms Akiko KITAZUME	O&M of Rural Water Supply Facilities I	13 th Aug 2014	13 th Aug 2014	1.07
3	Mr. Jun SUGAI	Training	17 th Jul 2014	30 th Aug 2014	1.50
4	Ms. Noriko YAMADA	Project Coordination/Hygiene & Sanitation	1 st Apr 2014	30 th Sep 2014 (until the end of the project)	6.10
Total M/M					11.74

ANNEX4-2

(2) List of Equipment Provided for the Project

Year	Item	Qty.	Value ^{*1} (1,000 JPY)	Location ^{*2}
2011	Copy Machine (copy, scan, print function)	1	608	Ministry of Agriculture, Irrigation and Water Development
	Voltage Stabilizer	1		Ministry of Agriculture, Irrigation and Water Development
	Personal Computer	1	87	Ministry of Agriculture, Irrigation and Water Development
	Software (Windows, Microsoft Office Professional)	1	52	Ministry of Agriculture, Irrigation and Water Development
	Wireless ADSL router	1		Ministry of Agriculture, Irrigation and Water Development
	Projector	1	109	Ministry of Agriculture, Irrigation and Water Development
	GPS receiver	3	128	Mchinji District Water Development Office
	4WD Station Wagon	1	4,596	Ministry of Agriculture, Irrigation and Water Development
	Motorbike	2	856	Mchinji District Water Development Office
	Wireless ADSL router	1	17	Ministry of Agriculture, Irrigation and Water Development
	Xerox 3435 printer	1	52	Mchinji District Water Development Office
2012	Personal Computer	2	300	Ministry of Agriculture, Irrigation and Water Development
	Software (Windows, Microsoft Office, Adobe Acrobat Professional)	2		Ministry of Agriculture, Irrigation and Water Development
	Software (Adobe Acrobat x Pro for Windows)	1	55	Ministry of Agriculture, Irrigation and Water Development
	UPS(3KVA)	1	124	Ministry of Agriculture, Irrigation and Water Development
	Diesel Generator	1	116	Mchinji District Water Development Office
	ASTRA 17500 Generator	1	22	Mchinji District Water Development Office
2013	Desktop computer	1	110	Ministry of Agriculture, Irrigation and Water Development

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Software (Windows 7 Pro, Office 2013, Antivirus)	1	88	Ministry of Agriculture, Irrigation and Water Development
APC UPS	1	17	Ministry of Agriculture, Irrigation and Water Development
Total		7,337	

*1 Exchange Rate: the JICA official rate of the day when the equipment is purchased is applied

*2 Current installation place

(3) List of SOMAP study Tour Participants (24th February 2012 – 1st February 2012)

	Name	Position	Organization
1	Mr. B. N. C Gondwe	Director of Water Supply Service	MoAIWD
2	Ms. E. Mbalame	Deputy Director of Water Supply Service	MoAIWD
3	Mr. J. Kumwenda	Chief Civil Engineer	MoAIWD
4	Mr. T. Sitolo	Principal Community Water Supply and Sanitation Officer	MoAIWD
5	Mr. G. Matiki	Principal Groundwater Development Officer	MoAIWD
6	Mr. W. Chikuni	Director of Planning and Development	Mchinji District Council
7	Mr. H. Munthali	Acting District Water Development Officer	Mchinji District Council
8	Mr. T. Mchipha	District Environmental Health Officer	Mchinji District Council
9	Mr. C. Matatiyo	District Community Development Officer	Mchinji District Council
10	Mr. Y. Une	Chief Advisor	O&M Project/JICA
11	Ms. M. Yoshida	Hygiene and Sanitation/Project Coordination	O&M Project/JICA

(4) Financial Support for Local Expense (as of 1st October 2014)

Expenditure Item	Expense by Fiscal Year (1,000JPY)			
	2011	2012	2013	2014
Activities Cost (Directly from JICA)	6,993	4,219	6,528	7,755
Activities Cost (Through Consultant)	4,936	3,763	15,705	4,643
Sub-Total	11,929	7,982	22,233	12,398
Total	54,542			

3.1.2 Malawi Side

(1) Assignment of Counterpart Officers (as of 31st October 2014)

	Name	Position & Affiliation	Duration	
			From	To
1	S. C. Y. Maweru, Mr.	Principal Secretary, MoAIWD	Jul 2011	Present
2	Eng Bonface N.C. Gongwe, Mr.	Director, Department of Water Supply Service, MoAIWD	Jul 2011	Nov 2012
3	Steve Mwanza, Mr.	Director, Department of Water Supply Service, MoAIWD	Jul 2013	Present
4	Emma Mbalame, Ms.	Deputy Director of Water Supply Service, Department of Water Supply Service, MoAIWD	Jul 2011	Present

Name		Position & Affiliation	Duration	
			From	To
5	T. Sitolo, Mr.	Principal Community Water Supply and Sanitation Officer, Department of Water Supply Service, MoAIWD	Jul 2011	Present
6	M. Chintengo, Mr.	Senior Hydrogeologist, Department of Water Resources, MoAIWD	Jul 2011	Oct 2011
7	D. Kambuku, Mr.	Senior Groundwater Development Officer, Department of Water Resources, MoAIWD	Nov 2011	Mar 2012
8	G.D.C. Matiki, Mr.	Principal Groundwater Development Officer, Department of Water Resources, MoAIWD	Jul 2012	Present
9	Ronald Chiwaula, Mr.	Senior Drilling Officer, Department of Water Resources, MoAIWD	Jul 2012	Present
10	Brigton Austin Chunga, Mr	Water Resource Engineer, Water Resource Board, Department of Water Resources, MoWDI	Aug 2012	Present
11	Gomezugani Ngwira, Mr.	Economist, Department of Administration and Support (Planning monitoring and evaluation division), MoAIWD	Jul 2012	Nov 2012
12	Synoden Kautsi, Mr.	Civil Engineer, Department of Sanitation, MoAIWD	Aug 2012	Present
13	M. Banda, Ms	Assistant Draftsman / Document management Officer, Department of Water Supply Service, MoAIWD	Jul 2013	Present
14	Peter Zondiwe Chipet, Mr.	Central Region Water Development and Irrigation Officer, Regional Water Development and Irrigation Office (Center), RWDIO (C)	Jan 2014	Present
15	A.A. Joloza, Mr.	Acting Central Region Water Development Officer, Regional Water Development Office (Center), RWDO (C)	Aug 2012	Jan 2014
		Hydrological Research Officer Regional Water Development and Irrigation Office (Center), RWDIO (C)	Jan 2014	Present
16	S. Mashunga, Mr.	Senior Community Water Supply and Sanitation Officer, Regional Water Development and Irrigation Office (Center), RWDIO (C)	Jul 2011	Dec 2011
			Oct 2013	Present
17	M. Chilimadizi, Mr.	Senior Community Water Supply and Sanitation Officer, Regional Water Development Office (Center), RWDO (C)	Jan 2012	May 2013
		District Water Development Officer, District Water Development Office, Mchinji District Council	Jun 2013	Present
18	A. Phili, Mr.	District Commissioner, Mchinji District Council	Jul 2011	Oct 2011
19	Gaston T. Macheke, Mr.	District Commissioner, Mchinji District Council	Nov 2011	Mar 2013
20	James Kanyangalazi, Mr.	District Commissioner, Mchinji District Council	Apr 2013	Oct 2013
21	Yamikani Chitete, Ms	District Commissioner, Mchinji District Council	Nov 2013	Present
22	Walter Chikuni, Mr.	Director of Planning and Development, Department of Planning and Development, Mchinji District Council	Nov 2011	Present

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	Name	Position & Affiliation	Duration	
			From	To
23	H. Namwiri, Mr.	District Water Development Officer, District Water Development Office, Mchinji District Council	Jul 2011	Dec 2011
24	S. Banda, Mr.	District Water Development Officer, District Water Development Office, Mchinji District Council	Jan 2012	Apr 2013
25	Charles B. Matatiyo, Mr.	District Community Development Officer, District Community Development Office, Mchinji District Council	Jul 2012	Mar 2013
26	Joyce Mtsuso, Ms.	District Community Development Officer, District Community Development Office, Mchinji District Council	Apr 2013	Present
27	Emmanuel Sohaya, Mr.	Acting Director of Planning and Development, Department of Planning and Development, Mchinji District Council	Jul 2011	Oct 2011
		District Monitoring & Evaluation Officer, District Monitoring & Evaluation Office, Mchinji District Council	Jul 2012	May 2014
28	P.K. Chambewu	District Monitoring & Evaluation Officer, District Monitoring & Evaluation Office, Mchinji District Council	Jun 2014	Present
29	Thomas Mchipha, Mr.	Deputy District Environmental Health Officer, District Environmental Health Office, Mchinji District Council	Jul 2012	Present
30	E. Nyale, Ms.	District Information Officer, District Information Office, Mchinji District Council	Dec 2012	Present
31	Dimiano Semu, Mr.	District Health Promotion Officer, District Health Promotion Office, Mchinji District Council	Dec 2012	Present
32	C. Chimsale, Ms.	Deputy District Education Officer, Deputy District Education Office, Mchinji District Council	Dec 2012	Mar 2014
33	H. H. Munthali, Mr.	Senior Water Monitoring Assistant, District Water Development Office, Mchinji District Council	Jul 2011	Feb 2014
34	M. Kachala, Mr.	Water Monitoring Assistant, District Water Development Office, Mchinji District Council	Jul 2011	Present
35	M. Membe, Mr.	Water Monitoring Assistant, District Water Development Office, Mchinji District Council	Jul 2011	Present

Annex 5: List of Seminars and trainings

1. Open seminars and workshops

(1) JFY2011

Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
1st Joint Coordinating Committee (JCC) Meeting	1st August 2011	N/A	21	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDO (c) ➤ Mchinji DC ➤ JICA ➤ Embassy of Japan
1st Technical Committee (TC) Meeting	2nd August 2011	N/A	15	<ul style="list-style-type: none"> ➤ MoAIWD ➤ Mchinji DC
2nd TC Meeting	13th March 2012	N/A	14	<ul style="list-style-type: none"> ➤ MoAIWD ➤ Mchinji DC
1st Project Task Force (PTF) Meeting	1st December 2011	N/A	8	<ul style="list-style-type: none"> ➤ MoAIWD ➤ Mchinji DC
2nd PTF Meeting	22nd February 2012	N/A	12	<ul style="list-style-type: none"> ➤ MoAIWD ➤ Mchinji DC
3rd PTF Meeting	7th March 2012	N/A	14	<ul style="list-style-type: none"> ➤ MoAIWD ➤ Mchinji DC
1st Capacity Assessment Workshop	25th August 2011	N/A	11	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
2nd Capacity Assessment Workshop	18th November 2011	N/A	10	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ JOCV
3rd Capacity Assessment Workshop	30th November 2011	N/A	8	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ JOCV

(2) JFY2012

Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
1st PTF Meeting	24th July 2012	N/A	14	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ JOCV
2nd PTF Meeting	31st July 2012	N/A	14	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ JOCV
3rd PTF Meeting	15th November 2012	N/A	12	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ JOCV

ANNEX5-1

Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
4th PTF Meeting	11th March 2013	N/A	14	<ul style="list-style-type: none"> ➤ MoAIWD ➤ Mchinji DC ➤ JOCV
2nd JCC Meeting	3rd August 2012	N/A	21	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ JICA
3rd TC Meeting	6th August 2012	N/A	12	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
1st A6 Group Workshop	10th August 2012	N/A	13	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C)
2nd A6 Group Workshop	6th September 2012	N/A	12	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C)
3rd A6 Group Workshop	5th October 2012	N/A	16	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ NWDP
CUDBAS Workshop for RWDIO (Day 1)	4th September, 2012	N/A	13	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
CUDBAS Workshop for RWDIO (Day 2)	11th September 2012	N/A	13	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
Assessment Workshop for Operation Status on O&M in RWDIO by Means of Performance Indicators (PI)	9th October 2012	N/A	4	<ul style="list-style-type: none"> ➤ RWDIO (C)
CUDBAS Workshop for Mchinji DCT	22nd August 2012	N/A	10	<ul style="list-style-type: none"> ➤ RWDIO (C) ➤ Mchinji DC ➤ JOCV
Assessment Workshop for Operation Status on O&M in Mchinji DCT by Means of Performance Indicators (PI)	25th September 2012	N/A	8	<ul style="list-style-type: none"> ➤ RWDIO (C)
1st A3&A4 Group Workshops	27th March 2013	N/A	9	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ JOCV
1st Workshop on WSS Technical Document Management	13th March 2013	N/A	11	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
1st O&M Planning Workshop for RWDIO and Mchinji DCT (Module 1)	2nd and 22nd February, 2013	N/A	8	<ul style="list-style-type: none"> ➤ RWDIO (C) ➤ Mchinji DC
2nd O&M Planning Workshop for RWDIO (Module 2)	1st March, 2013	N/A	3	<ul style="list-style-type: none"> ➤ RWDIO (C)
2nd O&M Planning	8th March, 2013	N/A	8	<ul style="list-style-type: none"> ➤ RWDIO (C)

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Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
Workshop for Mchinji DCT (Module 4&5)				➤ Mchinji DC
1st Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	4th December 2012	N/A	12	➤ RWDIO ➤ Mchinji DC (DWDO, DDEHO, HPO, DCDO, DEMO, DIO)
2nd Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	7th February 2013	N/A	10	➤ Mchinji DC
3rd Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	14th March 2013	15th March 2013	12	➤ RWDIO ➤ National Initiative for Civic Education (NICE) ➤ Mchinji DC

(3) JFY2013

Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
5th PTF Meeting	3rd June 2013	N/A	18	➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
6th PTF Meeting	18th September 2013	N/A	13	➤ MoAIWD ➤ Mchinji DC
7th PTF Meeting	20th February 2014	N/A	18	➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
3rd JCC	29th May, 2013	N/A	19	➤ MoAIWD ➤ Mchinji DC ➤ JICA ➤ Project Team
4th JCC	26 th February, 2014	N/A	21	➤ MoAIWD ➤ Mchinji DC ➤ JICA
2nd A3&A4 Group Workshops	4th April 2013	N/A	9	➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC ➤ JOCV
3rd A3&A4 Group Workshops	2nd May 2013	3rd May 2013	12	➤ MoAIWD ➤ Mchinji DC ➤ InterAide ➤ JOCV
4th A3&A4 Group Workshops	20th August 2013	21st August 2013	7	➤ MoAIWD ➤ Mchinji DC
1st A5 Group Workshop	6th June 2013	N/A	14	➤ Mchinji DC ➤ JOCV
The 2nd Workshop on WSS Technical Document Management	22 August 2013	N/A	18	➤ MoAIWD ➤ Mchinji DC
Training of Trainers 1 on	17th June 2013	N/A	8	➤ Mchinji DWDO

ANNEX5-3

Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
Test Activity A7				➤ Mchinji WMAs
Training of Trainers 2 on Test Activity A7	17th June 2013	N/A	19	➤ Area Mechanics
3rd O&M Planning Workshop for RWDIO (Module 3&4)	27th June 2013	28th June,2013	3	➤ RWDIO (C)
3rd O&M Planning Workshop for Mchinji DCT (Module 6)	15th July 2013	16th July, 2013	7	➤ RWDIO (C) ➤ Mchinji DC
4th O&M Planning Workshop for Mchinji DCT (Module 7)	30th July 2013	31st July, 2013	8	➤ RWDIO (C) ➤ Mchinji DC
5th O&M Planning Workshop for Mchinji DCT (Module 8)	13th August 2013	14th August, 2013	8	➤ Mchinji DC
Training of Trainers for EWs (A1, A2, A7 and A10 Activities)	3rd July 2013	4th July 2013	27	➤ WMAs ➤ SHSAs & HSAs ➤ ACDO & CDA ➤ AMs
WPC Training (A1, A2, A7 and A10 Activities) Note: Total 11 days (1day training per one village)	5th July 2013	August 30th, 2013	176	➤ WPC members ➤ Village headman ➤ Group village headman ➤ Village influential person ➤ EWs (SHSAs, HSAs, ACDOs, SCDA, CDA, WMAs) ➤ AMs
5th A4 Group Workshop	8th October 2013	N/A	5	➤ MoAIWD ➤ Mchinji DC
Workshop on WASH M&E Database	24th September 2013	September 27, 2013	22	➤ MoAIWD ➤ Mchinji DC
Training on Document Management	28th January 2014	January 31, 2014	9	➤ MoAIWD
Evaluation Workshop on WPC Training	12th September 2013	N/A	48	➤ MoAIWD ➤ Mchinji DC ➤ Area Mechanics
Workshop on Document Management	18th February 2014	19th February 2014	26	➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
1st Workshop on "Enhancement of Operation and Maintenance of Rural Water Supply" for the Nationwide Dissemination	19th September 2013	N/A	45	➤ DPs ➤ NGOs ➤ Other district officials ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
Sector Sharing Workshop Regarding the Establishment of Area Mechanics System and	12th March 2014	13th March 2014	24	➤ DPs ➤ NGOs ➤ Other district officials ➤ MoAIWD

ANNEX5-4

Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
Spare Parts Supply Chain System				<ul style="list-style-type: none"> ➤ RWDIO (C) ➤ Mchinji DC
4th Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	10th April 2013	N/A	10	<ul style="list-style-type: none"> ➤ RWDIO ➤ National Initiative for Civic Education (NICE) ➤ Mchinji DC
Training of Extension Workers (ToT2) on Hygiene and Sanitation Component of A1&A2 Test Activities	17th May 2013	N/A	30	<ul style="list-style-type: none"> ➤ Mchinji DC ➤ Extension Workers (WMAs, HSAs, CDAs) in charge of the 11 villages ➤ Area Mechanics in charge of the 11 villages
Training of Water Point Committees (WPCs) (ToT3) on Hygiene and Sanitation Component of A1&A2 Test Activities Note: 1 day training per village	20th May 2013	23rd May 2013	180	<ul style="list-style-type: none"> ➤ Water Point Committee (WPC) members of 11 villages (each WPC have 10 members) ➤ Group Village Head/Village Heads and Influential person from 11 villages ➤ Extension Workers in charge of the 11 villages
5th Workshop for Hygiene and Sanitation Component of A1&A2 Test Activities	19 th July 2013	N/A	36	<ul style="list-style-type: none"> ➤ MoAWDI ➤ RWDIO ➤ Mchinji DC ➤ NICE ➤ Mchinji Extension Workers in charge of the 11 pilot sites

(4) JFY2014 (as of 31st October 2014)

Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
1st PTF Meeting	24th June 2014	N/A	20	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
2nd PTF Meeting	11th September 2014	N/A	12	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
Consultative Workshop Regarding the CBM Refresher Training Manual and Tool Kit	3rd July 2014	4th July 2014	24	<ul style="list-style-type: none"> ➤ DPs ➤ NGOs ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
Consultative Workshop	27th August 2014	N/A	30	<ul style="list-style-type: none"> ➤ DPs

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Name of Seminar or training	Date		Number of participants	Target beneficiary
	From	To		
Regarding the O&M Planning Handbook				<ul style="list-style-type: none"> ➤ NGOs ➤ Other district officials ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
Training of Trainers for CBM O&M Refresher Course	8th July 2014	10th July 2014	97	<ul style="list-style-type: none"> ➤ Mchinji DC (SHSAs, HSAs, WMAs, ACDOs, CDAs and AMs)
WPC Training on CBM O&M Refresher Course Note: Total training days: 34 days (2days training per village)	14th July 2014	16th September 2014	842	<ul style="list-style-type: none"> ➤ WPC members ➤ Village headman ➤ Group village headman ➤ Village influential person ➤ EWs (SHSAs, HSAs, ACDOs, SCDA, CDA, WMAs) ➤ AMs
Study Tour on CBM O&M Refresher Course Training	8th September 2014	N/A	14	<ul style="list-style-type: none"> ➤ Other district officials ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
Technical Confirmation Workshop	31st October 2014	N/A	14	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO (C) ➤ Mchinji DC
1st O&M Radio Workshop	24th January, 2014	N/A	11	<ul style="list-style-type: none"> ➤ Mchinji DC ➤ Mudziwathu Community Radio
2nd O&M radio Workshop for Evaluation of the Trial O&M Radio Program and Development of the Full Radio Program	7th April 2014	N/A	10	<ul style="list-style-type: none"> ➤ Mchinji DC ➤ NICE ➤ Mudziwathu Community Radio ➤ Network of Journalist Living with HIV (JONEHA)
3rd O&M Radio Workshop for Capacity Development of Community Radio Staff and Development of the O&M Radio Program	28 April 2014	29 April 2014	10	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO ➤ Mchinji DC ➤ Mudziwathu Community Radio
4th O&M Radio Workshop for the Evaluation of the Trial O&M Radio Program and Development of the Full Radio Program	24th September 2014	N/A	13	<ul style="list-style-type: none"> ➤ MoAIWD ➤ RWDIO ➤ Mchinji DC ➤ Mudziwathu Community Radio ➤ NICE

Abbreviations for the list

A1	Test Activity 1: Water tariff setting for hand pump facility and promotion of H&S practice
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ANNEX5-6

	motivate beneficiaries to pay for water regularly
A2	Test Activity 2: Facility design for better O&M and promotion of water point sanitation
A3	Test Activity 3: Standardization and dissemination of a process for the introduction of AMs
A4	Test Activity 4: Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain
A5	Test Activity 5: Standardization and dissemination of monitoring system for the water supply facilities
A6	Test Activity 6: Improvement of the rules on the manuals (use/storage and hierarchical management)
A7	Test Activity 7: Activities for development of a text of maintenance and rehabilitation for deep well
A8	Test Activity 8: Technical support to RWDO to prepare their own regional annual activity plan for O&M activities in Mchinji DC
A9	Test Activity 9: Technical support to DC and DCT to make O&M plan according to O&M framework to be integrated with DWSP/DSIP
A10	Test Activity 10: Assist DC, DCT and EWs to facilitate pilot communities to establish and/or update O&M plan
ACDO	Assistant of Community Development Officer
AM	Area Mechanic
CDA	Community Development Assistant
CBM	Community Based Management
CUDBAS	Curriculum Development Based on Ability Structure
DB	Database
DC	District Council
DCT	District Coordination Team
DWDO	District Water Development Officer
DPs	Development partners
EW(s)	Extension Worker (s)
HSA	Health Surveillance Assistant
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JOCV	Japan Overseas Cooperation Volunteers
MoAIWD	Ministry of Agriculture, Irrigation and Water Development
NGO(s)	Non-Governmental Organization (s)
NICE	National Initiative for Civic Education
NWDP	National Water Development Programme

ANNEX5-7

5. 5th JCC

O&M	Operation and Maintenance
PTF	Project Task Force
RWDIO	Regional Water Development and Irrigation Office
RWDIO (C)	Regional Water Development and Irrigation Office (Center)
SCDA	Senior Community Development Assistant
SHSA	Senior Health Surveillance Assistant
TC	Technical Committee
TOT	Training of Trainers
WASH	Water, Sanitation and Hygiene
WMA(s)	Water Monitoring Assistant (s)
WPC	Water Point Committee
WSS	Water Supply Services

ANNEX5-8

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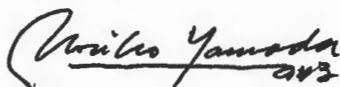
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MINUTES OF MEETING ON THE SIXTH (FINAL) JOINT COORDINATING COMMITTEE FOR THE PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE FOR RURAL WATER SUPPLY IN MALAWI

According to the Record of Discussions (hereinafter referred to as “R/D”) signed by both Japan International Cooperation Agency (hereinafter referred to as “JICA”) and Ministry of Agriculture, Irrigation and Water Development (hereinafter referred to as “MoAIWD”) on 18th February 2011 in Lilongwe, the Project for Enhancement of Operation and Maintenance for Rural Water Supply in Malawi (hereinafter referred as “the Project”) had been conducted since the end of July 2011 to June 2015.

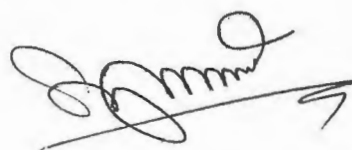
The sixth and final Joint Coordinating Committee (hereinafter referred to as “JCC”) Meeting was held on 1st June, 2015 in Lilongwe by the initiative of MoAIWD. The meeting discussed Project achievements, challenges, lessons learnt, progress on recommendations provided by the Terminal Evaluation Team as well as recommendations when the project phases out. As a result of the discussion in the JCC, both sides agreed on the matters referred to in the document shown in Annex1 attached hereto.

Lilongwe, June 1, 2015



for

Takeshi Yoshikawa
Team Leader
The Project for Enhancement of
Operation and Maintenance for
Rural Water Supply in Malawi



Sandram C. Y. Maweru
Principal Secretary for Water
Development and Irrigation,
Ministry of Agriculture, Irrigation
and Water Development,
The Republic of Malawi



Yamikani Chitete
District Commissioner
Mchinji District Council
The Republic of Malawi

Witnessed by:



Kazuhiko Tokuhashi
Resident Representative
Malawi Office,
Japan International Cooperation
Agency, Japan



ANNEX 1

MINUTES OF THE 6th (FINAL) JCC MEETING FOR THE SECOND STAGE OF THE PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE FOR RURAL WATER SUPPLY IN MALAWI

1. **DATE:** 1st June, 2015
2. **TIME:** 09:30 am – 11:30 am
3. **VENUE:** Conference Room- Tikwere House, (MoAIWD)
4. **AGENDA DISCUSSED**
 - (1) Project achievements, challenges and lessons learnt
 - (2) Outcomes of the final Dissemination Seminar
 - (3) Progress on recommendations by the Terminal Evaluation
 - (4) Recommendations after project phase out

5. LIST OF PARTICIPANTS

(1) MINISTRY OF AGRICULTURE, IRRIGATION AND WATER DEVELOPMENT

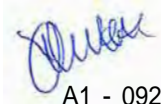
- | | |
|------------------------|---|
| — Mr. Sandram Maweru | Principal Secretary for Irrigation and Water Development |
| — Mr. Dokani Ngwira | Director of Administration |
| — Mr. Steve Mwanza | Director of Water Supply Services |
| — Mrs. Modesta Kanjaye | Director of Water Resources |
| — Ms. Emma Mbalame | Deputy Director of Water Supply Services, Operation Maintenance Monitoring and Evaluation (OMME) |
| — Mr. Thanasius Sitolo | Department of Water Supply Services, Principal Community Water Supply and Sanitation Officer (PCWSSO) |

(2) REGIONAL IRRIGATION AND WATER DEVELOPMENT OFFICE (CENTRE)

- | | |
|---------------------|---|
| — Mr. Peter Chipeta | Regional Irrigation and Water Development Officer (RIWDO, Centre) |
|---------------------|---|

(3) MCHINJI DISTRICT COUNCIL

- | | |
|-------------------------|--------------------------------------|
| — Mrs. Yamikani Chitete | District Commissioner |
| — Mr. J. K. Kathumba | Director of Planning and Development |



(4) JICA MALAWI OFFICE

- | | |
|---------------------------|-----------------------------------|
| — Mr. Kazuhiko Tokuhashi | Resident Representative |
| — Mr. Jintaro Yazaki | Assistant Resident Representative |
| — Mr. Godffrey Kapalamula | Senior Program Officer |

(5) JICA PROJECT TEAM

- | | |
|-------------------------|---|
| — Mr. Takeshi Yoshikawa | Team Leader |
| — Mrs. Noriko Yamada | Hygiene and Sanitation / Project Coordination |
| — Mr. Henry Namwiri | Assistant |
| — Mr. Wilson Lakudzala | Assistant |

6. OPENING REMARKS BY PRINCIPAL SECRETARY MoAIWD

The Principal Secretary Mr. S. Maweru, chairperson of JCC, welcomed all the members and thanked individually all Project team members for the efforts put into the project's activities especially JICA Expert team, Malawian counterparts and Mchinji DCT in particular as well as the Japanese Government for the assistance rendered to Malawi Government and all partners for the activities and achievements of the outputs of the Project.

7. REMARKS BY RESIDENT REPRESENTATIVE JICA MALAWI OFFICE

Mr. Tokuhashi, Resident Representative of JICA Malawi, said that it was important to have the last JCC meeting as it provided an opportunity for project management team to take stock of project activities, successes and challenges met during the four years of implementation as well as to agree on the way forward when the Project phase out.

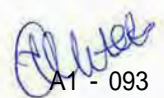
He touched upon the recently held Final Dissemination Seminar where the Project had shared the project outcomes and distributed all guidelines and manuals developed by the Project. He expressed his compliments to the Government of Malawi (GoM) for the high sense of ownership demonstrated throughout the implementation of the project as well as for providing clear and firm directions to the Districts and partners for the proper utilisation of project outcomes as production of documents alone was only one part of the success and that what was needed was to put the manuals to proper use to overcome challenges of borehole functionality in the rural water sub-sector. He therefore, emphasised on the need for the GoM to sustain results of the Project in Mchinji district and to be rolled out to all the remaining districts in Malawi.

Finally, he mentioned that there was no other Project soon after phasing out of the O&M Project since JICA wanted the GoM to take full-responsibility and leadership for the national roll-out of the O&M framework. If however, the GoM found difficulties in the days to come in achieving the nation-wide roll-out; JICA was open to receive concrete requests and proposals for overcoming those challenges.

He closed his speech by reminding all participants that JICA was willing to continue cooperating with the GoM for the betterment of the country.

8. PROJECT ACHIEVEMENTS, CHALLENGES AND LESSONS LEARNT

Ms. Mbalame, Deputy Director Water Supply Services (OMME), presented the project achievement, challenges and lesson learnt. The presentation slides are provided in ANNEX 2.



A1 - 093



9. OUTCOMES OF THE FINAL DISSEMINATION SEMINAR

Mr. Sitolo, PCWSSO, presented the outcomes of the final project dissemination seminar. The Presentation slides are provided in ANNEX 3.

10. PROGRESS ON RECOMMENDATIONS BY THE TERMINAL EVALUATION

Mrs. Yamada, JICA Expert, presented the progress on recommendations made by the Terminal Evaluation. The presentation slides are provided in ANNEX 4.

11. RECOMMENDATION AFTER PROJECT PHASE OUT

Mr. Yoshikawa, Team Leader of the Project presented proposed recommendations when project phased out. The presentation slides are provided in ANNEX 5.

12. DISCUSSIONS

Mr G. Kapalamula-JICA Malawi wanted to know whether suggestions from participants to the final dissemination seminar that the Central government should provide further orientation training to all the DCT members across Malawi for one week was valid and doable from MoAIWD's point of view.

In response Mr. Sitolo agreed that one day orientation was a little too short and that Districts would require more orientation but instead of five days perhaps three days. The PS Mr S. Maweru added that orientation period would depend on the content to be delivered and availability of funds.

Ms. Yamada added that the road map for O&M framework dissemination suggested two days regional workshops in each of the three regions. However, PSIP Part II funding was not disbursed during 2014/15 fiscal year. Additionally, Planning Department has shared the Draft Output Based Budget Document where it clearly states that there will be no allocation of funds for the JICA Supported Programme PSIP Part II for the next fiscal year 2015/16. Therefore, it was suggested to find other ways for providing further orientation to the Districts and DPs and NGOs who were absent in the Final Dissemination Seminar such as the next Sector Working Group (SWG).

The meeting agreed to lobby to Development Partners to help on the roll out of the O&M framework.

The PS advised the audience that some NGOs had already shown interest in rolling out the O&M framework in their Districts of support and agreed that existing platforms could be utilized.

Mr. Jintaro Yazaki -JICA Malawi wanted to know if it was possible to conduct national wide orientation using ORT funds.

In response the PS said he would not like to commit in the name of the Ministry or the District Councils since Ministry of Finance had mentioned that the following fiscal year would be even difficult financially, so it would be important to find other mechanisms.

The Chair, Mr Maweru asked whether everybody was satisfied with the outcomes of the Project and what would be the way forward in the five years to come.

A1 - 094

Participants showed satisfaction over the activities and outcomes of the Project.

Mr. Jintaro Yazaki -JICA Malawi commented that there were three volunteers working in Mchinji district Water Office so if there was a need to increase the number of volunteers, the Ministry was welcome to request JICA to dispatch more volunteers. Additionally, a Water Resources Advisor allocated to the MoAIWD would come the following year and could also help in supporting the monitoring of the O&M framework although the advisor's main task would be to work on the Master Plan.

The PS assured JICA that government would be monitoring the volunteers work and if need be the numbers might increase if proved to be effective in the WASH sector.

JICA Malawi inquired if chances were there for the MoAIWD to work with National Broadcasters in broadcasting the O&M community radio programme under Development Broadcasting Unit (DBU).

In response Ms. Mbalame said the National Broadcaster mentioned that the Project had already worked with the National broadcaster in the early stages to guide the implementation of the radio programmes and that based on that experience they could do that at a cost.

JICA Resident Representative indicated that JICA Experts (Mr. Yoshikawa and Mrs. Yamada) were going back to Japan and that people should not think that O&M Project was a JICA Project but the GoM's project and that it was the responsibility of the government to achieve the overall goal.

The PS agreed that indeed the O&M project was the government's project and that GoM was at the forefront with technical support from JICA. Mchinji district had also provided frontlinestaffs that showed commitment from the District to continue disseminating what was learnt. Mr Maweru emphasized that it was the government project and the absence of the Experts would not mean that the Project was over; from then onwards the government was to continue with the implementation efforts.

Mchinji DC added on the number of achievements outlined in the presentation by highlighting one more that was not mentioned in the presentation. She said that the community radio programme had raised awareness regarding the ownership not only of their water points but even other infrastructure such as schools, roads, irrigation systems and other infrastructures developed through development programmes by other DPs. The Chair agreed that indeed the radio programme had a multiplier effect and that it could be applied to other sectors as well.

13. CLOSING REMARKS

The Chair thanked all participants for their active participation and emphasized that these kinds of meetings are very important to take stock of what was achieved and what was left. The PS stressed that the Ministry would make use of the recent volunteers as well as the Advisor to come.

The PS indicated that MoAIWD was one of the ministries that received more support from JICA and appreciated the Japanese Government's support to the GoM through his Ministry.


Appendix 2:
Minute of Meeting for TC Meeting

MINUTES OF MEETING
ON THE FIRST TECHNICAL COMMITTEE FOR
THE PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE FOR
RURAL WATER SUPPLY IN MALAWI

According to the Record of Discussions (hereinafter referred to as "R/D") for the Project for Enhancement of Operation and Maintenance for Rural Water Supply in Malawi (hereinafter referred to as "the Project") signed by both Japan International Cooperation Agency (hereinafter referred to as "JICA") and Ministry of Irrigation and Water Development (hereinafter referred to as "MoIWD") on 18th February 2011 in Lilongwe, JICA dispatched the Expert Team (hereinafter referred to as "the Team") headed by Mr. Yuji Une, Chief Advisor, for the Project.

The first Technical Committee (hereinafter referred to as "TC") Meeting was held by the initiative of the District Coordinating Committee (DCT) of Mchinji District and the Team presented the Draft Work Plan for the Project on the 2nd of August, 2011 in Mchinji. As the result of the discussion in TC, both sides agreed on the matters referred in the document attached hereto.

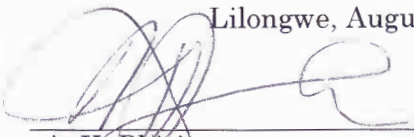
Lilongwe, August 4, 2011



Yuji Une

Chief Advisor

The Project for Enhancement of
Operation and Maintenance for
Rural Water Supply in Malawi




A. K. Phiri

District Commissioner

Mchinji District Council

The Republic of Malawi

Witnessed by



T. Sitolo

Principal Community Water Supply
and Sanitation Officer

Water Supply Services Department

Ministry of Irrigation and Water
Development

The Republic of Malawi

ATTACHED DOCUMENT

MINUTES OF MEETING FOR THE TECHNICAL COMMITTEE FOR THE PROJECT
FOR ENHANCEMENT OF OPERATION AND MAINTENANCE FOR RURAL WATER
SUPPLY IN MALAWI

The meeting was held as follows:

1. Venue: Mchinji District Council Conference Room
2. Date & Time: 2pm in the Afternoon on the 2nd of August 2011
3. Members present:
 - 1) Malawian Side
 - Mr. A. K. Phiri, District Commissioner (Mchinji)
 - Mr. Emmanuel Sohaya, Acting Director of Planning and Development(Mchinji)
 - Mr. H. G. Namwiri, District Water Development Officer (Mchinji)
 - Mr. Thomas Mchipa, District Environmental Health Officer (Mchinji)
 - Mr. Charles Matatiyo, Community Development Officer (Mchinji)
 - Mr. Harlod Kanthenga, Forestry Officer (Mchinji)
 - Ms. B. Chome, Education Manager Representative (Mchinji)
 - Mr. Thanasius Sitolo, Principal Community Water Supply & Sanitation Officer, Department of Water Supply Services, MOIWD (Ministry Representative)
 - 2) Japanese Side
 - Mr. Yuji Une, Chief Advisor
 - Mr. Syuji Yamashita, Rural Water Supply/ Training II
 - Mr. Takeshi Yoshikawa, O&M for Rural Water Supply
 - Mr. Tomohiro Kato, Training I
 - Ms. Maki Yoshida, Hygiene & Sanitation/ Project Coordination
 - Ms. Minako Shiotsuka, JICA Malawi Office
 - Mr. Nathan Mwafulirwa, JICA Malawi Office

4. The Day's Agenda:

The meeting started with a prayer from Mr. Charles Matatiyo. The meeting was chaired by the Acting Director of Planning and Development on behalf of the District Commissioner who welcomed all the participants. Later self introductions followed.

The Chief Advisor of the Japanese Experts Team introduced the Draft Work Plan and called for comments from the Malawian side. In short, the draft work plan outlined the

1. 1st TC

implementation schedule and that the project will run for four years from July 2011 to July 2014.

1) CONTENTS OF THE WORK PLAN

Generally the project focuses on strengthening of existing O&M framework. The project will also focus on the technical issues.

The project will basically look at capacity development in terms of skills, equipment and institutional issues. The project will further look at the existing policies and guidelines and try to find best practices.

To ascertain present situation and challenges in the O & M of rural water supply facilities, the project will conduct a baseline survey. The survey will help to provide baseline data, it will also establish the social economic status for the water point committees and the general population.

The Japanese Experts Team will conduct the diagnostic survey to evaluate the condition of the boreholes in Mchinji district.

2) FINANCIAL SUPPORT

The work plan indicated that all travel and subsistence allowances shall be borne by the Malawian government. However, currently the funds for this financial year are not available from the Ministry to be used. This issue remains not clearly answered by the Ministry Headquarters.

3) WORKING SPACE

The Government of Malawi committed to provide working space for the Japanese Experts Team both at Ministry Headquarters and in Mchinji District. The District Water Development Officer assured the team of a working space in Mchinji but was quick to point out the non availability of furniture in the room provided.

4) ISSUES RAISED

All issues raised in the work plan were agreed by all the participants and that if there could be more issues coming after the meeting they will be welcome.

5) CONCLUSION

The draft Work Plan was shared with all participants and generally accepted in the TC. However, In the Joint Coordinating Committee (JCC) meeting held prior to this TC meeting on the 1st of August in 2011, it was decided that Malawian side would review the draft Work Plan thoroughly and the result of the review would be reflected into the Draft Work

1. 1st TC

Plan to finalize. The finalized Work Plan would be shared with all of the participants of TC meeting.

6) ANY OTHER BUSINESS

The forestry officer asked if the project could extend its operations to catchment protection as water resources require good protection.

In response the Japanese team said the project is specifically looking at enhancement of operation and maintenance of boreholes.

The meeting ended with a prayer at around 3:30PM from the same person who opened.

Compiled by: H. G. Narwiri



MINUTES OF THE TECHNICAL COMMITTEE MEETING

AGENDA DISCUSSED

1. TEST ACTIVITY PRESENTATION AND DISCUSSIONS

DATE: 13th March 2012

PLACE: Mchinji District Office

PRESENTS:

- | | |
|--------------------------|--|
| 1. Mr Walter Chikuni | Director of Planning and Development/ Mchinji District |
| 2. Mr Smarton Banda | Weels Engineer |
| 3. Mr Mike Chilimadzi | Community Supply Officer |
| 4. Mr Charles Matatiyo | District Community Development Officer / Mchinji District |
| 5. Mr Humphreys Munthali | Assistant District Water Development officer/ Mchinji District |
| 6. Mr Kosuke Shibata | Japanese Volunteer in the Ministry of Irrigation/ Mchinji District |
| 7. Mr J.D Tenthani | Forestry Department/ Mchinji District |
| 8. Mr Kachilonda | Monitoring & Evaluation Officer / Mchinji District |
| 9. Mr Mchiphera | Deputy District Environmental Health Officer /Mchinji District |
| 10. Mr C.E. Soko | Assistant DFO (Forestry) Mchinji District |
| 11. Mr E.D. Sohya | District Monitoring &Evaluation Officer/ Mchinji District |
| 12. Mr Yuji Une | Chief Advisor of O&M Project |
| 13. Ms. Maki Yoshida | JICA Expert |
| 14. Mr Shuji Yamashita | JICA Expert |

OPENING REMARKS

The Chair of the meeting Mr Chikuni welcomed everyone and he reminded the participants that the main issue to be discussed on the meeting was about Test Activity

He requested participants to be free to make contributions and comments to ensure that everything that will be discussed should be agreed with all participants.

DISCUSSION TIME

Mr Yuji Une read about 14 challenges which has been identified and their proposed action. He explained that some challenges were combined like P1 & P11, P2 & P10, P7 & P8. These were combined because they can be implemented together and can also be dealt at once because of financial difficulties which can be faced in dealing with these challenges.

TEST ACTIVITY

Mr Yuji Une explained that the Test Activity will be done in the second phase of the project and all the participants were given hand-out to follow while Mr Yuji Une was reading the contents of the hand-out.

Mr Yamashita pointed that the implementation plan of the test activity will be in two phases: The first phase will be preparation and the second phase will be for field testing. All activities for the second year are expected to start in mid-May or early June 2012 as shown in the implementation schedule on page 37 of the hand out.

Mr Chikuni pointed out that there are some activities which need to come first, meaning that they are important they should not fail.

Mr Kachilonda also asks about the actual person who will prioritise the Test Activity to start with.

In answering about the priority of the Test Activity Mr Yuji Une said that they are free to choose as to those which need to come first, but the participants agreed that all the Test Activity were very important so they can't choose which ones to come first but all should be dealt with at once.

SELECTION OF PILOT SITES

Mr Shuji Yamashita pointed out that there is criteria which they have used in selecting the pilot sites.

Mr Une read on page 9 of the hand – out where the criteria they used to select the pilot water supply was listed. He said that there are 16 water points which have been chosen but out of that 16 water points., 10 pilot sites will be selected to be on the Test Activity for next phase of the project thus according to JICA Experts and this will depend on the agreement with the Malawian counterpart if they are in total agreement with the criteria used.

Mr Chikuni the Chair of the meeting urges the participants to put in their inputs/ ideas as to whether this method should be adopted when selecting the 10 pilot sites for Test activity or not.

Ms Maki Yoshida adds that on page 9 of the hand out is showing how they have chosen those 16 water point. She explained that when the days of the Test activity are near, they will visit again those places and check if there are still in a better position to be the Pilots for the Test Activity i.e. to see if they are still functioning or not.

Mr Yuji Une explained more on this issue that these places are known by JICA Experts only as they were the ones doing the survey but when the days of Test Activity are near, they will visit these places with the Malawian counterparts for easy identification of these pilot sites.

CHALLENGES

Mr Chikuni said that they are indeed certain issues which they feel that they will be a challenge to them. He said that at the District level they are limited on finances so in this project as a council they cannot do more. He continued by pointing out that they are the receiving end and they cannot finance anything. He said that it is a government policy that anyone working outside his/her working station is supposed to receive allowance, meaning that people who will be sending do field work in this project

2. 2nd TC

will need allowance which JICA cannot offer but the Malawian Government but this cannot be directly arranged at the district level but at the headquarters of Ministry of Water and this is supposed to be planned earlier before the project phase 2 commences.

Mr Chikuni adds that at the district level, they can develop a good plan but with the shortage of finance (no budget to support) it's a big challenge to them because they cannot do anything on their own without the support from the government.

Mr Mchipha also adds that even manuals are difficult to access, they are just kept in the headquarters meaning that they are not distributed to the actual places they are required.

AOB

Mr Chikuni and Mr Chilimadzi asked if there are members from the district level who has been invited to attend the JCC meeting to take place on the 16th of March 2012 in Lilongwe.

Mr Yuji Une answered that Mrs Mbalame (Deputy Director of Water Supply & Sanitation) will communicate to them about this issue.

Mr Chikuni suggested that if the District Council who is in Lilongwe at the moment will be busy on that day, he will attend that meeting on his behalf.

CLOSING REMARKS

Mr Chikuni the Chair of the meeting reminded all the participants that if they have comments or recommendations to add regarding this meeting they are free to do so by emailing Mr Yuji Une on his email address.

MINUTES OF MEETING
ON THE TECHNICAL COMMITTEE MEETING
IN THE SECOND STAGE OF THE PROJECT
FOR THE PROJECT FOR ENHANCEMENT OF OPERATION AND MAINTENANCE
FOR RURAL WATER SUPPLY IN MALAWI

According to the Record of Discussions (hereinafter referred to as "R/D") signed by both Japan International Cooperation Agency (hereinafter referred to as "JICA") and Ministry of Water Development and Irrigation (hereinafter referred to as "MoWDI") on 18th February 2011 in Lilongwe, the Project for Enhancement of Operation and Maintenance for Rural Water Supply in Malawi (hereinafter referred to as "the Project") has been conducted since the end of July 2011.

The First Technical Committee (hereinafter referred to as "TC") Meeting in the stage 2 of the Project was held by the initiative of the District Coordinating Team (DCT) of Mchinji District. The Japanese Expert Team headed by Mr Yuji Une, the chief advisor of the Project, explained the Work Plan for the Project, Project Design Matrix ver.2 and Plan of Operation ver.2 (hereinafter referred to as PDM and PO, respectively) of the Project agreed in the Joint Coordination Committee held on the 3rd of August, 2012 in Lilongwe, attached hereto.



Mr. Yuji Une
 Chief Advisor
 The Project for Enhancement of
 Operation and Maintenance for Rural
 Water Supply in Malawi

Witnessed by



Mr. T. Sitolo
 Principal Community Water Supply
 and Sanitation Officer
 Water Supply Services Department
 Ministry of Water Development and
 Irrigation
 The Republic of Malawi

Lilongwe, August 6, 2012

DISTRICT COMMISSIONER
 MCHINJI DISTRICT COUNCIL

NOV 2012

PRIVATE BAG 1, MCHINJI.

Mr. Gaston M. Macheke
 District Commissioner
 Mchinji District Council
 The Republic of Malawi

ATTACHED DOCUMENT

ANNEX 1 MINUTES OF THE 1ST TECHNICAL COMMITTEE MEETING (2nd Stage)

1. DATE: 6th August 2012
2. TIME: 10:00 am – 12:00 pm
3. VENUE: Conference Room of Mchinji District Office

4. AGENDA

- (1) Explaining Revision of PDM ver. 1 and PO ver. 1
- (2) Presentation of work plan (2nd Phase) and Implementation Plan for Test Activities
- (3) Discussion of Work plan (2nd Phase)
- (4) Any Other Businesses

5. PARTICIPANTS

(1) Ministry

- Mr Sitolo Principal Community Water Supply and Sanitation Officer

(2) RWDO

- Mr Chilimadzi Community Water Supply and Sanitation Officer

(3) District Coordinating Team

- Mr Chikuni Director of Planning and Development/ Mchinji District
- Mr Banda District Water Officer / Mchinji District
- Mr Mchipha Deputy District Environmental Healthy Officer / Mchinji
- Mr Matatiyo District Community Development Officer /Mchinji District
- Mr H.K Munthali Assistant District Water Officer/ Mchinji District

(4) JICA Expert Team

- Mr Une Chief Advisor or O&M Project
- Mr Yoshikawa Rural Water Supply
- Ms Kitazume O&M of Rural Water Supply
- Mr Sugai Training
- Ms Yoshida Hygiene and Sanitation / Project Coordination
- Ms Mandowa Secretary for the Team

6. WELCOMES REMARKS

Mr Chikuni, the chair of the meeting, welcomed everyone and reminded the participants that this was the 1st meeting of the Technical Committee in 2nd Stage of the O&M project and outlined the main purpose of the meeting. Then he called upon Mr Une, the Chief Advisor, to start the presentations

Mr Une welcomed everyone and said that he was pleased to inform the participants that PDM, PO and Work plan had been approved by the JCC members on the meeting held on 3rd August 2012.

7. REVISED PROJECT DESIGN MATRIX AND PLAN OPERATION

Mr Une then gave a presentation on Revised Project Design Matrix and Plan Operation. Hand-outs were given to all participants for references when he was making the presentation.

After the presentation Mr Une added that final version of PDM and PO would be prepared following the approval of PDM and PO by JCC members and copies would be sent to everyone very soon.

8. COMMENTS REGARDING REVISED PROJECT DESIGN MATRIX AND PLAN OPERATION

There were no comments and the chair of the meeting Mr Chikuni asked Mr Yoshikawa to give his presentation on Draft Work plan and Draft Implementation Plan for Test Activities.

9. DRAFT WORK PLAN AND DRAFT IMPLEMENTATION PLAN FOR TEST ACTIVITIES

Before Mr Yoshikawa started his presentation he also informed the participants that he was pleased to inform them that the Work plan had also been approved by the JCC members on the meeting held on 3rd August 2012.

The contents of Mr Yoshikawa's presentation were:-

- (1) Summary of the results in the 1st Stage
- (2) Implementation schedule for 2nd Stage
- (3) Implementation methodology for 2nd stage activities

10. COMMENTS REGARDING DRAFT WORK PLAN AND DRAFT IMPLEMENTATION PLAN FOR TEST ACTIVITIES

Mr Chikuni wanted to find out what would the programme be like since in the presentation they had indicated that the Technical members would meet on November 2012, as November is far how are they going to coordinate with each other.

Mr Yoshikawa answered that from now onwards they would be meeting in teams base on the Test Activities prepared by Team Members, the schedule explaining activities how they were going to be done would be distributed to all the Team Members.

Mr Matatiyo noted that on Work Plan, Test Activities 9 & 10 in the last meeting they agreed that the District Council (DC) would not be there but the DCT, but he was wondering that why the DC was still there despite the agreement they had to delete it.

Mr Une answered that it was a mistake it was supposed to be deleted so DC would be deleted.

In terms of the scale of roll out described Project implementation methodology for Activity 4-2 in the work plan (page 20) , Mr Chilimadzi pointed out that will the scale of roll out be determined in consideration of the budget and human resources of the district ?

Mr Yoshikawa answered that both Ministry and Mchinji should be.

Regarding the budgetary contribution from Malawian side, Mr Chikuni added that it was important to note that the budget issue was still unresolved since it was discussed during the JCC meeting and they hadn't come up with the conclusion yet.



Mr Sitolo noted that on Test Activities 1, he was listening to the presentation and comparing it with the document given for reference, there were 4 products and in the document there were 5 products so he wanted to find out which was right.

Mr Yoshikawa answered that in the presentation power point was used after review of the contents by each team and it was the final one, while in the document that time when the document was written they were still discussing about it and when the discussion were finalised, it's when they put them in the power point for presentation.

On Budget for next year allocation, Mr Yoshikawa added that the next budget allocation plan for the activities which is supposed to be February 2013 would be discussed based on the budgetary processes in Malawi.

11. ANY OTHER BUSINESS

Mr Une informed the participants that the date for the workshop which was supposed to be 10th August 2012 had been shifted to between 13 to 15th of August 2012. He also added him and Mr Sitolo would have to meet in order to discuss the exact people to invite to the workshop.

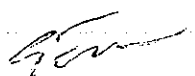
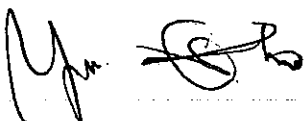
Ms Yoshida also informed the participants that the plan at the workshop was that everyone taking part in presentation would be given 15 minutes and the presenter would have to choose either prepare new power point or use his document of work plan, if he choose to use power point then he should submit his presentation to her by this Friday 10th August 2012.

Mr Sitolo apologized to the participants for not being present at the JCC meeting and thanked his fellow members for attending the meeting and he heard that it was a fruitful one.

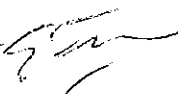
Mr Une urged the participants to continue working together and asked the participants that if they had anything they should not hesitate to contact JICA experts.

12. CLOSING REMARKS

Mr Chikuni, the chair of the meeting, said that on behalf of District Commissioner who was not present was thanking the participants for showing interest since these meetings on Test Activities started and wish everyone a safe trip back to their respectively working places and reminded the next Technical Committee Meeting would be in November 2012.



ANNEX 2 PROJECT DESIGN MATRIX



Project Name: The Project for Enhancement of Operation and Maintenance for Rural Water Supply
 Target Area: Mchinji District
 Target Group: Staff of District Council, MoWDI

Project Duration: 4 years from July 2011
 Version 2
 Date: 3, August, 2012

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal The strengthened practical O&M framework is applied nationwide.	The strengthened practical O&M framework is applied in CBM trainings by MoWDI and districts.	- Joint Sector Review Report - District's annual report	
Project Purpose The existing O&M framework is strengthened practically for subsequence nationwide dissemination.	<ul style="list-style-type: none"> - The strengthened practical O&M framework is stated in Sector Working Group Reports and/or Joint Sector Review Reports. - **% of non-functional water supply facilities measured by a baseline survey in Mchinji District are functioning. (** will be determined based on the result of baseline survey which will be conducted in 6 months after the start of the project.) 	<ul style="list-style-type: none"> - Sector Working Group Report - Joint Sector Review Report - Project Report (Result of impact survey) (Result of baseline survey) 	<ul style="list-style-type: none"> - The policies on rural water supply are not significantly changed. - The O&M of rural water supply facilities is financed by the government. - Adequate financial resources are allocated to District Council and MoWDI. - NGO activities in rural water supply are reported to and coordinated by MoWDI and District Council. - An action to be taken by MoWDI: to distribute the strengthened practical O&M framework to all the districts in Malawi. - An action to be taken by District Coordination Teams in Malawi: to make the strengthened practical O&M framework known to all implementation partners in each district.
Outputs		- Project Report	- Personnel transfers of counterparts are not frequent during the project



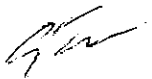
<p>(1) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.</p>	<p>- The frequency of the meeting of Project Task Force taken place at least 4 times a year</p>	<p>- M/M of Project Task Force</p>	<p>period.</p>
<p>(2) Present situation and challenges of O&M for rural water supply are investigated.</p>	<p>- The report of the present situation and challenges is made. - The report is shared with the Project Task Force.</p>	<p>- Joint Sector Review Report - Project Report - M/M of Project Task Force</p>	
<p>(3) The existing O&M framework is strengthened based on the field test in Mchinji District.</p>	<p>- The strengthened practical O&M framework based on lessons from the result of the test activities is made.</p>	<p>- Project Report - The products of the project</p>	
<p>(4) The strengthened O&M framework is applied to the whole Mchinji District.</p>	<p>- Number of communities trained following the strengthened practical O&M framework reaches ** communities. (** will be determined based on Malawian budget to be allocated for this output.) - Degree of understanding of the counterparts after training improves.</p>	<p>- Project Report - The result of the pretest and the post-test of the counterparts about the implementation of the strengthened practical O&M framework. - The performance report of the counterparts</p>	
<p>(5) The strengthened framework is widely understood.</p>	<p>- The strengthened practical O&M framework is shared by all of the stakeholders in the Sector Working Group (SWG). - The number of the stakeholders which participate in the SWG above. - The strengthened practical O&M framework is endorsed by SWG. - The number of addresses for distribution of the strengthened practical O&M framework. (The number will be determined after the third year of the project.)</p>	<p>- Report of the seminar/ workshop - Endorsement by SWG - Project report</p>	

Activities	Inputs	Preconditions
<p>(1-1) To set up the Project Task Force to discuss the strengthening of existing O&M framework for rural water supply in MoWDI.</p> <p>(1-2) To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.</p> <p>(2-0) To collect basic information on Hygiene and Sanitation</p> <p>(2-1) To collect existing policies, guidelines, implementing manuals, training manuals, etc.</p> <p>(2-2) To collect good practices and lessons learned from past projects</p> <p>(2-3) To conduct a baseline survey</p> <p>(2-4) To survey actual conditions of O&M for rural water supply in Mchinji District</p> <p>(2-5) To conduct capacity assessment</p> <p>(2-5-1) To hold the workshop-style training</p> <p>(2-5-2) To set up the performance indicators</p> <p>(2-6) To analyze good practices and challenges</p> <p>(2-7) To identify challenges in order to make the framework more practical</p> <p>(2-8) To share findings at the project task force and compile the report based on the dialogue</p> <p>(3-1) To select recurrent O&M test activities and target communities following the framework</p> <p>(3-2) To make an implementation plan of test activities</p> <p>(3-3) To implement selected test activities at the selected communities in target communities</p> <p>(3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly</p> <p>(3-3-2) Facility design for better O&M and promotion of water point sanitation</p> <p>(3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics</p> <p>(3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain</p> <p>(3-3-5) Standardization and dissemination of monitoring system for the water supply</p>	<p>Inputs</p> <p>Japanese side:</p> <ol style="list-style-type: none"> 1. Japanese Experts (1) Chief Advisor (2) Rural Water Supply (3) Training (4) O&M of Rural Water Supply Facilities I and II (5) Project Coordination/ Hygiene & Sanitation <p>2. Machinery and Equipment</p> <ol style="list-style-type: none"> (1) Office equipment (Photocopier, Scanner, Facsimile, Computer, Printer and Projector) (2) Vehicle (4WD Station Wagon) (3) GPS (4) Motorbike <p>Malawian side:</p> <ol style="list-style-type: none"> 1. Counterpart (C/P) Personnel determined according to the C/P list submitted by MoWDI 2. Facilities <ol style="list-style-type: none"> (1) Office spaces in Mchinji District and facilities such as furniture and telephone lines necessary for the Japanese experts (2) Meeting rooms or lecture rooms for the training (3) Other facilities mutually agreed upon as necessary 3. Local cost <ol style="list-style-type: none"> (1) Allowances and transportations for the Malawian counterpart personnel and any participants for the training provided and business trips in the Project (2) Utility cost for the project offices (3) Operational expenses for customs clearance, storage and domestic transportation for the equipment provided by the Japanese side (4) Expenses for maintenance of equipment (5) Recurrent cost for O&M in Mchinji District 	<p>Preconditions</p> <p>- The budget for the project to be borne by Malawian side is available.</p>

facilities

- (3-3-6) Improvement of the rules on the manuals (use/storage and hierarchical management)
- (3-3-7) Activities for development of a text of maintenance and rehabilitation for deep well
- (3-3-8) Technical support to Regional Water Development Office to prepare their own regional annual activity plan for O&M activities in Mchinji District Council
- (3-3-9) Technical support to District Council and District Coordination Team to make O&M plan according to O&M framework to be integrated with District Water Supply and Sanitation Plan/District Strategy and Investment Plan
- (3-3-10) Assist District Council, District Coordination Team and Extension Workers to facilitate pilot communities to establish and/or update O&M plan
- (3-4) To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities
- (4-1) To make an implementation plan for larger-scale application of the strengthened O&M framework
- (4-2) To implement recurrent O&M activities following the strengthened O&M framework on a larger scale
- (5-1) To make the strengthened O&M framework acknowledged officially by MoWDI
- (5-2) To disseminate the strengthened O&M framework by seminar/workshop
- *The O&M framework means the guidelines and implementation manuals of rural water supply.

ANNEX 3 PLAN OF OPERATION

A handwritten signature in black ink, located in the bottom left corner of the page. The signature is stylized and appears to consist of several loops and a long vertical stroke.A handwritten signature in black ink, located in the bottom right corner of the page. The signature is more fluid and cursive than the one in the bottom left.

Plan of Operation

Project Name: The Project for Enhancement of Operation and Maintenance for Rural Water Supply
Project Duration: July 2011 ~ June 2015

Version 2
Date: 3, August, 2012

	2011		2012				2013				2014				2015	
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
(1) Implementation structure for strengthening the existing O&M framework for rural water supply is set up.																
(1-1) To set up the Project Task Force to discuss the strengthening of existing O&M framework for rural water supply in MoWDI.	█															
(1-2) To hold the Project Task Force meetings to identify challenges and share information on lessons learnt and good practices for strengthening of existing O&M framework.			█		█	█	█	█	█	█	█	█	█	█	█	█
(2) Present situation and challenges of O&M for rural water supply are investigated.																
(2-0) To collect basic information on Hygiene and Sanitation			█													
(2-1) To collect existing policies, guidelines, implementing manuals, training manuals, etc.	█	█	█													
(2-2) To collect good practices and lessons learned from past projects		█	█													
(2-3) To conduct a baseline survey	█	█	█													
(2-4) To survey actual conditions of O&M for rural water supply in Mchinji District			█													
(2-5) To conduct capacity assessment	█	█	█													
(2-5-1) To hold the workshop-style training	█	█	█													
(2-5-2) To set up the performance indicators			█													
(2-6) To analyze good practices and challenges			█													
(2-7) To identify challenges in order to make the framework more practical			█													
(2-8) To share findings at the Project Task Force and compile the report based on the dialogue			█													
(3) The existing O&M framework is strengthened based on the field test in Mchinji District.																
(3-1) To select recurrent O&M test activities following the framework			█													
(3-2) To make an implementation plan of test activities			█	█	█											
(3-3) To implement selected test activities at the selected communities in target communities					█	█	█	█	█	█	█	█	█	█	█	█
(3-3-1) Water tariff setting for hand pump facility and promotion of H&S practice motivate beneficiaries to pay for water regularly					█	█	█	█	█	█	█	█	█	█	█	█
(3-3-2) Facility design for better O&M and promotion of water point sanitation					█	█	█	█	█	█	█	█	█	█	█	█

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3. 3rd TC

	2011		2012				2013				2014				2015	
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
(3-3-3) Standardization and dissemination of a process for the introduction of Area Mechanics																
(3-3-4) Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain																
(3-3-5) Standardization and dissemination of monitoring system for the water supply facilities																
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(4) The strengthened O&M framework is applied to the whole Mchinji District.																
(4-1) To make an implementation plan for larger-scale application of the strengthened O&M framework																
(4-2) To implement recurrent O&M activities following the strengthened O&M framework on a larger scale																
(5) The strengthened framework is widely understood.																
(5-1) To make the strengthened C&M framework acknowledged officially by MoWDI																
(5-2) To disseminate the strengthened O&M framework by seminar/workshop																

* Malawi fiscal year starts in July and Japanese fiscal year starts in April.
 ** MoWDI and DWO prepare budget arrangement in January and February.
 *** Rainy season is from December to April.

A2 - 019

Appendix 3:
List of collected Documents during the Project

Sr.No	Classification Code			Name of Document/Data	Year	Month	No. of Page	Name of Publisher	Digital File Name	Key Words	Remark / URL
1	P	G 1 - N	Gov - E	VISION 2020, March 1998	1998	3	108	National Economic Council, Malawi	P - G1 - Vision_2020		
2	P	G 1 - N	Gov - E	National Decentralization Policy			16	Decentralisation Secretariate	P - G1 - National_Decentralization_Policy	Policy, decentralisation	
3	P	G 2 - N	Gov - E	Malawi Growth and Development Strategy II 2011-2016 (MGDS II)	2013		316	Malawi Government	P - G2 - MGDS-II	Strategy, MGDS	http://www.ndr.mw:8080/xmlui/handle/123456789/1378
4	P	G 2 - N	OGI - E	A Strategy for Capacity Development for Decentralization in Malawi, March 2006	2006	3	149	gtz/Ministry of Local Government & Rural Development	P - G2 - Capacity_Development_for_Decentralization		
5	P	G 2 - N	Gov - E	Malawi Poverty Reduction Strategy Paper	2002	4		Malawi Government	P - G2 - Poverty_Reduction_Strategy_Paper	Poverty analysis, structural adjustment, poverty reduction strategy, MPRS	No longer valid
6	P	WS 1 - N	Gov - E	National Water Policy	2005		43	Malawi Government	P - WSS 1 - National_Water_Policy	Policy, water resource management, water quality, pollution, hydro power, strategies	http://www.ndr.mw:8080/xmlui/handle/123456789/1371
7	P	WS 1 - N	Gov - E	Water Management Policy			35	Malawi Government	P - WSS 1 - Water_Management_Policy	Policy, water resources management	
8	P	H 1 - N	Gov - E	National Sanitation Policy, Dec. 2008	2008	12	82	Malawi Government	P - H1 - National_Sanitation_Policy	Sanitation, policy	http://www.ndr.mw:8080/xmlui/handle/123456789/1375
9	P	O 1 - N	Gov - E	Irrigation Policy			21	Malawi Government	P - O1 - Irrigation_Policy	Policy, irrigation development, environmental protection, technologies, agriculture,	
10	P	O 1 - N	Gov - E	National Forest Policy			33	Malawi Government	P - O1 - National_Forest_Policy	Policy, forestry management, ecotourism, non-profit forestry activities	
11	P	O 2 - N	Gov - E	National Land Policy	2002	1	89	Malawi Government	P - O2 - National_Land_Policy	Policy, land, tenure, land use planning, registration, land administration, dispute settlement	
12	L	G - N	Gov - E	Local Government Act, 1998	1998		35	Republic of Malawi	L - G - Local_Government_Act	Act, local government	
13	L	WS - N	Gov - E	Water Resources Bill	2010	3	109	Malawi Government	L - WSS - WaterworksAct	National Water Resources Authority, National Water Master Plan, water works water charges, water users association	
14	L	WS - N	Gov - E	Waterworks Act	1995		22	Government Printer, Zomba	L - WSS - Waterworks_Act	Act, water works, water board, sewerage	http://www.ndr.mw:8080/xmlui/handle/123456789/1374
15	L	WS - N	Gov - E	Laws of Malawi Water Resources Act	1969	11	49	Malawi Government	L - WSS - Water_Resources_Act_1969	Act, water resources, water rights, pollution	
16	L	O - N	Gov - E	Forest Act	1997	5	31	Malawi Government	L - O - Forest_Act_1997	Law, forest, forest management board, reserves, protected forest areas, afforestation, forest development and management fund	
17	L	O - N	Gov - E	Fisheries Conservation and Management Act (1997)	1997	11	38	R.L Gondwe (Clerk of Parliament)	L - O - Fisheries_Conservation_and_Management_Act	Law, fisheries conservation, registration, fishing vessels, licences	
18	L	O - N	Gov - E	Environmental Management Act	1996	8	26	Malawi Government	L - O - Environment_Management_Act	Environment, planning, impact assessment, quality standards, environmental management, pollution control, environmental fund	
19	L	O - N	Gov - E	Malawi National Parks & Wildlife Act (1992)	1992	5	39	R.L Gondwe (Clerk of Parliament)	L - O - National_Parks_and_Wildlife_Act	National park, wildlife management, Wildlife Research and Management Board,	
20	L	O - N	Gov - E	The town and country Planning Act			60	Malawi Government	L - O - Town_and_Country_Planning_Act	Law, development orders, planning permission, town and country planning	
21	G	G - N	Gov - E	Leadership Development Framework CONCISE VERSION (CIDA), Jan. 2009	2009	1	176	Republic of Malawi	G - G - Leadership_Development_Framework_Concise_Version	Civil service, leadership, management	
22	G	G - N	Gov - E	Leadership Development Framework (CIDA), Jan. 2009	2009	1	138	Republic of Malawi	G - G - Leadership_Development_Framework	Civil service, leadership, management	

Sr.No	Classification Code			Name of Document/Data	Year	Month	No. of Page	Name of Publisher	Digital File Name	Key Words	Remark / URL			
23	G	G	D	Gov	E	Budgeting Manual for Local Governments in Malawi	2006	10	89	National Local Government Finance Committee (NLGFC)	G - G - Budgeting_Manual_for_Local_Governments_in_Malawi	Budgeting, local government, LA, revenue source, activity based budgeting,		
24	G	O	N	MWDI	E	Water Supply Services Technical Document Management Guidelines	2015	3		Ministry of Agriculture,Irrigation and Water Development	G - O - Technical_Document_Management_Guidelines	document management, hierarchical order, WSS	http://www.ndr.mw:8080/xmlui/handle/123456789/1496	
25	G	WSS	1	N	MWDI	E	Implementation Guidelines for Rural Water Supply and Sanitation, July 2010 (Final ver.)	2010	7	23	MOIWD	G - WSS 1 - Implementation_Guidelines_for_Rural_WS&S		http://www.ndr.mw:8080/xmlui/handle/123456789/997
26	G	WS	1	N	Gov	E	Devolution of Functions to Assemblies Guidelines and Standards, Jan. 2003	2003	1	76	Ministry of Water Development	G - WSS 1 - Devolution_of_Functions_to_Assemblies_Guidelines_and_Standards	Decentralisation, devolution, standard	
27	G	WS	2	O	Oth	E	National Guidelines for Sustainable Operation and Maintenance of Hand Pumps in Rural Areas	2007	11	85	Ministry of Local Government and Housing (Republic of Zambia)	G - WSS 1 - Guidelines_for_Sustainable_O&M_of_Hand_Pumps_in_Rural_Areas	O&M, hand pump, rural water supply, SOMAP, Zambia	
28	G	WS	3	N	MWDI	E	Guideline for Rural Gravity Fed Piped Water Supply Tariff, Volume 2 Tariff Calculation Framework, July 2011	2011	7	18	Ministry of Irrigation and Water Development	G - WSS 3 - Guidelines_for_Rural_Gravity_Fed_Piped_Water_Supply_Tariff_Vol2	Water tariff, Rural Gravity Flow Piped Water Schemes (RGFPWs), O&M, rural water supply	http://www.ndr.mw:8080/xmlui/handle/123456789/1376
29	G	WS	3	N	MWDI	E	Guidelines for Establishment of Water Users Association in Malawi Market Centre and Rural Piped Water Supply and Sanitation Programme, August 2010 (Draft)	2010	8	16	MOIWD/ NWDP	G - WSS 3 - Guidelines_for_Establishment_of_WUA		http://www.ndr.mw:8080/xmlui/handle/123456789/1493
30	G	WS	4	N	MWDI	E	Sanitation Marketing and Hygiene Promotions Strategy for Peri-Urban Areas of Blantyre and Lilongwe Water Boards, Aug. 2009	2009	8	67	Ministry of Irrigation and Water Development	G - WSS 4 - Sanitation_Marketing_and_Hygiene_Promotions_Strategy	Sanitation marketing, hygiene promotion, strategy, Lolongwe, Blantyre, Lilongwe Water Board, Blantyre Water Board, low income areas (LIA), behavior change, hygien promotion, social marketing, training, financing	
31	G	H	4	N	OGI	E	Handbook and guide for Health Providers on the Essential Health Package (EHP) I Malawi	2004	4	35	Planning Department, Ministry of Health	G - H4 - Handbook_and_Guide_for_Health_Providers_on_Essential_Health_Package_(EHP)	Essential Health Package, EHP, IEC	
32	G	H	4	N,D	Gov	E	Health Surveillance Assistant Course Curriculum	2009	5	72	Primary Health Care, Ministry of Health	G - H4 - Health_Surveillance_Assistant_Course_Curriculum	Curriculum, HAS, training	
33	G	O	O	OGI	E	MALAWI TEVET INTERMEDIATE CERTIFICATE, Water Sector, WATER PLANT OPERATOR, TEVET-MALAWI 2006	2006		4	TEVET	G - O - TEVET_Intermediate_Certificate_Water_Plant_Operator		TVET occupational standard	
34	S	WS	1	N	OGI	E	MS 532 (1999) Borehole construction - Code of practice	1999		5	Malawi Standards Board	S - WSS 1 - MS532_Borehole_Construction-Code_of_Practice	Code of practice, borehold construction, drilling, casing, handpump, headworks, testing	
35	S	WS	4	N	DP	E	Water, Sanitation and Hygiene Standards for Schools in Low-Cost Settings, 2009	2009		70	UNCEF/ WHO	S - WSS 4 - Water_Sanitation_and_Hygiene_Standards_for_School		
36	S	WS	4	N	OGI	E	MS 214(2005) Drinking Water	2005		11	Malawi Standards Board	S - WSS 4 - Drinking_Water	Drinking water, standard	
37	S	WS	4	N	OGI	E	MS 678 (2005) Drinking water quality - Control and surveillance of water in public supply networks	2005		3	Malawi Standards Board	S - WSS 4 - Drinking_Water_Quality-Control_and_Surveillance	Drinking water, quality, control, surveillance, sample	
38	S	WS	4	N	OGI	E	MS 733(2005) Borehole and shallow well water quality - specification	2005		4	Malawi Standards Board	S - WSS 4 - Borehole_and_shallow_well_quality	Water quality, shallow well, hygiene	
39	S	O	O	OGI	E	Catalogue of MSB	2009		134	Malawi Standards Board	S - O - Catalogue_of_Malawi_Standards	Catalogue, standards		
40	IM	WSS	1	D	MWDI	E	Water Supply and Sanitation District Operational Manual, July 2010 (Final ver.)	2010	7	7	MOIWD	IM - WSS 1 - WSS_District_Operation_Manual	Point water supply, borehole, planning, construction, procurement, contract management, financial management, O&M, M&E, organisation, training, gender, environment, HIV/AIDS	http://www.ndr.mw:8080/xmlui/handle/123456789/1001
41	IM	WSS	1	D	MWDI	E	Implementation Manual for Piped and Point Water Supply System, July 2010 (Final ver.)	2010	7	52	MOIWD	IM - WSS 1 - Imple_Manual_for_Piped_and_Point_WS_System		http://www.ndr.mw:8080/xmlui/handle/123456789/998
42	IM	WS	1	D	MWDI	E	District Operational Manual (DOM), 2000	2000		124	Ministry of Water Development/ Rural Water Supply and Sanitation Programme	IM - WSS 1 - District_Operational_Manual		

Sr.No	Classification Code			Name of Document/Data		Year	Month	No. of Page	Name of Publisher	Digital File Name			Key Words	Remark / URL
43	IM	WS S 1 - D	MWDI - E	Manual on Community Managed Boreholes (Manual on How Districts and Communities Can Plan, Develop, and Manage Boreholes)				228	Ministry of Water Development Rural Water Supply & Sanitation Program	IM - WSS 1 -	Manual_on_Community_Managed_Boreholes			
44	IM	WS S 2 - O	Oth - E	RWSS O & M Implementation Manual & User Guide 1st Edition		2010	6	192	Ministry of Local Government and Housing (Republic of Zambia)	IM - WSS 2 -	RWSS_O&M_Implementation_Manual		Rural water supply, O&M, SOMAP, Zambia	
45	IM	WS S 2 - N	MWDI - E	Community Based Rural Water Supply, Sanitation and Hygiene Education Implementation Manual, January 1999		1999	1	74	Ministry of Water Development	IM - WSS 2 -	Community_Based_RWSS_and_Hygiene_Education			
46	IM	WS S 2 - D	MWDI - E	Guide Manual for Establishment and Management of Area Mechanic System		2015	3		Ministry of Agriculture,Irrigation and Water Development	IM - WSS 2 -	Guide_Manual_for_Establishment_and_Management_of_AM		Area Mechanic, manual	http://www.ndr.mw:8080/xmlui/handle/123456789/1476
47	IM	WS S 2 - D	MWDI - E	Guide Manual for Establishment of Afridev Hand Pump Spare Parts Supply Chain		2015	3		Ministry of Agriculture,Irrigation and Water Development	IM - WSS 2 -	Guide_Manual_for_Establishment_of_S_PSC		Area Mechanic, manual	http://www.ndr.mw:8080/xmlui/handle/123456789/1477
48	IM	WS S 2 - O	Oth - E	Supply Chain Management Manual for Rural Water Supply		2008	6	127	Ministry of Local Government and Housing (Republic of Zambia)	IM - WSS 2 -	Supply_Chain_Management_Manual		Supply chain, rural water supply, hand pump, SOMAP, Zambia	
49	IM	WSS 3 - D	MWDI - E	Implementation Manual for Town, Market Center and Surrounding Villages, Piped Water Supply and Sanitation, July 2010 (Final ver.)		2010	7	25	MOIWD	IM - WSS 3 -	Implementation_Manual_for_Town_and_Market_Center			http://www.ndr.mw:8080/xmlui/handle/123456789/999
50	IM	WS S 3 - D	MWDI - E	Manual on Community Managed Piped Schemes (Manual on How Districts and Communities Can Plan, Develop, & Manage Piped Schemes)				44	Ministry of Water Development Rural Water Supply & Sanitation Program	IM - WSS 4 -	Manual_on_Community_Managed_Piped_Schemes			
51	IM	WSS 4 - D	MWDI - E	Participatory Sanitation and Hygiene Promotion Implementation Manual, July 2010 (Final ver.)		2010	7	27	MOIWD	IM - WSS 4 -	Participatory_Sanitation&Hygiene_Promotion_Implementation_Manual			http://www.ndr.mw:8080/xmlui/handle/123456789/1000
52	IM	H 4 - N	OGI - E	Malawi PHAST for improved Rural Water Supply, Sanitation, Hygiene and Health, Training and Implementation Manual, July 2001		2001	7	66	Mr. Barle Makumba (Health Environmentalist)	IM - H4 -	Malawi_Phast			
53	IM	WS S 1 - D	MWDI - E	(Draft) Implementation Manual for Community Based Rural Water Supply, Sanitation and Hygiene Education, May 1998		1998	5	71	Ministry of Water Development	IM - WSS 1 -	Implementation_Manual_for_Community_Based_RWSS		CBM, rural water supply, sanitation,	Complemented by CBM manuals
54	IM	WS S 2 - D	MWDI - E	Draft Implementation Manual for Point Water Supply Systems Apr. 2007		2007	4	82	MOIWD	IM - WSS 2 -	Implementation_Manual_for_Point_Water_Supply_Systems		Point water supply, rural water supply, implementation strategies, institutional arrangement, training, capacity building, O&M, procurement, financial management	
55	IM	WS S 2 - N, D	MWDI - E	Implementation Guide Manual for Establishment of Borehole Pump Spare Parts Retail Shops Draft		2006			Ministry of Irrigation Water Development	IM - WSS 2 -	Implementation_Guide_Manual_for_Establishment_of_Borehole_Pump_Spare_Parts			
56	IM	WS S 2 - D	MWDI - E	Implementation Guide Manual for Establishment of Area Mechanic (Revised Draft), Nov. 2006		2006	11	10	MOIWD	IM - WSS 2 -	Implementation_Guide_Manual_for_Establishment_of_Area_Mechanics		Area mechanics, preventive maintenance, Afridev, trouble shooting	
57	TM	WS S 2 - N	MWDI - E	Training of Trainers Manual, 1999 (for Workshop May 31 - June 9 1999)		1999		76	Ministry of Water Development/ NWDP	TM - WSS 2 -	Training_of_Trainers_Manual			http://www.ndr.mw:8080/xmlui/handle/123456789/1377
58	TM	WS S 2 - D	MWDI - E	Trainer's Guide for Extension Worker Training, December 1999		1999	12	128	Ministry of Water Development/ Rural Water Supply and Sanitation Programme	TM - WSS 2 -	Trainers_Guide_for_EW_Training			
59	TM	WS S 2 - D	MWDI - E	Trainer's Guide for WPC/ VHWC Training, December 1999		1999	12	43	Ministry of Water Development/ Rural Water Supply and Sanitation Programme	TM - WSS 2 -	Trainers_Guide_for_WPC_VHWC_Training			http://www.ndr.mw:8080/xmlui/handle/123456789/1494
60	TM	WS S 2 - D	MWDI - E	Technical Manual for Training of Caretakers, April 2007 (Syllabus)		2007	4	19	Ministry of Water Development and Irrigation	TM - WSS 2 -	Technical_Manual_for_Training_of_Caretakers			
61	TM	WS S 2 - D	MWDI - E	Shallow Well Caretakers Training Manual, July 2006		2006	7	32	MOIWD/ Metaferia Consulting Engineers	TM - WSS 2 -	Shallow_Well_Caretakers_Training_Manual			
62	TM	WS S 2 - D	MWDI - E	Community Based anagement (O&M Refresher Course) Training Manual		2015	3		Ministry of Agriculture,Irrigation and Water Development	TM - WSS 2 -	CBM_Refresher_Training_Manual		CBM, Afridev, refresher course, training	http://www.ndr.mw:8080/xmlui/handle/123456789/1435
63	TM	WS S 2 - D	MWDI - E	Training Manual for Area Mechanics		2015	3		Ministry of Agriculture,Irrigation and Water Development	TM - WSS 2 -	Training_Manual_for_AM		Area Mechanics, training	http://www.ndr.mw:8080/xmlui/handle/123456789/1475
64	TM	WS S 2 - D	MWDI - C	Buku la Mapunziro Amakaniki a Mjigo		2015	3		Ministry of Agriculture,Irrigation and Water Development	TM - WSS 2 -	Buku_la_Maphunziro_Amakaniki_Amjigo		Area, Mechanics, training	http://www.ndr.mw:8080/xmlui/handle/123456789/1483
65	TM	WS S 2 - D	MWDI - E	Training Manual for Afridev Hand Pump Spare Parts Retail Shop Owners		2015	3		Ministry of Agriculture,Irrigation and Water Development	TM - WSS 2 -	Training_Manual_for_Afridev_Hand_Pump_SPRSO		spare parts, Afridev, retail shop, training, Area Mechanics	http://www.ndr.mw:8080/xmlui/handle/123456789/1478
66	TM	WS S 2 - D	MWDI - C	Buku la Maphunziro kwa eni Mashop Ogulitsa Zepangizo za Mjigo wa Afridev		2015	3		Ministry of Agriculture,Irrigation and Water Development	TM - WSS 2 -	Buku_la_maphunziro_kwa_eni_Mashop_u_Ogulitsa_Zipangizo_za		spare parts, Afridev, retail shop, training, Area Mechanics	http://www.ndr.mw:8080/xmlui/handle/123456789/1484

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67	TM	-	WS S 3 - D	MWDI - E	Water Users Association Training Manual, March 2010 (Draft)	2010	3	168	MOIWD/ NWDP	TM - WSS 3 - WUA_Training_Manual	http://www.ndr.mw:8080/xmlui/handle/123456789/1495	
68	TM	-	WS S 4 - D	MWDI - E	Hygiene Education for Integrated Rural Water Supply and Sanitation A Manual for Extension Workers	Unkno wn		26	Ministry of Water Development	TM - WSS 4 - Hygiene_Education_for_Integrated_RW SS_Manual_for_Ews	Integrated rural water supply and sanitation project, hygiene messages, Ntchisi, excreta disposal, water hygiene, food hygiene,	
69	TM	-	WS S 4 - C	MWDI - E	Sanitation Trainer's Guide. Ukhondo Mukuchitapo chani (1st Edition 2011)	2011		28	Ministry of Irrigation and Water Development	TM - WSS 4 - Sanitation_Trainers_Guide_Ukhondo_M ukuchitapo_chani	Latrine construction, business management, facilitation, training	
70	TM	-	H 4 - D	- E	(English Traslation) Ndongomeko Yophunzitsira Komiti ya za Umoyo Ya M'mudzi (Procedure on how to train Village Health Committee)	-	-	69	-	TM - H4 - (English_Translation)_Ndondomeko_Y ophunzitsira_Komiti_ya_za_Umoyo_Ya_ M'mudzi	VHC, Village Health Committee, training, extension workers,	English translation of No.78
71	TM	-	H 4 - D	Gov - E	Health Surveillance Assistant Training Manual Facilitator's Guide	2009	5	180	Primary Health Care, Ministry of Health	TM - H4 - Health_Surveillance_Assistant_Training Manual	HAS, training, primary health care, health, VHC, sanitation, hygiene, reproduction, family planning	
72	TM	-	H 4 - D	DP - E	Participatory Hygiene and Sanitation Transformation (PHAST) Trainer's Guide	2007	11	24	World Health Organisation	TM - H4 - Participatory_Sanitation_and_Hygiene_ Transformation_(PHAST)_Trainers_Gui de	PHAST, training, extension workers, modeule, time table	
73	TM	-	H 4 - D	DP - E	Participatory Hygiene and Sanitation Transformation (PHAST) Training Manual for Extension Workers	2007	11	67	World Health Organisation	TM - H4 - Participatory_Hygiene_and_Sanitation_ Transformation_(PHAST)_Training_Man ual_for_EWs	PHAST, training, extension workers	
74	TM	-	H 4 - D	OGI - E	Water Quality Surveillance Training Manual and Handbook for Extension Workers	2004	4	33	Ministry of Health	TM - H4 - Water_Quality_Surveillance_Training_M anual	Water quality surveillance, water sample, water test, sanitary inspection, safe water chain	
75	TM	-	H 4 - D	OGI - E	Malawi Health Population and Nutrition Programme Community Based Programme Management Training Module, Dec. 2003	2003	12	92	Lilongwe District Health Office	TM - H4 - Community_Based_Programme_Manag ement_Training_Module	Community Based Programme Management (CBPM), Training for Transformation (TfT), empowerment, action-oriented approach, facilitation, training, participation,	
76	TM	-	H 4 - O	DP - E	Facilitating "Hands-on" Training Workshops for Community-led Total Sanitation - A Trainers' Training Guide	2010	4	44	CLTS Foundation	TM - H4 - Facilitating_Hands_on_Training_Worksh ops_for_CLTS	CLTS, workshop, training, facilitation, triggering, tools	
77	TM	-	WS S 2 - D	MWDI - E	Draft Manual for Area Mechanics	Unkno wn		63	Ministry of Water Development/ UNICEF	TM - WSS 2 - Manual_for_Area_Mechanics		
78	TM	-	H 4 - D	- E	Ndongomeko Yophunzitsira Komiti ya za Umoyo Ya M'mudzi (Procedure on how to train Village Health Committee)	-	-	182	-	TM - H4 - Ndondomeko_Yopunzitsira_Komiti_ya_z a_Umoyo_Ya_M'mdizi	English translation available (No.70)	
79	TecM	-	WS S 1 - D	MWDI - E	GIS Manual Tools	Unkno wn		18	MOIWD/UNICEF	Tec M - WSS 1 - GIS_Manual_Tools		
80	TecM	-	WS S 1 - D	MWDI - E	Guideline for Water Supply Technology Options Ntchisi District/Integrated Rural Water and Sanitation Project for Ntchisi and Mzimba Districts, Feb. 2005	2005	2	63	Ministry of Water Development/METAFERIA Consulting Engineers	Tec M - WSS 1 - Guideline_for_WS_Technology_Options _Ntchisi	Low cost technology, Nchisi, Mzimba, rural water supply	
81	TecM	-	WS S 2 - D	MWDI - E	User Guide Manual on Monitoring and Evaluation Database for Water Points	2015	3		Ministry of Agriculture,Irrigation and Water Development	Tec M - WSS 2 - User_Guide_Manual_on_Monitoring_an d_Evaluation_Database	M&E, database, water points http://www.ndr.mw:8080/xmlui/handle/123456789/1381	
82	TecM	-	WS S 2 - D	Oth - E	Installation and Maintenance Manual for the Afridev Hand pump Revison 2- 2007	2007		76	SKAT-HTN Publication	Tec M - WSS 2 - Installation_and_Maintenance_Manual_f or_Afridev_2007		
83	TecM	-	WS S 2 - D, C	Oth - E	Installation and Maintenance Manual for the Afridev Hand pump, 2003	2003		32	SKAT-HTN Publication	Tec M - WSS 2 - Installation_and_Maintenance_Manual_f or_Afridev_2003	Afridev handpump, platform, installation, preventive maintenance, repair	
84	TecM	-	WS S 3 - D	DP - E	(Draft) Operation and Maintenance Manual / Didi Gravity - Fed Piped Water System, Thyolo District/COMWASH Projct, Oct. 2006	2006	10	21	COWATER International Inc	Tec M - WSS 3 - O&M_Manual_WOMWASH		
85	TecM	-	WS S 3 - D	MWDI - E	Gravity Fed Rural Piped Water Schemes Rural Piped Water Technical Manual, February 2000	2000	2	60	Ministry of Water Development	Tec M - WSS 3 - Gravity- fed_Rural_Piped_Water_Schemes_Tec hnical_Manual		
86	TecM	-	WS S 4 - N	MWDI - E	Guideline for Rapid Qualitative Biological Testing of Drinking Water Samples in Emergency situations Using H2S Strips (A Community Empowerment Tool) Guidelines, Oct. 2005	2005	10	15	MOIWD/UNICEF	Tec M - WSS 4 - Guideline_for_Rapid_Qualitative_Giolog ical_Testing		
87	TecM	-	WS S 4 - C/	MWDI - E	Low Cost Latrine Technologies First Edition (2011)	2011		12	Ministry of Irrigation and Water Development	Tec M - WSS 4 - Low_Cost_Latrine_Technologies	Catalogue, latrine, low cost, training	

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	TecM	WS S	3 - N	Oth - E								
88	TecM	WS S	3 - N	Oth - E	Gravity Fed Rural Piped Water Schemes Design Engineer's Manual	Unkn	wn	37	Republic of Malawi	Tec M - WSS 3 - Gravity-fed_Rural_Piped_Water_Schemes_Design_Engineers_Manual	Piped water supply, design	
89	TecM	WS S	2 - N	MWDI - E	Technical Manual -- Design and Technical specification for the Construction of Water Supply Facilities in Rural Areas, June 2001	2001	1	54	Ministry of Water Development/ UNICEF	Tec M - WSS 2 - Technical_Manual_Design_and_Technical_Specification		
90	TecM	WS S	2 - N, D	Oth - E	Afridev Handpump Specification, Revision 5	2005		228	SKAT-HTN Publication	Tec M - WSS 2 - Afridev_Handpump_Specification	Handpump, Afridev, deep well	
91	HB	G	- N	OGI - E	Development Planning System Handbook for District Councils, Revised 2011	2011	9	136	Ministry of Local Government and Rural Development	HB - G - Development_Planning_System_Handbook_for_District_Councils	District Development Planning, DDP, SEP	
92	HB	G	- N	Gov - E	Performance Management Policy and Procedures Handbook, March 2008	2008	3	41	Republic of Malawi	HB - G - Performance_Management_Policy_and_Procedures_Handbook	Civil service, performance management,	
93	HB	G	- N	Gov - E	Performance Management (Handbook) in the Civil Service	2008	3	41	Malawi Government	HB - G - Performance_Management	Performance management, civil service	
94	HB	G	- N	Gov - E	DHRMD STRATEGIC AND IMPLEMENTATION PLANNING HANDBOOK Ver. 4	2000		61	Department of Human Resources Management and Development	HB - G - DHRMC_Strategic_and_Implementation_Planning_Handbook	Civil service, service delivery, strategic plans, workshop, envisioning, prioritisation, budget, M&E	
95	HB	G	- D	Gov - E	Development Planning System Handbook for District Assemblies, Sept. 2001	2001	9	128	Republic of Malawi	HB - G - Development_Planning_System_Handbook_for_District_Assemblies		
96	HB	G	- C	OGI - E	Village Action Planning Handbook	2004	11	32	Malawi Government	HB - G - Village_Action_Planning_Handbook	Village action planning, VAP, village development framework, VDF, DDP	
97	HB	WS S	2 - N	MWDI - E	O&M Technical Document Utilistaion Handbook	2015	3		Ministry of Agriculture,Irrigation and Water Development	HB - WSS 1 - Technical_Document_Utilisation_Handbook	O&M, reference, book, utilisation	http://www.ndr.mw:8080/xmlui/handle/123456789/1482
98	HB	WS S	2 - C	MWDI - E	Community Handbook on Water and Sanitation Afridev Version	1999		72	Community Based Management Unit, Malawi Government	HB - WSS 2 - Community_Handbook_on_Water_and_Sanitation_Afridev_Version		http://www.ndr.mw:8080/xmlui/handle/123456789/1481
99	HB	WS S	2 - C	MWDI - C	Malangizo a Chitukuko cha Madzi ndi Zaumoyo m'midzi Pampu ya Afridev	-	-	75	Ministry of Water Development/ UNICEF	HB - WSS 2 - Malangizo_a_Chitukuko_cha_Madzi_ndi_Zaumoyo_M'mdizi_Pampu_ya_Afridev		
100	HB	WS S	2 - C	MWDI - C	Malangizo a Chitukuko cha Madzi ndi Zaumoyo m'midzi Pampu ya Afridev	2010		36	Ministry of Water Development/ UNICEF	HB - WSS 2 - Malangizo_a_Chitukuko_cha_Madzi_ndi_Zaumoyo_M'mdizi_Pampu_ya_Afridev_short_ver		
101	HB	WS S	2 - D	MWDI - E	Community Based Management (O&M Refresher Course) Tool Kits	2015	3		Ministry of Agriculture,Irrigation and Water Development	HB - WSS 2 - CBM_Refresher_Training_Tool_Kits	CBM, tool, refresher training, Afridev	http://www.ndr.mw:8080/xmlui/handle/123456789/1382
102	HB	WS S	2 - D	MWDI - E	Education Community Radio Programme for Enhancing O&M for Rural Water Supply -- Sharing Experiences from Mchinji District	2015	3		Ministry of Agriculture,Irrigation and Water Development	HB - WSS 2 - Educational_Community_Radio_Programme_for_Enhancing_O&M	community radio, O&M, Mchinji	http://www.ndr.mw:8080/xmlui/handle/123456789/1481
103	HB	WS S	2 - D	MWDI - E	District O&M Planning Handbook	2015	3		Ministry of Agriculture,Irrigation and Water Development	HB - WSS 2 - District_O&M_Planning_Handbook	District, planning, DCT, O&M, log frame	http://www.ndr.mw:8080/xmlui/handle/123456789/1480
104	HB	WS S	2 - D	MWDI - E	Borehole Rehabilitation Handbook for Estension Workers	2015	3		Ministry of Agriculture,Irrigation and Water Development	HB - WSS 2 - Borehole_Rehabilitation_Handbook_for_EWs	borehole, rehabilitation, extension workers, WMA	http://www.ndr.mw:8080/xmlui/handle/123456789/1485
105	HB	H	4 - D	OGI - E	Tools Manual/Participatory Hygiene and Sanitation Transformation (PHAST), Nov. 2007	2007	11	44	World Health Organisation	HB - H4 - PHAST_Tools_Manual	PHAST, tools, posters, training, community participation, empowerment, water and sanitation	
106	HB	H	4 - C	OGI - E	Participatory Hygiene and Sanitation Transformation (PHAST) Tool's Kit	2007	12	43	Primary Health Care, Ministry of Health	HB - H4 - PHAST_Tools_Kit	PHAST, Participatory, tool, community participation, empowerment,	
107	HB	H	4 - C	Oth - E	Home Hygiene in Developing Countries, Preventing of Infection in the home and the peri-domestic setting	2006		100	International Scientific Forum on Home Hygiene	HB - H4 - Home_Hygiene_in_Developing_Countries	Training, hygiene, prevention of infection, health	

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108	HB	-	H 4 - O	DP - E	Handbook on Community-Led Total Sanitation, March 2008	2008	3	51	Kamal Kar with Robert chambers/ Plan International	HB - H4 - Handbook_on_CLTS	CLTS, facilitation, training	
109	HB	-	E 4 - O	OGI - E	Standard 5-8 Hygiene Promotion in Primary Schools	2011	2	54	Ministry of Education, Science and Technology (UNICEF)	HB - E - Std5- 8_Hygiene_Promotion_in_Primary_Scho ols	Primary teacher, information, skills, participatory method, three key hygiene practices, hand washing, latrine, drinking water	No entry to Koha
110	HB	-	E 4 - O	OGI - C	Posters for Hygiene Promotion in Primary Schools			10	Ministry of Education, Science and Technology (UNICEF)	HB - E - Posters_for_Hygiene_Promotion_in_Pri mary_Schools	Posters, hygiene, health, toilet	
111	HB	-	E 4 - O	OGI - E, C	Standard 1&2 Hygiene Promotion in Primary Schools	2011	2	52	Ministry of Education, Science and Technology (UNICEF)	HB - E - Std1- 2_Hygiene_Promotion_in_Primary_Scho ols	Primary teacher, hygiene practice, diarrhoea, participatory techniques, facilitation, tools	
112	HB	-	E 4 - O	OGI - E, C	Standard 3&4 Hygiene Promotion in Primary Schools	2011	2	56	Ministry of Education, Science and Technology (UNICEF)	HB - E - Std3- 4_Hygiene_Promotion_in_Primary_Scho ols	Primary teacher, hygiene practice, diarrhoea, poster, tools	
113	HB	-	O - O	OGI - E	TEVET qualifications framework Handbook, Nov. 2004	2004	11	43	Technical, Entrepreneurial, Vocational Education and Training Authority	HB - O - TEVET_Qualifications_Framework_Han dbook		
114	HB	-	WS S 4 - D	MWDI - E	Sanitation, Hygiene Education and Community Procedures Manual, January 2000	2000	1	30	Ministry of Water Development	IM - WSS 4 - Sanitation_Hygiene_Education_and_Co mmunity_Procedures_Manual	Water point sanitation, hygiene education, latrine	
115	R	-	G 1 - N	OGI - E	A Strategy for Capacity Development for Decentralization in Malawi, REPORT on Phase 1: Capacity Assessment, December 2005	2005	12	119	gtz/Ministry of Local Government & Rural Development	R - G1 - A_Strategy_for_Capacity_Developem t_Decentralization_Report		
116	R	-	G 1 - N	Gov - E	Decentralization Process in Malawi (The Year 2002 in Review)	2003	1	37	Department of Local Government	R - G1 - Decentralization_Process_in_Malawi	Decentralisation, local government, NDP, planning, finance, Technical Cooperation Framework,	
117	R	-	G 1 - O	Oth - E	CONSULTANCY REPORT ON THE ESTABLISHMENT OF LOCAL AUTHORITY BASELINES FOR 12 MDG INDICATORS Final Draft, July 15, 2005	2005	7	72	MALAWI SOCIAL ACTION FUND	R - G1 - Consultancy_Report_on_Establishment _of_Local_Authority		
118	R	-	G 1 - O	Oth - E	Assessment of Financial Management Capacity of Local Assemblies MAIN REPORT, June 2005	2005	6	119	O&M Associates/MASAF	R - G1 - Assessment_of_Financial_Management _Capacity_of_Local_Assemblies		
119	R	-	G 2 - O	Oth - E	MALAWI SOCIAL ACTION FUND (MASAF) ANNUAL REPORT, REPORTING PERIOD JULY 2002 TO JUNE 2003	2003		45	MALAWI SOCIAL ACTION FUND	R - G2 - Malawi_Social_Action_Fund_Annual_Re port		
120	R	-	WS S 1 - N	MWDI - E	Sector Performance Report 2011/2012 for Malawi Irrigation Water and Sanitation	2012	12	62	Ministry of Water Development and irrigation	R - WSS1 - Sector_Performance_Report_2011_12		http://www.ndr.mw:8080/xmlui/handle/123456789/1490
121	R	-	WS S 1 - N	MWDI - E	Malawi Sector Performance Report 2011	2011	6	106	Ministry of Water Development and irrigation	R - WSS 1 - Sector_Performance_Report_2011	Sector performance report, 2011	http://www.ndr.mw:8080/xmlui/handle/123456789/1372 ; No entry to Koha
122	R	-	WS S 1 - N	MWDI - E	Sector Performance Report 2010	2011	9	80	Ministry of Irrigation and Water Development	R - WSS 1 - Secto20r_Performance_Report_2010		
123	R	-	WS S 1 - O	OGI - E	The State of Rural Water Supply Services (Draft), August, 2010	2011	8	25	Department of Water Services (M&E Division)	R - WSS 1 - Stare_of_Water_Supply_Services		
124	R	-	WS S 1 - O	MWDI - E	Themack Working Group Report on Water Resources Management	2008	7	29	MoIWD	R - WSS 1 - Thematic_Working_Group_Report_on_ Water_Resources_Management	SWAP, TWG, water resources management,	
125	R	-	WS S 1 - O	DP - E	Water Supply and Sanitation Sector Financing, Jun 2006	2006	6	53	WaterAide	R - WSS 1 - Water_Supply_and_Sanitation_Sector_ Financing		
126	R	-	WS S 2 - N	MWDI - E	Strengthening the Water and Sanitation Sector Management Information System in Malawi, July 2008- June 2010	2008		39	Malawi Government	R - WSS 2 - Strengthening_Water_and_Sanitation_S ector_MIS	Project proposal, MIS	
127	R	-	WS S 2 - D	OGI - E	Annual Wash Report	2010		32	Mchinji District Hospital / Water Development	R - WSS 2 - Annual_WASH_Report_2010	WASH, progress report, 2010, Mchinji	
128	R	-	WS S 2 - O	MWDI - E	Handbook to the Development of Tariff Guidelines for Rural Gravity Fed Piped Water Supply Tariff, Volume 1, July 2011	2011	7	80	Ministry of Irrigation and Water Development	R - WSS 2 - Handbook_to_Development_of_Tarif_G uidelines_Vol1	Tariff guidelines, recommendations	Recommendations for developing tariff guidelines, based on the field study
129	R	-	WS S 2 - O	MWDI - E	NWDP II Quarterly Report: No. 8	2011	7	50	PMU/MoIWD	R - - N/A	NWDP, quarterly report, AfDB, AusAid	Available in hard copy only

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130	R	WS S	2 - O OGI - E	Malawi School WASH 2008, A Status Report on Water, Sanitation, and Hygiene in Primary Schools, May 2009	2009	5	50	Ministry of Education, Science & Technology	R - WSS 2 - Malawi_School_WASH_2008		
131	R	WS S	2 - O OGI - E	Malawi School WASH 2008, A Status Report on Water, Sanitation, and Hygiene in Primary Schools, ANNEXES, Jan. 2009	2009	1	244	Ministry of Education, Science & Technology	R - WSS 2 - Malawi_School_WASH_2008_Annexes		
132	R	WS S	2 - O DP - E	Project Appraisal Report, Strengthening Water Sector Monitoring and Evaluation, August 2009	2009	8	57	African Development Bank	R - WSS 2 - Project_Appraisal_Report_Strengthening_Water_Sector_M&E		
133	R	WS S	2 - O MWDI - E	National Water Development Program (African Development fund Supported Component) Quarterly Report: NO. 5	2008	10		Project Coordination Unit/Program Management Unit	R - WSS 2 - NWDP_Quarterly_report_No5		
134	R	WS S	2 - O DP - E	Project Appraisal Report, National Water Development Program	2008	3		African Development Bank	R - WSS 2 - Project_Appraisal_Report_NWDP		NWDP
135	R	WS S	2 - O DP - E	Appraisal Report for Rural Water Supply and Sanitation and Water Resources Sub-Components	2008	4	60	African Development Fund.	R - WSS 2 - Appraisal_Report_for_RWSS_and_Water_Resources_Sub-Components	NWDP, AFDB,	
136	R	WS S	2 - O Oth - E	Integrated Rural Water Supply and Sanitation Project for Ntchis and Mzimba Districts, Project Completion Report	2008	12		METAFERIA CONSULTING ENGINEERS/ MOIWD	R - WSS 2 - Integrated_RWSS_Project_chishi_Mzimba_Project_Completion_Report		
137	R	WS S	2 - O MWDI - E	National Water Development Programme, Investment Planning for Rural Water Supply and Sanitation, Draft Final Report	2007	7	26	MOIWD/NWDP	R - WSS 2 - NWDP_Investment_Planning_for_RWS		
138	R	WS S	2 - O DP - E	PROJECT COMPLETION REPORT, DISTRICT WATER SUPPLY III PROJECT, MAY 2007	2007	5	57	African Development Bank	R - WSS 2 - Project_Completion_Report_District_Water_Supply_III_Project		NWDP
139	R	WS S	2 - O DP - E	Transition in Community Management of Chagwa Gravity - Flow System in Malawi	2007		20	WaterAid	R - WSS 2 - Transition_in_Community_Management_in_Chagwa	Gravity-flow piped water supply system, Chagwa, Cooperative Society, WaterAid, community management, piped water system rehabilitation	
140	R	WS S	2 - O DP - E	Let There Be Life: Making Water Sector Funds work for the People/An Analysis of the Water Supply and Sanitation Sector Financing in Malawi	2005		37	WaterAid (Malawi Economic Justice Network in Partnership with WaterAid)	R - WSS 2 - Let_There_be_Life_Making_Water_Sector_Funds_Work	Budget, finance, effectiveness of financing	
141	R	WS S	2 - O DP - E	Water Point Inventory Capacity Building Project, 14 May 2003	2003	5	24	WaterAid	R - WSS 2 - Water_Point_Inventory_Capacity_Building_Project	Water point survey, WaterAid,	
142	R	WS S	2 - O DP - E	Halving the Proportion of People without Access to Safe Water by 2015 Part 2: New indicators for the new millennium, September 2003	2003	9	49	WaterAid	R - WSS 2 - Halving_Proportion_of_People_without_Access_to_Safe_Water_by_2015_Part_2	Indicators, M&E, access to water, MDG	Annex of No.142
143	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 1: Proposed Institutional Restructuring/NWDP/	2002	11	48	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex1	institutional reform, Water Resources Board,	Annex of No.154
144	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 2: Review of Legislation, Nov. 2002	2002	11	63	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex2	Water Resources Act, legislation	Annex of No.154
145	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 3: Feasibility of Catchment Management Authorities, Nov. 2002	2002	11	32	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex3	Catchment Management Authority	Annex of No.154
146	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 4: Human Resources Training, Nov. 2002	2002	11	47	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex4	Human resource training	Annex of No.154
147	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 6: Surface Water Network, Nov. 2002	2002	11	104	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex	Surface water division	Annex of No.154
148	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 7: Groundwater Network, Nov. 2002	2002	11	47	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex7	Groundwater network, network design	Annex of No.154
149	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 8: Water Quality Network, Nov. 2002	2002	11	70	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex8	Water quality monitoring, Water Quality and Pollution Control Division, Water Laboratory	Annex of No.154
150	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 10: Small Works Contract, Nov. 2002	2002	11	18	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex10	Small works contract	Annex of No.154
151	R	WS S	2 - O MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 11: MIS and Databases, Nov. 2002	2002	11	71	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resources_Board_Annex11	MIS, database, information	Annex of No.154

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Sr.No	Classification Code			Name of Document/Data	Year	Month	No. of Page	Name of Publisher	Digital File Name	Key Words	Remark / URL	
152	R	-	WS S 2 - O	MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 12: NWRMA Business Plan, Nov. 2002	2002	11	50	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resource_s_Board_Annex12	NWRMA, business plan, vision, mission, budget	Annex of No.154
153	R	-	WS S 2 - O	MWDI - E	NWDP/Strengthening of the Water Resources Board Annex 13: Terms of Reference for Further Support, Nov. 2002	2002	11	38	Mott MacDonald	R - WSS 2 - NWDP_Strengthening_Water_Resource_s_Board_Annex13	NWRMA, TOR	Annex of No.154
154	R	-	WS S 2 - O	MWDI - E	NWDP/Strengthening of the Water Resources Board Final Report, Nov. 2002	2002	11	139	Mott MacDonald	R - WSS 2 - Strengthening_Water_Resource_s_Board_Final_Report	Water Resources Board, water resource management, legislation, NWRMA, water quality monitoring, human resources, MIS, database, public awareness, stakeholder participation, training	Main document of No.143-153
155	R	-	WS S 2 - O	Gov - E	(2nd Draft) Rural Water Supply and Sanitation in Malawi/sustainability through Community Based Management, May 1995	1995	5	65	Government of Malawi with support of the United Nations	R - WSS 2 - RWSS_in_Malawi_Sustainability_through_CB_M	CBM, rural water supply, sanitation, HESP, MASAF	No entry to Koha
156	R	-	WS S 2 - O	DP - E	Managing communal water kiosks in Malawi: Experiences in water supply management in poor urban settlements in Lilongwe			11	WaterAide	R - WSS 2 - Managing_Communal_Water_Kiosks_in_Malawi	Water kiosk, CCODE, WaterAid, Lilongwe, peri-urban	
157	R	-	WS S 3 - O	DP - E	Halving the proportion of people without access to safe water by 2015/A Malawian perspective Part 2: New Indicators for the Millennium Development Goal	2003		63	WaterAid	R - WSS 3 - Halving_Proportion_of_People_without_Access_to_Safe_Water_by_2015_Part_2	water points, distribution, equity, GPS, spatial information, water point density, MDG	Same as No.142
158	R	-	WS S 4 - D	OGI - E	Salima Water Atlas 2009, Status Report on Rural Water, 2010	2010		34	Salima District Assembly	R - WSS 4 - Salima_Water_Atlas		
159	R	-	WS S 4 - O	OGI - E	Poverty and Social Impact Analysis Private Sector Participation in the Distribution and Management of Water Services: A Study of Low Income Areas in Blantyre and Lilongwe	2007	6	91	Ministry of Economic Planning and Development/MoIWD	R - WSS 4 - Poverty_and_Social_Impact_Analysis		
160	R	-	WS S 5 - N	MWDI - E	Current Models Being Used by Implementers of Establishment of Area Mechanic and Borehole Pump Spare Parts Retail Shops Revised Draft	2006			Ministry of Irrigation and Water Development	R - WSS 5 - Current_Models_Being_Used_by_Implementers_of_Establishment_of_Area_Mechanic	Area mechanics, training, spare parts, retail shop	
161	R	-	WS S 5 - O	DP - E	Operation and Maintenance in Rural Malawi: Comparative Analysis of Three Operation and Maintenance Systems for Rural Water Supply in Malawi, May 19, 2010	2010	5	49	InterAide (Engineers Without Borders Canada/InterAide)	R - WSS 5 - Operation_and_Maintenance_in_Rural_Malawi_Comparative_Analysis		
162	R	-	WS S 5 - O	MWDI - E	REPORT ON THE ONE-DAY WORKSHOP ON THE FUTURE UTILIZATION OF CHIGWEJE CAMPSITE, 12 MAY 2006	2006	5	77	MOIWD	R - WSS 5 - Report_on_One-day_Workshop_on_Future_Utilisation_of_Chigweje_Campsite		
163	R	-	WS S 5 - O	OGI - E	Proceedings' report of the Training of Trainers in Community Based Programme Management, Oct. 2001	2001	10	111	Lilongwe District Health Office	R - - N/A	Community Based Programme Management, workshop, leadership, planning, needs assessment, CBNA, adult learning	Available only in hard copy
164	R	-	WSS 5 - O	MWDI - E	National CBM Consultative Workshop Report (14-16 December 2000)	2000	12	39	Ministry of Water Development	R - WSS 5 - National_CBM_Consultative_Workshop_Report	CBM, workshop reportmulti-sector, DRA, rural water supply, plan of action, roles of stakeholders	
165	R	-	H - O	DP - E	CLTS IN MALAWI – PROGRESS TO DATE (NOV. 2009)	2009	11		UNCEF	R - H - CLTS_in_Malawi		
166	R	-	O 3 - O	OGI - E	Malawi Multiple Indicator Cluster Survey Preliminary Report 2006	2006		52	National Statistical Office, Zomba, Malawi, UNCEF	R - O3 - MICS_Report_2006	Sample survey, social development indicators, World Fit for Children, WFFC, UNICEF	
167	R	-	WS S 2 - O	Oth - E	RWSSP Management Consultant's Report	2000			C. Ralph Mckim (Mckim & Associates)	R - WSS 2 - RWSSP_Management_Consultant's_Report	Rural water supply, sanitation, CBM	
168	R	-	G - O	Gov - E	Assessment of Capacity in Programme and Project Management (Assessment Report April 15 2008)	2008	4		PPM Capacity Assessment Report	R - - N/A	Capacity assessment, public sector, UNDP, strategy, planning, PPM	
169	R	-	WS S 1 - O	MWDI - E	Annual Report MoWDI	2011		48	MoWDI	R - WSS 1 - Annual_Report_for_Fiscal_Year_2010_2011	Annual report, 2011	

Sr.No	Classification Code			Name of Document/Data			Year	Month	No. of Page	Name of Publisher	Digital File Name	Key Words	Remark / URL
170	R	-	WS S 3 - O	Oth	-	E	2009	4	31	Press Trust	R - WSS 3 - Tikoliwe_Gravity-Fed_System_Final_Disigne_Report		
171	R	-	WS S 4 - D	OGI	-	E	2010		26	Mchinji District Assembly	O - WSS 4 - Mchinji_Water_Atlas_2008		
172	R	-	WS S 4 - D	OGI	-	E	2010		22	Likoma District Assembly	O - WSS 4 - Likoma_Water_Atlas_2009		
173	R	-	WS S 3 - N, D	Oth	-	E	2011	9	49	Dr.Asiyati Lorraine Chiweza	R - WSS 3 - Baseline_Assessment_of_LDF	LDF, Local Development Fund, capacity of district	
174	R	-	G 3 - O	Gov	-	E	2008	8	78	Republic of Malawi	R - G3 - Capacity_in_Human_Resource_Management	Capacity assessment, human resource management, DHRMD, public service	Missing
175	O	-	WS S - N	MWDI	-	E	2012	4	124	Ministry of Agriculture,Irrigation and Water Development	O - WSS - WSIP_Volume_I	Investment plan, 2012	http://www.ndr.mw:8080/xmlui/handle/123456789/1479
176	O	-	WS S - N	MWDI	-	E	2012	4	107	Ministry of Agriculture,Irrigation and Water Development	O - WSS - WSIP_Volume_II	Investment plan, 2012	http://www.ndr.mw:8080/xmlui/handle/123456789/1491
177	O	-	WS S - N	MWDI	-	E	2010		8	Ministry of Irrigation and Water Development	O - WSS - TOR_for_Establishment_of_National_S&H_Coordination_Unit		Small volume
178	O	-	WS S - D	DP	-	E	2010	8	16	InterAide	O - WSS - InterAide_Maintenance_System_Project		
179	O	-	WS S - O	DP	-	E	2011	11	6	InterAide	O - WSS - Water_Committe_Training_Instructions_InterAide	InterAid, shop owners training,	
180	O	-	WS S - O	DP	-	E	2010	10	37	Word Bank	O - WSS - Aide_Memoire_NWDP-II		IDA Mission Aide Memoire, No entry to Koha
181	O	-	WS S - O	DP	-	E	2009	1	10	InterAide/UNICEF	O - WSS - InterAide_Support_to_O&M_RWS		
182	O	-	WS S - O	DP	-	E	2008			InterAide	O - WSS - Data_and_Documents_InterAide_Maintenance_System_Project		
183	O	-	WS S - O	MWDI	-	E	2007	3	65	Ministry of Irrigation and Water Development	O - WSS - Implementaiton_Manual_forWR_Management_Component	Implementation manual, NWDP	
184	O	-	WS S - O	DP	-	E	2007	8	31	MOIWD/UNICEF	O - WSS - Establishment_of_Community_Based_O&M_in_UNICEF_T2_Districts	UNICEF, area mechanics, training, supply chains maintenance contracts	Project document
185	O	-	WS S - O	Oth	-	E	2007	4	210	Ministry of Local Government and Housing (Republic of Zambia)	O - WSS - Zambia_Naitonal_Rural_Water_Supply_Sanitation_Project	Rural water supply, national programme, Zambia	
186	O	-	WS S - O	DP	-	E	2005	12	62	WaterAide	O - WSS - WaterAid_Learning_for_Advocady_and_Good_Practice		
187	O	-	WS S - O	DP	-	E	2005	1	56	African Development Bank	O - WSS - RWSS_Initiative_Framework_for_Implementation	FFI (Framework for Implementation), RWSSI, AfDB	
188	O	-	WS S -	OGI	-	C	2011	9	2	Ministry of Irrigation and Water Development	O - WSS - Muli_Nacho		
189	O	-	H - O	DP	-	E	2005			UN Water	O - H - N/A	Sanitation, international year of sanitation, 2008, factsheetsUN-Water	Booklet and leaflets, available only in hard copy

Sr.No	Classification Code				Name of Document/Data	Year	Month	No. of Page	Name of Publisher	Digital File Name	Key Words	Remark / URL
190	O	H	O	OGI - E	District Integrated Social Sanitation, Hand Washing & Safe Water Communication Plan 2007-2011	2007	5		Mol&WD, MoH and Partners	O - H - N/A	Sanitation week, District Integrated Social Sanitatio, Hand Washing and Safe Water Communication Plan,	Available only in hard copy
191	O	LG	D	OGI - E	UNICEF-Government of Malawi Contribution to the District Annual Work Plan for 2012	2012	4	27	Mchinji District Council	O - LG - UNICEF_Bovt_Contribution_to_District_Annual_Work_Plan_2012	Mchinji, district, annual work plan, UNICEF,	
192	O	LG	D	OGI - E	Mchinji District Council Strategic Implementation Plan	2011	7	32		O - LG - Mchinji_Strategic_and_Implementation_Plan	Strategic and Implementaiton Plan, DSIP, Mchinji, DDP, decentralisation	
193	O	LG	D	OGI - E	Mchinji District Assembly Socio-Economic Profile 2008-2012	2007		144	Mchinji District Assembly	O - LG - Mchinji_Socio-Economic_Profile_200802011		
194	O	LG	D	OGI - E	Mchinji District Assembly District Strategy and Investment Plan (WASH) DSIP 2007 – 2015	2007	11	43	Mcinji District Assembly	O - LG - Mchinji_DSIP?2007_2012		
195	O	LG	C	OGI - E	Kawere Village Action Plan			8	B.C Mandere (District Commissioner)	O - LG - Kawere_Village_Action_Plan	Action plan, Kawere, Mchinji	
196	O	O	N	DP - E	Country Programme Action Plan 2008-2011	2008		59	UNICEF	O - O - UNICEF_Country_Programme_Action_Plan_2008-2011		
197	O	WS S	-	MWDI - E	Sanitation Marketing and Hygiene Promotions Strategy for Urban Low-Income Areas in Lilongwe and Blantyre, Aug. 2009	2009	8	78	MOIWD	O - WSS - Sanitation_Marketing_and_Hygiene_Promotions_Strategy		
198	OTW	O	N	Gov - E	Printed Publications Act (Laws of Malawi Chapter 19:01)	1968		4	Malawi Government	OTW - O - Laws_of_Malawi_19_1_Printed_Publications_Act	Printed publication act	
199	OTW	O	N	Gov - E	National Archives Act (Laws of Malawi Chapter 28:01)	1968		14	Malawi Government	OTW - O - Laws_of_Malawi_28_1_National_Archives_Act	National Archives	
200	OTW	O	O	OGI - E	Introduction to the Concept of Records Management	2008	5	8		OTW - O - Introduction_to_Concept_of_Records_Management	Record management,	Paper presented at Records Management and Registry Operations Course for Clerical and Administrative personnel, Zomba, May 2008
201	OTW	O	O	OGI - E	The Wonderful Treasure -- A Case of the National Archives of Malawi	2006	5	9		OTW - O - Wonderful_Treasure	National Archives,	
202	OTW	O	O	OGI - E	What you should know about the National Archives of Malawi	2006		2	Malawi Government	OTW - O - What_you_should_know_about_the_National_Archives_of_Malawi	National Archives	Brochre
203	OTW	O	O	Gov - E	Copy Right Act (Law of Malawi Chapter 49-3)					OTW - O - Law_of_Malawi_49_3_Copyright_Act		

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Appendix 4:
**Report on the Analysis of the Present Status and
Challenges**

Ministry of Agriculture Irrigation and Water Development (MoAIWD)

**The Project for Enhancement of Operation and Maintenance
for Rural Water Supply
in the Republic of Malawi
(1st year)**

**Report on the Analysis of the
Present Status and Challenges**

February 2012

Japan International Cooperation Agency (JICA)

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Annex 1: Contents of National Guidelines and Manuals

Annex 2: Spare Parts Price by Inter Aide sport shop

Annex 3: List of existing policies, guidelines, implementing manuals, training manuals for hygiene and sanitation

Abbreviations

ADC	Area Development Committee
AEC	Area Executive Committee
AfDB/ADB	African Development Bank
AM	Area Mechanic
CBM	Community Based Management
C/P	Counterpart Personnel
CDF	Constituency Development Fund
DA	District Assembly
DC	District Commissioner
DCT	District Coordination Team
DEC	District Executive Committee
DEHO	District Environmental Health Officer District Environmental Health Office
DFID	Department for International Development
DPD	Department of Planning and Development
DWO (DWDO)	District Water Officer (District Water Development Officer) District Water Office (District Water Development Office)
DWSS	Department of Water Supply Services
EW	Extension Worker
EWB	Engineers Without Borders
GVH(s)	Group Village Head (s)
HMIS	Health Management Information Systems
HSA	Health Surveillance Assistant
ICWP	Improved Community Water Points
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JOCV	Japan Overseas Cooperation Volunteers
LDF	Local Development Fund
M&E	Monitoring & Evaluation
MGDS	Malawi Growth and Development Strategy
ADC	Area Development Committee
MoAIWD	Ministry of Agriculture, Irrigation and Water Development
MoIWD	Ministry of Irrigation and Water Development
MP	Member of Parliament

NGO(s)	Non Governmental Organization (s)
NSO	National Statistical Office
NWDP	National Water Development Programme
O&M	Operation and Maintenance
PDM	Project Design Matrix
PO	Plan of Operation
RWDO (C)	Regional Water Development Office (Center)
RWSS	Rural Water Supply and Sanitation
SHSA(s)	Senior Health Surveillance Assistant (s)
SOMAP	Sustainable Operation& Maintenance Project for Rural Water Supply
STA	Sub-Traditional Authority
SWAp	Sector Wide Approach
SWG	Sector Working Group
TA	Traditional Authority
TC	Technical Committee
TWG	Technical Working Groups
UNICEF	United Nations Children Fund
VDC	Village Development Committee
VH	Village Head
VHWC(s)	Village Health and Water Committee (s)
WASH	Water Supply, Sanitation and Hygiene
WG	Working Group
WHO	World Health Organization
WMA(s)	Water Monitoring Assistant (s)
WPC(s)	Water Point Committee (s)

1 Introduction

In this report, we first extracted challenges in the current status of the operation and maintenance of the rural water supply and improvement in sanitation in the process of collecting good practices and lessons learned from manuals and projects in the past, the results of the Baseline Survey and the Present Status Survey on the operation and maintenance of the rural water supply in Mchinji District as well as the outcomes of the implementation of the capacity assessment. Following this, we analyzed the extracted challenges, and clarified and summarized the challenges to be identified in order to make the maintenance framework more practical.

2 Identification of good practices and challenges

a. Good practices and lessons learned identified in the process of collecting existing manuals

MoAIWD has produced many manuals and guidelines in the rural water supply/sanitation sub-sector since the introduction of CBM in 1990's. Approximately 50 manuals and guidelines, including drafts of manuals and guidelines prepared by ministry and development partners, have been collected in this Project and in the Detailed Planning Survey¹ combined.

In addition, MoAIWD has been revising important manuals for the operation and maintenance of water supply and sanitation under the NWDP II and has published the following seven as government-approved manuals/guidelines since April 2009:

- a.1. Water Supply and Sanitation District Operational Manual (Jul-2010)
- a.2. Implementation Guidelines for Rural Water Supply and Sanitation (Jul-2010)
- a.3. Implementation Manual for Piped and Point Water Supply System (Jul-2010)
- a.4. Participatory Sanitation and Hygiene Promotion Implementation Manual (Jul-2010)
- a.5. Implementation manual for Town, Market Center and Surrounding Villages, Piped Water Supply and Sanitation (Jul-2010)
- a.6. Water User Association Training Manual (Apr-2009)
- a.7. Guidelines for Establishment of Water Users Association in Malawi, Market Centre and Rural Piped Water Supply and Sanitation Programme (Aug-2010)

Among them, "a.1. Water Supply and Sanitation District Operational Manual", which was prepared as a manual for the implementation of rural water supply and sanitation projects, covers the necessary strategies, procedures for selecting facilities and sites, construction supervision, enlightenment about sanitation and procedures and details of accounting and facility operation and maintenance required for the implementation of rural water supply and sanitation projects at the district level with clear and precise description. Many policies, guidelines, implementation manuals and training manuals relevant to this manual have been prepared and developed, and in each of them, relevant manuals are clearly referred to. Another manual, the CBM Manual developed in 1999 for the operation and maintenance at the community level, includes manuals and training programs developed separately for the different types of users, *i.e.* extension workers and members of WPCs/VHWCs.

¹ The Detailed Planning Survey for this Project was conducted by JICA in November 2010.

The table below summarizes the good practices and lessons learned with regard to the operation and maintenance manuals.

Table 2-1: Survey finding and Good practice/lesson learned

Item	Survey finding	Good practice/lesson learned
Contents	<ul style="list-style-type: none"> • In the manuals, not only contents of works to be implemented are described, but also departments involved and the order of their implementation are described. (See Attachment Annex 1) • In the CBM Training Manual developed in 1999, explanation is given visually with illustrations. • "Community Handbook on Water and Sanitation, Afridev Version", which is included in the CBM manual, has been translated in local languages. • All the manuals other than the above-mentioned are in English. • Manuals approved by the government are prepared for all those involved in the rural water supply and sanitation services • In many cases, the CBM Manual approved by the government has been used after being edited to suit specific requirements of individual projects. • Since 1999, many guideline and manuals were produced, however duplication is found in them because classification is not considered. 	<ul style="list-style-type: none"> • Contents of the manuals are presented in an easy-to-understand way for its users. • Contents are presented in an easy-to-understand way for its users. • The local-language versions of the manual concerned are appropriate for use at the community level. • Manuals in local languages will help the people at the community level understand their contents. • Rewriting a selected relevant part of a manual with user-friendly contents (in terms of language, expression and contents to be described) will facilitate its use at the community level. • If implementation of refresher training for WPC members when a new member is appointed and on a regular basis is clearly provided as a rule in the manual, it will be easy to follow the procedures to be taken when a new member is appointed to a WPC. • By summarizing each guideline and manuals in a classification, duplicated contents can be recognized.

Item	Survey finding	Good practice/lesson learned
Management method	<ul style="list-style-type: none"> It took long time to collect the manuals because most of them were owned by individual officer of MoAIWD as the sources. 	<ul style="list-style-type: none"> Systematic management of manuals with electronic data of the list of manuals, managers and locations will make search for a manual easy.
	<ul style="list-style-type: none"> Many manuals are not stored in a proper way at the District Office when we visited there to see which manuals it had. 	<ul style="list-style-type: none"> Establishment of a manual management rule will make the management of manuals easy at each level of the operation and maintenance.
Hierarchical management	<ul style="list-style-type: none"> Although mutually-related manuals refer to each other in their texts, it is difficult to identify their mutual relation without reading them. 	<ul style="list-style-type: none"> If a user's guide which describes the procedures and methods of using manuals/guidelines hierarchically is made available, related manuals can be easily recognized.
Update system	<ul style="list-style-type: none"> For each of the many manuals collected, it is obliged to confirm with a person in charge of preparation of the manual concerned to define whether it was at the stage of draft or had already been approved by the government. 	<ul style="list-style-type: none"> If a system providing procedures for the approval and update of manuals is made available, latest information can be obtained easily.
Human resource development	<ul style="list-style-type: none"> In the CBM1 Training to WPC members, trainees are provided not with the training manuals but with notebooks and pens and asked to write down the explanation written on flipcharts on their notebooks. 	<ul style="list-style-type: none"> Although it is desirable to distribute a training manual to each participant, the method described on the left has an advantage of allowing continuous implementation of the training under the limited budget.

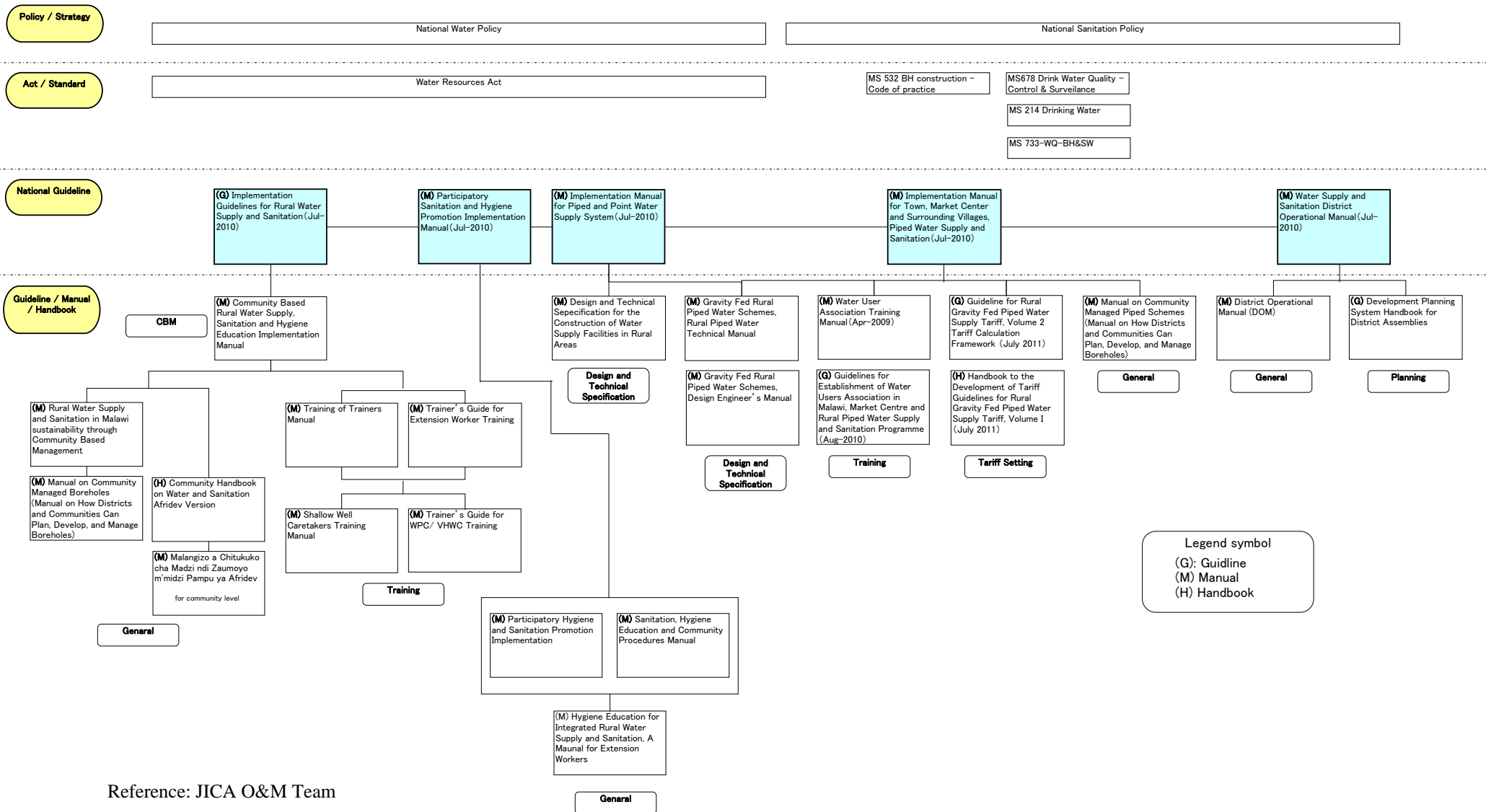
The above-mentioned good practices and lessons learned revealed that, although the existing manuals were prepared for use by all those involved in the rural water supply and sanitation services, their contents may be improved by rewriting them with user-friendly contents for their use at the community level. From the good practices and lessons learned, the challenges mentioned below, including establishment of a tool for search of government-approved manuals and preparation of user-friendly manuals, have been identified.

Table 2-2: Extracted Challenge and Measure to solve

Item	Challenges	Proposed Action
Contents	<ul style="list-style-type: none"> Renewing of some existing manuals with user-friendly contents for their use at the community level 	<ul style="list-style-type: none"> It makes up deficiency with new contents after reviewing some existing manuals.

Item	Challenges	Proposed Action
		(Examples) → Translation of manuals to be used at the WPC/VHWC level into local languages → Preparation of an additional manual on the CBM1 Refresher Training and the training for new WPC/VHWC members → It make up for the lack of the description of the relevant manual, the contents of the description are more clarified. → Regarding the duplicated, it is integrated with the latest version. → Manuals for the community level is summarized to at most two pages in the A4 size that used illustrations. Laminating is made on the manual.
Management method	<ul style="list-style-type: none"> • Improvement of a rule on use and storage of manuals 	<ul style="list-style-type: none"> • Improvement of a system for approval and update of manuals • Preparation of a database of manuals and drafting manual management rules at the levels of ministry, regional office, district and community
Hierarchical management	<ul style="list-style-type: none"> • Management of the existing manuals 	<ul style="list-style-type: none"> • Hierarchical management of the existing manuals • Preparation of a user's guide for the use of the existing manuals

The figures below show conceptual diagrams of the establishment of the rule on manuals and the hierarchical management system.



Reference: JICA O&M Team

Figure 2-1: One of the example of the classification by hierarchical

Policy	National Sanitation Policy
	National Water Policy
	National Environment Policy
	Draft National Environmental Health Policy

Strategy	Open Defecation Free Strategy
	Sanitation Marketing and Hygiene Promotion Strategy For Low income Areas in Lilongwe and Blantyre

Act	National Health Bill
	Public Health Act
	Sanitation Act

(Classification)	Hygiene Promotion	Sanitation Technology		Approach		Monitoring	Capacity Building
(Classification 2)				CLTS	PHAST		
Guideline/ Manual/ Handbook/ promotion or teaching material	(M) Posters (Nthawi zoyenera kusamba m' manja, Njira zoyenera kutsata posamba m' manja, etc..)	(M) Muli Nacho	(H) Sanitation Trainers Guide	(G) Facilitating "Hand-On" Training, Workshop for Community Led Total Sanitation, A Trainers Training Guide	(G) PHAST Trainers Guide	(G)Guideline for Rapid Qualitative Biological Testing of Drinking Water Samples in Emergency situations Using H2S Strips (A Community Empowerment Tool) Guidelines	Health Surveillance Assistant Course Calcium
Legend Symbol (G) Guideline (M)Manual (H) Handbook (M) Material i.e.posters, bouchers				(M) Malawi PHAST for improved Rural Water Supply, Sanitation, Hygiene and Health, Training and Implementation	(M)Water Quality Surveillance Manual, Training Manual and Handbook	(G)Health Surveillance Assistant Facilitator Guide	
Reference: JICA O&M Team				(M)PHAST Training Manual for Extension Workers			(M) Health Surveillance Assistant Training Manual
					PHAST Tool' s Kit		

Figure 2-2: The Current possible classification of manuals and guidelines for hygiene and sanitation

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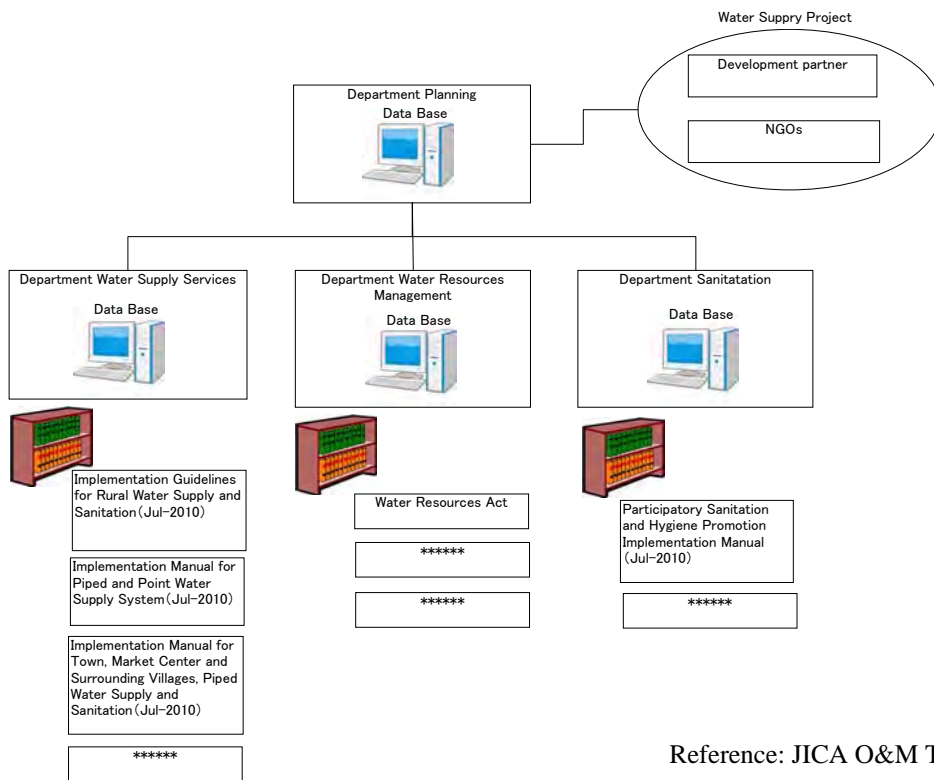


Figure 2-3: One the options for management of guidelines and manuals (each department has a responsibility)

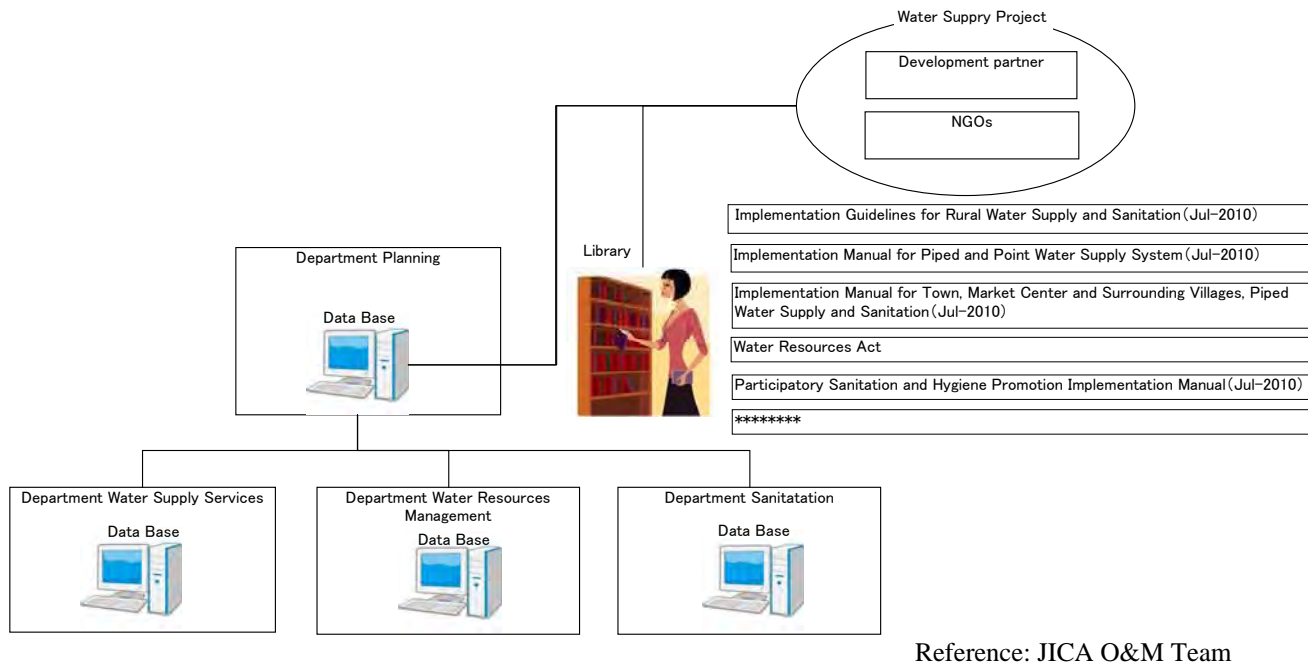
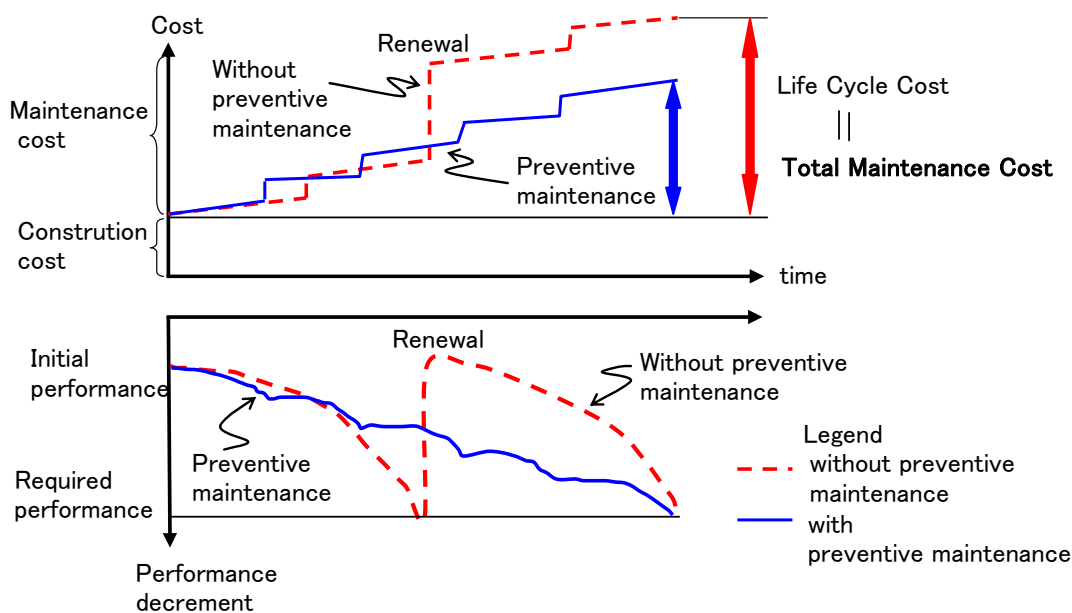


Figure 2-4: One the options for management of guidelines and manuals (department of planning has a responsibility)

Among the challenges mentioned above, those on the contents are regarded as challenges directly required for the improvement of the existing maintenance framework. However, improvement of environment for operation and maintenance framework for the establishment of the rule and hierarchical management requires an interdepartmental, inter-ministerial, sector-wide approach beyond the jurisdiction of Department of Water Supply services of the Ministry of Agriculture, Irrigation and Water Development. Therefore, we it is recommended to establish a comprehensive manual management system under the instruction of the Department of Planning.

b. Setting of reasonable user fee for hand pump facility and its publicity

User fees are collected to pay for the operation and maintenance (O&M) cost of the water supply facilities equipped with hand pumps. A decision on the fee collection method, the amounts of the fees and the method of safekeeping of money is made in the CBM training which is implemented while the facility is being constructed by participatory approach which allows a beneficiary community to make the decision is used. Use of the participatory approach is considered very effective in creating the sense of ownership of the facility among community members as it respects their decision. However, they have little experience in managing an operation fund for a water supply facility and do not seem to be sufficiently familiar with the management method. Therefore, sufficient information has to be provided to them when they make the decision. In particular, there are many suspected cases in which decision on user fees has been made by community members who do not have sufficient knowledge of the cost required for O&M of the facilities until the end of their lifetime. A consequence of this insufficient knowledge is the cases of prolonged periods of non-functionality of the facilities caused by communities concerned having failed to accumulate sufficient savings for facility maintenance by the time of the breakdown.



Source: web

Figure 2-5: Conceptual diagram of facility maintenance required until the end of its lifetime

A decision on the user fees for the facility O&M is made after the completion of the facility construction. The number of users and data on their financial capacity, including their average income, minimum income among them and seasonal income, are used as bases of the decision making. Meanwhile, it is necessary to provide community with explanation why it is necessary to collect user fees with presentation of a standard O&M cost for a type of facility being constructed in their community and to make the explanation an effective motivation for them to pay the fees before the decision-making.

For the above-mentioned purpose, it is proposed to develop of teaching materials which facilitate decision-making by community in the CBM training in the pilot project to be implemented in the second year by the Project Task Force. For the development of the teaching materials, data on the cost of daily O&M of the facilities for Afridev hand pumps in Mchinji District will be collected and the collected data will be analyzed with the sales data of the stores in the supply chain supported by Inter Aide to estimate the average facility O&M cost in the area concerned.

c. Facility design for better O&M

The Government of Malawi made installation of the Afridev Pumps developed with the VLOM concept for machine-drilled wells as a standard in the 1990's and standardized the structure of water supply facilities for hand pumps. As a consequence, the work required for the planning, designing and execution has been reduced and efficiency of facility maintenance has been improved. This policy of the Government of Malawi is highly regarded as a best practice. (The standard drawings are attached hereto as reference materials.)

On the other hand, the following problems on the facility structure have been identified in the Field Survey and the Baseline Survey:

- I) The water supply facilities have not been fenced in. Therefore, the water sources are not protected from livestock invading the premises of the facilities.
- II) Many facilities lack soak away pits and, therefore, are in unsanitary conditions in which contaminated water is discharged to the surrounding areas untreated.
- III) A laundry space is designed in the standard drawings. However, some facilities have user rules and regulations prepared jointly by VHWC/WPC and community users which prohibit washing in watering places for the protection of sanitary environment around water sources.

Community are usually responsible for construction of fences and soak away pits and users of

the facilities construct these structures with their own ideas and innovation. However, there are cases in which such structures collapse several months after their construction because of the poor quality of the materials used. There are also quite a few cases in which soak away pits do not perform its intended function of environmental protection in and around water sources because the soil at the water sources has such properties that do not let polluted water permeate the soil.

Such circumstances require creation of the sense of ownership of the facility among community members and maintenance of sanitary environment at the water source through construction of these ancillary facilities such as fence and soak away pits in accordance with an informed choice on their structures made by community in a community meeting held in the CBM training during the construction period, using standard structural drawings of a low-cost and general-use facility as reference.

In addition, the need for establishment of a standard drawing of a water supply facility without a laundry space is expected to arise as part of a plan to allow community to select which ancillary structure, such as a laundry space, in the existing standard drawings should be constructed in the facility in their community in accordance with their needs.





	
<p>Unsanitary condition due to no functioned soak away pit in Mchinji</p>	<p>Unsanitary condition due to no functioned soak away pit in Mchniji</p>
	
<p>Well functioned soak away pit in Mchinji</p>	<p>Well functioned soak away pit in Mchinji</p>

Photo 2-1: Situation of soak away pit




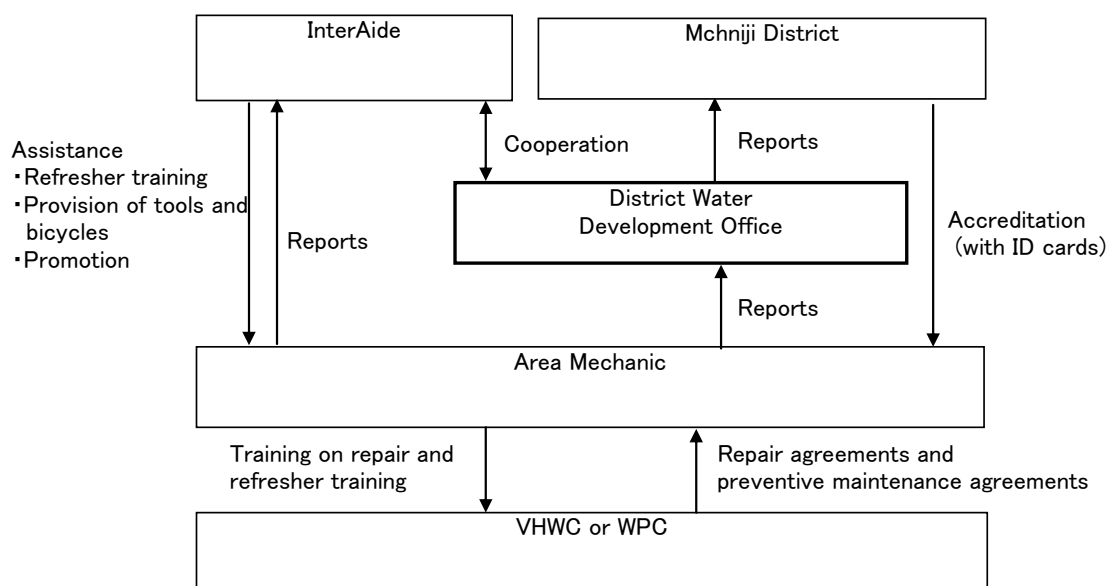
	
<p>Brick fence in Mchinji</p>	<p>Concrete fence in Mchinji</p>
	
<p>Timber fence</p>	

Photo 2-2: Situation of fence

d. Area Mechanics (AMs)

“The Kalembo Integrated Groundwater Project” implemented by GITEC in 1993 was the first project in Malawi in which Area Mechanics (AMs) were introduced. Since then, several NGOs have provided assistance to AMs in their assistance activities. At present, UNICEF (in its WASH Project), Inter Aide and EWB are providing assistance to them. Such assistance to AMs has contributed to maintenance and improvement of the fractional ratios of rural water supply facilities. The figure and the table on the following page show the current organizational structure of a project implemented in Mchinji District by Inter Aide and the lessons learned from and best practices in the Inter Aide Model identified in the past study, respectively.



Reference: JICA O&M Team

Figure 2-7: Organisational structure of Inter Aide’s assistance to AMs

Table 2-3: Best Practices and Challenges for Establishing AMs in the model of InterAide

Lessons Learnt	Best Practices
(i) The area mechanics are being trained as business entrepreneurs.	(i) Establishment of area mechanics as business entrepreneurs
(ii) A local NGO has been formed to monitor local artisans.	(ii) Establishment of a local NGO to support the are mechanics
(iii) Artisans linked to local NGO and if the NGOs collapse then the sustainability of the local artisan will be at stake.	(iii) Establishment of local contracts between area mechanics and the borehole committees promotes sense of ownership and community
(iv) There is no link between the local artisan	

Lessons Learnt	Best Practices
with local existing structures like the VDCs, ADCs, and the DCT. (v) Technical support from WMA and DCT is not clear. (vi) Local artisans competing with MoIWD oversees repairs of the BHs in the area because of no coordination. (vii) Local artisans to be engaged in training CBM1 at fee paid by the community. (viii) Local artisans given bicycles (ix) The community are aware of the presence through newsletter and use of billboards.	management (iv) Local artisans are given bicycles (v) Local artisans to train CBM1 at a fee (vi) The publicity of area mechanics through newsletters and billboards (vii) Use of identity cards by area mechanics minimizes stealing of borehole pump parts

Source : 「Current Models Being Used by Implementers of Establishment of Area Mechanic and Borehole Pump Spare Parts Retail Shops, 2006, MoIWD」

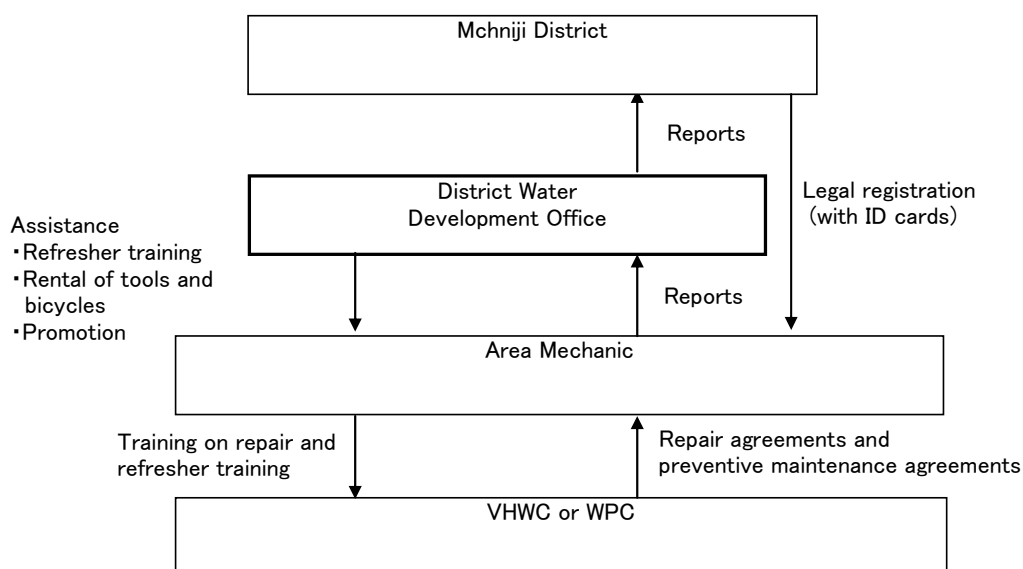
MoAIWD produced two manuals, “Implementation Guide Manual Establishment of Area Mechanic Revised Draft” and “Draft Training Manual for Area Mechanic”, for the introduction of AMs in 2006. Since then, new findings and lessons have been accumulated through the continuous assistance to AMs by Inter Aide, UNICEF and EWB, among others. Therefore, the need to revise the manuals to make them more practical with the new lessons is expected to arise. In particular, it is considered desirable to establish the flow of the works systematically, from selection and training of candidate AMs to provision of follow-up assistance to trained AMs, and to enable DWDO to implement the works in accordance with the established workflow and the revised manuals in future. The table below shows draft contents of the revised manuals under consideration.

Table 2-4: Draft contents of the revised manuals under consideration

Manual/Guidelines to be produced (draft)	Summary of the contents
Guidelines for the Introduction of AMs	Methods to recruit and select candidate AMs, identification of catchments areas, roles of stakeholders, types of maintenance contract, standard fee tables for the service, etc.
Training Manual for AMs	Training method (for initial and refresher training) etc.
Guidelines for the Management of AMs	Registration, loan of tools, form of maintenance contracts, report forms, diagnosis forms, etc.

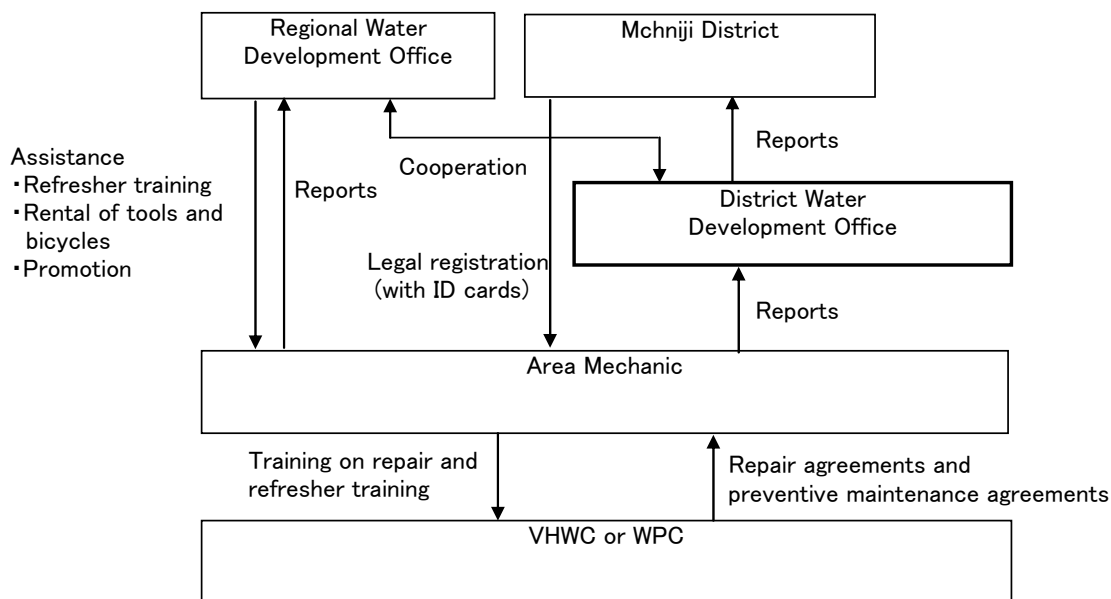
It is considered desirable that the revision work is implemented under the leadership of the Project Task Force consisting of staff members of MoAIDW and DWDO and with assistance from development partners, including Inter Aide, UNICEF and EWB. It is also considered that this opportunity to learn the entire process of revising manuals will be a valuable experience for the members of the Project Task Force for their activities in future.

Meanwhile, there is an issue to be addressed in future, namely, the need to establish a clear vision for a system of assistance to AMs after the completion of the assistance from Inter Aide. In the long run, it is recommendable for DWDO to take responsibility of providing assistance to AMs. However, since it is considered difficult for DWDO, especially which have never had AMs, to implement a series of works beginning with selection of candidate AMs, a future vision will be required for who should take the responsibility. For example, the responsibility may be borne by RWDO. Alternatively, assistance from NGOs and development partners may be sought under the coordination of MoAIWD for the implementation of the works. Regardless of which of the above-mentioned methods is to be used, it is considered important to create an appropriate environment for a player of the responsibility to provide assistance to AMs during the transition period for which the ultimate purpose is to hand over the responsibility to DWDO. Therefore, the Project Task Force will have discussion on creation of such an environment on the basis of the idea of the counterpart.



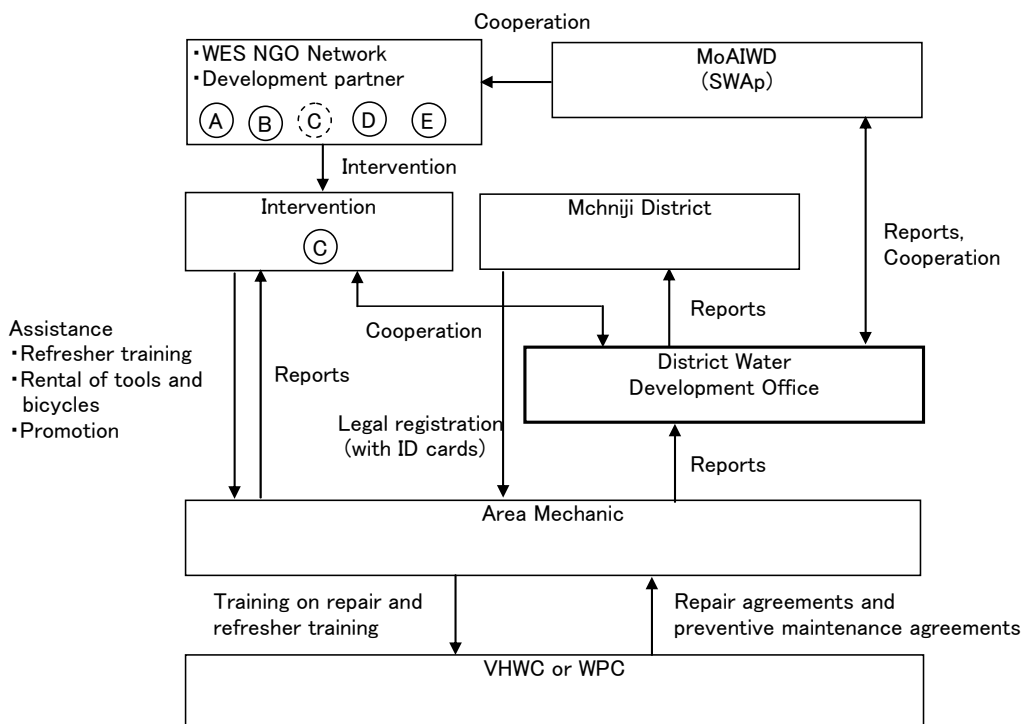
Reference: JICA O&M Team

Table 2-5: System of assistance to AMs in future (draft)



Reference: JICA O&M Team

Table 2-6: Option 1 of the system of assistance to AMs during the transition period



Reference: JICA O&M Team

Table 2-7: Option 2 of the system of assistance to AMs during the transition period

e. Assistance to the improvement of spare parts supply chain

e.1 Spare parts supply chain operated by a private entrepreneur (Chipiku stores)

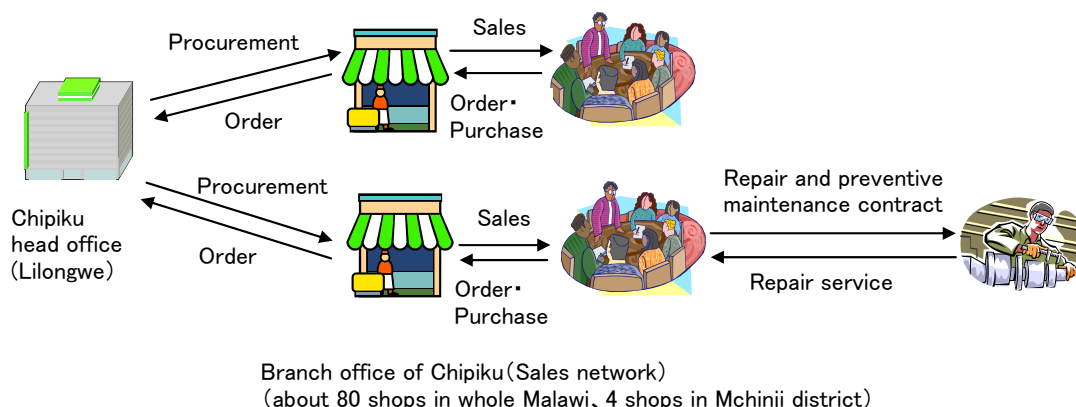
The Malawian Government decided to make the Afridev Pump the standard hand pump to be installed at boreholes to be newly installed in 1990 onwards through franchise general stores (Chipiku stores) which had a nationwide distribution network.

The Malawi Government imported these spare parts and ensured their sale at each Chipiku store at controlled prices while trying to reduce the level of the overall financial burden by a revolving system. Since then, the parts had been supplied under the initiative of the government, which had made such an effort as dispatching pre-export inspectors to India for quality control. However, the government had accumulated deficit because the changes in foreign exchange market and inflation made purchase costs higher than retail prices. Also, Chipiku Stores went bankrupt temporarily after losing in competition with a new retail store franchise established after the transition to the multiparty system. For these reasons, the government-led supply network collapsed in 2000. However, the purpose of this effort of the Malawian Government of establishing a stable supply network of inexpensive parts with use of an existing nationwide retail network as a public service itself is regarded as an appropriate choice².

Later, Chipiku Stores have been purchased by a new investor and its retail network has been expanded. Although they continue to sell spare parts of Afridev pumps, most of Chipiku Stores are located in small- to medium-scale like trading and market center or larger commercial centers, making procurement of spare parts difficult for residents in villages far from those commercial centers.

In addition, an interview by Inter Aide revealed that the existing Chipiku Stores do not usually replenish spare parts immediately after they have become out of stock because the market for the spare parts is too small to expect profit from it.

² "Project Study on Lessons and Challenges in Operation and Maintenance of Rural Water Supply Facilities in Sub-Saharan Africa", Project Study Report, March 2010, JICA



Reference: JICA O&M Team

Table 2-8: Supply network of spare parts run by Chipiku store

e.2 Improvement of a supply chain by Inter Aide

InterAide, an NGO, has been implementing a project for O&M of water supply facilities, which include assistance to the improvement of a supply chain, in Mchinji District since 2008. At present, spare parts are available at six stores in the entire Mchinji District. The assistance to the improvement of the supply chain, together with the assistance to AMs, contributes to the maintenance of water supply facilities by enabling procurement of spare parts required for repairing broken-down facilities in a very short period.

InterAide has accumulated sufficient knowledge and experience concerning improvement of a supply chain in the assistance activities implemented so far (see the table below for the outline). Therefore, it is necessary to revise “Implementation Guide Manual for Establishment of Borehole Pump Spare Parts Revised Draft” published in 2006 by MoAIWD using the best practices found in the assistance of Inter Aide as reference.

It is considered recommendable that the Project Task Force of MoAIDW takes the lead in the revision with assistance from development partners, including Inter Aide, as in the case of the revision of the manual for AMs.

Table 2-9: Outline of Inter Aide’s assistance to the construction of a supply chain

Item	Description
Method to establish support stores	Inter Aide establishes its own support stores in areas at least 20 km from the nearest privately-owned Chipiku Store to avoid competition in Mchinji, Dowa and Salima Districts which are target areas for the support. InterAide establishes its own support stores in accordance with its location plan which aims at

	even distribution of the support stores in terms of access from every area in a district.
Incentives to the support stores	<p>i) InterAide provides CBM 1 and Inventory management training (a two-day course) to store owners.</p> <p>ii) InterAide and a support store conclude a two-year agreement containing the following:</p> <ul style="list-style-type: none"> • InterAide provides the support store with spare parts worth MK 10,000 (ca. US\$ 70) and display shelves as well as posters and files for sales promotion. • InterAide provides procurement and delivery services of spare parts. • The store owner ensures that her/his store has stock of spare parts at or above the minimum levels. • The store owner sells parts to communities at fixed prices and issue receipts using the (triplicate) forms designated by the project.
Parts in stock and pricing	InterAide adopts a policy of setting prices of spare parts at the same prices as or slightly higher than those at the privately-owned Chipiku Stores. Support stores may either 1) purchase spare parts directly at the Inter Aide office or 2) use delivery service of Inter Aide. Prices differ according to the purchase method. On the other hand, the retail prices to communities are fixed (see the Annex 2).

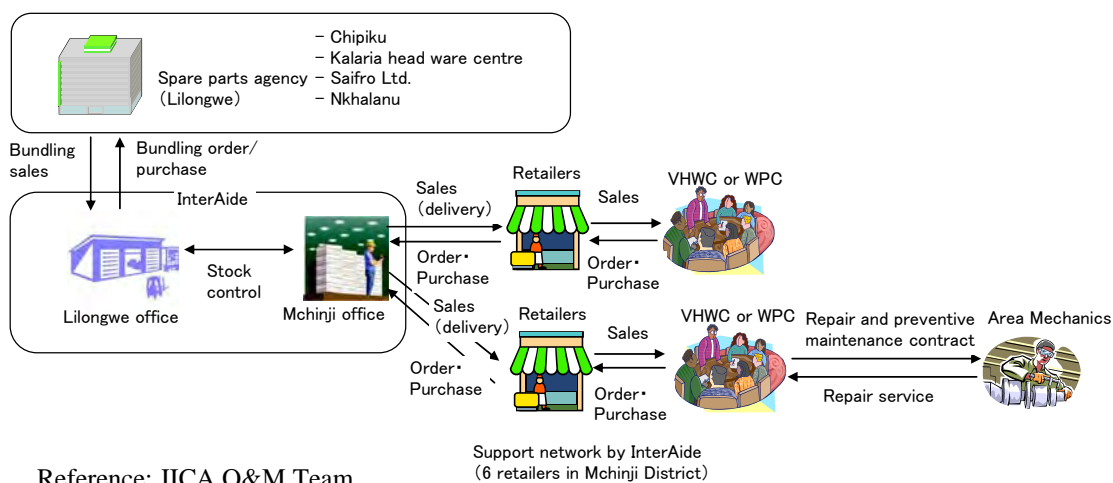


Figure 2-8: Conceptual diagram of Inter Aide's assistance to the supply chain

Meanwhile, an important issue in future is how to maintain seed stock of spare parts once the

assistance from Inter Aide is terminated. Operation of supply chains by private entrepreneurs mentioned above is the most preferable in the long-term prospect. However, it is considered that it is necessary to seek a government intervention as a way to increase the number of stores handling the spare parts of the hand pumps in economically underdeveloped rural areas for the time being because of the small size of the market and the uncertainty in the prospect for the development of the distribution chain. While the table below shows several possible options of such short- to medium-term government interventions, it is necessary for the Project Task Force to take the lead in formulation of a well-defined short-medium-term vision with discussions with MoAIWD, RWDO, and DWDO and in implementation of pilot projects which are based on the vision.

Table 2-10: Possible short- to medium-term measures for the construction of the supply chain 1

Option	Conceptual diagram
<p>Option 1:</p> <p>Under the leadership of MoAIWD, those who assist improvement of the supply chain will be selected from NGOs and development partners in the SWAp framework.</p>	<p>The diagram for Option 1 illustrates a supply chain structure. At the top, MoAIWD (SWAp) is shown in a box. An arrow labeled 'Cooperation' points down to a box containing 'WES NGO Network' and 'Development partner'. An arrow labeled 'Intervention' points from this box to a central box containing 'Lilongwe office' and 'Mchinji office'. Above this central box is a box for 'Spare parts agency (Lilongwe)' listing 'Chipiku', 'Kalaria head ware centre', 'Saifro Ltd.', and 'Nkhalanu'. Arrows show 'Bundling sales' from the agency to the offices and 'Bundling order/purchase' from the offices to the agency. The central offices have 'Stock control' between them. Arrows labeled 'Sales (delivery)' and 'Order* Purchase' connect the offices to two 'Retailers' (represented by shop icons). From the retailers, arrows labeled 'Sales' and 'Order* Purchase' connect to 'VHWC or WPC' (represented by a group of people). From the VHWC or WPC, an arrow labeled 'Repair and preventive maintenance contract' points to 'Area Mechanics' (represented by a person working on a machine), with a return arrow labeled 'Repair service'.</p> <p>Reference: JICA O&M Team</p>
<p>Option 2:</p> <p>Under the leadership of MoAIWD, RWDO and/or DWDO will take responsibility for the seed stock and manage the inventory of the stock in accordance with the demand from DWDO.</p> <p>Although cost saving can be expected as procurement of spare parts will be carried out by each region, this option will require additional staff for management of delivery, inventory and finances as well as their training.</p>	<p>The diagram for Option 2 shows a similar supply chain structure. At the top is the 'Spare parts agency (Lilongwe)' box with the same list of entities. Below it is a box for 'RWDO or DWDO' containing 'Stock control'. Arrows show 'Bundling sales' from the agency to RWDO or DWDO and 'Bundling order/purchase' from RWDO or DWDO to the agency. Arrows labeled 'Sales (delivery)' and 'Order* Purchase' connect RWDO or DWDO to two 'Retailers'. From the retailers, arrows labeled 'Sales' and 'Order* Purchase' connect to 'VHWC or WPC'. From the VHWC or WPC, an arrow labeled 'Repair and preventive maintenance contract' points to 'Area Mechanics', with a return arrow labeled 'Repair service'.</p> <p>Reference: JICA O&M Team</p>

Table 2-11: Possible short- to medium-term measures for the construction of the supply chain 2

Option	Conceptual diagram
<p>Option 3:</p> <p>Scheme offices of the Regional Water Board (RWB) will be responsible for the seed stock.</p> <p>Since RWB is a public corporation, it has experience and knowledge in inventory, financial and facility management. Thus this is a reliable option.</p> <p>On the other hand, there will be a need for negotiation with RWB and a need to create a distribution network to retail stores.</p>	<p>Reference: JICA O&M Team</p>

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f. Monitoring system for the water supply facilities

Although MoAIWD has tried to establish a database related to the functionality rate of the water points with support from development partners such as UNICEF and WaterAide, many challenges remain, such as a means of updating the data and data processing tools etc. shown in the table 3-38.

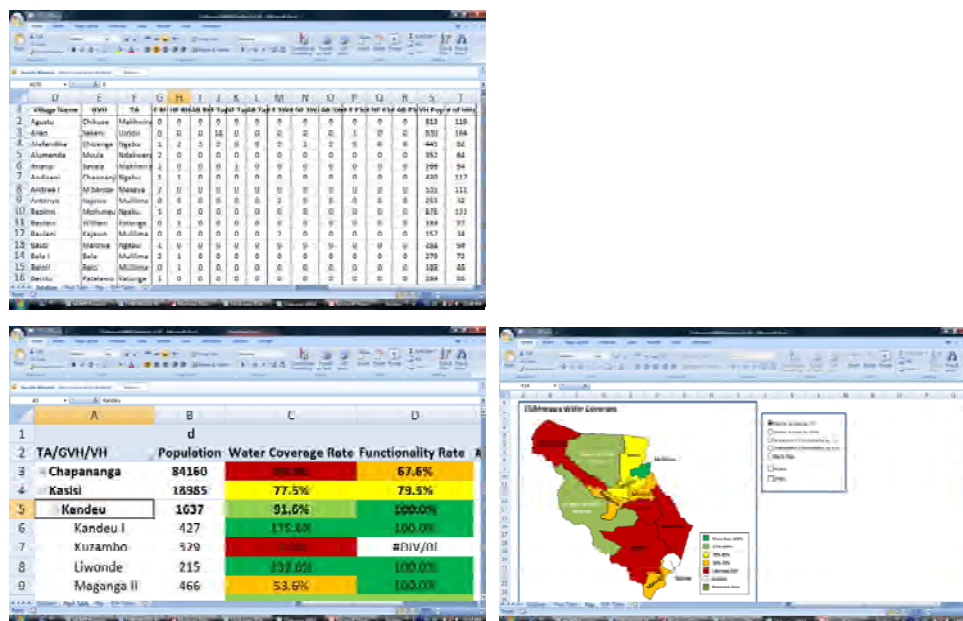
Table 2-12: Examples of the Challenges for M&E in Water and Sanitation Sector

(i)	Rudimentary data generation and collection system resulting in poor sector performance and management
(ii)	Data collection in existing system at national level such as the DHS and MICS is currently irregular.
(iii)	Systematic collection of water supply and sanitation data and irrigation data is virtually non-existent.
(iv)	Inadequate storage and treatment of data
(v)	There is insufficient human and financial resource to establish and maintain a functional M&E system.
(vi)	There is an insufficient upgrade existing systems to make them more efficient.
(vii)	Operation and management of the database software such as ArcGIS is more complex for district level and it covers maintenance cost.

Source : i~vi ; 「Strengthening Water sector Monitoring and Evaluation Project Appraisal Report, August 2009」 , vii ; Interview with DWDO

Meanwhile, EWB has been assisting the effort to develop a monitoring system for water supply facilities which utilizes the health management information system (HMIS) in the health sector in Salima and Chikwawa District in recent years.

Efficient data collection with HSAs and the use of pivot tables in Excel make this system a technically simple database. The system can be operated at a low cost. For these reasons, this system is considered as a very excellent practice. Because of its ability to display operation ratios and service coverage of water supply facilities in an entire district visually, in particular, it is considered as a very effective tool in formulating development plans at the policy level.



Reference: EWB

Figure 2-9: Sample window of database supported by EWB

On the other hand, preventive measures will have to be taken on a water points in accordance with the number of years after the completion of its construction, frequency of use and breakdowns in the past, in order to operate and maintain it appropriately for its entire life span, *i.e.* from the time of its construction until the expiry of its lifetime. Implementation of such measures will extend the lifetime of a facility and, thus, lead to reduction in cost for its entire life span. Implementation of preventive measures to ensure appropriate O&M of water points requires improvement of a system to accumulate the results of monitoring of individual water points, in addition to the system mentioned above. The following issues will require attention when improving such a system:

- I) A system to be built will have to be specialized in improvement of the framework for the maintenance of water supply facilities while maintaining consistency with the existing M&E systems, including the data bank tools of the district M&E Offices in Mchinji district and MIS of the Ministry of Health.
- II) Problems and lessons learned on monitoring of water points identified in the past and on-going projects (see the table below) will have to be duly considered.
- III) It is recommendable to establish a working group led by DCT and allow the working group to build a system in stages in accordance with the availability of staff and budget from districts.

Table 2-13: Issues and lessons learned derived from the past and on-going projects

Issues	Lessons learned
<ul style="list-style-type: none"> • The number of monitoring items is so large that it takes too much time to collect data and that the cost for copying the data sheets is high. • As the number of data is large, it takes long for entering data, and consequently, data update is delayed. 	<p>Monitoring items shall be limited to those for essential data and the data format shall be simplified as much as possible.</p>
<ul style="list-style-type: none"> • Use of the GPS coordinates to identify facilities concerned requires provision of GPS units and training on their use to surveyors. GPS has inherent errors in measurement, error is likely to occur when entering GPS data consisting of many digits, and there are also some cases in which it may be difficult to differentiate one water points from another in the vicinity. • Some facilities have their IDs on the concrete wall on the side of the hand pump platform. However, many of those IDs are illegible due to time-dependent deterioration. 	<ul style="list-style-type: none"> • An independent ID shall be given to each water points for management purposes. • A study shall be conducted to identify a way to display a facility ID with reasonable materials resistant to deterioration.
<p>Since the definitions of the monitoring indicators such as functional/non-functional of a facility have not been provided, there are cases in which two surveyors reach different conclusion on the same facility.</p> <p>Examples:</p> <p>(i) A facility is not being functioned, not because of a structural problem on a stand pipe but because of a problem at the water source.</p> <p>(ii) While a facility is working, the water is not used for drinking or for any purpose at all because of the poor quality of the water.</p> <p>In addition, criteria to decide which facility shall be monitored will have to be established in an easy-to-understand way.</p> <p>For example, if a water source of a shallow well is protected from inflow of contaminated water by a concrete structure but water quality at the water source does not satisfy the water quality standards of Malawi, should such a well be monitored or not?, and etc.</p>	<p>In case surveyors are at the level of EWs who are not experts in the water sector, a glossary with drawings which explains definitions of terms will have to be prepared.</p>

Issues	Lessons learned
It is difficult to master how to create and maintain databases with a highly sophisticated application such as ArcGIS. Use of such an application will require maintenance cost. For these reasons, it is difficult to introduce such an application immediately at the moment.	Use of such software as Microsoft Excel which is highly versatile and requires no maintenance cost (sporting cost)



	
One of the samples for ID system (Mchinji)	One of the samples for ID system (Niger)

Photo 2-3: One of the samples for ID system

g. Recommendation on the maintenance of boreholes of deep wells

Sustainable and safe water supply from a deep well equipped with hand pump requires regular operation and maintenance of the hand pump which is pumping installation, by WPC. In addition, timely rehabilitation such as scouring and dredging of a borehole which extends life span of a borehole is required, in which villagers are expected to diagnose a borehole for anomalies such as a decrease in pumping discharge rate or clogging of screen pipes caused by continued use of the borehole, and to report the anomaly to a relevant authority so that the borehole can be rehabilitated at an appropriate time.

Information accumulated during the implementation of the appropriate technologies mentioned below are crucial for timely and effective rehabilitation of a borehole.

1. Appropriate construction supervision during the construction of a borehole
2. Record of observation and diagnosis of the performance of a pump-up by WPC
3. Rehabilitation technologies (scouring, dredging, etc.)
4. Preparation and registration of a well inventory which forms the basis for the diagnosis of the condition of a deep well

It is recommended that the focus of the activities of this Project should be on points 2 and 3 among the four points mentioned above. On Point 2, it is recommended to revise the existing manual to make them comprehensible to villagers and formulate a training plan. On Point 3, it is desirable to adopt appropriate technologies for the condition in the field after confirming the

current state of the rehabilitation technologies for deep-well and the diffusion rate of rehabilitation work.

Consequently, as the activities for the second year, it is required to continue the field survey on the maintenance of deep wells, preparation of revised manuals (draft), a training plan and practical examination (draft) and implementation of the training and field test after seeking advice from the Project Task Force.

h. Hygiene & Sanitation

h.1 Necessity of Hygiene & Sanitation Component in O&M framework

Necessity of Hygiene & Sanitation (H&S) component in the O&M framework that will be reinforced in the project will be confirmed. The following 3 reasons could support the appropriateness.

- “To promote integrated approaches to rural water supply and sanitation services”, which is stated in National Water Policy 2005.
- “Provision of safe water supply shall be integrated with sanitation and hygiene promotion” is stated in the National Sanitation Policy 2008.
- 36% of children under 5 out of 808 households (HH) had diarrhea in the 2 weeks from the time of the survey according to the result of the baseline survey, thus, it is recommended to include H&S activities in the project to enhance the improvement of health status in the village by integrated approach of water & sanitation.

Consequently, it is regarded as appropriate to include H&S component in the project.

h.2 Proposal of Focus of the definition and area of Hygiene & Sanitation dealt in the Project

Since the field of Hygiene & Sanitation (H&S) in general covers broad area as shown in the table below, the area to be dealt with in the project will be focused on O&M from the view point of the purpose of the project.

Table 2-14: The field of Hygiene & Sanitation (H&S) in general

Definition of Hygiene & Sanitation	
Sanitation	The provision or availability of structures that facilitate hygiene. The structures include, for example, water taps, boreholes, toilets bath shelter, hand-wash facilities, washing basins, slabs, soak pits and solid waste management structures.
Hygiene	The consistent and proper use of sanitary facilities/ structures in order to prevent diseases.

General Area focus for Hygiene & Sanitation	
Sanitation	Water Point Sanitation, Household Sanitation, Village Sanitation, School Sanitation, Business and other Public Premises Sanitation, Health Facility Sanitation
Hygiene	Using pit latrine/pour flush, -Hand washing with soap at critical times. -Bathing & washing, Using safe water, -Using proper solid waste management systems, Proper waste water disposal, Using washing slab at water point for washing, Using bath shelters for bathing, - Covering pit latrine squat hole, -Proper wastewater disposal, -Using washing slab at water point for washing, -Covering of pit latrine squat hole. ³

The H&S component in the project is supposed to contribute to achieve the project purpose and the means of verification.

As a result, it is proposed to deal with the following two areas of H&S in the project.

- Water Point Sanitation
- H&S practices that contribute to increase functional rate of water points

To define H&S practices that contribute to increase functional rate of water points, it is necessary to clear that how H&S links to the improvement in the functional rate of water points. One of the elements needed to make water points continuously functional is regular collection of water fee from the beneficiaries for maintenance of water points. The possible reason beneficiaries do regular payment for water is to get certain quality and quantity of water anytime to do some activities. Those activities could include improvement in H&S condition in their households.

In order to identify H&S practices that motivate beneficiaries do regular payment for water, Focus Group Discussions (FGD) were conducted in the 12 communities which pay for water fees regularly as identified in the baseline survey. As the results of the FGD, some of the H&S practices were identified and will be presented top 4 practices out of all practices identified according to the order of their priority. They are possible hygiene practices to be promoted in the project.

- Drinking clean water
- Washing cooking utensils with clean water
- Washing hands with clean water
- Washing/ cleaning teeth/mouth with clean water

³ Participatory Sanitation and Hygiene Promotion Implementation Manual, July 2010 (Final ver.), Ministry of Irrigation and Water Development in July 2010

In conclusion, the definition and area of H&S dealt in the project is proposed as follows.

Table 2-15: The definition and area of H&S

Definition of Hygiene & Sanitation dealt in the Project	
Sanitation	The provision or availability of structures that facilitate hygiene. The structures include, for example, water taps, boreholes, hand-wash facilities, washing basins, , soak pits etc.
Hygiene	The consistent and proper use of sanitary facilities/ structures above in order to prevent diseases.
Area focus for Hygiene & Sanitation dealt in the Project	
Sanitation	Water Point Sanitation, Household Sanitation
Hygiene	-Hand washing with soap at critical times. -Bathing & washing, <u>Using</u> safe water, Proper waste water disposal, Using washing slab at water point for washing, Using bath shelters for bathing, -Using washing slab at water point for washing, etc.

h.3 Proposal of Approach to be used for the promotion of H&S in the project

Currently, three kinds of approach to promote H&S are common such as PHAST, CLTS and Social Marketing. It is necessary to select approach to be used in the project. The application of Social Marketing approach out of three approaches is proposed to be used in the project and the reason of selection will be stated below.

h.3.1 Community Led Total Sanitation

Community Led Total Sanitation (CLTS) Approach is a methodology for mobilizing communities to eliminate open defecation (OD). Communities are facilitated to conduct their own appraisal and analysis of OD and take their own action to become open defecation free (ODF). It focuses on the behavioral change needed to ensure real and sustainable improvements – investing in community mobilization instead of hardware, and shifting the focus from toilet construction for individual households to the creation of ODF villages. By raising awareness that as long as even a minority continues to defecate in the open everyone is at risk of disease, CLTS triggers the community’s desire for change, propels them into action and encourages innovation, mutual support and appropriate local solutions, thus leading to greater ownership and sustainability. As explained above, this approach is used to encourage ODF, thus, this is not applicable to use in this project due to that the project has proposed not to focus defecation related sanitation.

h.3.2 Participatory Hygiene and Sanitation Transformation

Various manuals and tools have been produced by MoH, and this methodology is also introduced in some of the O&M framework such as “Trainers Guide for WPC/VHWC

Training”, “Trainers Guide for Extension Worker Training” developed by Ministry of Water Development in the past. In addition, National Sanitation Policy promotes the use of the approach. The objects of PHAST are as follows.

- improving hygiene behaviors to reduce diarrheal disease
- encouraging effective community management of water and sanitation services

This approach is based on the principle that the participation of communities in their own projects will empower the community and improve its decision making about the services it needs and wants to maintain. As communities gain awareness of their water, sanitation and hygiene situation through participatory activities, they are empowered to develop and carry out their own plans to improve this situation.

However, it could be said that the use of the approach is not applicable in the project due to the following reasons.

- The approach requires in-depth training for average 2 weeks, of community workers in participatory techniques, which could be time and budget consuming for the project use because number of personals and recurrent budget of the government to be worked for the purpose are limited.
- The approach requires an intensive management structure, which is feasible in smaller “grass-roots” projects but becomes problematic if the aim is to “go to scale” at a programmatic or national level, which is aimed in the project.
- Based on the analysis of water and sanitation condition in community, community themselves plan and take action to improve the condition, thus, the project cannot control to target specific H&S practices so that this approach is not applicable in the project. ⁴

In this context, PHAST approach would be difficult to apply in the project.

h.3.3 Social Marketing

Social Marketing (SM) approach applies lessons from commercial advertising to the promotion of social goals, in this case, improved hygiene behavior and systematically influences people’s behaviors and reduces public health problems. The key components of SM are as follows.

⁴ <http://water.worldbank.org/water/node/83407s>

- Systematic data collection and analysis to develop appropriate strategies
- Making products, services, or behaviors fit the felt needs of the different consumers/user groups
- Strategic approach to promoting the products, services or behaviors
- Methods for effective distribution so that when demand is created, consumers know where and how to get the products, services, or behaviors with the different groups
- Improving the adoption of products, services, or behaviors and increasing the willingness of consumers/users to contribute something in exchange
- Pricing so that the product or service is affordable⁵

Its methodology is also introduced in some of the O&M framework such as “Trainers Guide for WPC/VHWC Training”, “Trainers Guide for Extension Worker Training” developed by Ministry of Water Development and “NDONDOMEKO YOPHUNTIZITSIRA KOMITI ZA UMOYO YA M’MUDZI” produced by MOH. The approach is currently being used in Malawi for various H&S promotion activities such as promotion of sanitation facilities and hand washing in some national program and projects. This approach is behavior focused approach as explained above, so that it can be used to encourage target population to adopt H&S practices targeted in the project. Besides, there is no logistic difficulties are identified unlike as PHAST above, thus, the use of the approach in the project is proposed.

h.4 Proposal of H&S test activities

h.4.1 Promotion for Water Point Sanitation

Based on the results of baseline survey conducted in Mchinji District; some challenges about Water Point Sanitation are identified as shown below.

- | |
|--|
| <ul style="list-style-type: none">• 700/975 (71.79%) water points have no latrine within 30 meters• 653/975 (67.00%) water points have no refuse pit within 30 meters• 667/975 (68.00%) water points’ surrounding area are clean• 372/975 (38.15%) water points have soak away pit / proper working soak away pit• 33/975 (3.38%) water points have proper fence• 16/975 (1.64%) water points have no latrine within 30 meters, no refuse pit within 30 |
|--|

Source: Baseline Survey in 2011

⁵. Guidance Manual on Water Supply and Sanitation Programmes, LSHTM/WEDC (1998) Published by WEDC for DFID

meters, surrounding is clean, have proper working soak away pit

In addition, through the confirmation of O&M framework collected and the baseline survey, additional challenges about water point sanitation are confirmed, specifically, the construction of soak away pit, fence and washing slabs.

a. Soak away pit

Concerning soak away pit which works for the prevention of water contamination at the point of source and for the prevention of producing mosquito breeding sites, there seems to be no standards of the construction of soak away pit in the framework. According to the CBM, the construction of soak away pit is beneficiaries' responsible to stimulate their ownership to the water points. However, the technical information about the construction of soak away pit to support beneficiaries seems not to enough in the framework.

b. Fencing water points

It is also significant to fence water point to keeps animals away from water point areas for the prevention of contamination of water source by animal feces and the prevention of destruction of soak away pit by animals. As well as the construction of soak away pit, fencing water point is done at the beneficiaries' contribution. When fence is constructed, type of materials can be selected based on cost-effectiveness, durability of the facility and availability of materials. Nevertheless, there seems not to be enough amount of the technical information in the framework.

c. Washing slab at water point

It is constructed in order to prevent people to wash clothes in contaminated river and streams and to encourage people to use safe water to wash their clothes. However, it was observed in the baseline survey that some of WPC/VHWCs regulate not to wash clothes at water point in order to keep water point sanitarly. It could be possible that washing clothes at water point damages soak away pit due to its over-purification-capacity and clogging the drainage. Take into account of both of the advantage and the disadvantage above, necessary measure against this matter need to be examined in the project.

In conclusion, the following test activities for water point sanitation will be proposed.

- a. Development of promotion materials, technical manuals and action plan format for water point sanitation for VHWC/WPC use: This include the development of promotion material including producing message positioning to the target population and detecting communication channels to spread the message to the target population

effectively based on the social marketing approach, the development of action plan format for WPC/VHWC use and the development of technical manual for VHWC/WPC use including development of standards of soak away pit, technical option of fencing and washing slab.

- b. Development of teaching materials for HSAs use to educate WPC/VHWC
- c. Development of TOT manuals to train HSA

When teaching materials and manuals to promote water point sanitation at each level above are developed, the following guideline and manual under MoH could be referred as good practices because they include the information about the management of water point sanitation for extension workers.

- “GUIDELINES FOR RAPID QUALITATIVE BIOLOGICAL TESTING OF DRINKING WATER SAMPLES IN EMERGENCY SITUATIONS USING H₂S STRIP (A COMMUNITY EMPOWERMENT TOOL)” in October 2005” by UNICEF
- “Water Quality Surveillance, TRAINING MANUAL AND HANDBOOK FOR EXTENSION WORKERS, 2004, UNICEF Malawi”

h.4.2 Promotion of H&S practices that encourage people to pay for water regularly

Based on the results of the baseline survey, some challenges about fee collection and some of H&S practices assumed to be as a motivation to encourage people to pay for water regularly are observed as below.

- 284/975 (29.00%) water points collect fixed water fee
- 75% of HH out of 808 HH do not have hand washing facilities
- 44% of HH out of 808 HH do wash hands after cleaning of children’s stool
- 29% of HH out of 808 HH do wash hands before feeding children
- 52% of HH out of 808 HH do wash hands before food preparation
- 41% of HH out of 808 HH wash hands with water kept in the container
- 30% of HH out of 808 HH wash hands with water kept in the container with ash, soap and others

Source: Baseline Survey in 2011

Thus, in order to promote beneficiaries to pay for water fee regularly to contribute to the achievement of the project purpose, the promotion of H&S that encourages people to pay for water regularly is proposed to be promoted in the project.

Consequently, the following activities will be proposed for the purpose.

- a. Development of promotion materials and action plan format to promote targeted H&S

practices in the target population for VHWC/WPC use: This includes the development of promotion material including producing message positioning to the target population and detecting communication channels to spread the message to the target population effectively based on the social marketing approach and the development of action plan format for WPC/VHWC use to spread message to the target population.

- b. Development of teaching materials for HSAs use to educate WPC/VHWC
- c. Development of TOT manuals to train HSA

h.4.3 Framework for Hygiene & Sanitation in O&M framework

The project has collected manuals and guidelines for O&M framework from various stakeholders such as MoAIWD and sorts of Development Partners and the list of the documents is reported in the project progress report submitted to MoAIWD. In addition, CBM includes the component of rural H&S, of whose responsibility is mainly dealt by the subordinate organizations of MoH at District and the field level. In this context, the project also has collected the related documents for rural H&S such as policies, guidelines and manuals developed under MoH and its development partners. The list of the collected documents is shown in Annex 3.

As the result of the analysis of the documents, good practices and challenges are identified. However, the challenges and good practices of H&S documents are the same as ones for documents for O&M stated in the previous section 1.a in this report (please see the section). Thus, the same activities as for O&M framework will be proposed for H&S documents such as

- a. Renewing of some existing manuals with user-friendly contents for their use at the community level
- b. Improvement of a rule on (use and management of) manuals
- c. Management of the existing manuals

However, additional challenges and point to be paid attention for H&S documents in O&M framework are also identified through the observation of H&S education in CBM1 training and interview for HSA as follows.

- HSA educated the members of WPC/VHWC in H&S in CBM 1 training not in alignment with the contents of manuals and guidelines of O&M framework such as “Trainers Guide for WPC/VHWC Training”, “Trainers Guide for Extension Worker Training” and “MALAGIZAO A CHTUKUKO CHA MADZI NDI ZAUMOYO MIDZ PUMU YA AFRIDEV” developed by Ministry of Water Development, included just a part, however,

they seemed to educate the member of WPC/VHWC according to “Health Surveillance Training Manual” developed by MoH

- 10 out of 16 HSAs interviewed did not have experience of CBM training, even though 6 out of 16 HSAs who had the training experience did not have related manuals to refer and teaching materials
- H&S is cross-cutting issue and so that the related documents for H&S are developed by plural number of ministry especially MoH

Thus, the above proposed activities from a to c are recommended to be done line- ministry with the coordination and communication at working level among the ministries, especially MOH to reinforce the H&S documents in O&M framework more practically.

i. Results of the Capacity Assessment

The results of all study, review and survey were assessed thoroughly to understand the present status of the general capacity of O&M in the rural water supply and sanitation sector. Assessment results are described individually for each stakeholder of O&M in the following sections.

i.1 Department of Water Supply Service (WSS)/ MoAIWD

Institutional roles of WSS/ MoAIWD are clearly explained in National Water Policy (2005). According to it, WSS is responsible for overall management of water supply and sanitation in rural areas, which includes generally planning, implementation, and O&M. Their roles for O&M are summarized in the table below.

Table 2-16: Roles of WSS/ MoAIWD for O&M

No.	Roles for O&M	Areas of Indicators
1	Provide policy direction and coordinate water sector programmes	<ul style="list-style-type: none"> • Policy Direction • National Planning • Coordination of National Plan
2	Monitor (in terms of quality and quantity), assess, plan, develop, conserve, allocate and protect water resources for utilisation in the social and economic sectors of production and services	<ul style="list-style-type: none"> • Monitoring and Evaluation
3	Establish standards, guidelines and inspectorate	<ul style="list-style-type: none"> • Regulation
4	Develop and regulate water utilities in terms of tariffs and financing	<ul style="list-style-type: none"> • Quality Control
5	Undertake training and capacity building within the water and sanitation sector	<ul style="list-style-type: none"> • <Universal>

Ref.: National Water Policy (2005)

In order to assist stakeholders in districts and communities for implementation of O&M, the management of water supply and sanitation facilities is shifted to local government

authorities, community owned organizations, and users in line with the decentralization policy, which is clearly stated in the National Water Policy (2005).

On the other hand, it is observed at the district level that local artisans have been trained under the individual intervention mostly from international agencies and NGOs. In reality, they have engaged and been placed locally as Area Mechanics for the service provision in maintenance, repair and technical training to local communities on the contract basis. In spite of this new active player, they are not institutionalized officially in the sector by any certification. Therefore, official support from the national level is required to make them survived and sustained among the market mechanism as a part of private enterprises for realizing sustainable O&M at the community level.

Various interventions like water point mapping have been executed in order to strengthen the capacity of monitoring and evaluation in the water sector. However, the quality and quantity of information to know the status of the water sector are not good enough for decision making and provision of related policies and guidelines. This is because the important elements of monitoring and evaluation are not organized comprehensively as to be the monitoring and evaluation framework. In order to improve the current situation of vulnerability of monitoring and evaluation, the M&E project supported by African Development Bank is in the process to proceed at National level.

i.2 Regional Water Development Office (RWDO)/ MoAIWD

Implementation Guideline for Rural Water Supply and Sanitation stipulates the roles and responsibilities of RWDO, which is a technical and administrative arm of MoAIWD at regional level providing technical assistance to the districts. RWDO also provides backup services to the district.

Since mandates to manage water supply and sanitation projects were devoted to local government authorities, RWDO is expected to comprehend the contents of district water supply and sanitation plans and provide the technical and administrative support and consultation to responsive staff in the district level. Furthermore, RWDO needs to possess a strategic regional development plan, which could be established by consolidating individual district water supply and sanitation plan, to oversee effectively and proactively the progress of water supply and sanitation plans in each district of the region.

The realistic information with regard to the status of O&M at the district and community levels is a crucial factor to achieve given tasks to RWDO in technically and cost effective manner. From this point of view, the information related to the status of O&M is supposed to be monitored, evaluated and consequently shared within all stakeholders of the water sector.

Table 2-17: Key Facts in RWDO

No.	Key Facts
1	Strategic regional development plan, which was supposed to be a comprehensive plan consolidated with district water supply and sanitation plans, was not available. However, it for 2006 to 2011 was provided from MoAIWD.
2	No particular recurrent budget is allocated to the activity to support O&M at district and community levels.
3	RWDO (Centre) receives monthly report from a few district, quarterly report from most of districts, and annual report from all districts but no feed back and consultation was given back to district representatives for water.

In fact RWDO has been providing district water development offices (DWDO) technical and administrative assistances mostly during the planning and implementation of water and sanitation facility construction. However, support for improving the status of O&M in both district and community might not have been their concern for years. It could be because RWDO is neither responsible for management of water supply and sanitation projects nor implementing physically these projects at community level. Therefore, naturally the involvement and participation of RWDO in actual works would be quite limited.

It was also acknowledged by interviewees that the deficiency of comprehensive monitoring and evaluation framework could create a difficult situation for RWDO to carry out effective support to stakeholders of the water sector because of poor information.

i.3 District Council (DC)/ Mchinji District

District council (DC) is an authority which holds the legislative power and decision-making for whole development activities in a district. From this point and roles and responsibilities described in various literatures available, the Project focused on their capacity of planning, financing and legislation respectively to support O&M of water supply and sanitation facilities.

In 2007 Mchinji DC endorsed their District Strategy and Investment Plan (DSIP) for water supply and sanitation from 2007 to 2015. In this plan, there are some activities aiming to strengthen the capacity of O&M at the district level, which are mostly training for area mechanics, village health and water committees, and water point caretakers. Since this plan is an investment plan, this focuses largely on singly-completed intervention such as training, preparation of manuals, regulation, system, etc, and facilities construction. On the contrary, recurrent works, which occupies the majority of O&M activities, were not included clearly in this plan. Besides, the financial resources for components of DSIP were not specified in this plan, which could be taken that the practicability of this plan was uncertain regarding to the time frame associated with planned activities.

In terms of financial availability for O&M activities, its sources are limited. As far as the Project confirmed, the budget for O&M activities are allocated only from district ORT which are specifically contributed to mobilization of water monitoring assistants (WMAs) and an O&M component under WASH program. Under this situation, it might be hardly possible sufficiently to facilitate all planned activities and provide the technical and administrative support in a flexible manner timely as demanded from communities.

As in various policies, the private sector participation is one of key factors to achieve and sustain the desirable standard of life in communities. In the water sector area mechanics and local artisans would potentially play a role as locally available technicality. However, there is no bylaw, and/or regulation introduced by Mchinji DC in order to expand the market and improve its environment where they can provide their services to community on a commercial basis.

i.4 District Coordination Team (DCT)/ Mchinji District

District Coordinating Team (DCT) is the technical arm of the District Executive Committee (DEC) on matters of water and sanitation in the district. The roles and responsibilities of DCT are to coordinate and implement the activities stipulated in the district development plans while DC is an authority to make a decision on implementation direction and support financially and administratively for implementation of plans.

Although available WSS plans have plenty of rooms for improvement, various interventions have been conducted both by Mchinji DC and development partners. In the baseline survey it was recognized that development partners such as religious group, NGO, international agencies, etc. conducted various interventions such as rehabilitation, maintenance and spare parts supply of water supply and sanitation facilities at the community level for supporting O&M activities, in many cases, without involving DWDO and DCT. This is caused definitely because of the deficiency of the platform for authorities and development partners to share their information and experiences at the district level. It is presently considered in Water Supply TWG to introduce WES NGO Network as one of the platform to cover the deficiency.

Considering the flow of information related to the progress of O&M between DCT and communities, extension workers (EWs) designated for each sector would bridge information between DCT and communities. The table shows the number of EWs existing in Mchinji DC.

Table 2-18: Number of EWs in Mchinji DC (2011)

Type of EWs	Number in Mchinji
Water Monitoring Assistants (WMAs)	3
Health Surveillance Assistants (HSAs)	339
Community Development Assistants (CDAs)	9

Ref.: Result of Baseline Survey in 2011

Number of WMAs is just only three. This means clearly that they are incapable to cover whole area in Mchinji district to collect information and facilitate communities on O&M. Therefore, the effective coordination of EWs from all sectors is indispensable and depends largely on the arrangement of EWs within members of DCT. At present Mchinji DCT does not possess the relevant information allowing them to assess the status of O&M at the community level. This implies that DCT has not made use of available resources of EWs with a concept of the sector-wide approach.

It could be assumed that insufficient coordination of EWs and also the shortage of information on O&M at the community level were induced essentially by the same cause, which might be the deficiency of monitoring and evaluation framework. There is no doubt that the availability of a framework is the most critical issue directly resulting in the availability of O&M information from communities, but also enhances better coordination of EWs among DCT by sharing and consolidating monitoring and evaluation frameworks adopted in different sectors.

i.5 Extension Workers (EWs)

The roles and responsibilities of EWs are supposed to build the capacity of communities for management of WSS facilities and enhance the communication between communities and DCT (*Implementation Guidelines for Rural Water Supply and Sanitation, MoIWD, 2010*). The capacity herewith includes both technical and administrative/managerial aspects.

After the project experts examined their technical capacity for examining and repairing the breakdown and malfunction of hand pump schemes, the Project concluded that their technical capacity was quite appropriate. However, as it was discussed previously, the number of EWs in the water sector was just a few. Under such a circumstance it could be quite difficult to provide their services regularly to communities. More importantly they cannot also accomplish another given task to enhance the communication between communities and DCT.

However, contradictorily, it is obvious that the recruitment of new EWs only might not improve this situation. This situation is largely influenced rather by poor coordination of EWs among DCT than the shortage of EWs in the water sector. According to the examination of the situation in the environmental health sector, the Project realized that the structure of monitoring framework has been set quite firmly and systematically, which stimulated stakeholders regularly to share the information along the structure. More than two hundreds of HSAs act as an intimate connection between communities and the district environmental health office (DEHO). They collect designated information for updating the environmental health database. This demonstrates clearly that the environmental health sector has a specific monitoring framework which is in use now.

i.6 Area Development Committees (ADCs)

It was understood from the result of the baseline survey that Area Development Committee (ADCs), which has responsibilities to stimulate the flow of relevant information on WSS among stakeholders in the area level, consisting of Traditional Authorities (TAs), members of parliament (MPs), Ward Councilors (WCs), and interest groups.

i.7 VHWC/ WPC

VHWC/ WPC has responsibilities to plan and manage the water supply, hygiene and sanitation program on behalf of the user community as various manuals illustrate. In the following paragraphs, the understanding of terms on “plan” and “manage” in a field of O&M is thoroughly elaborated and set as the focal points of capacity assessment for VHWC/ WPC.

Effective O&M of WSS facilities requires a clear road map for performing different activities simultaneously under the leadership of representatives of user communities. Here a road map for O&M is equivalent to “plan”, which is commonly known as O&M plan, guideline, or rules. No matter what it is called, it is essential that “plan” should indicate clearly the objectives of O&M, institutional arrangement, tariff and financial management, maintenance and repair mechanism as a written matter which is acknowledged widely within the user group.

On the other hand, “manage” means in this context to input a series of measures, monitor and evaluate the progress/outputs from measures, and finally provide the feed back for achieving the objectives of “plan”.

The O&M capacity of VHWC/ WPC is assessed based on the facts verified in the baseline survey and summarized in the table below.

Table 2-19: Summary of Status of O&M at the Community Level

Areas	Facts		Assessment
Plan	O&M plan	<ul style="list-style-type: none"> • 77% (667 communities) of VHWC/ WPC (869 effective answers) <u>own their O&M plan.</u> 	<p>Almost 80% of communities possess their plan for O&M of WSS facilities and collect water tariff from users. However, only 37% of communities set a standard tariff, meaning that half of communities with O&M plan collect water supply fee unequally from users and over 50% of communities have no O&M plan or those incomplete.</p> <p>Under such a circumstance, though communities have maintenance and repair structure, it could be difficult for them to utilize resources effectively. In fact, this idea is supported by the situation low % of communities with service contract with AMs (discussed in “manage”).</p> <p>It should be noted that the Project did not conduct any in-depth study on the contents of O&M plan owned by communities. Therefore, statistics used in this analysis are not concerned about the quality of O&M plan.</p>
	Rules and regulations	<ul style="list-style-type: none"> • 92% (806 communities) of VHWC/ WPC (872 effective answers) <u>have rules and regulations for use of WSS facilities.</u> 	
	water tariff	<ul style="list-style-type: none"> • 70% (323 communities) of VHWC/ WPC (460 effective answers) <u>collect water tariff.</u> 	
	Set a standard water tariff	<ul style="list-style-type: none"> • 37% (281 communities) of VHWC/ WPC (762 effective answers) <u>set a standard water tariff.</u> 	
	Maintenance and repair structure	<ul style="list-style-type: none"> • 66% (568 communities) of VHWC/ WPC (858 effective answers) <u>have maintenance and repair structure.</u> 	
Manage	Implementation manuals to have and to hold	<ul style="list-style-type: none"> • 6% (51 communities) of VHWC/ WPC (841 effective answers) <u>have implementation manuals.</u> 	<p>In terms of “manage” for O&M activities, the fluctuation of statistics becomes more significant, which could be understood generally that the management of O&M contained more complicated and difficult phases than those of “plan”.</p> <p>Only 6 % of communities have implementation manuals, which could imply a possibility that representatives of communities mismanage O&M, although 62% of communities participated in CBM training. On the other hand, having regular meeting in community could strengthen the accountability of management and contribute</p>
	CBM training	<ul style="list-style-type: none"> • 62% (539 communities) of VHWC/ WPC (872 effective answers) <u>received CBM training.</u> 	
	Committee meeting	<ul style="list-style-type: none"> • 70% (595 communities) of VHWC/ WPC (853 effective answers) <u>have regular committee meeting.</u> 	

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Areas	Facts	Assessment
Water fund balance	<ul style="list-style-type: none"> • 92% (588 communities) of VHWC/ WPC (638 effective answers) <u>have water fund balance less than 5,000MK</u> and out of it, 230 communities (36%: 230/638) have <u>no water fund</u>. • 7.8% (50 communities) of VHWC/ WPC (638 effective answers) <u>have water fund balance more than 5,000MK</u> and out of it, 12 communities (1.9%: 12/638) have water fund balance <u>more than 10,000MK</u>. 	<p>consequently to the sustainability of WSS facilities.</p> <p>There is no community that the concept of cost recovery is practiced because the balance of water fund does not reach enough to renew the whole system in WSS facilities. It is no exaggerated that the financial management is the most crucial aspect of the management and the balance of water fund as a significant indicator evidently expresses the status of financial healthiness. From this point of view, the status of O&M in communities here in Mchinji district would be assessed reasonably vulnerable.</p>
Utilization of deposit of water fee	<ul style="list-style-type: none"> • 10% (29 communities) of VHWC/ WPC (282 effective answers) <u>used the deposit of water fund other than O&M purposes</u>. 	<p>It is easily assumed that representatives of communities would face some difficulties in financial management because of passive cooperation from users. Even so they are supposed to consider and act for the sustainable O&M of WSS. A distinctive factor influencing this situation could be related to the official assistance from Mchinji DC including sensitization, monitoring and evaluation, etc. Since 12% of communities answered they have monitoring visit by WMAs, the regular sensitization and guidance from Mchinji DC might not be provided to communities. As the result, communities would have lost their attention on the financial management.</p>
Inspection by caretakers	<ul style="list-style-type: none"> • 56% (470 communities) of VHWC/ WPC (840 effective answers) <u>have regular inspection by caretakers</u>. 	
Purchase of spare parts	<ul style="list-style-type: none"> • 60% (519 communities) of VHWC/ WPC (862 effective answers) <u>have purchased spare parts</u>. 	
Contract with AMs	<ul style="list-style-type: none"> • 7.7% (62 communities) of VHWC/ WPC (872 effective answers) have contract with AMs for maintenance and repair of WSS facilities. 	
Monitoring visits by WMAs	<ul style="list-style-type: none"> • 12% (103 communities) of VHWC/ WPC (510 effective answers) <u>received monitoring visits by WMAs</u>. 	

Ref.: Result of Baseline Survey in 2011

Both strength and weakness in the status of O&M are clearly observed in communities of Mchinji DC. Considering the importance of each fact described above, it seems that factors assessed as weakness are more influential to the overall capacity of O&M than those assessed as strength. Since the overall capacity of O&M in VHWC/ WPC is regarded logically as insufficient enough to be sustainable, it is required to support comprehensively VHWC/WPC by District and National level.

i.8 Area Mechanics (AMs)

AMs are classified in a part of the private sector and work based on the contract made with communities. Their services are purely technical covering diagnosis of facility condition, repair and maintenance of facilities, and spare parts supply.

Basically they have been trained technically by NGOs supporting by WMAs and rolled out in several districts but not all districts in Malawi. Practically their services would substitute for a technical part of responsibilities of WMAs. However, only about 7.7 % (62 communities) out of entire communities (872 in total of effective answers) in Mchinji district, according to the result of the baseline survey, have the contract with AMs locally available in their vicinity.

For assessing their technical capacity, the Project had a chance to observe it during a field activity conducted as a part of the baseline survey. According to direct observation of their performance, the Project could affirm that twelve AMs participated in a field activity owned fine knowledge and experience on hand pump maintenance and repair.

Regarding to the spare part supply chain in Mchinji district, it is also supported currently by the same NGO as training AMs. Spare parts are dealt in local retail shops and also this NGO promotes smaller scale merchants of spare parts and gives the training to candidates. Nonetheless their attempt, there is no particular administrative assistant from Mchinji district council.

i.9 Recommendation of Project Intervention Program

Based on the results of assessment described in the previous sections and expectations and needs of counterparts proposed in the 3rd workshop, the following recommendations (Table 2-20) to be conducted in the project period are presented individually to each stakeholder. Noted that activities originally included in Work Plan are excluded intentionally from recommendation.

Table 2-20: Recommended Project Intervention based on Capacity Assessment

Recommendation		Assessment Indicators
RWDO(Center)		
R1	Preparation of regional annual action plan for O&M activities in Mchinji DC	
	RWDO should own regional annual action plan for O&M activities which will facilitate RWDO to	<ul style="list-style-type: none"> • Availability of regional support plan for O&M

Recommendation		Assessment Indicators
	oversee and assist O&M intervention at the district level more effectively. The Project will provide technical support and prepare their regional annual action plan together as OJT.	
Mchinji DC, DCT, EWs		
M1	Integration of O&M plan with DWSP/DSIP Existing water supply and sanitation plans include largely components for the capital investment of facilities construction. Accordingly, the objectives and approaches of O&M should be clearly explained and integrated in the plan for effective coordination of O&M support activities.	<ul style="list-style-type: none"> Number of new contract between AMs and communities
M2	Facilitation of pilot communities to establish and/or update O&M plan Various deficiencies have been identified in O&M plans owned by user communities. It is necessary to establish and/or update O&M plans in pilot communities based on new O&M framework. The Project will support this by assisting activities conducted by Mchinji district.	<ul style="list-style-type: none"> Number of new O&M plans including all required components

j. Other Issued

j.1 Issues regarding the survey methods and analyses of Baseline Survey

j.1.1 Acquisition of accurate statistical data on villages, their populations, etc.

In the Baseline Survey, a survey on social conditions in villages and a survey on the O&M activities of WPC at each water supply facility and diagnosis of the conditions of the water points were implemented in order to clarify socio-economic conditions at the village level and conditions of O&M of the facilities, respectively. Each village in Malawi belongs to a group of villages called “group village head (GVH)”, and since boundaries between the villages are not clearly demarcated, it is impossible to tell whether collected data are those for an entire village, or at the sub-village level, or at the location level. (For example, the collected data include those for a village called “xx School”.) This issue can also be identified in the data collected from published documents and the Administrative Office of Mchinji District.

The table below shows the numbers of villages quoted in different publications. Although these differences in the number of villages do not have direct effect on the improvement of the framework of the O&M, they have to be kept in mind when analyzing data.

Table 2-21: Difference in the total number of villages in Mchinji District

Number of villages	Year of publication	Source	Remarks
618 villages	2012/1	Mchinji District Council, Administration office	Number of the villages registered in DC (which possess

Number of villages	Year of publication	Source	Remarks
			village codes)
452 villages in 249 GVHs	2008	Socio-Economic Profile 2008-2012, Mchinji district Assembly, Table 4, page 11	
1356 villages in 77 GVHs	2008	Socio-Economic Profile 2008-2012, Mchinji district Assembly, page 69	
1685 villages	Census 2008	GIS data of the Census 2008 by the National Statistics Bureau	

j.2 Findings and challenges of diagnosis survey for condition of water points

j.2.1 Outline of the result of first diagnosis survey for condition of water points

As a result of the first survey and data clean up work, it was finally found that 163 facilities were not functioning out of 975 water points which were excluded 300 facilities constructed by Japanese grant aid and the overall functionality rate was 82.5% (collected data as of beginning of November 2011). The number of water points and functionality rate by each type of water points are shown in the table below.

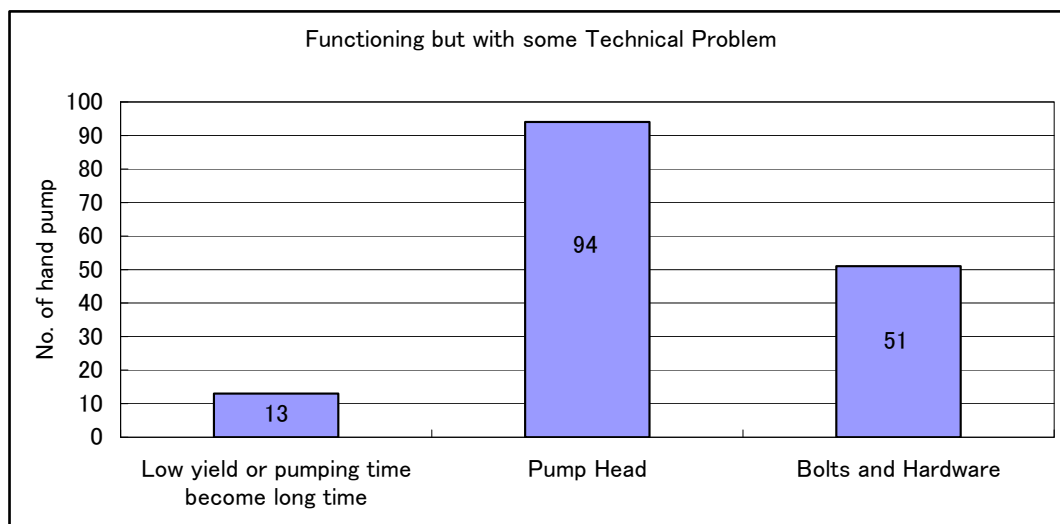
Table 2-22: Result of the first diagnosis survey (final)

	Hand Pump					Stand pipe	Total
	Afridev	Malda	Mark V	Elephant	No pump		
Functional water points	601	26	17	94	0	66	804
Non-functional water points	82	12	2	6	7	54	163
Under construction	3	0	0	2	0	0	5
Not applicable	2	0	0	0	0	1	3
Total	688	38	19	102	7	121	975
Functionality rate	87.4%	68.4%	89.5%	92.2%	0.0%	54.5%	82.5%

Source: Baseline Survey in 2011

j.2.2 Findings of diagnosis survey for condition of water points

- (i) Regarding the functionality of Afridev hand pump, 601 Afridev hand pumps were functioning at the survey period. However, result of the physical checking of hand pumps, about 90 hand pumps is facing some technical problems such as making noisy of handle, loose pin and bolt, changing of the yield, changing of the heavy handle operation, and etc (see below figure). These phenomenon is the indications of the future risk of the failure so it is necessary the preventive maintenance in advance.



Source: Baseline Survey in 2011

Figure 2-10: No. of the functioning water points but with some technical problem

- (ii) The functionality rate of the water points in Mchinji District was about 82.5%, exceeding the 69% of functionality rate for the whole of Malawi reported in the JSR in 2008 and the 70% of functionality rate (for 300 water points) reported in the Preparatory Survey on the Project for Rehabilitation of Boreholes in Mchinji conducted by JICA in 2010. This result is currently being verified, but it is deemed confirmed that support for the supply of spare parts and maintenance of the water points has been provided by NGOs for the past 2 or 3 years in Mchinji District. Thus, it is likely that, temporarily at least, the high functionality rate above the national average was obtained due to such external factors. These figures should be evaluated appropriately, taking into account the overall results of the baseline survey, and appropriate figures set for the PDM indicators to be discussed at the next JCC meeting, with due consideration given to these items.

j.2.3 Challenges of diagnosis survey for condition of water points

The challenges regarding the collection of data related to functionality of water points obtained through the first and second diagnosis survey of the water points are described below.

- (i) During the period from the end of the first diagnosis survey to the commencement of the second diagnosis survey (about 2 months at most), some non-functionality of water points were brought back into operation following repair by the users themselves, and there are possibly some cases to the contrary. As such status of functionality/non-functionality is considered to fluctuate daily, when determining the

indicators of functionality/non-functionality rate, due recognition and consideration should be given to its characteristic traits. (The actual situation of functionality of water points is hard to assess solely by figures. It is important to understand that figures of functionality/non-functionality rate have the characteristic like aforementioned.)

- (ii) From the perspective of the life of the facilities, malfunction of facilities constructed around the same period is likely to occur at around the same period unless preventive maintenance and repairs are carried out. For this reason, consideration must also be given to the fact that the functionality rate of the facilities has the characteristic of declining temporarily in inverse proportion to the operation period.
- (iii) According to the hearing survey to DWDO, there is such case that maintenance and repair of the facilities is directly requested to the Member of Parliament (MP) by the residents, and the MP, with the cooperation of NGOs, etc. provides support for spare parts acquisition and repairs. However, as this information is not reported to the DWDO. And similarly there is another case when NGO provides support for the water points, in many cases the details of such support after implementation are not shared with DWDO, so the actual situation cannot be grasped. For this reason it is important to establish a monitoring system which the information is always reported to DWDO when the water points are repaired.

3 Identification of challenges and proposed actions

Based upon the results of analysis of the challenges described in chapter 2 above, proposed actions to make the framework more practical are summarized below.

Table 3-1: The plan in order to make the framework more practical

No. of proposed actions	Identified challenges	Proposed actions
P1	Standard water tariff setting for water supply facilities equipped with hand pumps	<ul style="list-style-type: none"> • Formulation of a calculation sheet for estimation of average operation and maintenance cost • Development of teaching materials which facilitate decision-making by water user committee in the CBM Training
P2	Facility design for better O&M	<ul style="list-style-type: none"> • Drafting drawings, including those for a standard fence and a standard soak away pit, which clearly indicate materials and costs, as a teaching material attached to the CBM Manual • Drafting standard drawings with selection of ancillary structures such as a washing slab taken into consideration
P3	Standardization and dissemination of a process for the introduction of AMs	<ul style="list-style-type: none"> • Revision of the existing manuals <p>→The revision to be implemented under the leadership of the Project Task Force consisting of staff of MoAIWD and DWDO with assistance from development partners including Inter Aide, UNICEF and EWB</p> <p>→To implement a series of works for the revision with the C/Ps so that they can learn the process of the revision</p> <ul style="list-style-type: none"> • Preparation for an appropriate environment for supporting AMs
P4	Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain	<ul style="list-style-type: none"> • Revision of the existing manuals <p>→The revision to be implemented under the leadership of the Project Task Force consisting of staff of MoAIWD and DWDO with assistance from development partners, including Inter Aide and UNICEF.</p> <p>→To implement a series of works for the revision with the C/Ps so that they can learn the process of the revision</p> <ul style="list-style-type: none"> • Preparation for an appropriate environment for the

No. of proposed actions	Identified challenges	Proposed actions
		establishment of the supply chain
P5	Monitoring system for the water supply facilities	<ul style="list-style-type: none"> • Design of a system for labeling each water supply facility with ID number plate • A study on a method to set and display an ID number plate on a water supply facility • Development of a kind of glossary including definitions of terms with drawings • Development of a simple monitoring system
P6	Renewing of some existing manuals with user-friendly contents for their use at the community level	<ul style="list-style-type: none"> • It makes up deficiency with new contents after reviewing some existing manuals with line ministries (i.e.MoAIWD, MoH, etc.). <p>(Examples)</p> <ul style="list-style-type: none"> → Translation of manuals to be used at the WPC/VHWC level into local languages → Preparation of an additional manual on the CBM1 Refresher Training and the training for new WPC/VHWC members → It make up for the lack of the description of the relevant manual, the contents of the description are more clarified. → Regarding the duplicated, it is integrated with the latest version. → Manuals for the community level is summarized to at most two pages in the A4 size that used illustrations. Laminating is made on the manual.
P7	Improvement of a rule on use and storage of manuals	<ul style="list-style-type: none"> • Improvement of a system for approval and update of manuals with line ministries (i.e.MoAIWD, MoH, etc.) • Preparation of a database of manuals and drafting manual management rules at the levels of ministry, regional office, district and community with line ministries (i.e.MoAIWD, MoH, etc.)
P8	Hierarchical Management of the existing manuals	<ul style="list-style-type: none"> • Hierarchical management of the existing manuals with line ministries (i.e.MoAIWD, MoH, etc.) • Preparation of a user's guide for the use of the existing manuals with line ministries (i.e.MoAIWD, MoH, etc.)
P9	Drafting of a manual on well diagnosis and	<ul style="list-style-type: none"> • Drafting of a manual on well diagnosis method and rehabilitation procedures to be understood by

No. of proposed actions	Identified challenges	Proposed actions
	rehabilitation	community people, based on the field survey for the actual situation of operation and maintenance of boreholes equipped with Afridev hand pump <ul style="list-style-type: none"> • Development of conventional rehabilitation (well cleaning and dredging) methods
P10	Water Point Sanitation	<ul style="list-style-type: none"> • Development of promotion material, technical manual and action plan format to improve water point sanitation for WPC/VHWC use • Development of teaching materials for HSA to educate WPC/VHWC on water point sanitation • Development of TOT manual on water point sanitation
P11	Promotion of H&S practice motivate beneficiaries to pay for water regularly	<ul style="list-style-type: none"> • Development of promotion material, technical manual and action plan format to promote targeted H&S practices for WPC/VHWC use • Development of teaching materials for HSA to educate WPC/VHWC • Development of TOT manual
P12	Shortfall of own regional annual action plan to oversee and assist O&M intervention at the district level more effectively for Regional Water Development Office	<ul style="list-style-type: none"> • Technical support to RWDO to prepare their own regional annual action plan for O&M activities in Mchinji DC
P13	Lack of investment to O&M activities in both District Water Supply and Sanitation Plan (DWSP) and District Strategy and Investment Plan (DSIP)	<ul style="list-style-type: none"> • Technical support to DC, DCT and EWs to make O&M plan according to O&M framework to be integrated with DWSP/DSIP
P14	Various deficiencies in O&M plans owned by user communities	<ul style="list-style-type: none"> • Assist DC, DCT and EWs to facilitate pilot communities to establish and/or update O&M plan

Appendix 5:
**Recommendations for Further Strengthening the
Existing O&M Framework**

The Republic of Malawi
Ministry of Water Development and Irrigation

**The Project for Enhancement of Operation and
Maintenance for Rural Water Supply
in the Republic of Malawi**

**Recommendations
for Further Strengthening
the Existing O&M Framework**

February 2014

Japan International Cooperation Agency

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Abbreviations

AEHO	Assistant of Environmental Health Officer
Fad	African Development Bank
AM	Area Mechanic
C/P	Counterpart Personnel
CBM	Community Based Management
DCT	District Coordination Team
DDEHO	Deputy District Environmental Health Officer
DWDO	District Water Development Officer
EF	Existing O&M framework
EU	European Union
EWB	Engineers Without Borders
EW(s)	Extension Worker (s)
F*	Factor *
JSR	Joint Sector Review
M&E	Monitoring and Evaluation
MOU	Memorandum of Understanding
MoWDI	Ministry of Water Development and Irrigation
NDR	The National Digital Repository
NGO(s)	Non-Governmental Organisation (s)
NICE	National Initiative for Civic Education
NWDP	National Water Development Programme
O&M	Operation and Maintenance
PDM	Project Design Matrix
PO	Plan of Operation
RWDO	Regional Water Development Office
SEF	Strengthened Practical O&M Framework
SPR	Sector Performance Report
SWAP	Sector Wide Approach
TOT	Training of Trainers
TWG	Technical Working Group
UNICEF	United Nations Children's Fund
VHWC	Village Health and Water Committee
WASH	Water, Sanitation and Hygiene
WES	Water and Environmental Sanitation
WP	Water Point
WPC	Water Point Committee
WSS	Water Supply Services

1 Outline of the Activity 3-4 in PDM

3-4 To make a recommendation to strengthen the existing O&M framework based on the monitoring results of the test activities.

1.1 Objective

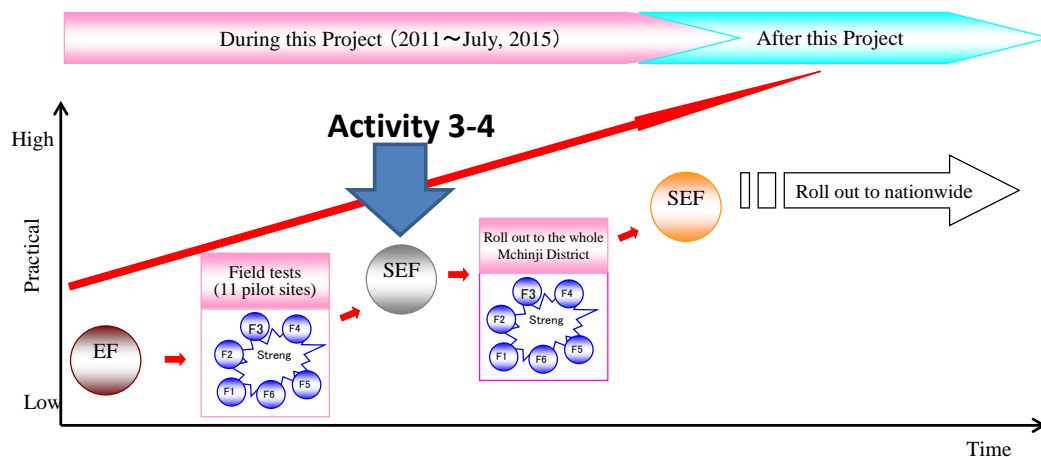
The recommendations for strengthening the O&M framework to be more practical will be extracted.

1.2 Outline of the Activity 3-4

- Based on the results of monitoring of the test activities as described in Activity 3-3, PDM, the recommendations for strengthening the O&M framework to be more practical will be extracted and reflected on the materials such as manuals.
- In addition, in consideration of the result of the test activities, the main factors to strengthen the existing O&M framework more practically will be reviewed through discussions with C/Ps.

Table 1: The Main Factors to Strengthen the Existing O&M Framework More Practically

Factors No.	Main factors
F1	Increasing community ownership and responsibility (community contributions)
F2	Standardization of the spare parts supply chain system
F3	Standardization of Area Mechanics (AMs) system
F4	Management of guidelines and manuals
F5	Strengthening of the M&E system at the district level
F6	Capacity development of Regional/District Coordination Team



- Legend :
- EF : Existing O&M framework (definition: guidelines and manuals)
 - SEF1, SEF2 : Strengthened practical O&M framework
 - F* : The main factors to strengthen the existing O&M framework more practically

Figure 1: The position of Activity 3-4, PDM in entire Activities

2 Recommendations

2.1 Overview of Recommendations

The following table lists the recommendations for strengthening the existing Operation and Maintenance (O&M) framework and bringing it to a more practical level. The details of these recommendations are set out in the section following (2.2).

Table 2: List of Recommendations to Strengthen the Existing O&M Framework to a More Practical Level

Major Factors Contributing to Strengthening of O&M Framework	Recommendation number	Description
F 1 Increasing community ownership and responsibility (community contributions)	Recommendation 1-1	Introduction of a Community Based Management (CBM) refresher training
	Recommendation 1-2	Incorporation of educational tools developed through the Project into the current CBM training
	Recommendation 1-3	Trial use of community radio for effective educational activities
F 2 Standardisation of spare parts supply chain system	Recommendation 2-1	Establishment of hybrid type of hand pump spare parts supply chain
F 3 Standardisation of Area Mechanics (AMs) system	Recommendation 3-1	Definition of division of roles between districts and development partner through the conclusion of an MOU
	Recommendation 3-2	Measurement of improved reliability of AM for the Water Point Committee (WPC)
F 4 Management of guidelines and manuals	Recommendation 4-1	Establishment of document management guidelines as formal regulations and promoting the application of these guidelines
	Recommendation 4-2	Establishment of a resource centre in the Ministry and promotion of its use
	Recommendation 4-3	Promotion of use of guideline / manuals
	Recommendation 4-3-1	Promotion of use and standardisation of important documents (Use of Utilisation Handbook)
	Recommendation 4-3-2	Publication and distribution of major documents and their placement in local offices
	Recommendation 4-3-3	Familiarisation of the content of manuals and guidelines, and provision of training
F 5 Strengthening of Monitoring and Evaluation (M&E) system at district level	Recommendation 5-1	Simplification of monitoring data input
	Recommendation 5-2	Definition and prioritisation of methods of using monitoring indicators
F 6 Capacity development of Regional/District Coordination Team	Recommendation 6-1	Strengthening of planning capacity using support tools developed using Logframe

2.2 Recommendations

This section sets out the recommendations for further strengthening the existing O&M framework and bringing it to a more practical level by means of each of the six major factors.

2.2.1 Factor 1: Increasing community ownership and responsibility (community contributions)

a. Introduction

a.1 Policies for Implementation of Field Tests, and Overview of Implementation

To increase community' ownership and responsibility towards their water supply facilities (boreholes), the Project tried two approaches from different perspectives: Informed Choice to promote autonomy, and sanitation and hygiene, with regard to encouraging the payment of water fees and the selection of appropriate fence and soak away pit for the water supply facilities.

In the Informed Choice approach, the reasonable pricing of standard water fee for water points with hand pumps, and visual teaching materials for the selection of fence and soak away pit were developed, taking into consideration that operation and maintenance is conducted by the community.

Regarding sanitation and hygiene, many documents point out the necessity and importance of encouraging the payment of water fees and the improvement of hygiene and water point sanitation. These documents also explain the reasons for this and the expected effects (i.e., health benefits). However, they do not describe any specific methodology on how to actually involve the community to achieve these goals and increase community ownership. **There is no detailed information regarding factors (e.g. regarding anthropology or social science) that bring about behavioural changes.**

In Test Activities A1 and A2, formative research¹ in social marketing² was used to achieve the respective objectives of the field tests, 'encouraging the payment of water fees by the beneficiaries of the water point' and 'encouraging the improvement of water point sanitation', the focus being on the improvement of community ownership and responsibility.

Specifically, formative research defining the following items was undertaken in a phased manner

¹ Formative research is one part of Social Marketing approach to aid in the development of the strategy and includes the problem and environmental analysis, target audience research and pretesting of messages and materials. Formative research was undertaken by UNICEF and the London School of Hygiene and Tropical Medicine for 'hygiene promotion to reduce the incidents of childhood diarrhoeal disease' in Burkina Faso in 1998. Refer to: Curtis, V. and Kanki, B. (1998) *Happy, Healthy and Hygienic – how to set up a hygiene promotion programme* (New York, UNICEF).

² Social marketing is the use of commercial marketing principles and techniques to promote the adoption of a behaviour that will improve the health or well-being of the target audience or of society as a whole. These are the same methods that a company such as Coca-Cola uses to sell its soft drinks—a focus on its consumers, market research and a systematic process for developing a marketing program. The key characteristic that distinguishes social marketing from commercial marketing is its purpose; that is, the benefits accrue to the individual or society rather than to the marketer's organization. (Weinreich, N. (2011) page 4, *Hands-On Social Marketing: A Step by Step Guide to designing Change for Good. Second Edition*, SAGE Publications)

in collaboration with the C/Ps.

Table 3: Procedure of Formative Research

Step	Contents
Step 1	Identify risk practices
Step 2	Identify practices that motivate people to pay for water regularly and for conducting water point sanitation
Step 3	Identify target audience
Step 4	Determine message positioning
Step 5	Select communication channels
Step 6	Design communication materials

Following this formative research, two types of Village Head Consensus Form and two promotion songs for increasing community ownership were developed as educational tools (see Table 6 for details).

a.2 Results of Field Test

Using the educational tools developed through the two-pronged approach of “Informed Choice” and “Hygiene & Sanitation”, the Extension Workers (EWs) and Water Point Committee (WPC) received training. Monitoring of WPCs was carried out during five months after training and the following results were observed:

Table 4: Results of Field Test

Item	Before test activity (April 2013)	After test (October 2013)
Payment of water fees	40% of households were paying water fees but only when the borehole was non-functional. Water fees were not paid regularly.	76% of households began to pay water fees regularly.
Construction of fences	No fences were in place at any of the facilities.	Fences have been built at five villages (45%) to ensure water point sanitation [fence under construction in one village (9% of facilities)].
Construction of Soak away pits	Five villages did not have Soak away pits, four had non-functional Soak away pits, and two had Soak away pits that needed cleaning.	Soak away pit have been built at seven villages (64%)[Soak away pits under construction in three villages (27% of facilities)].

As shown above, the developed tools proved to be effective in the eleven pilot villages where the field test was conducted³.

³One reason why the educational tools proved effective in the eleven villages where this pilot test was conducted might be the influence of the four-month monitoring. In other words, during the four-months monitoring survey, the beneficiaries may have had repeated opportunities to recognise the necessity of

b. Recommendation

b.1 Measures for Strengthening CBM

Recommendation 1 Introduction of Community Based Management (CBM) refresher training

The existing CBM training framework faces some challenges, as shown in the table below.

Table 5: Challenges in the current CBM Training Framework

Challenges	Contents
Challenge 1: Appropriate community support based on the borehole's operation cycle	CBM training is provided to the beneficiaries only when the water supply facilities are first constructed. However, several years pass after construction before the water supply facilities begin to deteriorate and break down, requiring maintenance. It is likely that, for a few years after construction, the beneficiaries never make use of what has been learned in the CBM training, and do not carry out appropriate maintenance on many of the facilities. When the water supply facilities begin to deteriorate, therefore, the Water Point Committee (WPC) members who received training may have forgotten what they learned, or the WPC may have different members, AMs, or spare parts supply retail shops may also differ from when the CBM training was provided.
Challenge 2: Community support to facilities constructed before introduction of CBM	Communities with water supply facilities that were constructed before the introduction of the CBM training are not trained. The CBM training was introduced in the 1990's to cover only newly-constructed water supply facilities. Therefore, communities operating water supply facilities that were constructed before the introduction of CBM have not received any CBM training and do not know the existing framework, such as their responsibilities with respect to the water supply facilities and the responsibilities of the district and the national governments.

To overcome these challenges, the institutionalization of the CBM refresher training is proposed. If the beneficiaries receive refresher training once every few years in addition to training at the time of construction, communities with water supply facilities in need of repair will be able to deal with the situation appropriately and will have the opportunity to actively make their needs known to the district and national governments, which in turn can make use of this opportunity to determine the status the water supply facilities.

As a result, this will help reduce the non-functionality rate of water supply facilities.

paying the water fee, receiving influences that resulted in the high water fee collection rate of 76%. This issue must be taken into consideration and given due attention when incorporating the tools in the CBM training, in order to ensure efficient use of the developed tools.

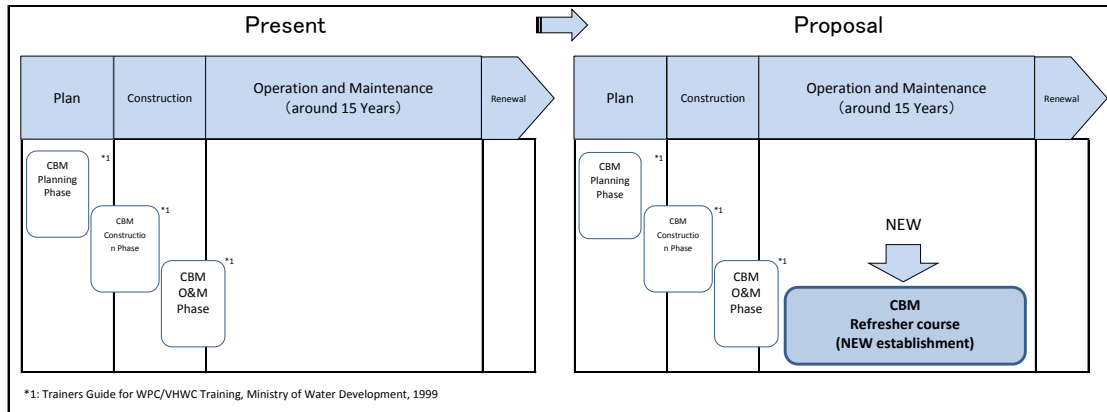




Figure 2: Relationship between PDCA Cycle of Facilities and CBM Training (Current Status and Proposal)





b.2 Utilisation of Developed Educational Tools


Recommendation 1-2 Incorporation of educational tools developed through the Project into the current CBM training

To make effective use of the educational tools that have been developed (such as songs and Village Head consensus forms) in their future application in Mchinji District and throughout Malawi, it will be necessary to incorporate the educational tools into the current CBM training (pre-construction and post-construction sessions).

Table 6: List of Developed Educational Tools, etc.

Tool name	Characteristics of tool
<p>Village Head Consensus Form</p> 	<p>The formative research found that what the Village Head says influences the decision-making of families. It is expected that this endorsement by the Village Head will be used as the government's official means of gaining Village Heads' commitment to the active implementation of activities to promote regular payment of water fees and for ensuring water point sanitation.</p>
<p>Promotion songs</p> 	<p>Songs that are 'attractive' to the beneficiaries, 'participatory' so that the entire community can participate, and the message is repeated several time ('repeatable') have been developed as message-promotion tools for the beneficiaries of water supply facilities who have a low literacy rate. These are the following two songs composed by Skeffa CHIMOTO, a famous singer-songwriter in Malawi:</p> <ul style="list-style-type: none"> ❖ 'Water is life' ❖ 'We should not underrate the message'

Tool name	Characteristics of tool
<p>Textbook for setting water tariff to cover O&M of water facilities (temporary title)</p> 	<p>This textbook explains how the WPC members can set the water tariff taking into account the life-cycle cost of Afridev hand pumps.</p>
<p>Calculation sheet for setting water tariff to cover O&M of water facilities (temporary title)</p> 	<p>This Excel sheet allows the District Water Development Officer (DWDO) to calculate the water fees for a target facility taking into account the life-cycle cost of Afridev hand pumps.</p>
<p>Informed Choice Manual on Water Point Sanitation for Afridev handpump</p> 	<p>This textbook explains how the beneficiaries themselves can select the design of and construct fences and soak away pits for water supply facilities based on the Informed Choice concept.</p>
<p>Visual education material for the improvement of water point sanitation</p> 	<p>This participatory tool is aimed at helping residents visually understand how water point sanitation can be improved.</p>
<p>Text on Trouble Shooting and Diagnosis on Afridev hand Pump and Borehole</p>	<p>This troubleshooting textbook with illustration is aimed at helping residents solve for themselves hardware problems encountered in the operation and</p>

Tool name	Characteristics of tool
	<p>management of Afridev hand pumps.</p>

Recommendation 1-3 Trial use of community radio for effective educational activities

Even if the proposed CBM refresher training is institutionalised, in view of the current budget level and human resources available in the national and district governments, it is exceedingly difficult to provide CBM refresher training to all Water Points (WPs). Therefore, **the Project proposes the use of community radio** as an effective means of bridging the shortage in budget and human resources.

Specifically, an educational programme for ‘Strengthening the O&M for Rural Water Supply’ that broadcasts the content of the CBM refresher training through the community radio to promote community participation and empowerment, which is the concept of CBM, and to promote wide-ranging educational activities is proposed.

It might be possible to develop an O&M radio programme model that could be made available to other stakeholders (other community radio stations⁴ and the donors supporting them) after the completion of the project, together with the CBM refresher training materials developed in this project to allow them to utilise these as tools for nationwide dissemination, which is one of the overall goals of this project.

2.2.2 Factor 2: Standardisation of spare parts supply chain

a. Introduction

In 2008, with assistance from the EU InterAide, an international NGO, started a maintenance project⁵ for water supply facilities and is collaborating with BASEDA, a local NGO, to provide assistance to AMs and a supply chain for spare parts for Afridev hand pumps. When AMs repair water supply facilities, the downtime cannot be shortened if they cannot obtain a local supply of spare parts for the hand pumps. In reducing the downtime of water supply facilities, therefore, **it is essential that both the AM system and the spare parts supply chain be improved**

⁴ Throughout Malawi, including Mchinji District, there are a total of ten local radio stations, covering almost all districts (Source: UNICEF Communication for Development Officer).

⁵ Maintenance System Project in Mchinji, Dowa and Salima in 2008

simultaneously so as to achieve better results.

In its support activities, InterAide is procuring and selling spare parts for Afridev hand pumps, as well as soliciting and training retail shop owners. However, these are project-based activities similar to the assistance given to the AM system, the continuation of which is uncertain.

Meanwhile, the spare parts supply chain guide manual was drawn up in 2006 by UNICEF as a draft document, but has not been finalized as a government manual. **To strengthen the existing O&M framework and bring it to a practical level, it is necessary that a standard guide manual that will disseminate as the guide for the establishment or sustainability of a spare parts supply chain for all stakeholders in the rural water supply be completed and widely distributed.** In the test activity A4, therefore, the ‘Guide Manual for Establishment of Hand Pump Spare Parts Supply Chain’ was improved.

b. Recommendation

Recommendation 2-1 Establishment of hybrid type of hand pump spare parts supply chain

The establishment of the spare parts supply chain is aimed at ensuring a low-cost, stable, and easy supply of spare parts for the repair of hand pumps. At present, NGOs such as InterAide and BASEDA continue to carry out support activities but face the following challenges.

Table 7: Challenges Faced by NGOs in Current Support Activities

Challenges	Contents
Challenge 1: Alleviation of burden in procurement and wholesale of spare parts	So far, limited resources have been shared between the procurement and wholesale of spare parts, support for AMs and the training of retailers. However, the NGOs carry a major burden with respect to price negotiation with spare parts agents and the transportation and stock control of the spare parts. They are attempting to find a private-sector company to which the task of the procurement and wholesale of spare parts can be assigned, so far without success.
Challenge 2: Reduction of cost of procurement of spare parts	An important factor in establishing lower prices for retail shop is the reduction of or exemption from the import tax levied on spare parts. Attempts have been made to exempt spare parts from taxation, but with no success to date.

In the past, spare parts supply chains have been set up by NGOs and other stakeholders within a district or several districts as part of a project. After completion of the project, however, there is no guarantee that these spare parts supply networks will be maintained on a permanent basis.

In view of these circumstances, **the Project recommend the establishment of a hybrid type supply chain for hand pump spare parts** as a system to ensure the functioning and sustainability of the supply network after completion of the project. In other words, in order to deal with challenges that can be overcome only by government organization/institutions, such as economy of scale used to ensure the stable supply of spare parts and their exemption from taxation, Ministry of Water Development and Irrigation (MoWDI) will take the initiative in providing support for the

development of an environment in which stakeholders can participate in the establishment of a supply network (see the table below). This will be a hybrid type in which development partners and NGOs provide support in the soliciting and training of spare parts retail shops.

Table 8: Support Measures (Draft) by MoWDI to Deal with Challenges

Challenges	Support measures
Challenge 1: Support measures to alleviate the burden in procurement and wholesale of spare parts	It is considered ideal that in the supply of spare parts, the import and wholesaling of spare parts to retail shops be assigned to a permanent organisation/institutions that can supply spare parts to a wide area under the initiative of MoWDI. Specifically, the ideal is for this function to be served by the Regional Water Board, which has a supply network for waterworks equipment and parts throughout Malawi.
Challenge 2: Support measures for reduction of the cost of procurement of spare parts	The application procedure for tax exemption requires the involvement of MoWDI. Specifically, the ministry needs to acquire the budget required to cover the tax exemption.

Step 1:
To disseminate the "Guide Manual for Establishment of Hand Pump Spare Parts Supply Chain"

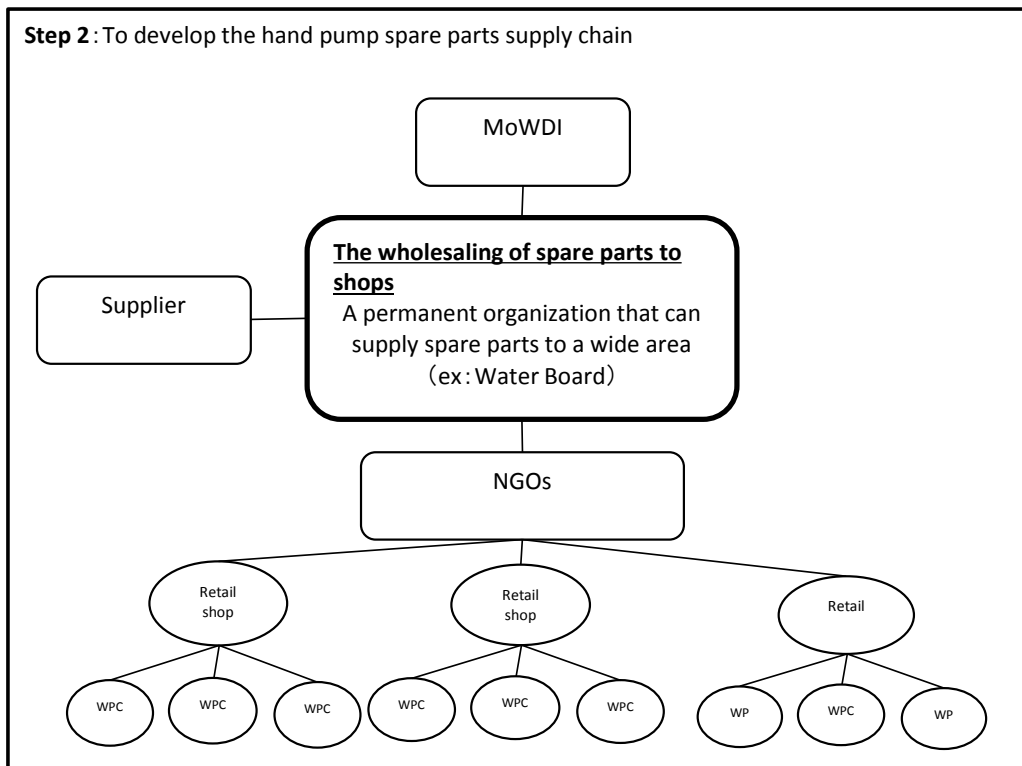


Figure 3: Hybrid-type Supply Chain Model for Hand Pump (Draft)

2.2.3 Factor 3: Standardisation of Area Mechanics System

a. Introduction

The District Water Development Office (DWDO) is supposed to provide community organisations such as WPCs with technical guidance in the operation and maintenance of water supply facilities. Due to the lack of budget of the operation and maintenance for the water supply and the limited number of EWs, however, the district governments have not been able to provide an adequate follow-up framework for monitoring the state of operation of water supply facilities or for repairing major malfunctions, so that there was concern about the decrease in the function rate at the water facilities. As a means of improving this situation, a private-sector area mechanic (AM) system was introduced and is currently in trial operation.

Many of the AMs in the Mchinji District were trained as part of the 2007 UNICEF project⁶. Their activities continue to be followed up by support from InterAide, and as of 2013 there are thirty active AMs. However, their activities are project-based and normally carried out in line with the assistance policies of those providing support, and participation by the district governments is extremely limited. The same is true of support activities for AMs in other districts, too.

In view of this state of affairs, in those districts where the AM system has been introduced, the realistic approach for the time being appears to be to maintain and strengthen the AM system supported by the international development partners and NGOs, and gradually over time transfer the role played by the development partners to the district governments as improvements are made to their budget, human resources, etc.

Meanwhile, a draft version of a guide manual on the establishment of an AM system, which is considered necessary for those districts in which the system has not yet been introduced, was created by UNICEF in 2006, but in the end this was not finalised as an official government manual and has therefore not been distributed to the stakeholders.

Therefore, in Field Test Activity A3 the ‘Guide manual for the Establishment and Management of Area Mechanic System’ is being improved, in which definition is made as to the roles and responsibility of the stakeholders supporting the AM system and the standard method for the establishment and sustainability/development of the system. This guide manual also serves as a guide for district governments and the development partner undertaking support activities.

b. Recommendation


Recommendation 3-1 Definition of division of roles between districts and development partner through the conclusion of an MOU

⁶ Establishment of Community Based Operation and Maintenance System in twelve UNICEF-Supported Districts of Malawi, 2007

In order to develop AMs and sustain the system, it is necessary that continuous support, in the form of training and the holding of regular meetings, be provided. With the current weak support system of the district governments this is difficult, so that support has to be provided by development partners. At present, most of the support activities are carried out in line with the implementation plans of the development partners, and the division of roles between the district governments and the development partners remains unclear. It seems effective, therefore, for the district governments and the development partners to conclude MOUs in order to define their respective roles encourage the district governments to take the initiative, and create a road map for the establishment of the system. This will allow the development partners to inform the district governments of the range of their support, which may be expected to facilitate and improve collaboration with the district governments in project implementation.

In view of the above, we recommend that the conclusion of MOUs between the district governments and the development partners be encouraged.


Table 9: Impact of Conclusion of MOU between a District Government and the Development Partners

<p>Signing of a MOU</p> 	<p>■ Expected impact</p> <ol style="list-style-type: none"> (1) Clarification of the responsibilities of the district government and the development partners (2) Encouragement for the district government to act on its own initiative (3) Creation of a road map through collaboration between the district government and the development partners
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Recommendation 3-2 Measurement of improved reliability of AMs for WPCs

In order for an AM system to be able to take root, it is exceedingly important for the AMs to earn the trust of the communities. Therefore, it is essential that the AMs work to sustain and improve their own technical capabilities and possess sufficient knowledge and skill as well-service technicians. While refresher training is needed to improve their technical capabilities, **gaining as much practical experience as possible is a more effective means for AMs to sustain and improve their technical capabilities.** Practical experience means actually repairing hand pumps. For this reason, the AMs **must receive commissions from the WPCs and secure a large number of repair contracts.** As a means of increasing the number of repair contracts, we make the following recommendations.

Table 10: Measures to Sustain and Improve Technical Capabilities of AMs

Subject	Route to a solution	Specific measures	
Measurement of improvement of reliability of AMs for WPC 	AMs sustain and improve their technical capabilities by gaining practical experience	Increasing the number of maintenance contracts between AMs and WPC	(1) PR activities for AMs through ADC meetings In order to improve the name recognition of AMs in the WPC, ADC meetings will be used to boost PR activities promoting AMs as professionals.
			(2) Promotion of business activities by the AMs themselves AMs will be encouraged to make regular visits in person to the WPCs in their area and undertake business activities such as inquiring about the condition of the hand pumps in an effort to increase the opportunity to obtain repair contracts.

2.2.4 Factor 4: Management of Guidelines and Manuals

a. Introduction

a.1 Summary of Problems and Needs

The table below lists the challenges in bringing about a practical maintenance framework set out in the first-year final report, and proposals for their solution.

Table 11: Summary of Challenges and Proposals for their Solution

Proposal No.	Identified challenges	Proposed solution
P6	Renewing of some existing manuals with user-friendly contents for use at the community level.	<ul style="list-style-type: none"> • To makes up deficiency with new contents after reviewing some existing manuals with line ministries (Examples for proposed solution) <ul style="list-style-type: none"> ➤ Translation of manuals to be used at the WPC/VHWC level into local languages ➤ Preparation of an additional manual on the CBM1 Refresher Training and the training for new WPC/VHWC members ➤ To make up for the lack of the description of the relevant manual, the contents of the description are more clarified. ➤ Regarding the duplicated, it is integrated with the latest version. ➤ Manuals for the community level are summarized to at most two pages in the A4 size that used illustrations. ➤ Laminating is made on the manual.
P7	Improvement of a rule on management of manuals	<ul style="list-style-type: none"> • Improvement of a system for approval and update of manuals with MoWDI • Preparation of a database of manuals and

Proposal No.	Identified challenges	Proposed solution
		drafting manual management rules at the levels of ministry, regional office, district and community
P8	Hierarchical Management of existing manuals	<ul style="list-style-type: none"> • Hierarchical management of the existing manuals • Preparation of a user's guide for the use of the existing manuals

Source: 'Final Report (First Year), p.S-ii, Table 2'

On the basis of the above proposals and the experience gained through project activities so far, summarised below are the problems relating to the future promotion of activities, and the demand for the development of manuals.

➤ **Mixed Storage of Manuals, Guidelines, etc.**

The water sector maintains a mixture of old and new manuals and guidelines relating to the water supply service. It is difficult for users to determine which document they should refer to because more than one version of the same document, such as draft versions and the approved version, are used by stakeholders; or unapproved documents are distributed with the name 'Ministry of Water Development and Irrigation' printed on them.

Furthermore, the manuals and guidelines issued by the Ministry are not sufficiently well-known by the stakeholders. This causes confusion because multiple agencies, unknowing of the existence of these documents, create documents with similar content or implement projects without following the guidelines.

➤ **Inadequate Document Management System at the Ministry**

The MoWDI should manage the manuals and guidelines mentioned above as official documents. However, the official document management system of the Ministry is inadequate, and few official documents are registered. Although the printed materials are supposed to be organised and stored in the Ministry library, the library does not offer such functions as document management or a reference service, which should be part of its basic service.

➤ **Non-distribution of Necessary Documents**

The baseline survey found that only 6% of the surveyed village health water committees (51 communities/841 effective answers) possessed the operation manuals. Even among the District Coordination Team (DCT) members and extension workers who participated in the project, few had the manuals and guidelines required for their extension activities, and many of them did their work using their training notebooks, or worked from memory.

There are several possible reasons why users do not have the documents needed for water supply projects: the necessary documents have not been printed, or have not been distributed, or there are not enough to go around, or those that have been distributed are not stored properly, etc. For example, five operating manuals that were created and approved as part of NWDP in 2010 have not been printed nor distributed as of December 2013, even though they are defined as the most

important documents for the implementation of a water supply project.

a.2 Solutions (Measures taken in the project)

The following measures were taken in the project as solutions to the problems described above.

- Establishment of document classification and management rules (Document Management Guidelines)
- Hierarchical organisation of existing documents
- Document management in the Department of Water Supply Service (Establishment of the Water Supply Service Resource Centre and creation of a catalogue)
- Securing of more than one document management sites (Development of local document management sites)
- Distribution of electronic documents
- Creation of a handbook for the utilisation of major documents relating to the operation and maintenance of the rural water supply (Utilisation Handbook)

b. Recommendation

Based on the experience gained so far, we make the following recommendations:

Recommendation 4-1 Establishment of document management guidelines as formal regulations and promoting the application of these guidelines

As part of the project activities, 'Document Management Guidelines' were drafted to establish rules for the creation of new documents and the updating and disposal of existing documents. **It is necessary that these rules be established as the Ministry's own rules and put into application.** Furthermore, **these rules must be made known to development partners involved in the water supply projects,** in order to eliminate the burden on them of creating unnecessary documents and in order to **promote the implementation of water supply projects based on uniform guidelines.** The major points included in these guidelines are as follows:

- Definition of responsibilities for the creation of new documents and the updating and disposal of existing documents
- Definition of the processes of the creation of new documents and of the updating and disposal of existing documents
- Definition of the method for certifying approved documents

Recommendation 4-2 Establishment of a resource centre in the Ministry and promotion of its use

From the long-term perspective, **it is imperative that a system be developed for the handling of official documents in the Ministry, the management of documents in the library, and the provision of a reference service.** However, the handling of official documents should be normally managed by the Administration Department in accordance with methods stipulated in the National

Archives Act and the Printed Publications Act and is outside the scope of this project and therefore not included in the project activities. Furthermore, librarians in the Ministry library are dispatched by the General Service of the Malawi national government and, in terms of continuity, it is expected that human resources development for librarians or improvement of the system would not necessarily provide an effective solution to the problems.

On the other hand, the task undertaken in the project is the management of major documents in the Department of Water Supply Services (DWSS) where management responsibility is well-defined and operations are under the eye of the administrator. The stakeholders, including the staff of other departments, are engaged in the task of defining the hierarchy of the documents, organizing and classifying major documents according to definition, and putting them on display at the WSS Resource Centre. The rules of document management are summarized in the above-mentioned 'Document Management Guidelines' (see Recommendation 4-1). It is desirable that the Resource Centre should serve as a resource centre not only for the Department but for the entire Ministry as and when necessary.

After the improvements to the Ministry library, which are not expected to occur in the very near future, it will probably be appropriate for the Resource Centre and the library to merge their functions.

Recommendation 4-3 Promotion of use of guideline / manuals

Documents such as guidelines and manuals are meaningful only if they are put to use. In order to clearly define the position in the activities of documents required for the operation and maintenance of the rural water supply and to ensure that the necessary documents are put to use in the activities, we make the following recommendations:

- (1) Promotion/standardisation of use of important documents
- (2) Recognition and distribution of major documents and their placement at local libraries / information centres
- (3) Universal recognition of the content of manuals and guidelines, provision of training

Recommendation 4-3-1 Promotion of use and standardisation of important documents (Use of Utilisation Handbook)

The Utilisation Handbook will explain the major documents as well as explaining when and how they should be used. **It is expected that clarifying which document should be used in each process relating to the operation and management of the rural water supply, and strongly recommending (or standardising) the utilisation of documents, will raise the frequency with which the documents are put to use.**

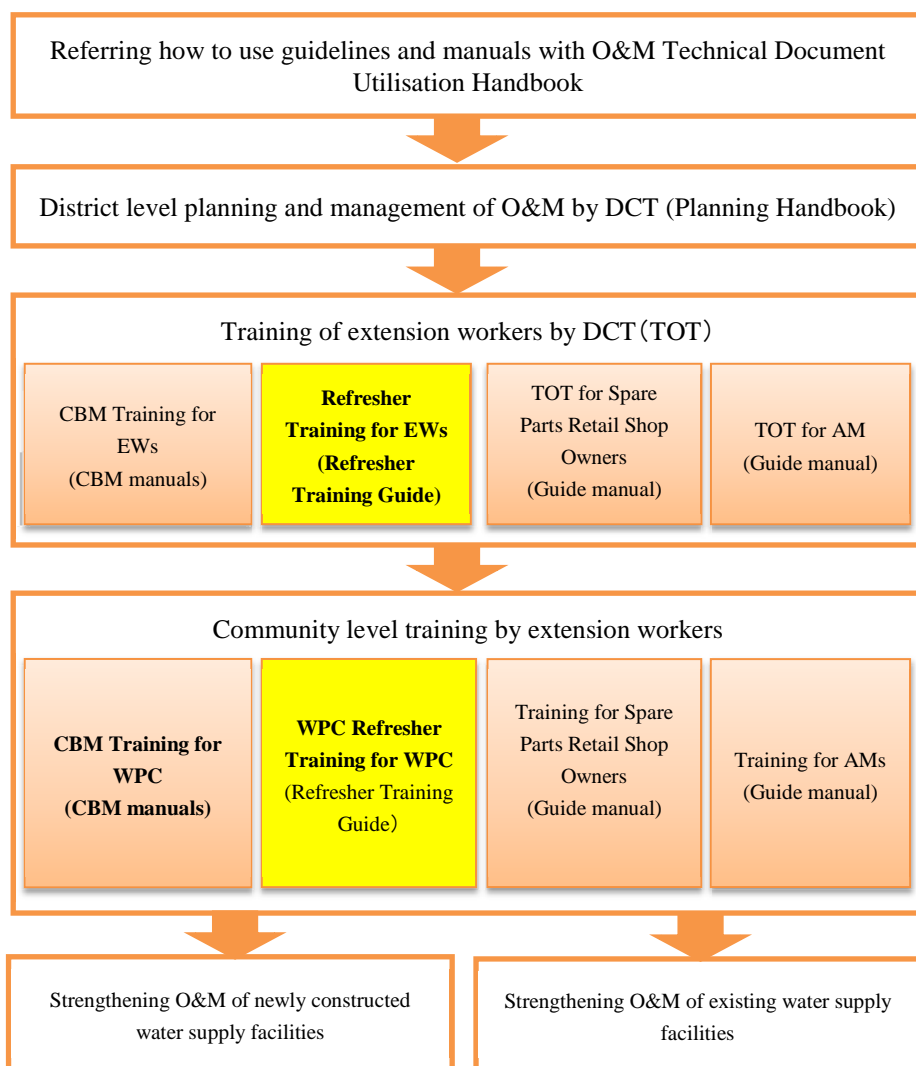


Figure 4:: Important Documents Put to Use in Accordance with the Utilisation Handbook

Recommendation 4-3-2 Publication and distribution of major documents and their placement in local offices

To ensure that documents are put to use, it is imperative that as many hard copies as are needed are available to users at the right time. The Project proposes that multiple measures be taken to ensure that the documents reach the users.

Table 12: Multiple Measures for Ensuring Utilisation of Documents

Measures	Contents
Printing and distribution	<p>Printing and distribution is the most orthodox and sure method. Documents are more likely to be available to users if as many copies as possible are printed and distributed.</p> <p>This method is costly and its success depends on the amount of budget available. It is desirable that the Ministry identify the numbers of copies needed and acquires the budget for their printing and distribution in the course of project planning. It will also be effective if the addresses for distribution of the documents are listed in order of priority.</p>

Measures	Contents
Distribution of electronic copies	<p>This method distributes the documents over more than one network. Distribution from the water sector SWAP web page and National Digital Repository (NDR) is about to begin. It is desirable that the Water and Environmental Sanitation (WES) Network web page and as many other networks as possible be used to distribute the documents.</p> <p>Documents need to be updated as and when necessary. The use of this method is likely to be difficult in rural areas where there is no Internet environment. Furthermore, hard copies cannot be easily obtained at local offices that have no printing equipment or insufficient resources such as paper and toner.</p>
Establishment of local offices and placement of documents	<p>If documents are stored and lent out at local offices such as Regional Water Development Office (RWDO), DWDO, National Initiative for Civic Education (NICE) and DCT libraries, hard copies of documents can be delivered to users at low cost. Since lending carries the risk of loss, it is recommended that the lending service be used only if there is an adequate management system.</p>
Universal recognition of major documents	<p>It is desirable that sector meetings, negotiations with development partners and utilisation of the existing networks be used to ensure universal recognition of the existence of major documents and how they can be acquired. Possible means of doing this are the use of Joint Sector Review (JSR) and Technical Working Group (TWG) meetings and requests for NGOs to be notified via the WES Network.</p>

Recommendation 4-3-3 Familiarisation of the content of manuals and guidelines, and provision of training

Although it is preferable that the major documents be delivered to users using the methods proposed in the table above (Table 12), it will take some time before all the local offices and extension workers in Malawi, which lacks financial resources, own the major documents.

While the activities listed in Recommendations 4-3-1 and 4-3-2 above are being carried out, therefore, measures should be taken to make the content of the documents known to those persons who need it, regardless of whether or not they own the manuals or guidelines. For both newly-created manuals and guidelines and also for existing documents, **it is desirable that training opportunities be provided to DWDOs, extension workers and other necessary personnel, thus ensuring the continuous development of human resources and training to keep their knowledge and skills up to date as required.**

2.2.5 Factor 5: Strengthening M& E at district level

a. Recommendation

Recommendation 5-1 Simplification of monitoring data input

Since the second year of the project, the Mchinji District has been working on the introduction of a WASH M&E database system, currently under trial operation by M&E TWG of the water sector.

In this system, data is collected, input and analysed by the District Environmental Health Office (DEHO) and the results are integrated and managed by the central government's Ministry of Health (MoH). This system has two advantages: (1) A simple Excel spreadsheet is used as the data management tool and (2) Health Surveillance Assistants (HAS) based in the villages are used to collect data on the many water supply facilities scattered throughout the District. This has helped overcome the shortage of human resources available for data collection, resulting in the construction of an effective collection system.

However, there still remain issues in the input system for the collected data. While there are about 1,600 villages in the Mchinji District, the personnel technically capable of entering data are limited to a few persons who are Assistant Environmental Health Officers (AEHOs) or Deputy District Environmental Health Officers (DDEHOs). In addition, these officers have their own duties apart from this task, and are able to spare only a limited amount of time to the input work. In addition, there are not enough PCs available to be used for the input work, resulting in the work taking a long time.

There are two possible solutions to these problems, as shown in the table below.

Table 13: Proposals for Simplification of Input of Monitoring Data

Challenge	Proposed solutions	Notes	Currently favoured proposal
Construction of a system to input monitoring data from 1,600 villages	(1) Increase the number of workers for data entry	The workers must be capable of not only just entering the data but also checking the quality of the collected data. Therefore, workers suited to this work will have knowledge of the water sector and will use a PC on a daily basis.	
	(2) Simplify the input items	Either reduce the number of input items or integrate the collected data into structured data to simplify the input work.	○

Of the above two proposals, **Increasing the number of workers ((1)) is not easy in practical terms at this moment. For the time being, the practical solution is to operate the monitoring system with a few workers while working to simplify the input items ((2)).**

BOX 1: Estimate of Number of Days Required to Input Data from 1,600 Villages

Table 14 shows the estimated input time (in days) required to enter the data from 1,600 villages, taking as the parameters the number of workers (one to 10) and the daily amount of data input per worker (five to 30 villages/day/worker).

As shown in the table, for example, with three workers each inputting the data from 10 villages per day, the time required to enter the data is 73 days (i.e., 2.4 months, working 3.3 hours per day).

Table 14: Estimated Data Input Time (with Non-working Days Taken into Consideration; A Five-day Work Week)

Unit: day

	Data entry time/day/person	No. of persons engaged in data entry										
		1 person	2 persons	3 persons	4 persons	5 persons	6 persons	7 persons	8 persons	9 persons	10 persons	
	hours											
No. of the input of village data /day/person	5 villages	1.7	436	218	145	109	87	73	62	55	48	44
	10 villages	3.3	218	109	73	55	44	36	31	27	24	22
	15 villages	5.0	145	73	48	36	29	24	21	18	16	15
	20 villages	6.7	109	55	36	27	22	18	16	14	12	11
	25 villages	8.3	87	44	29	22	17	15	12	11	10	9
	30 villages	10.0	73	36	24	18	15	12	10	9	8	7

Note: Calculation assumes data input for 1,600 villages, with 20 minutes required to enter the data from one village.

Recommendation 5-2 Definition and prioritisation of methods of using monitoring indicators

At present, there are many monitoring indicators that have been set or are being considered by the water sector. However, as methods of utilising these indicators have not been sufficiently considered, it cannot be denied that there are cases in which the collection of data in itself has become the objective of the work. Furthermore, there is not necessarily a clear relationship between the indicators defined at the central and district levels. Therefore, **the purpose of use of indicators should be re-examined after rearranging with the relevance of indicators at each level (i.e. central and district levels), and it should be listed in order of priority (e.g., with emphasis on items that are used more frequently) before monitoring is carried out.**

BOX 2: Monitoring Indicators Set or Under Consideration by the Water Sector

The monitoring indicators that are considered important in the water sector have been examined on many occasions so far. At the central level, for example, there are headline indicators (recorded in Sector Performance Report (SPR)), measurement of which began in 2010, and sixteen indicators have been set in the urban and rural water supply sectors.

At the same time, at the district level there is the above-mentioned WASH M&E database under the Ministry of Health, within which indicators have been set for each of the four categories including the village and health centre levels as shown in **Table 15**.

In the 2011 UNICEF WASH project, furthermore, the Mchinji District proposed 72 indicators as monitoring items considered necessary in the District water sector.

Table 15: Number of Monitoring Indicators Set or Under Consideration by the Water Sector

Category		No. of indicators	Reference document/data
Central level	Headline indicators	16	Sector performance report
Central and District level	Community Data	49	From Mchinji District, Environment Health Office
	Learning Institutions Data	34	
	Public Premises Data	22	
	Health Center Data	38	
District level	Water Sector, Mchinji District Council	72	Water, Sanitation and Hygiene (WASH) Monitoring and Evaluation plan, 2011-2015, Mchinji District Council, March 2011

2.2.6 Factor 6: Capacity development of Regional/District Coordination Team

a. Introduction

With the implementation of the decentralization policy, capacity building for the government officers engaged in the O&M planning for water supply facilities in the District (for this project, DCT members and RWDO staff) is an urgent task as it is included in, for example, the donors' future activity plans⁷, indicating a growing interest on the part of the donors and Malawi organisations.

The main points in capacity building for the government officers engaged in O&M planning are the building of capacity for planning the monitoring of facilities by stakeholders and the training of WPCs, and the support for the capacity improvement for speedy determination of the budget required to achieve the plan.

Activities to develop the RWDO staff and DCT members' capacity for planning and budgeting in the Project were focused on the following points:

⁷ African Development Bank (AfDB) is planning to work on this issue in the project area. At present, this project and Engineers Without Borders (EWB) are working on the said sector.

- Identifying the factors for strengthening O&M framework and bringing it to a sustainable and more practical level
- Identifying the roles of stakeholders in the District
- Having a concrete image of the ideal situation of maintenance in the District
- Defining what (activities) to do in order to bring about the ideal situation
- Putting the planned activities on the timeline
- Setting the budget required to carry out these activities

Therefore, a method using Logframe (PDM) was adopted in order to achieve capacity building for the DCT members and RWDO staff through training activities for formulation of an O&M plan covering all of the six major factors (F1: Increasing community ownership and responsibility (community contributions), F2: Standardization of the spare parts supply chain system, F3: Standardization of Area Mechanics (AMs) system, F4: Management of guidelines and manuals, F5: Strengthening of the M&E system at the district level, F6: Capacity development of Regional/District Coordination Team) required to strengthen the current O&M framework and bring it to a more practical level.

The specific points and the supporting tools in planning capacity building for RWDO/DCT, based on the training experience gained in the Project, are summarised below.

If RWDO/DCT learn how to utilise these support tools and work in accordance with the procedures, it can be expected that they will establish an effective and efficient O&M plan. Since there are no official government documents that describe specific methods for capacity building, these tools need to be described in a handbook and an environment should be developed in which they can be used by many stakeholders engaged in O&M activities.

Table 16: Points and Support Tools for Planning Capacity Building for RWDO/DCT

Planning process	Required capacity and behaviour modification (Points in capacity building)	Support tool for effective and efficient planning
Understanding of current situation Identification of issues	<ul style="list-style-type: none"> ➤ Understanding of the major factors in O&M framework ➤ Understanding of the water supply facilities, WPCs, etc. in the targeted areas 	<ul style="list-style-type: none"> ➤ Diagram of six major factors in for strengthening O&M framework ➤ Monitoring tools (see Factor 5)
Objective analysis	<ul style="list-style-type: none"> ➤ Definition and specification of the state (condition) to be achieved within a certain length of time (e.g. within five years) 	<ul style="list-style-type: none"> ➤ Ideal situation matrix
Strategy formulation	<ul style="list-style-type: none"> ➤ Selection of methods and means of achieving the objectives 	<ul style="list-style-type: none"> ➤ Ideal situation matrix ➤ Logframe (PDM)
Activity plan	<ul style="list-style-type: none"> ➤ Selection and setting of activities for achieving the objectives 	<ul style="list-style-type: none"> ➤ Logframe (PDM)
Activity schedule	<ul style="list-style-type: none"> ➤ Setting of activities needed to achieve the goals on a realistic time scale ➤ Modification of unrealistic (impractical) activity schedules 	<ul style="list-style-type: none"> ➤ Plan of Operation (PO)

Planning process	Required capacity and behaviour modification (Points in capacity building)	Support tool for effective and efficient planning
Budget formulation	<ul style="list-style-type: none"> ➤ Calculation of the budget for activities required to achieve the goals ➤ Setting of priorities in the planned activities and effective allocation of limited resources ➤ Assumption of a budget that is realistically secured ➤ Modification of plans that are unrealistic in budgetary terms 	<ul style="list-style-type: none"> ➤ Logframe (PDM) ➤ Budget analysis matrix ➤ Budget estimation format

b. Recommendation

Recommendation 6-1 Strengthening of planning capacity using support tools developed using Logframe

On the basis of the experience gained in this activity, the Project proposes strengthening the planning capacity of the government officers engaged in O&M through a training activity using Logframe to actually draw up the following three planning documents⁸:

- 1) A Logframe (PDM) that specifies the goals, outputs, activities, required inputs, etc.
- 2) A Plan of Operation (PO) to identify the schedule settings and actual state of progress
- 3) A budget estimation

The reasons for adopting Logframe are as follows:

- The recipients of the training (RWDO/DCT) are expected to learn the planning method by means of appropriate guidance (facilitation during training, etc.) given by the trainers.
- Using Logframe, the six major factors required to strengthen the O&M framework are shown basically on the same sheet. This is advantageous in facilitating an understanding of the overall image of the plan and connections between components.
- When a planning document that provides a visual representation of the logical construction of the plan, a PO and a budget document are used to demonstrate the overall scale of the plan in its entirety, it will be easier to gain the understanding of development partners and potential donors, thus leading to the greater possibility of financial assistance.

In addition, it is desirable that the handbook be created that describe the process for the establishment of the planning documents listed above, that it is approved as official documents by the national government, and that its use is promoted by the stakeholders in Malawi.

The points to note in planning, which were learned through the training activities in the Project,

⁸ For the actual planning documents established in this Project, see the Progress Report No.3 Attachment.

are shown in the table below.

Table 17: Precautions in Planning

Items	Points to note
<p>Method for setting goals to be achieved:</p> <p>Thinking from the perspective of the future ideal situation</p>	<p>A common method of PDM formulation is to analyze problems and examine countermeasures for these problems. However, this method is not necessarily adoptable, as the government officers often externalise the problems, instead of thinking of the solution by self-efforts (lack of financial resources, no proper guidances from the government, etc.). An another recommendable method is to have is <u>to have the officers describe what they consider the ideal situation regarding O&M in the project area in as much detail as possible, and then examine how that situation can be achieved.</u></p>
<p>Prerequisites for planners:</p> <p>Understanding of factors required to strengthen O&M activities</p>	<p>If the recipients of the training do not have a clear enough image of O&M framework, the plan will tend to be abstract in its content. Therefore, a prerequisite to the making of a plan is that the recipients understand the six major factors.</p> <p><u>Planning can be carried out more efficiently</u>, therefore, if the trainers examine the planning method including facilitation of the understanding of the major O&M factors, and <u>if recipients come to have a certain degree of understanding of the importance of these factors when the plan is made.</u></p>
<p>Members engaged in planning</p>	<p>When a planning document for O&M of district water supply facilities is formulated, those participating in the process should be not only the District Water Development Officers <u>but also the DCT members of the relevant sector. In this way, it can be expected that a variety of ideas will be incorporated.</u></p>

Appendix 6:
**Mchinji District Enhancement of O&M for Rural
Water Supply Five Year Plan**

Mchinji District
Enhancement of O&M for Rural Water Supply
Five Year Plan

September 2013

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Project Design Matrix of District O&M Plan

Narrative Summary	Inputs	Source of budget	Pre-Conditions
<p>Output4:</p> <p>4-1. Establish district manuals and guideline system</p> <p>4-2. Train and provide EWs on the use of the manual and guidelines by DCT</p> <p>4-3. Train and provide AMs and WPCs on the use of the manual and guidelines by EWs</p> <p>4-4. Provide an update of the manuals and guidelines to stakeholders including NGOs</p>	<p>1) Personnel</p> <ul style="list-style-type: none"> ➤ DCT, EWs <p>2) Machinery, Equipment and Materials</p> <ul style="list-style-type: none"> ➤ Guidelines and manuals, Stationary for TOT <p>3) Transportation</p> <ul style="list-style-type: none"> ➤ Fuel for EWs during TOT and training of AMs and WPCs <p>4) Allowance</p> <ul style="list-style-type: none"> ➤ DCT and EWs for TOT and training of AMs and WPCs ➤ Lunch allowances : AMs and WPCs 	<ul style="list-style-type: none"> ➤ ORT ➤ PSIP (O&M Project) ➤ NGOs ➤ UNICEF ➤ NWDP ➤ LDF 	<p>There is willingness and cooperation of stakeholders to take part in the O&M plan</p>
<p>Output5:</p> <p>5-1. Prepare M&E plan (framework / document on O&M) or reviewed</p> <p>5-2. Train all stakeholders in the M&E plan</p> <p>5-3. Produce and distribute the data collection tools to EWs</p> <p>5-4. Produce and disseminate data output and reports</p>	<p>1) Personnel</p> <ul style="list-style-type: none"> ➤ DCT, EWs, AMs, NGOs, WPC members <p>2) Machinery, Equipment and Materials</p> <ul style="list-style-type: none"> ➤ Computers: Desktop and Laptops, LCD projector, Stationary, Internet, Photocopier, Binding Machine, Anti-virus software, Printer, Hall hire charge <p>3) Transportation</p> <ul style="list-style-type: none"> ➤ 7 motor cycles, 1 vehicle <p>4) Allowance</p> <ul style="list-style-type: none"> ➤ Lunch allowance, Subsistence allowance, Night allowance 	<ul style="list-style-type: none"> ➤ ORT ➤ Project fund (AfDB fund, If possible) 	
<p>Output6:</p> <p>6-1. Develop O&M planning guidelines</p> <p>6-2. Train EWs in formulation of community O&M plans</p> <p>6-3. Facilitate the formulation of community O&M plans by EWs</p> <p>6-4. Analyse community O&M plans and incorporate in the DSIP & DDP</p> <p>6-5. Mobilize resources for DSIP/DDP implementation</p>	<p>1) Personnel</p> <ul style="list-style-type: none"> ➤ DCT, EWs <p>2) Machinery, Equipment and Materials</p> <ul style="list-style-type: none"> ➤ Stationary for DCT and EWs for TOT and formulation of O&M plans <p>3) Transportation</p> <ul style="list-style-type: none"> ➤ Fuel for DCT and EWs for TOT ➤ Fuel for EWs for formulation of O&M plans <p>4) Allowance</p> <ul style="list-style-type: none"> ➤ DCT for TOT ➤ EWs for TOT and formulation of O&M plans 	<ul style="list-style-type: none"> ➤ ORT ➤ PSIP(O&M) ➤ WASH UNICEF ➤ NGO ➤ LDF 	

Plan of Operation of District O&M Plan

Plan of Operation

Name of Plan: Enhancement of Operation and Maintenance for Rural Water Supply in Mchinji District Duration: 2013 ~ 2018 (Fiscal Year 2013 ~ 2017)

Target group: Extension Workers, Area Mechanics, WPCs/VHWCs, Communities, NGOs related to O&M in Mchinji District

Ver No: PO1 Date: Aug 23rd, 2013

Outputs	Activities	FY(Fiscal Year) 2013				FY2014				FY2015				FY2016				FY2017				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	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun			
Output1: WPCs and users are responsible for repairing and keeping Water Points sanitary	1-1 Prepare a training plan for EWs on CBM with a strengthened O&M framework																						DWDO, DDEHO	
	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 (No. of targeted EWs, clustering of training periods)		■				■				■				■							■		
	1-2 Conduct 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							■				■										■		
	1-3 Conduct CBM 1 and CBM 2 training with strengthened O&M framework to the communities by EWs																							
	1-3-1 Train untrained WPCs						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
	1-3-2 Conduct refresher course 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 (necessary resources)																					■		
	1-4-2 Conduct follow up visits using monitoring checklist provided by Output5 including H&S component						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
Output2: Hand pump spare parts are available and accessible to WPC/VHWC through a standardized system managed by government after phase out of NGO	2-1 Plan for standardized spare parts supply chain system																						DWDO	
	2-1-1 Prepare draft plan based on current situation	■																						
	2-1-2 Hold meetings with NGOs on the current situation of spare parts supply chain and evaluate the plan		■																					
	2-1-3 Re-plan according to the evaluation results			■																				
	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						■																	
	2-2-2 Train new retail shop owners (if necessary)						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	2-3 Engage Private service provider to manage the system																							
	2-3-1 Identify private service providers							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	2-3-2 Train the identified Private Service Provider on the standardized supply chain system							■																
2-3-3 Agree on TORs through signing MOU							■																	
2-3-4 Monitor the supply chain system								■	■	■	■	■	■	■	■	■	■	■	■	■	■			

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Plan of Operation

Name of Plan: Enhancement of Operation and Maintenance for Rural Water Supply in Mchinji District Duration: 2013 ~ 2018 (Fiscal Year 2013 ~ 2017)

Target group: Extension Workers, Area Mechanics, WPCs/VHWCs, Communities, NGOs related to O&M in Mchinji District

Ver No: PO1 Date: Aug 23rd, 2013

Outputs	Activities	FY(Fiscal Year) 2013				FY2014				FY2015				FY2016				FY2017				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	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun		
Output3: AMs serve in timely manner in the repair of Afridev hand pump at a request of WPCs	3-1 Prepare the establishment system of AMs																						DWDO
	3-1-1 Prepare draft plan based on the current situation of AMs	■																					
	3-1-2 Hold meeting with NGOs on the current situation of AMs and evaluate the plan		■																				
	3-1-3 Re-plan according to the evaluation Results			■																			
	3-2 Establish AM System																						
	3-2-1 Train EWs (TOT) in collaboration with NGO				■													■					
	3-2-2 Recruit and train new AMs if necessary						■																
	3-2-3 Review contract forms/guidelines if necessary						■																
3-2-4 Monitor AMs' activities monthly/quarterly						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
Output4: Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation	4-1 Establish district manuals and guideline system																					DPD, DWDO	
	4-1-1 Plan how to establish the system by DCT in liaison with the Ministry	■																			■		
	4-1-2 Put in place the required resources such as space, shelves and responsible person by DCT		■																		■		
	4-1-3 Source Manuals & Guidelines by DCT			■							■										■		
	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			■				■				■									■		
	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				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
	4-4 Provide an update of the manuals and guidelines to stakeholders including NGOs																						
	4-4-1 Identify required Manuals and Guidelines by DCT			■																	■		
4-4-2 Aware creation on the availability of Manuals & Guidelines			■						■											■			
4-4-3 Collect Manuals & Guidelines by Stakeholders			■			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		

Plan of Operation

Name of Plan: Enhancement of Operation and Maintenance for Rural Water Supply in Mchinji District Duration: 2013 ~ 2018 (Fiscal Year 2013 ~ 2017)

Target group: Extension Workers, Area Mechanics, WPCs/VHWCs, Communities, NGOs related to O&M in Mchinji District

Ver No: PO1 Date: Aug 23rd, 2013

Outputs	Activities	FY(Fiscal Year) 2013				FY2014				FY2015				FY2016				FY2017				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	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun				
Output5: A functional M&E system are developed, approved and adopted for the Implementation	5-1 Prepare M&E plan (framework / document on O&M) or reviewed																							DME0, DPD	
	5-1-1 Conduct a planning meeting with the DCT Members		■										■												
	5-1-2 Formulate the M&E plan		■										■												
	5-1-3 Develop data collection tools		■										■												
	5-1-4 Print and disseminate M&E plan		■										■												
	5-2 Train all stakeholders in the M&E plan																								
	5-2-1 Plan for the training manuals/course content/ and facilitators			■										■											
	5-2-2 Conduct the Training			■										■											
	5-2-3 Conduct a training review meeting and write a report			■										■											
	5-3 Produce and distribute the data collection tools to EWs																								
	5-3-1 Print data collection tools for the EWs			■										■											
	5-3-2 Orient data collectors			■										■											
	5-3-3 Conduct field data collection exercise			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
	5-4 Produce and disseminate data output and reports																								
5-4-1 Conduct data entry			■					■		■		■		■		■		■		■		■			
5-4-2 Product a report			■					■		■		■		■		■		■		■		■			
5-4-3 Disseminate the report							■		■		■		■		■		■		■		■		■		
Output6: District formulates district plans that incorporates O&M Issues based on community plans with technical support from RWDO	6-1 Develop community O&M planning guidelines																							DPD, DCDO	
	6-1-1 Review the exiting guidelines	■	■																						
	6-1-2 Produce draft guidelines, distribute and collect comments		■																						
	6-1-3 Finalize the guidelines		■																						
	6-2 Train EWs in formulation of community O&M plans																								
	6-2-1 As similar tasks as in activity 1-1-1 to 1-1-3 at the same time	■	■																						
	6-2-2 Formulate training plan		■																						
	6-2-3 Conduct the training					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
	6-2-3 Conduct refresher training																				■	■	■		■
	6-3 Facilitate the formulation of community O&M plans by EWs																								
	6-3-1 Plan the facilitation sessions				■																				
	6-3-2 Mobilize resources for the sessions								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
	6-3-3 Facilitate the sessions								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
	6-4 Analyze community O&M plans and incorporate in the DSIP & DDP																								
	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											■	■	■	■	■	■	■	■	■	■	■	■	■		
6-5 Mobilize resources for DSIP/DDP implementation																									
6-5-1 Plan or identify potential source of funds for DSIP/DDP implementation		■																							
6-5-2 Share the activities in DSIP/DDP with donors/partners			■					■		■		■		■		■		■		■		■			
6-5-3 Liaise with RWDO and ministry									■											■					

■ Focused Period ■ Routine Work

Budget Estimation of O&M Activities in Mchinji
for Fiscal Year 2013-2017

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2013-2017

Date: 23, Aug. 2013 Unit: Mkw

	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6
Fiscal Year 2013	5,807,180	84,500	70,500	210,500	1,568,382	151,500
Yearly Total			7,892,562			
Fiscal Year 2014	5,610,400	113,612	528,300	184,500	517,700	644,256
Yearly Total			7,598,768			
Fiscal Year 2015	5,610,400	102,212	465,312	184,500	1,028,382	559,600
Yearly Total			7,950,406			
Fiscal Year 2016	5,610,400	102,212	535,812	90,000	517,700	529,100
Yearly Total			7,385,224			
Fiscal Year 2017	5,807,180	102,212	465,312	195,500	517,700	644,256
Yearly Total			7,732,160			
Output Total	28,445,560	504,748	2,065,236	865,000	4,149,864	2,528,712
Grand Total			38,559,120			

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 Mchinji District
List of Unit Cost (August 2013)

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/NGOs*	
Field lunch allowance	1,500~2,500
Lunch allowance	800
DSA	6,000~8,000
Allowances for WPCs	
Lunch allowance	800
Fuel	
Diesel	677/little
Petrol	694/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

※NGOs that provide extension services

Year 2013

Output1: WPCs and users are responsible for repairing and keeping Water Points sanitaryNumber of target: TAs **In all TAs and STAs** WPCs/VHWCs **100** Unit: Mkw

Planned Activity	Item	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	694	60	2	83,280	9 DCT Members & 1 Support Staff
1-1-2 Compilation of the list of untrained Ex. Workers & WPCs through a DCT Meeting	Soft drinks and snacks	250	3	1	750	
1-1-3 Formulate the training plan through DCT Meeting	Soft drinks and snacks	250	9	1	2,250	
	Sub-Total				86,280	
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	20,000	2	1	40,000	
	Flip Charts	3,500	3	1	10,500	
	Markers	250	20	1	5,000	
	Reams of Plain Papers	3,000	6	1	18,000	
	Printer Cartridge	45,000	1	1	45,000	
	Writing Pads	350	100	1	35,000	
	Hand pump parts and tools for demonstration	50,000	2	1	100,000	
	Hall Hire	2,000	3	5	30,000	
	Petrol	694	50	5	173,500	
	Field Lunch allowances for DCT	3,500	3	5	52,500	
	Lunch allowances for EWs	2,500	100	5	1,250,000	
	Lunch allowances for drivers	2,500	3	5	37,500	
	Sub-Total				1,797,000	
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	3,500	20	1	70,000	
	Markers	250	200	1	50,000	
	Note Books	100	1,000	1	100,000	
		2,000	34	5	340,000	
	Promotion material(1); CD player	10,000	10	1	100,000	
	Promotion material(2); CD	250	100	1	25,000	
	Petrol	694	100	10	694,000	
	Field allowances for DCT	3,500	1	34	119,000	
	Lunch allowances for EWs	2,500	102	5	1,275,000	
	Lunch allowances for drivers	2,500	1	34	85,000	
	Sub-Total				2,858,000	
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	1,500	9	1	13,500	
1-4-2 Conduct follow up visits using monitoring checklist provided by output 5 including H&S component	Petrol	694	50	12	416,400	
	Lunch allowances for DCT	3,500	3	12	126,000	
	Lunch allowances for EWs	2,500	16	12	480,000	
	Lunch allowances for drivers	2,500	1	12	30,000	
	Sub-total				1,065,900	
GRAND TOTAL					5,807,180	

Output2: 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 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	1,500	5	1	7,500	
	Lunch allowance for NGOs	1,500	2	1	3,000	
	Flipchart	3,500	1	1	3,500	
	Markers	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	15,000	2	1	30,000	
	Lunch allowance for NGOs	1,500	2	1	3,000	
	Lunch allowance for EWs	1,500	25	1	37,500	
2-2-2 Train new retail shop owners (if necessary)					0	
	Subtotal				70,500	
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	
GROUND TOTAL					84,500	

Output3: AMs serve in timely manner in the repair of Afridev hand pump at a request of WPCs

Unit: Mkw

Planned Activity	Item	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	Facilitator allowance for NGOs	15,000	2	1	30,000	
	Lunch allowance for DCT	1,500	2	1	3,000	
	Lunch allowance for EWs	1,500	25	1	37,500	
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				70,500	
GROUND TOTAL					70,500	

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2013

Output4: Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation

Number of target: NGOs		AMs	20	WPCs/VHWCs	100	Unit: Mkw
Planned Activity	Item	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	3,500	1	1	3,500	
	Lunch allowances for DCT	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	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	3,500	10	1	35,000	
	Paper file	200	100	1	20,000	
	Sub-Total				55,000	
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	3,500	20	1	70,000	
	Paper file	200	100	1	20,000	
	Sub-Total				90,000	
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	1,500	5	1	7,500	
	Lunch allowances for Stakeholders	1,500	20	1	30,000	
	Hall hire	2,000	1	1	2,000	
4-3-3 Collect manuals and guidelines by Stakeholders					0	
	Sub-total				39,500	
GRAND TOTAL					210,500	

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2013

Output5: 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 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	1,500	9	1	13,500	
5-1-2 Conduct a formulation workshop for the M&E plan	Lunch allowance for DCT members	1,500	9	1	13,500	5HSAs/3CDAs/3WMAs/3 AMs shall be part of the formulation team
	Lunch allowances for EWs/ AMs	1,500	16	1	24,000	
	Lunch allowance for drivers	1,500	1	1	1,500	
	Petrol	694	14	1	9,716	
	Toner	45,000	1	1	45,000	
	Ream of paper	3,500	3	1	10,500	
	Note pads	350	25	1	8,750	
	CDs	250	25	1	6,250	
5-1-3 Develop data collection tools	Soft drinks and snacks	250	25	1	6,250	
	Lunch allowance for DCT members	1,500	9	1	13,500	
5-1-4 Print and Disseminate M&E plan	Ream of paper	3,500	5	1	17,500	
	Printing	500	200	1	100,000	
	Lunch allowance for stakeholder meeting	1,500	30	1	45,000	
	Refreshment	250	30	1	7,500	
	Petrol	694	14	1	9,716	
	Sub-Total				332,182	
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	1,000	40	1	40,000	
	Folders	250	40	1	10,000	
5-2-2 Conduct an M&E training	Facilitators/Resource person allowance	3,500	2	2	14,000	
	Lunch allowances for EWs/ AMs	2,500	40	1	100,000	
	Lunch allowance for drivers	2,500	1	1	2,500	
	Ream of paper	3,500	2	1	7,000	
	Note pads	250	40	1	10,000	
	CDs	250	2	1	500	
	Soft drinks and snacks	250	44	1	11,000	
	Hall Hire	5,000	1	5	25,000	
5-2-3 Conduct a training review meeting and submit a report	Lunch allowances	1,500	2	1	3,000	
	Soft drinks and snacks	250	2	1	500	
	Sub-Total				223,500	
5-3 Produce and distribute the data collection tools to EWs						
5-3-1 Print data collection tools for the EWs	Toner	45,000	1	1	45,000	This activity shall take place once in 6 month
	Papers	3,500	10	1	35,000	
5-3-2 Orient data collectors	Lunch allowances for DCT	1,500	9	1	13,500	
	Lunch allowances for EWs	1,500	100	1	150,000	
	Petrol	694	40	1	27,760	
5-3-3 Conduct field data collection exercise	Lunch allowances	1,500	100	1	150,000	
	Sub-total				421,260	
5-4 Produce and disseminate data output and reports						
5-4-1 Conduct data entry	Purchase a projector	450,000	1	1	450,000	The equipment shall be purchased once between now and 2018
5-4-2 Produce a report	CDs	250	50	1	12,500	
	Ream of paper	3,500	2	1	7,000	
	Toner	45,000	1	1	45,000	
5-4-3 Conduct a stakeholders review meeting to disseminate a report	Lunch allowances	1,500	40	1	60,000	
	Soft drinks and snacks	250	40	1	10,000	
	Petrol	694	10	1	6,940	
	Sub-total				591,440	
GRAND TOTAL					1,568,382	

Output6: District formulates district plans that incorporates O&M issues based on community plans with technical support from RWDO

Number of target: TAs		4	VDCs		100	WPCs/VHWCs			Unit: Mkw		
Planned Activity	Item	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	3,500	2	1	7,000						
	Lunch allowance for DCT members	1,500	9	1	13,500						
	Toner	45,000	1	1	45,000						
6-1-2 Produce draft guidelines, distribute and collect comments	Copy paper	3,500	1	1	3,500						
	Lunch allowance for DCT members	1,500	9	1	13,500						
6-1-4 Finalize the guidelines	Copy paper	3,500	1	1	3,500						
	Lunch allowance for DCT members	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 1-1-1to 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	1,500	30	1	45,000						
	Copy paper	3,500	2	1	7,000						
6-5-3 Liaise with RWDO and ministry					0						
	Subtotal				52,000						
Ground total					151,500						

Year 2014

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 Cost	Quantity	Days	Total Cost	Explanatory Notes
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	20,000	2	1	40,000	
	Flip Charts	3,500	3	1	10,500	
	Markers	250	20	1	5,000	
	Reams of Plain Papers	3,500	6	1	21,000	
	Printer Cartridge	45,000	1	1	45,000	
	Writing Pads	350	100	1	35,000	
	Hand pump parts and tools for demonstration	50,000	2	1	100,000	
	Hall Hire	2,000	3	5	30,000	
	Petrol	694	50	5	173,500	
	Lunch allowances for DCT	3,500	3	5	52,500	
	Lunch allowances for EWs	2,500	100	5	1,250,000	
	Lunch allowances for drivers	2,500	3	5	37,500	
	Sub-Total					1,800,000
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	3,500	20	1	70,000	
	Markers	250	200	1	50,000	
	Note Books	100	1,000	1	100,000	
	Hall Hire	2,000	34	5	340,000	
	Promotion material(2); CD	250	100	1	25,000	
	Petrol	694	100	10	694,000	
	Lunch allowances for DCT	3,500	1	34	119,000	
	Lunch allowances for EWs	2,500	102	5	1,275,000	
	Lunch allowances for drivers	2,500	1	34	85,000	
Sub-Total					2,758,000	
1-4 Follow-up visits on community O&M by DCT and EWs						
1-4-2 Conduct follow up visits using monitoring checklist provided by output 5 including H&S component	Petrol	694	50	12	416,400	
	Lunch allowances for DCT	3,500	3	12	126,000	
	Lunch allowances for EWs	2,500	16	12	480,000	
	Lunch allowances for drivers	2,500	1	12	30,000	
Sub-total					1,052,400	
GRAND TOTAL					5,610,400	

Output2: 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 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					0	
					0	
					0	
2-1-3 Re-plan according to the evaluation result					0	
	Subtotal				0	
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					0	
					0	
2-2-2 Train new retail shop owners (if necessary)	Lunch allowance for EWs	2,500	2	1	5,000	
	Lunch allowance for retail shop owners	2,500	1	1	2,500	
	Writing pad	350	4	1	1,400	
	Subtotal				8,900	
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	Lunch allowance for EWs	2,500	3	1	7,500	
	Lunch allowance for Service Provider	2,500	1	1	2,500	
	Writing pad	350	4	1	1,400	
2-3-3 Agree on TORs through signing MOU					0	
2-3-4 Monitor the supply chain system	Lunch allowance for EWs	2,500	2	12	60,000	
	Petrol	694	4	12	33,312	
	Subtotal				104,712	
GROUND TOTAL					113,612	

Output3: AMs serve in timely manner in the repair of Afridev hand pump at a request of WPCs

Unit: Mkw

Planned Activity	Item	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	
					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	
3-2-2 Recruit and train new AMs if necessary	Facilitator allowance for NGOs	15,000	2	2	60,000	
	Lunch allowance for DCT	1,500	2	2	6,000	
	Lunch allowance for EWs	1,500	2	2	6,000	
	DSA for AM	6,000	2	2	24,000	
	Petrol	694	4	1	2,776	
	Note book	100	2	1	200	
	Pens	50	2	1	100	
3-2-3 Review contract forms/guidelines if necessary					0	
					0	
3-2-4 Monitor AMs' activities monthly/quarterly	Lunch allowance for EWs	1,500	2	12	36,000	
	Lunch allowance for AMs	1,500	20	12	360,000	
	Petrol	694	4	12	33,312	
	Subtotal				528,388	
GROUND TOTAL					528,388	

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

Output4: Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation

Number of target: NGOs		AMs	20	WPCs/VHWCs	100	Unit: Mkw
Planned Activity	Item	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					0	
					0	
4-1-2 Put in place the required resources such as space, shelves and responsible person by DCT					0	
4-1-3 Source manuals & guidelines by DCT					0	
	Sub-Total				0	
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	3,500	10	1	35,000	
	Paper file	200	100	1	20,000	
	Sub-Total				55,000	
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	3,500	20	1	70,000	
	Paper file	200	100	1	20,000	
	Sub-Total				90,000	
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	1,500	5	1	7,500	
	Lunch allowances for Stakeholders	1,500	20	1	30,000	
	Hall hire	2,000	1	1	2,000	
4-3-3 Collect manuals and guidelines by Stakeholders					0	
	Sub-total				39,500	
GRAND TOTAL					184,500	

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

Output5: 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 Cost	Quantity	Days	Total Cost	Explanatory Notes
5-3 Produce and distribute the data collection tools to EWs						
5-3-1 Print data collection tools for the EWs	Toner	45,000	1	1	45,000	
	Papers	3,500	10	1	35,000	
5-3-2 Orient data collectors	Lunch allowances for DCT	1,500	9	1	13,500	
	Lunch allowances for EWs	1,500	100	1	150,000	
	Petrol	694	40	1	27,760	
5-3-3 Conduct field data collection exercise	Lunch allowances	1,500	100	1	150,000	
	Sub-total				421,260	
5-4 Produce and disseminate data output and reports						
5-4-1 Conduct data entry					0	
5-4-2 Produce a report	CDs	250	50	1	12,500	
	Ream of paper	3,500	2	1	7,000	
5-4-3 Conduct a stakeholders review meeting to disseminate a report	Lunch allowances	1,500	40	1	60,000	
	Soft drinks and snacks	250	40	1	10,000	
	Petrol	694	10	1	6,940	
	Sub-total				96,440	
GRAND TOTAL					517,700	

Output6: District formulates district plans that incorporates O&M issues based on community plans with technical support from RWDO

Number of target: TAs		VDCs	100	WPCs/VHWCs	Unit: Mkw	
Planned Activity	Item	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
6-1 Develop community O&M planning guidelines						
6-1-1 Review the existing Guidelines						
6-1-2 Produce draft guidelines, distribute and collect comments						
6-1-4 Finalize the guidelines						
	Subtotal				0	
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 1-1-1to 1-1-3
6-2-2 Formulate training plan					0	
6-2-3 Conduct the training						
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	Petrol	694	100	1	69,400	
	Lunch allowance for EWs	2,500	16	4	160,000	
	Flip chart	3,500	30	1	105,000	
	Copy paper	3,500	4	1	14,000	
	Note book	100	16	1	1,600	
	Markers	250	20	1	5,000	
	Masking tape	350	8	1	2,800	
	Pens	50	16	1	800	
	Subtotal				358,600	
6-4 Analyze community O&M plans and incorporate O&M issues						
6-4-1 Divide the work to be analyzed					0	
6-4-2 Do the analysis	Copy paper	3,500	3	1	10,500	
	Lunch allowance for DCT member	1,500	12	3	54,000	9DCT + 3EWs for analysis
	Toner	45,000	1	1	45,000	
6-4-3 Compile the analyzed information	Lunch allowance for DCT members	1,500	2	3	9,000	2DCT members
6-4-4 Incorporate the data in DSIP/DDP					0	
					0	
	Subtotal				118,500	
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	1,500	30	1	45,000	
	Copy paper	3,500	2	1	7,000	
6-5-3 Liaise with RWDO and ministry	Diesel	677	32	4	86,656	
	Lunch allowance for DCT members	1,500	3	4	18,000	
	Copy paper	3,500		1	10,500	
	Subtotal				167,156	
Ground total					644,256	

Year 2015

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 Cost	Quantity	Days	Total Cost	Explanatory Notes
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	20,000	2	1	40,000	
	Flip Charts	3,500	3	1	10,500	
	Markers	250	20	1	5,000	
	Reams of Plain Papers	3,500	6	1	21,000	
	Printer Cartridge	45,000	1	1	45,000	
	Writing Pads	350	100	1	35,000	
	Hand pump parts and tools for demonstration	50,000	2	1	100,000	
	Hall Hire	2,000	3	5	30,000	
	Petrol	694	50	5	173,500	
	Lunch allowances for DCT	3,500	3	5	52,500	
	Lunch allowances for EWs	2,500	100	5	1,250,000	
	Lunch allowances for drivers	2,500	3	5	37,500	
	Sub-Total					1,800,000
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	3,500	20	1	70,000	
	Markers	250	200	1	50,000	
	Note Books	100	1,000	1	100,000	
	Hall Hire	2,000	34	5	340,000	
	Promotion material(2); CD	250	100	1	25,000	
	Petrol	694	100	10	694,000	
	Lunch allowances for DCT	3,500	1	34	119,000	
	Lunch allowances for EWs	2,500	102	5	1,275,000	
	Lunch allowances for drivers	2,500	1	34	85,000	
Sub-Total					2,758,000	
1-4 Follow-up visits on community O&M by DCT and EWs						
1-4-2 Conduct follow up visits using monitoring checklist provided by output 5 including H&S component	Petrol	694	50	12	416,400	
	Lunch allowances for DCT	3,500	3	12	126,000	
	Lunch allowances for EWs	2,500	16	12	480,000	
	Lunch allowances for drivers	2,500	1	12	30,000	
Sub-total					1,052,400	
GRAND TOTAL					5,610,400	

Output2: 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 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					0	
					0	
					0	
2-1-3 Re-plan according to the evaluation result					0	
	Subtotal				0	
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					0	
					0	
2-2-2 Train new retail shop owners (if necessary)	Lunch allowance for EWs	2,500	2	1	5,000	
	Lunch allowance for retail shop owners	2,500	1	1	2,500	
	Writing pad	350	4	1	1,400	
	Subtotal				8,900	
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	
					0	
2-3-3 Agree on TORs through signing MOU					0	
2-3-4 Monitor the supply chain system	Lunch allowance for EWs	2,500	2	12	60,000	
	Petrol	694	4	12	33,312	
	Subtotal				93,312	
GROUND TOTAL					102,212	

Output3: AMs serve in timely manner in the repair of Afridev hand pump at a request of WPCs

Unit: Mkw

Planned Activity	Item	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	
					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	
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	Lunch allowance for EWs	1,500	2	12	36,000	
	Lunch allowance for AMs	1,500	22	12	396,000	
	Petrol	694	4	12	33,312	
	Subtotal				465,312	
GROUND TOTAL					465,312	

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2015

Output4: Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation

Number of target: NGOs		AMs	20	WPCs/VHWCs	100	Unit: Mkw
Planned Activity	Item	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					0	
					0	
4-1-2 Put in place the required resources such as space, shelves and responsible person by DCT					0	
4-1-3 Source manuals & guidelines by DCT					0	
	Sub-Total				0	
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	3,500	10	1	35,000	
	Paper file	200	100	1	20,000	
	Sub-Total				55,000	
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	3,500	20	1	70,000	
	Paper file	200	100	1	20,000	
	Sub-Total				90,000	
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	1,500	5	1	7,500	
	Lunch allowances for Stakeholders	1,500	20	1	30,000	
	Hall hire	2,000	1	1	2,000	
4-3-3 Collect manuals and guidelines by Stakeholders					0	
	Sub-total				39,500	
GRAND TOTAL					184,500	

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2015

Output5: 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 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	1,500	9	1	13,500	
5-1-2 Conduct a formulation workshop for the M&E plan	Lunch allowance for DCT members	1,500	9	1	13,500	5HSAs/3CDAs/3WMAs/3 AMs shall be part of the formulation team
	Lunch allowances for EWs/ AMs	1,500	16	1	24,000	
	Lunch allowance for drivers	1,500	1	1	1,500	
	Petrol	694	14	1	9,716	
	Ream of paper	3,500	3	1	10,500	
	Note pads	350	25	1	8,750	
	CDs	250	25	1	6,250	
5-1-3 Develop data collection tools	Lunch allowance for DCT members	1,500	9	1	13,500	
	Ream of paper	3,500	5	1	17,500	
5-1-4 Print and Disseminate M&E plan	Printing	500	200	1	100,000	
	Lunch allowance for stakeholder meeting	1,500	30	1	45,000	
	Refreshment	250	30	1	7,500	
	Petrol	694	14	1	9,716	
	Sub-Total				287,182	
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	1,000	40	1	40,000	
	Folders	250	40	1	10,000	
5-2-2 Conduct an M&E training	Facilitators/Resource person allowance	3,500	2	2	14,000	
	Lunch allowances for EWs/ AMs	2,500	40	1	100,000	
		2,500	1	1	2,500	
	Ream of paper	3,500	2	1	7,000	
	Note pads	250	40	1	10,000	
	CDs	250	2	1	500	
	Soft drinks and snacks	250	44	1	11,000	
5-2-3 Conduct a training review meeting and submit a report	Hall Hire	5,000	1	5	25,000	
	Lunch allowances	1,500	2	1	3,000	
	Soft drinks and snacks	250	2	1	500	
	Sub-Total				223,500	
5-3 Produce and distribute the data collection tools to EWs						
5-3-1 Print data collection tools for the EWs	Toner	45,000	1	1	45,000	
	Papers	3,500	10	1	35,000	
5-3-2 Orient data collectors	Lunch allowances for DCT	1,500	9	1	13,500	This activity shall take place once in 6 month
	Lunch allowances for EWs	1,500	100	1	150,000	
	Petrol	694	40	1	27,760	
5-3-3 Conduct field data collection exercise	Lunch allowances	1,500	100	1	150,000	
	Sub-total				421,260	
5-4 Produce and disseminate data output and reports						
5-4-1 Conduct data entry						The equipment shall be purchased once between 0 now and 2018
5-4-2 Produce a report	CDs	250	50	1	12,500	
	Ream of paper	3,500	2	1	7,000	
5-4-3 Conduct a stakeholders review meeting to disseminate a report	Lunch allowances	1,500	40	1	60,000	
	Soft drinks and snacks	250	40	1	10,000	
	Petrol	694	10	1	6,940	
	Sub-total				96,440	
GRAND TOTAL					1,028,382	

Output6: District formulates district plans that incorporates O&M issues based on community plans with technical support from RWDO

Number of target: TAs		VDCs	100	WPCs/VHWCs	Unit: Mkw	
Planned Activity	Item	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
6-1 Develop community O&M planning guidelines						
6-1-1 Review the existing Guidelines						
6-1-2 Produce draft guidelines, distribute and collect comments						
6-1-4 Finalize the guidelines						
	Subtotal				0	
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	
6-2-2 Formulate training plan					0	The cost is covered by activity 1-1-1 to 1-1-3
6-2-3 Conduct the training						
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	Petrol	694	100	1	69,400	
	Lunch allowance for EWs	2,500	16	4	160,000	
	Flip chart	3,500	30	1	105,000	
	Copy paper	3,500	4	1	14,000	
	Note book	100	16	1	1,600	
	Markers	250	20	1	5,000	
	Masking tape	350	8	1	2,800	
	Pens	50	16	1	800	
	Subtotal				358,600	
6-4 Analyze community O&M plans and incorporate O&M issues						
6-4-1 Divide the work to be analyzed					0	
6-4-2 Do the analysis	Copy paper	3,500	3	1	10,500	
	Lunch allowance for DCT member	1,500	12	3	54,000	9DCT + 3EWs for analysis
	Toner	45,000	1	1	45,000	
6-4-3 Compile the analyzed information	Lunch allowance for DCT members	1,500	2	3	9,000	2DCT members
6-4-4 Incorporate the data in DSIP/DDP	Copy paper	3,500	1	1	3,500	
	Lunch allowance for DCT members	1,500	9	2	27,000	
	Subtotal				149,000	
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	1,500	30	1	45,000	
	Copy paper	3,500	2	1	7,000	
6-5-3 Liaise with RWDO and ministry					0	
					0	
	Subtotal				52,000	
Ground total					559,600	

Year 2016

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 Cost	Quantity	Days	Total Cost	Explanatory Notes	
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	20,000	2	1	40,000		
	Flip Charts	3,500	3	1	10,500		
	Markers	250	20	1	5,000		
	Reams of Plain Papers	3,500	6	1	21,000		
	Printer Cartridge	45,000	1	1	45,000		
	Writing Pads	350	100	1	35,000		
	Hand pump parts and tools for demonstration	50,000	2	1	100,000		
	Hall Hire	2,000	3	5	30,000		
	Petrol	694	50	5	173,500		
	Lunch allowances for DCT	3,500	3	5	52,500		
	Lunch allowances for EWs	2,500	100	5	1,250,000		
	Lunch allowances for drivers	2,500	3	5	37,500		
	Sub-Total					1,800,000	
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	3,500	20	1	70,000		
	Markers	250	200	1	50,000		
	Note Books	100	1,000	1	100,000		
	Hall Hire	2,000	34	5	340,000		
	Promotion material(2); CD	250	100	1	25,000		
	Petrol	694	100	10	694,000		
	Lunch allowances for DCT	3,500	1	34	119,000		
	Lunch allowances for EWs	2,500	102	5	1,275,000		
	Lunch allowances for drivers	2,500	1	34	85,000		
	Sub-Total					2,758,000	
1-4 Follow-up visits on community O&M by DCT and EWs							
1-4-2 Conduct follow up visits using monitoring checklist provided by output 5 including H&S component	Petrol	694	50	12	416,400		
	Lunch allowances for DCT	3,500	3	12	126,000		
	Lunch allowances for EWs	2,500	16	12	480,000		
	Lunch allowances for drivers	2,500	1	12	30,000		
Sub-total					1,052,400		
GRAND TOTAL					5,610,400		

Output2: 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 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					0	
					0	
					0	
2-1-3 Re-plan according to the evaluation result					0	
	Subtotal				0	
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					0	
					0	
2-2-2 Train new retail shop owners (if necessary)	Lunch allowance for EWs	2,500	2	1	5,000	
	Lunch allowance for retail shop owners	2,500	1	1	2,500	
	Writing pad	350	4	1	1,400	
	Subtotal				8,900	
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	
					0	
2-3-3 Agree on TORs through signing MOU					0	
2-3-4 Monitor the supply chain system	Lunch allowance for EWs	2,500	2	12	60,000	
	Petrol	694	4	12	33,312	
	Subtotal				93,312	
GROUND TOTAL					102,212	

Output3: AMs serve in timely manner in the repair of Afridev hand pump at a request of WPCs

Unit: Mkw

Planned Activity	Item	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	
					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	Facilitator allowance for NGOs	15,000	2	1	30,000	
	Lunch allowance for DCT	1,500	2	1	3,000	
	Lunch allowance for EWs	1,500	25	1	37,500	
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	Lunch allowance for EWs	1,500	2	12	36,000	
	Lunch allowance for AMs	1,500	22	12	396,000	
	Petrol	694	4	12	33,312	
	Subtotal				535,812	
GROUND TOTAL					535,812	

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2016

Output4: Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation

Number of target: NGOs		AMs	20	WPCs/VHWCs	100	Unit: Mkw
Planned Activity	Item	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					0	
					0	
4-1-2 Put in place the required resources such as space, shelves and responsible person by DCT					0	
4-1-3 Source manuals & guidelines by DCT					0	
	Sub-Total				0	
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					0	
					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	3,500	20	1	70,000	
	Paper file	200	100	1	20,000	
	Sub-Total				90,000	
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					0	
					0	
					0	
4-3-3 Collect manuals and guidelines by Stakeholders					0	
	Sub-total				0	
GRAND TOTAL					90,000	

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2016

Output5: 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 Cost	Quantity	Days	Total Cost	Explanatory Notes
5-3 Produce and distribute the data collection tools to EWs						
5-3-1 Print data collection tools for the EWs	Toner	45,000	1	1	45,000	
	Papers	3,500	10	1	35,000	
5-3-2 Orient data collectors	Lunch allowances for DCT	1,500	9	1	13,500	
	Lunch allowances for EWs	1,500	100	1	150,000	
	Petrol	694	40	1	27,760	
5-3-3 Conduct field data collection exercise	Lunch allowances	1,500	100	1	150,000	
	Sub-total				421,260	
5-4 Produce and disseminate data output and reports						
5-4-1 Conduct data entry					0	
5-4-2 Produce a report	CDs	250	50	1	12,500	
	Ream of paper	3,500	2	1	7,000	
5-4-3 Conduct a stakeholders review meeting to disseminate a report	Lunch allowances	1,500	40	1	60,000	
	Soft drinks and snacks	250	40	1	10,000	
	Petrol	694	10	1	6,940	
	Sub-total				96,440	
GRAND TOTAL					517,700	

Output6: District formulates district plans that incorporates O&M issues based on community plans with technical support from RWDO

Number of target: TAs		VDCs	100	WPCs/VHWCs	Unit: Mkw	
Planned Activity	Item	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
6-1 Develop community O&M planning guidelines						
6-1-1 Review the existing Guidelines						
6-1-2 Produce draft guidelines, distribute and collect comments						
6-1-4 Finalize the guidelines						
	Subtotal				0	
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	
6-2-2 Formulate training plan					0	The cost is covered by activity 1-1-1 to 1-1-3
6-2-3 Conduct the training						
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	Petrol	694	100	1	69,400	
	Lunch allowance for EWs	2,500	16	4	160,000	
	Flip chart	3,500	30	1	105,000	
	Copy paper	3,500	4	1	14,000	
	Note book	100	16	1	1,600	
	Markers	250	20	1	5,000	
	Masking tape	350	8	1	2,800	
	Pens	50	16	1	800	
	Subtotal				358,600	
6-4 Analyze community O&M plans and incorporate O&M issues						
6-4-1 Divide the work to be analyzed					0	
6-4-2 Do the analysis	Copy paper	3,500	3	1	10,500	
	Lunch allowance for DCT member	1,500	12	3	54,000	9DCT + 3EWs for analysis
	Toner	45,000	1	1	45,000	
6-4-3 Compile the analyzed information	Lunch allowance for DCT members	1,500	2	3	9,000	2DCT members
6-4-4 Incorporate the data in DSIP/DDP					0	
					0	
	Subtotal				118,500	
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	1,500	30	1	45,000	
	Copy paper	3,500	2	1	7,000	
6-5-3 Liaise with RWDO and ministry					0	
					0	
	Subtotal				52,000	
Ground total					529,100	

Year 2017

Output1: WPCs and users are responsible for repairing and keeping Water Points sanitaryNumber of target: TAs **In all TAs and STAs** WPCs/VHWCs **100** Unit: Mkw

Planned Activity	Item	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	694	60	2	83,280	9 DCT Members & 1 Support Staff
1-1-2 Compilation of the list of untrained Ex. Workers & WPCs through a DCT Meeting	Soft drinks and snacks	250	3	1	750	
1-1-3 Formulate the training plan through DCT Meeting	Soft drinks and snacks	250	9	1	2,250	
	Sub-Total				86,280	
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	20,000	2	1	40,000	
	Flip Charts	3,500	3	1	10,500	
	Markers	250	20	1	5,000	
	Reams of Plain Papers	3,000	6	1	18,000	
	Printer Cartridge	45,000	1	1	45,000	
	Writing Pads	350	100	1	35,000	
	Hand pump parts and tools for demonstration	50,000	2	1	100,000	
	Hall Hire	2,000	3	5	30,000	
	Petrol	694	50	5	173,500	
	Field Lunch allowances for DCT	3,500	3	5	52,500	
	Lunch allowances for EWs	2,500	100	5	1,250,000	
	Lunch allowances for drivers	2,500	3	5	37,500	
	Sub-Total				1,797,000	
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	3,500	20	1	70,000	
		250	200	1	50,000	
	Note Books	100	1,000	1	100,000	
	Hall Hire	2,000	34	5	340,000	
	Promotion material(1); CD player	10,000	10	1	100,000	
	Promotion material(2); CD	250	100	1	25,000	
	Petrol	694	100	10	694,000	
	Field allowances for DCT	3,500	1	34	119,000	
	Lunch allowances for EWs	2,500	102	5	1,275,000	
	Lunch allowances for drivers	2,500	1	34	85,000	
		Sub-Total				2,858,000
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	1,500	9	1	13,500	
1-4-2 Conduct follow up visits using monitoring checklist provided by output 5 including H&S component	Petrol	694	50	12	416,400	
	Lunch allowances for DCT	3,500	3	12	126,000	
	Lunch allowances for EWs	2,500	16	12	480,000	
	Lunch allowances for drivers	2,500	1	12	30,000	
	Sub-total				1,065,900	
GRAND TOTAL					5,807,180	

Output2: 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 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					0	
					0	
					0	
2-1-3 Re-plan according to the evaluation result					0	
	Subtotal				0	
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					0	
					0	
2-2-2 Train new retail shop owners (if necessary)	Lunch allowance for EWs	2,500	2	1	5,000	
	Lunch allowance for retail shop owners	2,500	1	1	2,500	
	Writing pad	350	4	1	1,400	
	Subtotal				8,900	
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	
					0	
2-3-3 Agree on TORs through signing MOU					0	
2-3-4 Monitor the supply chain system	Lunch allowance for EWs	2,500	2	12	60,000	
	Petrol	694	4	12	33,312	
	Subtotal				93,312	
GROUND TOTAL					102,212	

Output3: AMs serve in timely manner in the repair of Afridev hand pump at a request of WPCs

Unit: Mkw

Planned Activity	Item	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	
					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	
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	Lunch allowance for EWs	1,500	2	12	36,000	
	Lunch allowance for AMs	1,500	22	12	396,000	
	Petrol	694	4	12	33,312	
	Subtotal				465,312	
GROUND TOTAL					465,312	

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2017

Output4: Reviewed, harmonized user friendly manuals and guidelines are managed by DCT and stakeholders for O&M activity implementation

Number of target: NGOs		AMs	20	WPCs/VHWCs	100	Unit: Mkw
Planned Activity	Item	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	3,500	1	1	3,500	
	Lunch allowances for DCT	1,500	5	1	7,500	
4-1-2 Put in place the required resources such as space, shelves and responsible person by DCT					0	
4-1-3 Source manuals & guidelines by DCT					0	
	Sub-Total				11,000	
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	3,500	10	1	35,000	
	Paper file	200	100	1	20,000	
	Sub-Total				55,000	
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	3,500	20	1	70,000	
	Paper file	200	100	1	20,000	
	Sub-Total				90,000	
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	1,500	5	1	7,500	
	Lunch allowances for Stakeholders	1,500	20	1	30,000	
	Hall hire	2,000	1	1	2,000	
4-3-3 Collect manuals and guidelines by Stakeholders					0	
	Sub-total				39,500	
GRAND TOTAL					195,500	

Budget Estimation for Enhancement of O&M for Rural Water Supply in Mchinji District for Fiscal Year 2017

Output5: 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 Cost	Quantity	Days	Total Cost	Explanatory Notes
5-3 Produce and distribute the data collection tools to EWs						
5-3-1 Print data collection tools for the EWs	Toner	45,000	1	1	45,000	
	Papers	3,500	10	1	35,000	
5-3-2 Orient data collectors	Lunch allowances for DCT	1,500	9	1	13,500	
	Lunch allowances for EWs	1,500	100	1	150,000	
	Petrol	694	40	1	27,760	
5-3-3 Conduct field data collection exercise	Lunch allowances	1,500	100	1	150,000	
	Sub-total				421,260	
5-4 Produce and disseminate data output and reports						
5-4-1 Conduct data entry					0	
5-4-2 Produce a report	CDs	250	50	1	12,500	
	Ream of paper	3,500	2	1	7,000	
5-4-3 Conduct a stakeholders review meeting to disseminate a report	Lunch allowances	1,500	40	1	60,000	
	Soft drinks and snacks	250	40	1	10,000	
	Petrol	694	10	1	6,940	
	Sub-total				96,440	
GRAND TOTAL					517,700	

Output6: District formulates district plans that incorporates O&M issues based on community plans with technical support from RWDO

Number of target: TAs		VDCs	100	WPCs/VHWCs	Unit: Mkw	
Planned Activity	Item	Unit Cost	Quantity	Days	Total Cost	Explanatory Notes
6-1 Develop community O&M planning guidelines						
6-1-1 Review the existing Guidelines						
6-1-2 Produce draft guidelines, distribute and collect comments						
6-1-4 Finalize the guidelines						
	Subtotal				0	
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	
6-2-2 Formulate training plan					0	The cost is covered by activity 1-1-1 to 1-1-3
6-2-3 Conduct the training						
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	Petrol	694	100	1	69,400	
	Lunch allowance for EWs	2,500	16	4	160,000	
	Flip chart	3,500	30	1	105,000	
	Copy paper	3,500	4	1	14,000	
	Note book	100	16	1	1,600	
	Markers	250	20	1	5,000	
	Masking tape	350	8	1	2,800	
	Pens	50	16	1	800	
	Subtotal				358,600	
6-4 Analyze community O&M plans and incorporate O&M issues						
6-4-1 Divide the work to be analyzed					0	
6-4-2 Do the analysis	Copy paper	3,500	3	1	10,500	
	Lunch allowance for DCT member	1,500	12	3	54,000	9DCT + 3EWs for analysis
	Toner	45,000	1	1	45,000	
6-4-3 Compile the analyzed information	Lunch allowance for DCT members	1,500	2	3	9,000	2DCT members
6-4-4 Incorporate the data in DSIP/DDP					0	
					0	
	Subtotal				118,500	
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	1,500	30	1	45,000	
	Copy paper	3,500	2	1	7,000	
6-5-3 Liaise with RWDO and ministry	Diesel	677	32	4	86,656	
	Lunch allowance for DCT members	1,500	3	4	18,000	
	Copy paper	3,500	3	1	10,500	
	Subtotal				167,156	
Ground total					644,256	

Appendix 7:
**Roadmap for the nationwide dissemination of the
strengthened O&M framework**

Roadmap for the nationwide dissemination of the strengthened O&M framework as of March 2015

1. The first step for the nationwide dissemination should be to finalize all Project outputs (guidelines and manuals are approved by MoAIWD).

By When	Who	What	How	Resources	Status
31 st October 2014	PTF members	Guidelines and manuals will be technically approved at the Director level	<ul style="list-style-type: none"> Technical consultation workshop on the 25th October 2014 for CBM refresher Final Draft 	Project	done
31 st March 2015	PTF members	Three manuals left will be technically approved at the Director level	<ul style="list-style-type: none"> Technical consultation workshop on the 19th Feb. 2015 for O&M radio handbook Technical consultation workshop on the 17th Mar. 2015 for M&E and Technical document utilization handbook 	Project	done

2. Second step is to institutionalize the strengthened O&M framework through official letters from the MoAIWD?

By When	Who	What	How	Resources	Status
14-15 October 2014 (Regional JSR)	DWSS	Conduct a 15 min presentation on the outputs and outcomes of the Project	Regional Joint Sector Review meeting	No cost	Presentation conducted during Mchinji district presentation
15 November – 15 December 2014	WASH Committee / Mr. Sitolo	Conduct presentation during the WASH annual meeting.	Add O&M activities in the WASH package for 2015	No cost	Not yet done. but yet to do 2015 Annual planning by April
3-4 December 2014 (National JSR)	DWSS	Conduct a 15 min presentation on the outputs and outcomes of the Project Or Circulate the meeting minutes from the Regional JSR	National Joint Sector Review meeting	No cost	No presentation conducted but outputs of the Project presented in the water supply TWG undertakings for 2014.
Yet to be decided	DWSS	Conduct presentation for obtaining the endorsement by the stakeholders	SWG		Find out date from Planning depr or WES network.
April 2015	DWSS	Conduct presentation during the WASH quarterly meeting.	Add O&M activities in the WASH package for 2015	No cost	?? Yet to be decided
May 2015	PTF members	Share O&M framework approved by PS	final sharing workshop	Project	Under preparation by PTF members

3. Lastly, the dissemination to all districts in the country and the implementation of O&M activities (CBM refresher training, establishment of AM and spare parts supply chain, support Districts with O&M planning)

By When	Who	What	How	Resources		Status
				Resources	Approximate estimate (MK)	
From Dec. 2014 to Mar. 2015	DWSS/ Planning Div.	Applying PSIP 2015/16 for JICA Supported Programme (55 million MK)	Three regional workshop to be conducted in the North, South and Central region	PSIP part II funding 2015/2016	23,401,590	Waiting the feedback from MoFEP















By When	Who	What	How	Resources	Status
May 2015 Aug 2015	DWSS / WSS TWG	O&M framework dissemination through the nation	Three regional workshop to be conducted in the North, South and Central region	PSIP part II funding 2015/2016 23,401,590	So far, 8 million MK was disbursed for grant aide project in Mchinji and Kasungu from PSIP 2014/2015. (Total allocation: 50 million MK) Postponed due to financial problem
Routinely conducted on a monthly basis (at least once a month one or more districts are being visited)	DWSS	Monitoring and Evaluation visits to the Districts	Through the performance visit conducted by the MoAIWD, O&M framework will be disseminated	MoAIWD internal funds (ORT 2014/2015) 22,594,560	Not done because of floods situation in other districts
October – December 2015 (Regional and National JSR 2015)	WSS TWG	Undertakings of 2014 are reviewed and WSS undertakings for 2015 are included	Incorporate the use of the strengthened O&M framework in the 2015 undertakings	MoAIWD internal funds (ORT 2015/2016) -	Netx fiscal year
Five year plan depending on the District	District Councils, WES network and DPs	Districts to incorporate O&M in the DSIP (District Strategic Investment Plan) during the planning process	WES network and DPs to remind Districts on the importance of O&M to be incorporated in the DSIP and annual budget plans	 1,079,655,360	
Present~Dec. 2018	DWSS / AfDB	Roll out O&M framework to 5 districts			Already launched', get feedback on time to start of implementation may be by June 2015
	Rumphi DC		through SRWSIHL project funded by AfDB	RWSIHL project	
	Nkhotakota DC		through SRWSIHL project funded by AfDB	RWSIHL project	
	Ntcheu DC		through SRWSIHL project funded by AfDB	RWSIHL project	
	Mangochi DC		through SRWSIHL project funded by AfDB	RWSIHL project	
	Phalombe DC		through SRWSIHL project funded by AfDB	RWSIHL project	
Before June 2015	WES Network HP, NDR, WSS Resource Centre	Disseminate the O&M framework	Through the web page	MoAIWD's ORT (annually US\$ 50 for renewal of WSS Resource Centre domain) 100,000	
July 2016~	DWSS	Roll out O&M framework to Mwanza and Neno district		PSIP part II funding 2016/2017 as a government project	No information yet.
Yet to be decided	WES Network	Review meetings on WASH			To be confirmed with WES network Coordinator
December 2015	UNICEF	Annual Review meeting			Make slot in the presentations

Annex 1: Ongoing project list (as of March 2015)













District		AfDB	UNCEF/EU	UNCEF/DFID	JICA	Remark
		SRWSIHL project	WASH	WASH	O&M	Grant Aid by JICA
Northern Region						
1	Chitipa		✓			
2	Karonga			✓		
3	Rumphi	✓				
4	Mzimba		✓			✓ 300 BHs, 1996-2000
5	Nkhata Bay	✓	✓			
6	Likoma					
Central Region						
7	Kasungu			✓		
8	Nkhota-kota					
9	Dowa			✓		
10	Ntchisi					
11	Salima		✓			
12	Lilongwe		✓			✓ 296 BHs, 2005-2008
13	Mchinji		✓		✓ 2011-2015	✓ 300 BHs, 1992-1995
14	Dedza					✓ 177 BHs, 2001-2004
15	Ntcheu	✓		✓		
Southern Region						
16	Balaka			✓		
17	Mangochi	✓	✓			
18	Machinga					✓ 164 BHs, 1987-1990
19	Zomba					
20	Phalombe	✓				
21	Mulanje					
22	Thyolo			✓		
23	Chiradzulu			✓		
24	Blantyre		✓			
25	Chikhwawa			✓		
26	Nsanje			✓		
27	Mwanza					✓
28	Neno			✓		120 BHs, 2011-2013
Total		5	8	10	1	7

Appendix 8:
List of Model Villages

MODEL VILLAGES SELECTED

No.	Name	Before Intervention	After Intervention
1	Mphita Village (ID5)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
2	Kapunula 1 (ID 7)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
3	Samphala (ID 9)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
4	Nambera (ID 16)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
5	Wandikani (ID 18)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
6	Chagwilira (ID 38)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
7	Wilison (ID 42)		









MODEL VILLAGES SELECTED

No.	Name	Before Intervention	After Intervention
		(February, 2014)	(April, 2015)
8	Chifipo (ID 23)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
9	Mng'ona (ID 43)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
10	Chimphuno (ID 45)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
11	Tembenukani (ID 37)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
12	Nkhalamba (ID 4)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>
13	Molosiyo1 (ID 58)	 <p>(February, 2014)</p>	 <p>(April, 2015)</p>













MODEL VILLAGES SELECTED

No.	Name	Before Intervention	After Intervention
14	Tsumba (ID 56)	 (February, 2014)	 (April, 2015)
15	Silombe (ID 105)	 (February, 2014)	 (April, 2015)
16	Dalias (ID 87)	 (February, 2014)	 (April, 2015)
17	Kacheche (ID 69)	 (February, 2014)	 (April, 2015)
18	Kalirani (ID 76)	 (February, 2014)	 (April, 2015)
19	Nyongani (ID 102)	 (February, 2014)	 (April, 2015)











MODEL VILLAGES SELECTED

No.	Name	Before Intervention	After Intervention
20	Kadude (ID 104)	 (February, 2014)	 (April, 2015)
21	Mzangawo (ID 48)	 (February, 2014)	 (April, 2015)
22	Mponda School (ID 49)	 (February, 2014)	 (April, 2015)
23	Maliwane (ID 71)	 (February, 2014)	 (April, 2015)
24	Chinkhutu (ID 80)	 (February, 2014)	 (April, 2015)
25	Mponda 1 (ID 50)	 (February, 2014)	 (April, 2015)
26	Mkunda village (Radio Listeners Club)	 (February, 2014)	 (April, 2015)

MODEL VILLAGES SELECTED

No.	Name	Before Intervention	After Intervention
		(February, 2014)	(May, 2015)
27	Peni Village (Radio Listeners Club)	 (September, 2014)	 (April, 2015)
28	Zandana (ID-1-pilot 10)	 (April, 2013)	 (September 2014)
29	Nthomdoni (ID-3-pilot 10)	 (April, 2013)	 (December 2014)
30	Kanjiyo (ID-4-pilot 10)	 (April, 2013)	 (December 2014)
31	Chiyonga (ID-5-pilot 10)	 (April, 2013)	 (December 2014)
32	Mchonkwe (ID-6-pilot 10)	 (April, 2013)	 (December 2014)

MODEL VILLAGES SELECTED

No.	Name	Before Intervention	After Intervention
33	Mtanga (ID-7-pilot 10)	 (April, 2013)	 (December 2014)
34	Khwawe (ID-8-pilot 10)	 (April, 2013)	 (December 2014)
35	Gomani 1 (ID-9-pilot 10)	 (April, 2013)	 (September 2014)
36	Msauchi (ID-10-pilot 10)	 (April, 2013)	 (September 2014)
37	Chimkoka (ID-11-pilot 10)	 (April, 2013)	 (September 2014)

Appendix 9:
Presentation Materials related to the
Project Summary



MINISTRY OF AGRICULTURE, IRRIGATION AND WATER DEVELOPMENT

“The project for Enhancement of Operation and Maintenance for Rural Water Supply”

1st June, 2015

Conference Room
Tikwere House, Lilongwe

Presented by: Ms. E. Mbalame

DDWSS,OMME



PRESENTATION OUTLINE

- I. Introduction
- II. Project Purpose
- III. Overall Goal of the Project
- IV. Project Period
- V. Implementation Methodology
- VI. Challenges
- VII. Achievements
- VIII. Lessons learnt

2



I. INTRODUCTION

- ❖ Government, through the Ministry of Agriculture, Irrigation and Water Development applied for technical cooperation to the Government of Japan on the project for “the Enhancement of Operation and Maintenance for Rural Water Supply.
- ❖ The project was designed to address the challenges in the rural water supply in particular high non-functionality of water points
- ❖ The project was being piloted in Mchinji District

3



II. PROJECT PURPOSE

The existing O&M framework is strengthened practically for subsequent national wide dissemination

III. PROJECT OVERALL GOAL

The strengthened O&M framework is applied nation wide dissemination.

IV. PROJECT PERIOD

4 years: from July 2011 to June 2015

4



IV. IMPLEMENTATION METHODOLOGY

- Implementation methods included the following:
 1. Review of existing Manuals and Guidelines (O&M frame work) and other important documents to identify the gaps.
 2. Baseline survey conducted to establish the existing situation on the ground on O&M issues at community level.



V. IMPLEMENTATION METHODOLOGY CONT'D

3. Consultation with all stakeholders as listed below:
 - Counterpart staff (Mchinji DCT, Regional Officers, Central level officers),
 - Other districts included: Salima DCT, Ntchisi DCT, Nkhotakota DCT
 - Development partners and NGOs (UNICEF, InterAid, Water for People, DAPP, Water Aid).
 - Participating communities 11 pilot sides, 50 villages for CBM refresher training, 11 for community radios
 - Community Radio Stations as well as national broadcaster MBC (Mzimba and Nkhotakota)

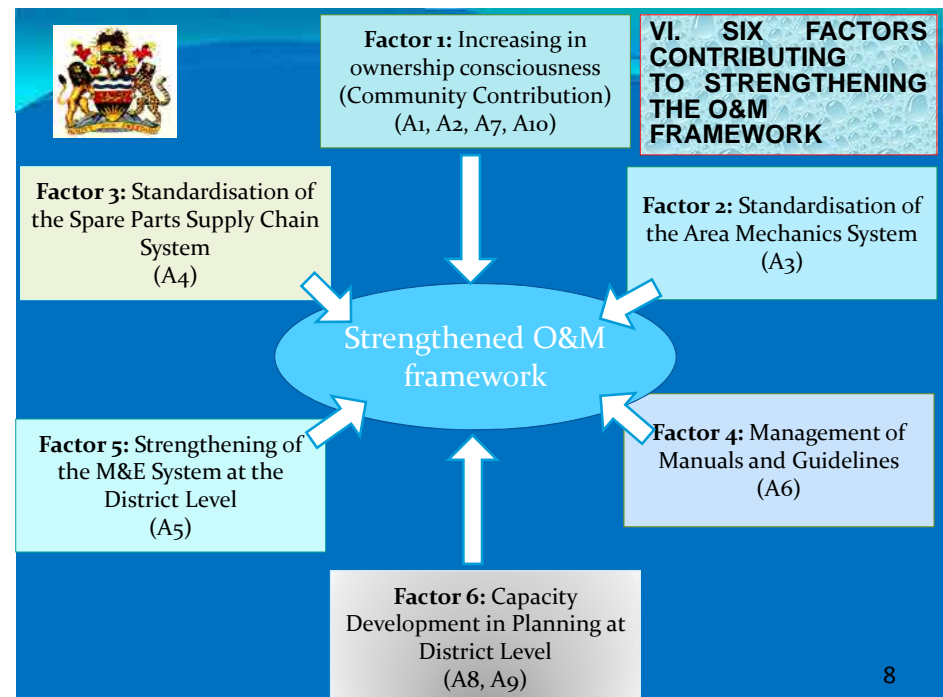


VI. THE SIX FACTORS FOR THE ENHANCEMENT OF O&M

- ❖ Through studies conducted in 1st Stage (2011), many challenges were identified within the existed O&M framework and actions were proposed to solve them.
- ❖ These challenges were categorized into six main factors, which have been addressed in the establishment of a practical and sustainable O&M framework.



VI. SIX FACTORS CONTRIBUTING TO STRENGTHENING THE O&M FRAMEWORK





VII. THE PROJECT SELECTED 10 TEST ACTIVITIES TO STRENGTHEN THE SIX MAIN FACTORS MENTIONED ABOVE.

Factor	No.	Test activities
1	A1	Water tariff setting for hand pump facility and promotion of Sanitation and Hygiene practice motivate beneficiaries to pay for water regularly
	A2	Facility design for better O&M and promotion of water point sanitation
	A7	Activities for development of a text of maintenance and rehabilitation for deep well
	A10	Assist DC, DCT and EWs to facilitate pilot communities to establish and/or update O&M plan
2	A3	Standardization and dissemination of a process for the introduction of AMs
3	A4	Standardization and dissemination of a process for the introduction of a hand pump spare parts supply chain
4	A6	Improvement of the rules on the manuals (use/storage and hierarchical management)
5	A5	Standardization and dissemination of monitoring system for the water supply facilities
6	A8	Technical support to RWIDO to prepare their own regional annual activity plan for O&M activities in Mchinji District
	A9	Technical support to Mchinji DCT to make O&M plan according to the O&M framework to be integrated with DWSP/DSIP

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IX. CHALLENGES

1. Inadequate frontline staff to support project activities (Vacancy rate of about 60%)
2. Inadequate financial contribution for project activities by Government of Malawi.
 - Inadequate finances also resulted in scaling down of targeted water points from 100 to 50 in the rollout of O&M refresher course.
3. Inadequate financing to District Water Development Office for Operation and Maintenance (Average ORT MK225,000.00 per month for Mchinji)

10



CHALLENGES CONT'D

4. Vandalism of boreholes and fences is another challenge.
5. Similar projects or other equally important activities in the communities may overburden communities to improve their O&M issues if implemented at the same time.



VIII. ACHIEVEMENTS

1. Baseline survey was conducted in over 1000 boreholes Mchinji District Council to identify challenges of O&M in rural water supply
2. Developed an Educational O&M Community Radio programme broadcasted for a period of 1 $\frac{1}{2}$ year in the whole of Mchinji district repeated from December 2014 to June 2015.
3. Developed WASH M&E Database for Mchinji which covers community, learning institutions, public premises and health centres indicators, and AM and spare parts retail shop database have been developed.

12



VIII. ACHIEVEMENTS CONT'D

4. Twelve Guidelines and Manuals including Chichewa versions have been developed and tested in 61 sites



VIII. ACHIEVEMENTS CONT'D

5. Conducted TOT to 105 extension workers(HSAs, WMAs, AMs)

6. Conducted CBM O&M refresher training in which

- a total of 749 members from 61 WPCs were reached across Mchinji
- 90 Ext. workers are now skilled trainers for WPCs



CBM O&M refresher training in progress



VIII. ACHIEVEMENTS CONT'D

7. Formulated O&M plan for Mchinji District for the first time and probably the first district to have O&M plan in Malawi.

-Step by step facilitator guides and tips for a visionary, planning and budgeting process for O&M



Planning process



VIII. ACHIEVEMENTS CONT'D

8. Developed a proper document management system including distribution using existing websites (National Digital Repository, Wes-Network and National Library) .





VIII. ACHIEVEMENTS CONT'D

9. Held a final dissemination seminar where the enhanced O&M framework was distributed to 27 districts of Malawi where DWDOs and DEHOs as well as DPs and NGOs attended.



Last Sharing seminar



LESSONS LEARNT

□ Through the project counterparts have learnt the following:

1. Advanced Excel data management with pivot tables
-Counterparts are now able to collect, analyse, interpret WASH data as well as report writing for decision making.
2. Web based document classification and management
-Now all guidelines and Manuals are well managed on website at National Library as well as DWSS Resource centre Tikwere House 1st Floor .
- And staff are now able to classify the documents, prepare catalogues and upload in the web
3. Better presentation styles as well as designing.
-Counterparts are now able to design and make good power point presentations providing real information from the ground during meetings.



LESSONS LEARNT CONT'D

4. Communities have the ability to improve their own O&M issues if encouraged and empowered with necessary skills.



Fence



Soak-pit and Floor



LESSONS LEARNT CONT'D

5. Networking with stakeholders
-all key stakeholders in rural water supply had actively participated and collaborated hence there is high level of ownership towards project out puts
6. The approach taken by the JICA O&M project is the way to go by.
- As It has been practical and participatory at all levels (National, Local Government and Community) such that manuals and guidelines developed represents the reality on the ground and can be shared to other districts and communities in Malawi.



LESSONS LEARNT CONT'D

- 7. Formulation of project objectives, design matrix, budgeting as well as performance indicators.
- 8. Learnt the CUDBAS Method of staff management.
-Curriculum Development Based on Vocational Ability Structure is a method of expediting work of management, human resource and functions in solving problem to ensure smooth work.
- 9. Designing, positioning, monitoring and evaluation of impact of WASH materials for effective communication with messages for promoting sustainable payment of operation and maintenance.



LESSONS LEARNT CONT'D

10. With good collaboration WASH NGOs and DPs can contribute effectively in the development of the Manuals and Guidelines in a coordinated and harmonised water through continuous involvement and information sharing at different stages of the project , e.g. Wes-Network, InterAid, UNICEF, Water for People, DAPP.



Technical confirmation of the manuals in progress

A9 - 006



LESSONS LEARNT CONT'D

11. Sustainable and participatory O&M can of rural water supply can be enhanced through Community radio programme to empower the communities in solving their own problems/ issues.



Live phone in programme with Experts



Debate among three villages



THANK YOU

BEFORE INTERVENTION



AFTER INTERVENTION



PROGRESS ON RECOMMENDATIONS by the TERMINAL EVALUATION

1st June 2015
Conference Room, Tikwere House



THE FOUR RECOMMENDATIONS

- I. Assisting refining and implement the roadmap for the nation-wide dissemination of the O&M framework
- II. Officially approving the guidelines and manuals as soon as possible and guide the Development Partners and NGOs for the utilization
- III. Organizing SWG meeting by the end of the Project
- IV. Assessment of the effectiveness of using community radio



I. Refining & Implementing the Roadmap for the O&M Framework nation-wide dissemination

- **RECOMMENDATION:** refine the existing roadmap before Project completion to achieve the Overall Goal
- **PROGRESS:** the roadmap was updated and refined on the last PTF meeting held on the 17th of March 2015.
- **NEXT STEP:** add more details regarding the SRWSIHL project funded by AfDB and schedule for monitor progress in the Districts



II. Official Approval of Guidelines and Manuals

- **RECOMMENDATION:** Officially approve all guidelines and manuals to guide DPs and NGOs
- **PROGRESS:**
 - Twelve documents (14 including the Chichewa versions) were all officially approved and endorsed by the MoAIWD in March and April 2015
 - All key DPs, NGOs and 27 Districts (DWDOs and DEHOs) were guided on the twelve documents and received hard and soft copies during the Project Final Dissemination Seminar



III. Organizing SWG meeting by the end of the Project

- **RECOMMENDATION:** officially share the contents of the O&M framework and roadmap in the SWG meeting
- **PROGRESS:** Contents of the O&M framework were officially shared during the Project Final Dissemination Seminar on the 13th of May 2015
- **NEXT STEP:** SWG scheduled for June 2015. Remind SWG members about the O&M framework



IV. Assessment of the effectiveness of using community radio

- **RECOMMENDATION:** continue monitoring the Radio Listening Clubs and verify and compare results with those receiving conventional classroom training
- **PROGRESS:** O&M community radio impact assessment report has been finalized



A9 - 008

Benchmark Indicators for O&M score (radio)

- Regular collection of water fees
- Availability of hand pump spare parts stock
- Water point sanitation (cleanliness of borehole surrounding, functionality of soak away pit and availability of fence)
- Regular maintenance of borehole by WPC caretakers
- Awareness of Area Mechanics and their roles and responsibilities

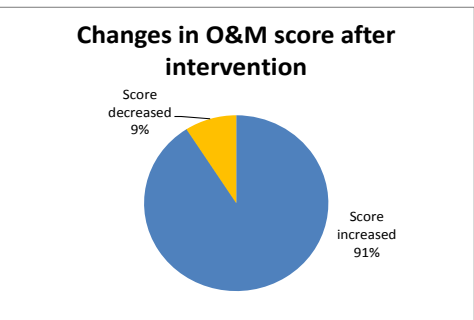
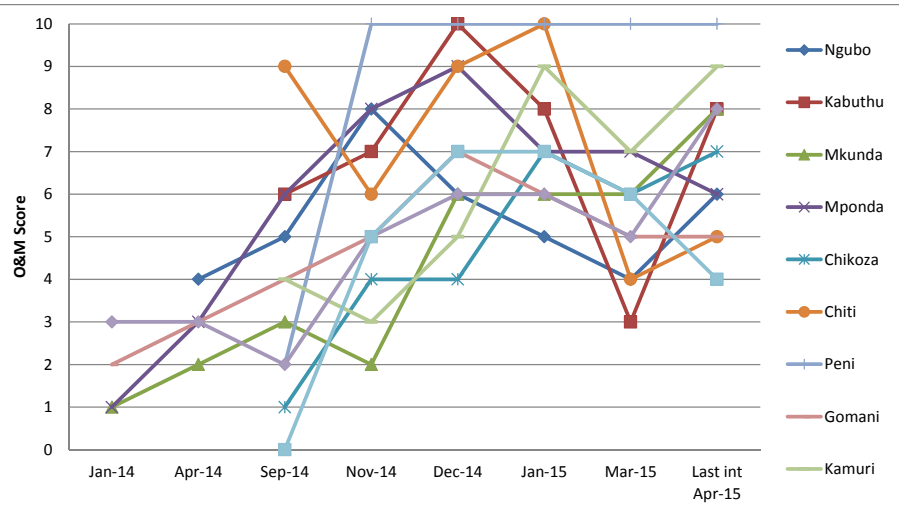
MIN score: 0

MAX score: 10



No.	Village name	1-14	4-14	9-14	11-14	12-14	1-15	3-15	Last intervention	Trend (after first and last intervention)
1	Ngubo		4	5	8	6	5	4	6	↗
2	Kabuthu			6	7	10	8	3	8	↗
3	Mkunda	1	2	3	2	6	6	6	8	↗
4	Mponda	1	3	6	8	9	7	7	6	↗
5	Chikoza			1	4	4	7	6	7	↗
6	Chiti			9	6	9	10	4	5	↘
7	Peni			2	10	10	10	10	10	↗
8	Gomani	2	3	4	5	7	6	5	5	↗
9	Kamuri			4	3	5	9	7	9	↗
10	Zulu School	3	3	2	5	6	6	5	8	↗
11	Tapela			0	5	7	7	6	4	↗
Average Score		2	3	4	6	7	7	6	7	





Variation in score	Total number of sites	Percentage
Score has increased after project intervention	10	91 %
Score has not changed	0	0 %
Score has decrease after project intervention	1	9 %



A9 - 009

Benchmark Indicators for O&M score (training)

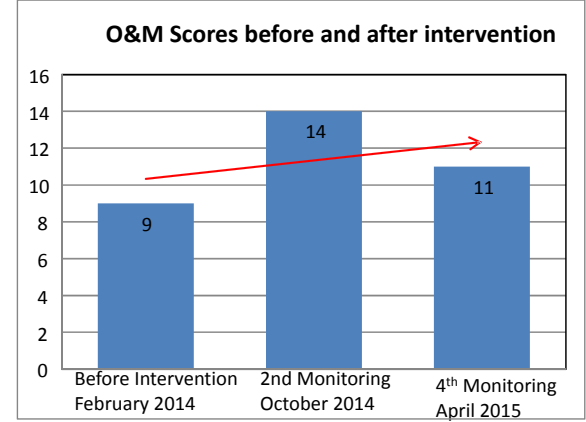
- Collection rate of water tariffs
- Reserve funds and/or stock of hand pump spare parts
- Cleanliness of borehole surrounding (cleanliness of borehole surrounding, functionality of soak away pit and availability of fence)
- Regular maintenance of borehole by WPC caretakers
- Awareness of Area Mechanics and their roles and responsibilities

MIN score: 0

MAX score: 21



Traditional CBM refresher classroom training



CBM refresher classroom training (O&M scores)

	September 2014	April 2015
Increased score after intervention	44 sites (88%)	29 sites (58%)
No change in score	3 sites (6%)	3 sites (6%)
Decreased score after intervention	3 sites (6%)	18 sites (36 %)



COST comparison btw RADIO and Traditional CBM refresher training

- Cost of traditional CBM refresher in one site (13 participants, 2 days on village training) = **MK 107,100**
- Cost of production and broadcasting O&M community radio (4 episodes/month, 30 min) = **MK 137,000**



COST comparison btw RADIO and Traditional CBM refresher training

- TOTAL cost of traditional CBM refresher for 50 sites = **MK 5,355,000 (650 trainees)**
- TOTAL cost of production and broadcasting O&M community radio (7 month, 29 episodes-30 min, twice a week) = **MK 959,700 (potential to reach 500,000 audience in the case of Mchinji community radio)**

REGULAR MONITORING A KEY FOR BOTH APPROACHES



The Project for Enhancement of Operation and Maintenance for Rural Water Supply in the Republic of Malawi

Recommendations
after completion of the Project

June 1, 2015

Japan International Cooperation agency (JICA)
Project Team

Presentation Topics

1. Recommendations from Terminal Evaluation Team (for reminding)
2. Recommendations from Expert Team

1. Recommendations
from Terminal Evaluation Team

1. Recommendations from Terminal Evaluation Team (1/1)

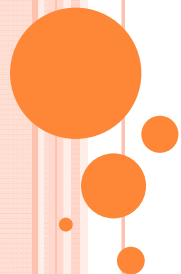
(1) Establishment of coordination mechanism for implementing the roadmap

- The current roadmap does not clarify ways of securing necessary budget or which entity could coordinate the support from different DPs.
- It is therefore desirable to establish a coordination mechanism to implement the roadmap.

(2) Increasing the number of WMAs at the District level

- In Malawi, shortage of personnel is a serious concern at the national and District level, but lack of WMAs at the District level is the most serious concern.
- Involvement of WMAs is essential to disseminate the O&M framework and as such it is important that the Malawi government increases the number of WMAs at the District level.

2. Recommendations from Expert Team



2. Recommendations from Expert Team (2/6)

(2) Further development of support for Area Mechanics (AMs) at the central and district levels

- There are some districts where such an AM system has not been introduced. **MoAIWD should give guidance proactively** in order that such districts can have the area mechanic system as soon as possible.
- MoAIWD and the Districts, where the system has already been in place, **should promote the preventive maintenance** to the communities and TAs so that downtimes until the water point resume operation can be short even if the facility is failed.



AM system



Major technical problems was fixed by a AM.

2. Recommendations from Expert Team (1/6)

(1) Emphasis on the reinforcement of monitoring of communities

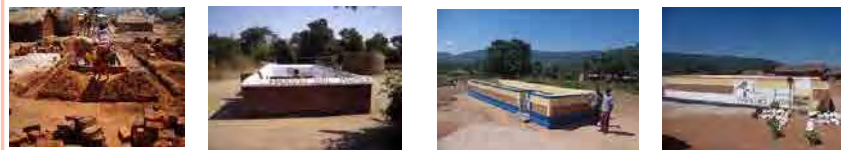
These monitoring activities are highly important as such activities can not only clearly identify how water facilities are operated and maintained but also **create the sense of ownership among people in the community.**

➤ **MoAIWD and Regional Offices:**

As the monitoring activities implemented by each district are to be promoted, MoAIWD will provide proper support related to finance and human resources.

➤ **At the district level:**

Not only by waiting for support to be provided by the central government but also by using existing resources effectively, monitoring activities at the district level will be carried out on a continuing basis.

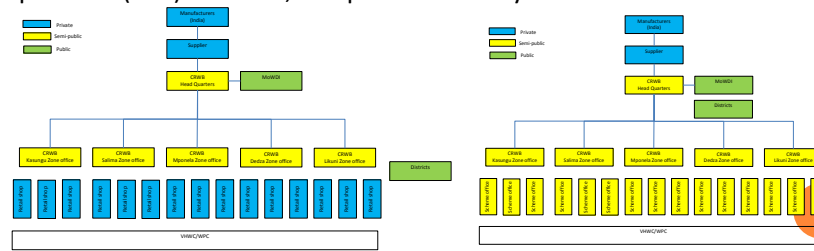


The communities constructed fence and soak way pit by themselves.

2. Recommendations from Expert Team (3/6)

(3) Future efforts for realising a sustainable supply chain system

- In areas where no spare parts supply chain has been developed, **the lobbying activity to attract NGOs** should be implemented under the leadership of MoAIWD.
- Under this project, a model to utilise the Water Board was studied. It is also important **to review the feasibility of the model as a future option to utilise the Water Board**, not relying on support of development partners (DPs) or NGOs, in a pilot test led by MoAIWD.



One of the options for supply chain system utilising the Water Board (proposal)

2. Recommendations from Expert Team (4/6)

(4) Continued use of existing Web-sites for document sharing such as NDR, NICE, WES-network, etc.

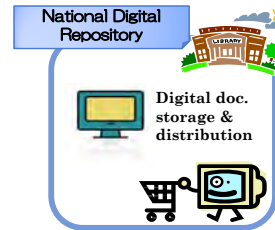
- A system to distribute documents using existing websites, which has been supported under this project, anyone are able to obtain important O&M documents easily.
- This mechanism utilising existing websites operated by other institutions can reduce the burden of MoAIWD in document management and hence it can be considered sustainable. Therefore **MoAIWD should continue to make efforts on this document distribution.**



NDR web-page



WES network web-page



2. Recommendations from Expert Team (5/6)

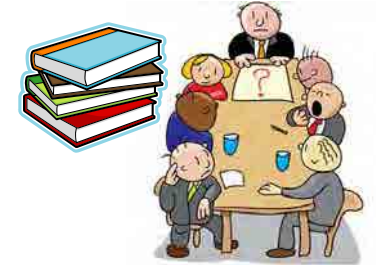
(5) Review of guidelines and manuals developed based on the "Document management guidelines" and improvement of their content

- It is necessary that new issues and lessons identified or learned through the adoption of such manuals and guidelines **should be shared** among those who are involved in the water sector as well as **reviewed and revised, as appropriate**, based on the **timing for such review or revision set forth in the "Document management guidelines"**.



No	Type of document	Validity of document
1	Framework	5 years
2	Implementator guidelines	5 years
3	Technical guidelines	5 years
4	Manual	5 years
5	Tools	5 years
6	Handbook	5 years

Document management guidelines developed by the Project



Meeting for review of the guidelines and manuals

2. Recommendations from Expert Team (6/6)

(6) Utilisation of resources of Mchinji District for nationwide dissemination

- In order to disseminate the O&M framework nationwide, it is essential that there should be **trainers who understand the content of the framework very well.**
 - ✓ Mchinji C/Ps have mastered how to use developed tools.
 - ✓ 90 EWs and AMs have improved teaching ability, skills and also have mastered how to use developed tools.
- It is desirable that MoAIWD will **actively utilise these new resources** in order to efficiently disseminate the O&M framework throughout the nation.

