

Country Name	The Project for Enhancement of Operation and Maintenance for Rural Water Supply
Republic of Malawi	

I. Project Outline

Background	<p>In Malawi, the coverage rate of water supply facilities in rural area was 75% but 31% of water facilities did not function¹ and there were considerable challenges in the water sector, including relatively low access to potable water, aging infrastructure, inadequate maintenance capacity, theft and vandalism. In order to overcome the challenges above mentioned, regarding rural water supply, an operation and maintenance (O&M) framework was developed using the concept of Community Based Management (CBM), which was adopted by the Malawian Government in the 1990s. The Government of Malawi aimed to increase the functionality of water supply facilities by improving the O&M framework.</p>												
Objectives of the Project	<p>Through setting up of implementation structure for strengthening of the existing O&M framework* for rural water supply, investigation of the situation and challenges of O&M of rural water supply, strengthening of the existing O&M framework based on the field test in Mchinji District, application of the strengthened O&M framework to the whole Mchinji District, and wide sharing of the strengthened framework, the project aimed at practical strengthening of the existing O&M framework for nationwide dissemination in Malawi, and thereby having the strengthened practical O&M framework applied nationwide.</p> <ol style="list-style-type: none"> Overall Goal: The strengthened practical O&M framework is applied nationwide. Project Purpose: The existing O&M framework is strengthened practically for subsequent nationwide dissemination. <p>*O&M framework means the guidelines and implementation manuals of rural water supply.</p>												
Activities of the Project	<ol style="list-style-type: none"> Project Site: Mchinji District and Lilongwe, Malawi Main Activities: <ol style="list-style-type: none"> Setting up the Project Task Force Collection of basic information on hygiene and sanitation as well as actual conditions of O&M for rural water supply Planning, implementation, and monitoring of O&M test activities in target communities and recommendation on strengthening of the existing O&M framework* based on the test activities Planning and implementation of O&M activities following the strengthened O&M framework on a larger scale. Dissemination of the strengthened O&M framework Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">Malawian Side</td> </tr> <tr> <td>1) Experts: 9 persons</td> <td>1) Staff allocated: 35 persons</td> </tr> <tr> <td>2) Training in the third country: 11 (in Zambia)</td> <td>2) Office space</td> </tr> <tr> <td>3) Equipment: Vehicles, computers and software, etc.</td> <td>3) Local expenses</td> </tr> <tr> <td>4) Local expenses: project activities, training, etc.</td> <td></td> </tr> </table> 			Japanese Side	Malawian Side	1) Experts: 9 persons	1) Staff allocated: 35 persons	2) Training in the third country: 11 (in Zambia)	2) Office space	3) Equipment: Vehicles, computers and software, etc.	3) Local expenses	4) Local expenses: project activities, training, etc.	
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Project Period	July 2011 – July 2015	Project Cost	(ex-ante) 440 million yen, (actual) 378 million yen										
Implementing Agency	<p>Department of Water Supply Services (DWSS), Ministry of Agriculture, Irrigation and Water Development (MOAIWD)* Regional Irrigation and Water Development Office (RIWDO)** (Office in “Centre”) Mchinji District Council *MOAIWD: from September 2011 to April 2012, and after May 2014 Ministry of Water Development and Irrigation (MOWDI): from April 2012 to May 2014 Ministry of Irrigation and Water Development (MOIWD): until September 2011 **Regional Water Development Office (RWDO): before April 2014</p>												
Cooperation Agency in Japan	Kokusai Kogyo Co., Ltd.												

II. Result of the Evaluation

<Special Perspectives Considered in the Ex-Post Evaluation>

- As to Indicator 3 of the Project Purpose, five items are defined in the Project Design Matrix (PDM), the matrix of the project framework. In the ex-post evaluation, as it was difficult to collect information in the same way as during the project period, information on these items were collected through visiting and interviewing Water Point Committees (WPC) in Mchinji District. A total of 10 WPCs were selected among 50 WPCs targeted during the project period. In addition, three WPCs that were not included in target 50 WPCs were also selected to see the status of dissemination.

1 Relevance

<Consistency with the Development Policy of Malawi at the Time of Ex-Ante Evaluation and Project Completion>

In the “Malawi Growth and Development Strategy (MGDS)” (2006-2011), the national medium-term plan formulated in November

¹ Calculated based on the Joint Sector Review Report 2008 compiled in collaboration of development partners including MOIWD, JICA and the World Bank.

2006 and revised in June 2009, irrigation and water development was one of the priority areas. At the time of the project completion, the water development sector was mentioned as one of the key priority areas in MGDS II (2011-2016).

<Consistency with the Development Needs of Malawi at the Time of Ex-Ante Evaluation and Project Completion>

Although development partners and NGOs were providing assistance in water supply sector to improve the situation, it was not very well organized. Therefore, it was necessary that contents of the past cooperation had to be scrutinized and integrated so that a practical O&M framework would be established. No change in the needs was observed at the time of project completion.

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

One of the two priority areas of Japan's assistance for Malawi was improvement of basic social services, including improvement of water supply through utilization of existing water supply facilities by rehabilitation and improved O&M²

<Evaluation Result>

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of Project Completion>

The Project Purpose was achieved by the project completion. The strengthened practical O&M framework was stated in the Joint Sector Review (JSR) and the Sector Performance Report (SPR). The national guidelines/manuals developed in this project were approved and officially recognized. It was found that WPC's sense of ownership was enhanced, according to the scoring results of the five benchmark items.

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have continued to the time of ex-post evaluation. The strengthened practical O&M framework is still stated in Sector Working Group (SWG) reports and JSR reports. The strengthened practical materials/manuals officially acknowledged by MOAIWD are still effective. All the WPCs have adopted the strengthened practical O&M in Mchinji District and the trained WPCs in Mchinji District are operated based on the strengthened practical O&M framework after project completion. The ownership consciousness has been maintained at almost the same level as during the project completion in WPCs, in terms of fund contributions and maintenance. It is noted, however, that only four of the WPCs visited (total 13WPCs) were able to make their monthly contributions towards O&M consistently and all the WPCs visited reported that they contribute only when there is a breakdown, which entails a weakness in terms of communities' commitment to fund preventive maintenance. Although some issues are pointed out, it is considered that the level of ownership has been maintained since project completion.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal has been achieved. The strengthened practical O&M framework has been applied in CBM training by MOAIWD and districts. In addition, the MOAIWD have set up a structure and assigned staff to support dissemination of the framework, and it is reported that strengthened practical framework has been applied in all 28 districts and fully operational in about 75% of the districts.

<Other Impacts at the time of Ex-post Evaluation>

Other positive impacts are observed at the time of the ex-post evaluation. The project promoted women's participation. Nine out of the 13 WPCs that were involved in the survey had more than 60% representation of women in a committee. Some women were elected into the WPC leadership position. Some women had demonstrated their ability to lead and they had confidence to make decisions and manage the affairs of the community. Moreover, the availability of the boreholes in communities has reduced the workload by women. No negative impact has been observed.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is high.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results
(Project Purpose) The existing O&M framework is strengthened practically for subsequent nationwide dissemination.	(Indicator 1) The strengthened practical O&M framework is stated in Sector Working Group reports and/or Joint Sector Review Reports.	Status of the Achievement: achieved (continued) (Project Completion) <ul style="list-style-type: none"> The strengthened practical O&M framework was stated in the JSR reports in 2013 and the SPR in 2012/2013. (Ex-post Evaluation) <ul style="list-style-type: none"> The strengthened practical O&M framework is stated and referred to in SWG meetings and reports. Almost all JSR reports since 2013 have mentioned or made reference to the strengthened practical O&M framework.
	(Indicator 2) The strengthened practical guidelines/manuals/training materials are officially acknowledged by MOWDI.	Status of the Achievement: achieved (continued) (Project Completion) <ul style="list-style-type: none"> A total of 14 national guidelines/manuals developed in this project were approved by the Principal Secretary of MOAIWD and officially recognized. (Ex-post Evaluation) <ul style="list-style-type: none"> The project materials/manuals are still being used. The manuals are used by the Mchinji District Council water projects, NGOs and Water, Sanitation and Hygiene (WASH) partners, as well as in other districts. For example, in 2018, with support from the African Development Bank (AfDB); the districts of Rumphi, Nkhota-kota, Ntcheu, Mangochi and Phalombe were oriented on the O&M manuals.

² ODA Country Data Book (2012)

	<p>(Indicator 3) Ownership consciousness* is improved in WPCs to be applied with the strengthened framework. *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.</p>	<p>Status of the Achievement: achieved (continued) (Project Completion) • After the strengthened framework was applied at the pilot sites, it was found that WPC's sense of ownership was enhanced, in terms of quantified scoring (0 to 21 points) by five benchmark items defined by the project. The average score of five benchmark items for ownership was 9 in February 2014 (before project intervention), 14 in October 2014 and 11 in April 2015. (Ex-post Evaluation) • The level of ownership consciousness has been maintained in WPCs in general since project completion, considering that the average score of five items was 11 to 14 out of 21 points during the project intervention. Even at WPCs which were not targeted during the project period, ownership has been recognized and O&M of water points are well conducted.</p> <p style="text-align: center;">Results of Survey on Ownership of WPCs visited during the Ex-post Evaluation (Status of Ownership of WPCs Regarding the Items Defined in PDM) (Total number of WPC visited: 13)</p> <table border="1" data-bbox="560 528 1517 1077"> <thead> <tr> <th>Items defined in PDM.</th> <th>No. of target WPCs (Total: 10)</th> <th>No. of non-target WPCs (Total: 3)</th> </tr> </thead> <tbody> <tr> <td>1. Collect rate of water tariff (%)</td> <td>More than 80%: 4 50% - 80%: 4 Less than 50%: 2</td> <td>More than 80%: 0 50% - 80%: 2 Less than 50%: 1</td> </tr> <tr> <td>2. Reserve fund/stock of spare parts (sufficient or not?)</td> <td>With fund/ sufficient stock: 0 With fund/ insufficient stock: 4 No fund/ insufficient stock: 3 No fund/ no stock: 3</td> <td>With fund/ sufficient stock: 0 With fund/ insufficient stock: 0 No fund/ insufficient stock: 1 No fund/ no stock: 2</td> </tr> <tr> <td>3. Conditions of water point sanitation</td> <td>Fully functional: 6 Partially functional: 3 Not functional: 1</td> <td>Fully functional: 2 Partially functional: 1 Not functional: 0</td> </tr> <tr> <td>4. Conditions of regular maintenance by caretakers</td> <td>Done: 6 Not done: 4</td> <td>Done: 2 Not done: 1</td> </tr> <tr> <td>5. Awareness of roles and responsibilities of Area Mechanics</td> <td>Yes: 10 No: 0</td> <td>Yes: 3 No: 0</td> </tr> </tbody> </table>	Items defined in PDM.	No. of target WPCs (Total: 10)	No. of non-target WPCs (Total: 3)	1. Collect rate of water tariff (%)	More than 80%: 4 50% - 80%: 4 Less than 50%: 2	More than 80%: 0 50% - 80%: 2 Less than 50%: 1	2. Reserve fund/stock of spare parts (sufficient or not?)	With fund/ sufficient stock: 0 With fund/ insufficient stock: 4 No fund/ insufficient stock: 3 No fund/ no stock: 3	With fund/ sufficient stock: 0 With fund/ insufficient stock: 0 No fund/ insufficient stock: 1 No fund/ no stock: 2	3. Conditions of water point sanitation	Fully functional: 6 Partially functional: 3 Not functional: 1	Fully functional: 2 Partially functional: 1 Not functional: 0	4. Conditions of regular maintenance by caretakers	Done: 6 Not done: 4	Done: 2 Not done: 1	5. Awareness of roles and responsibilities of Area Mechanics	Yes: 10 No: 0	Yes: 3 No: 0
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<p>(Overall Goal) The strengthened practical O&M framework is applied nationwide.</p>	<p>The strengthened practical O&M framework is applied in Community Based Management (CBM) trainings by MOWDI and districts.</p>	<p>(Ex-post evaluation) achieved</p> <p style="text-align: center;">CBM Training on O&M Framework</p> <table border="1" data-bbox="603 1144 1473 1305"> <thead> <tr> <th>Agency</th> <th>Name of CBM training course</th> <th>Year</th> <th>No. of participants</th> </tr> </thead> <tbody> <tr> <td>MOAIWD</td> <td>Pre-drilling training</td> <td>2017</td> <td>4,950</td> </tr> <tr> <td>MOAIWD</td> <td>Post-drilling training</td> <td>2018</td> <td>4,950</td> </tr> <tr> <td>Districts</td> <td>Refresher training</td> <td>2018</td> <td>2,500</td> </tr> </tbody> </table>	Agency	Name of CBM training course	Year	No. of participants	MOAIWD	Pre-drilling training	2017	4,950	MOAIWD	Post-drilling training	2018	4,950	Districts	Refresher training	2018	2,500		
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Source: Terminal Evaluation Report, Project Completion Report, Questionnaire and interview

3 Efficiency

Although the project cost was within the plan, the project period exceeded the plan (ratio against the plan: 86% and 102%, respectively). The Outputs of the project were produced as planned. Therefore, the efficiency of the project is fair.

4 Sustainability

<Policy Aspect>

In the "Malawi Growth and Development Strategy (MGDS) III" (2017-2022), one key priority area is 'Agriculture, Water Development and Climate Change Management', which aims to increase access to water resources by improving water supply in rural and urban areas.

<Institutional Aspect>

The structure and manpower for O&M of water supply are sufficient. The staff from MOAIWD level to district level was trained by the project and is knowledgeable, and currently the O&M work has been implemented without major problem in close collaboration among those involved in O&M, including extension staff and other government staff, however they fail to implement and disseminate the strengthened practical O&M framework due to insufficient financial resources. As countermeasures to cope with the situation, the government has been implementing joint planning with other agencies in water and sanitation sector, including NGOs.

Budget Allocated for Water Supply Operation and Administration Activities (including irrigation, sanitation, and rural water supply)

Unit: Malawian kwacha (MKW)

	2015-16	2016-17	2017-18	2018-19
MOAIWD	96,088,400	121,881,366	166,135,550	210,389,733
RIWDO (centre)	8,279,600	8,765,810	15,907,010	25,136,533
RIWDO (north)	7,857,800	6,677,487	13,836,716	18,907,623
RIWDO (south)	11,232,200	10,787,709	20,488,679	30,189,648
Mchinji District	4,310,423	5,338,024	5,657,430	6,192,911

Note: There is no specific budget that government allocates for implementation and dissemination of the strengthened practical O&M. The budget presented above is a lump sum allocated to the sector for operations and administration.

Source: National Community Water Supply and Sanitation Office, Regional Irrigation and Water Development Office

<Technical Aspect>

Most of the government staff at the national level were trained on the strengthened practical O&M framework as well as on promotion of operation and maintenance of community water supply including administering CBM manuals. At the district

level, the officials/staff engaged in water supply services have undergone training and sufficient capacity to promote the strengthened practical O&M framework. The majority of C/P members involved in the project activities are still in their positions and engaged in implementation and dissemination of the strengthened practical O&M framework. However, the staff are failing to effectively continue implementing the framework because of inadequate financial resources that government allocates for such activities.

The district has plans to continue to provide technical support to the trained government extension staff but they have not had opportunities for such training yet.

<Financial Aspect>

The government does not allocate enough funds, although the total budget for operation and administration of rural water supply has been increasing. Therefore, the department in charge can hardly implement the expected interventions. The effects of insufficient budget allocation and insufficient funds also have led to minimal or lack of supervision or refresher training. The MOAIWD has plans to secure the budget for implementation and dissemination of the strengthened practical O&M framework. Currently they are able to disseminate the strengthened practical O&M framework with the support of all water related projects by NGOs.

<Evaluation Result>

In light of the above, some problems have been observed in terms of the technical and financial aspects of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

5 Summary of the Evaluation

The project achieved the Project Purpose of strengthening of O&M framework for nationwide dissemination. At the time of the ex-post evaluation, the practical O&M framework is still mentioned in SWG/JSR reports and effective. In addition, the ownership consciousness has been continuously observed at WPCs, including those not targeted during the project period. Therefore, the project effects have been continued. The Overall Goal of nationwide application of the strengthened practical O&M framework has been achieved. Sustainability is high in the policy and institutional aspects but some problems have been observed in the technical and financial aspects, as the budget allocation is not sufficient, which affects implementation of and training on the O&M framework. Considering all of the above points, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

- There is a need to continuously provide refresher training so that those in all the districts have skills and knowledge of the strengthened practical O&M framework, and thus the framework can be applied nationwide. MOAIWD is recommended to conduct regular monitoring, as this provides technical guidance for WPCs. Due to inadequate funding at all levels, it is necessary to continue to cooperate with other water related projects by other NGOs or development partners in the utilizing of the manuals developed by the project. This will assist in nationwide dissemination of the strengthened practical O&M framework, and should be done through the District Executive Committee meetings and stakeholder panels, as a part of decentralization.
- The survey results revealed that almost all sites had established WPCs and the WPCs were trained. The principle of the strengthened practical O&M is that communities should be fully aware of the needs to undertake preventive maintenance to avoid a breakdown, and they need to have practical skills and knowledge in the maintenance as well as the necessary resources, means and tools to carry the maintenance. However, this is not happening due to a number of reasons, including lack of commitment on the part of the community committee to mobilise maintenance funds and lack of trust by a community in the WPC that is given the responsibility to collect their water user tariffs and fund management. In this sense, too, it is necessary for MOAIWD to continue conducting refresher courses to instill ownership and financial management for O&M.

Lessons learned for JICA

- As described above, continuous refresher courses to instill ownership and financial management for O&M is one of the areas to be emphasized and continuous follow-up and support to communities is a key to motivating and encouraging the water users. In the project for O&M for rural water supply, it is important to incorporate follow-up activities to support community in the project design at the project formulation stage and to ensure the commitment, including funding, of the implementing agency for the follow-up activities after the project completion.



Molosiyo Water Point (target).



At the Molosiyo Water Point, water tariff is collected, training was done and sanitation is properly managed.