

Summary of Terminal Evaluation

I. Outline of the Project	
Country : The Revolutionary Government of Zanzibar, The United Republic of Tanzania	Project title : Project for enhancement of water supply management of Zanzibar Water Authority Phase 2
Issue/Sector: Water Supply	Cooperation scheme : Technical cooperation project
Division in charge: JICA : Global Environmental Department	Total cost (at the time of Terminal Evaluation) : 116 million Japanese Yen
Period of Cooperation	(R/D): 2011/11/1-2015/10/3
	Partner Country's Implementing Organization : Zanzibar Water Authority (ZAWA)
Supporting Organization in Japan : -	
<p>1. Background of the Project</p> <p>The United Republic of Tanzania (hereinafter referred to as Tanzania) consists of Zanzibar and Tanganyika. In the urban area of Zanzibar, the piped water supply service started in the 1920s and groundwater has been used as the water source. By 1990, the total length of water supply pipes reached 100 km and seven (7) water service reservoirs were developed. However, due to the lack of financial resources, these water supply facilities have not been sufficiently maintained, which has led to a shortage of the system's water supply capacity. Under these circumstances, in response to the request of the Government of Tanzania, the Government of Japan conducted a grant aid project, Zanzibar Urban Water Supply Development, from 2006 to 2010, to increase water supply capacity. In addition, JICA conducted a technical cooperation project, Enhancement of Water Supply Management of Zanzibar Water Authority (Phase 1) from 2008 to 2010, which included the establishment of the fee collection system.</p> <p>The combination of the high leakage from the deteriorated distribution network and the low fee collection ratio has had negative impacts on ZAWA's operation. With an aim to enhance ZAWA's water supply management, the Government of Tanzania requested the Government of Japan to conduct a Project for the further enhancement of the water supply management of the Zanzibar Water Authority. In response to the request, the Japan International Cooperation Agency (JICA) dispatched the Japanese Detailed Planning Survey Team in March 2011. As a result, the Record of Discussion (R/D) was formally signed by and between the Ministry of Lands, Housing, Water and Energy (MLHWE) and the JICA Tanzania Office for the implementation of the Project for the Enhancement of Water Supply Management of Zanzibar Water Authority Phase 2 in July 25, 2011.</p>	
<p>2. Project Overview</p> <p>(1) Overall Goal ZAWA's water supply services are improved.</p> <p>(2) Project Purpose ZAWA's management capacity through NRW reduction activities is improved.</p> <p>(3) Outputs Output 1: ZAWA's capacity of information management is enhanced. Output 2: ZAWA's capacity of human resources management is improved. Output 3: ZAWA's capacity of customer management is improved. Output 4: ZAWA's capacity to plan and implement leakage reduction activities is enhanced.</p> <p>(4) Inputs (at the time of terminal evaluation) Japanese side: <u>Total cost 3.51 million yen (as of Apr. 2015)</u> Japanese Experts: 15 persons (100.41MM) Equipment: Water leakage detection unit, Vehicle for leakage detection (mobile laboratory), Ultrasonic flow mater, Materials and equipment for service connection installation training. Training in Japan: 17 persons</p>	

Training in Third Country (Jordan): 3 persons

Tanzanian side

Counterparts: 6 persons

Facilities: Office space for Japanese experts

Equipment: installation of water meters, valves and flow meters.

Local Cost: 637,084,200 Tsh (Approx. 116,050,000 Yen)

Others: Electric, water, custom duty, inland transportation

II. Evaluation Team

Members of Evaluation Team	Akihiro Miyazaki	Team Leader (JICA)
	Hirofumi Yoshitake	Cooperation Planning (JICA)
	Akihiro Mochizuki	Evaluation and Analysis (ICONS Inc.)
Period of Evaluation	2015/5/13-2015/6/1	Type of Evaluation: Terminal Evaluation

III. Results of Evaluation

III-1. Tanzanian Component

1. Project Performance

1-1. Input and Activities

Due to delay of getting budget and procurement procedure for necessary material, some activities has been delayed, in some case, it has not been started yet. The activities in the Pilot Area will be launched in July, 2015, however, it is not sufficient period to complete the activities in order to realize Output 4. On the other hand, other activities are expected to be done by the project ends.

1-2. Outputs

Output 1: ZAWA's capacity of information management is enhanced.

In terms of Output 1 which shows capacity enhancement of ZAWA's information management, the indicators regarding compiling monthly Management Information System (MIS) report and utilization for management (Indicator 1-1) and preparation of Annual Business Plan (ABP) of budget management for leakage reduction activities (Indicator 1-2) have been improved considerably. However, monthly MIS report should be utilized more in order to contribute for ZAWA's management. Meanwhile ABP was not used for ordinary budget request based on five year plan, but used for budget request to the fund for infrastructure of Zanzibar government. Therefore the Output 1 is deemed as relatively high.

Output 2: ZAWA's capacity of human resources management is improved.

For the Output 2, revised organization structure is not submitted to ZAWA board (Indicator 2-1). Meanwhile amendment of staff and regulation approved by ZAWA board (Indicator 2-2) is attained. According to the Director General of ZAWA, revised organization structure will be submitted to ZAWA board in July, 2015. Therefore the Output 2 will be attained by the end of the project.

Output 3: ZAWA's capacity of customer management is improved.

For the Output 3, None of the indicators has been attained at the time of Terminal Evaluation. However registration of all customer information in Model system into SBM-GIS (Indicator 3-1) will be achieved in July, 2015. Meanwhile other indicators, the improvement of meter reading capacity (Indicator 3-2) and the target billing ratio in the Pilot Area (Indicator 3-3) are expected to be achieved by the project end.

Output 4: ZAWA's capacity to plan implement leakage reduction activities is enhanced.

For the Output 4, incorporation of preliminary plan on leakage reduction to ABP (Indicator 4-1) is considered as achieved. Because ZAWA has obtained 830 million Tanzanian Shillings from infrastructure fund of Zanzibar Government in fiscal year of 2014 instead of ordinary budget. Meanwhile, "ZAWA reflects operating procedure in Pilot Area to design report for ZAWA's Project under the other donor loan" (Indicator 4-2) is not achieved at the time of Terminal Evaluation. It will be confirmed in the tender document which will be submitted to ZAWA by the consultant firm. On the other hand, the On the Job Training for ZAWA staff to qualify leakage reduction activities in the Pilot Area (Indicator 4-3) is not attained due to delay for material procurement. The OJT will start in July and terminate after the project.

1-3. Project Purpose

Project Purpose: ZAWA's management capacity through NRW reduction activities is improved.

The loan agreement for NRW reduction project was signed between ZAWA and African Development Bank (AfDB) in collaboration with JICA Technical Cooperation (Indicator 1). However it is still uncertain that the concept of the project "water distribution systematization" will be included in the AfDB loan program at the time of Terminal Evaluation. On the other side, ZAWA's annual business plan with annual planned budget allocation (Indicator 2) is considered as achieved. Because the ABP is used for budget request to infrastructure fund of Zanzibar government, though ABP was not reflected to ordinary budget request due to the size of amount and the balance of other budget items. For these reasons, the Terminal Evaluation team judged the Project Purpose has been achieved partially, at the time of Terminal Evaluation.

1-4. Overall Goal

Overall Goal: ZAWA's water supply services are improved.

The numerical target of Overall Goal was not determined at the time of terminal Evaluation, therefore it is not possible to evaluate of its achievement. The numerical target for supply hours and water pressure in the Model System (Indicator 1) will be set in June, meanwhile the numerical target for ratio of billing and collection in the Model System (Indicator 2) will be set in August. Both indicators are expected to be achieved, if AfDB program would be implemented with the concept "water supply systematization" which is proposed by the Project.

2. Summary of Evaluation Results

2-1. Relevance: High

【Consistency with Tanzanian Policy】

The Project is consistent with the country development framework, such as Tanzania Development Vision 2025, Zanzibar Development Vision 2020, and the Zanzibar Strategy for Growth and Reduction of Poverty (ZSGRP/II/MKUZA II). In addition, the Project also is in line with the Zanzibar National Water Policy (2004) that aims at providing all consumers with clean and safe water.

【Consistency with Japanese Policy】

The Japanese Government sets the "infrastructure development sustaining economic growth and poverty reduction" in country assistance policy for Tanzania in 2012. Also the government has the highest priority to Zanzibar regarding to water supply management in Tanzania. Moreover, in TICAD V (2013), the Yokohama Action Plan 2013-2017 set for the access to safe drinking water by improving sustainability of water supply services as an important issue of outcome target.

【Consistency with Needs】

It is unreliable and discontinuous of water supply in Zanzibar due to leakage and low pressure of water, therefore, the project meets the need of people of Zanzibar. On the other side, the improvement of ZAWA's financial condition through strengthening its water utility management and planning capacity, implementing NRW activities and improving its billing system are also in line with the need of ZAWA. These are the conditions that ZAWA needs to fulfill in order to be a financially independent water entity.

2-2. Effectiveness: Medium

The prospect for achieving the Project Purpose by the project end is deemed difficult. The Outputs have not been achieved sufficiently. The considerable factors are; (a) Non-revenue water reduction activities have been delayed caused by shortfall of ZAWA's budget and procurement procedure retard. However, it is observed certain improvement in ZAWA's management capacity such as utilizing MIS report for management (Output1), revised structure approval by ZAWA board (Output2). Meanwhile, each Output aims to develop necessary capacity of ZAWA from directors to section staff on the NRW reduction. Therefore, the contribution of Outputs to attain the Project Purpose is evident.

2-3. Efficiency: Medium

The level of Output achievement is not satisfied with some target indicators due to delay of conducting necessary procedure and activities such as obtaining budget for material procurement, required procedure of submission to ZAWA board and others. On the other side, the communication

between the expert team and C/P has been improved drastically since the member of the expert team changed. In addition, training in Japan and third country made a great contribution to change the recognition of ZAWA staff towards NRW reduction activities. Moreover, the collaboration with AfDB loan program contributes to facilitate for Output 4 (ZAWA's capacity to plan implement leakage reduction activities is enhanced), Project Purpose and Overall Goal.

2-4. Impact: Medium

ZAWA has reached agreement with AfDB about loan program. Therefore, it is deemed possible that the Overall Goal attains by the synergetic effect with the loan program. On the other side, the Project takes necessary measures in order to avoid negative effects occurring by the project activities in gender aspect and environment aspect. For the former one, the project prepared long sleeved uniform for female staff who engages in meter reading task and distribution/collecting bill task for religious reason. For the latter one, the project takes disposing process for replacement/change the asbestos pipes based on the Tanzanian regulations.

2-5. Sustainability: Medium

【Political Aspect】

Zanzibar National Water Policy aims for providing clean and safe water to Zanzibar citizen. In addition, ZAWA is required to be independent financially from Zanzibar government in future. Thus, the continuous effort of ZAWA is highly expected in order to achieve the objective.

【Organizational Aspect】

ZAWA is in the middle of process to modify organizational structure in order to improve and consolidate for NRW reduction activities. The revised organization structure is planned for submission to board of ZAWA in July. On the other hand, the modified amendment of staff rules and regulation were approved by the board. Therefore, both important issues for organizational aspect will be launched by the end of the project. It will ensure the sustainability.

【Technical Aspect】

On the Job Training in the Pilot Area has not been conducted due to delay of material delivery. But finally, it was determined the date of material delivery for implementation the activities in the Pilot Area. On the other hand, leakage detection on the ground, meter reading training and MIS report compiling have been started. Therefore, dissemination and consolidation of the NRW reduction technology inside the ZAWA will be prompted.

【Financial Aspect】

The financial sustainability of ZAWA is not consolidated because of its self-generated revenues covering less than 20% of the operating cost, including the depreciation costs. ZAWA is still heavily dependent on government subsidies. Moreover, the tendency of the financial situation has not been improved since Midterm review of the Project. The budget of ZAWA will be determined by the five-year midterm plan in 2017, based on the finance situation at that time. However, the ZAWA is obliged to continue the effort for revenue increase through the NRW reduction activities.

3. Factors that Promoted Realization of Effects

3-1. Factors concerning the Planning

(1) ZAWA's commitment and ownership to revenue increase

ZAWA has shown strong commitment to increasing its revenue during the Project under strong expectation of Zanzibar government. Therefore, the recognition of the importance for having customer-oriented mind among the section chief and staff in ZAWA has been improved during the Project.

3-2. Factors concerning the Implementation Process

(1) Effective Communication between JICA Experts and C/Ps

The communication between Japanese experts and C/Ps has been improved significantly after drastic member change of Japanese expert team was done. The current team has been emphasizing on OJT style for technology transfer. Moreover, the Director General of ZAWA has proposed to expert

team for having weekly presentation among C/Ps. This intention aims for sharing current progress of the activities among all Output groups and officers participating to the Project.

4. Factors that Impeded Realization of Effects

4-1. Factors concerning the Planning

(1) The absence of permanent Non-Revenue Water Reduction unit in ZAWA.

In ZAWA, there is no specialized section to manage Non-Revenue Water reduction activity. Therefore, the C/Ps of the Project have been selected from the current department and section. Those staff assigned to the Project cannot have sufficient time because they have their own duty in ZAWA. Thus, sometimes it caused the delay of the activities.

4-2. Factors concerning the Implementation Process

(1) Shortage of skilled ZAWA staff for the Project activities

The Project has trained core staff members engaged in water utility management, revenue-raising, and NRW water reduction activities, with the aim of making them trainers for other staffs. In ZAWA, there are few skilled managerial and technical staff members. Therefore, the Project has found it difficult to ensure their participation in project activities. In addition, shortage of the staff for some positions such as meter-readers/bill attendants, SBM operators, and civil engineers have affected the efficiency to the activities.

5. Conclusion

Some project activities have not been started yet, therefore, the Project Purpose is hardly to be achieved at the end of the project. However, if the remaining Outputs are completed, after the Project ends by effort of ZAWA, the achievement of Overall Goal is also expected by the synergetic effect with AfDB loan program.

The Project has been surrounded by various hindering factors since the first phase of the Project started in 2008. For example, there has been communication deficiency between the expert team and C/P, deficiency of the budget to conduct the activities, delay of procurement materials procedure, limited availability the C/P for participation to the Project and others. Considering the circumstances, the PDM has been modified twice during the Project in phase 2. Moreover, the member of expert team has been changed drastically. Due to such modification, it is observed certain progress and change in the Project at the Terminal Evaluation. In this manner, it is regarded that the Project is in the middle of transition stage and almost reach breakthrough point to achieve the Outputs indicators of PDM 3-2. Therefore, the Project and ZAWA are highly requested to their intense dedication to the Project in the rest of the Project period.

6. Recommendations

6-1. Before the Project Ends

(1) Management of ZAWA

ZAWA should enforce its management capacity to improve financial situation of ZAWA, and ZAWA board members have to take more consideration that ZAWA is an autonomous authority which pursues to success its business because currently, and is depend on financial support from Zanzibar government due to its critical low revenue. ZAWA has to tackle for overcoming the difficulty of financial condition, and propose a strategic vision and water supply service plan from business perspective. The progress of improvement of management and financial situation in ZAWA would be important information for considering Japan's new assistance for the future.

(2) Cost and Benefit Analysis

The project should conduct cost and benefit analysis on the pilot project. Due to water service history in Zanzibar, ZAWA lacks of cost effectiveness and business perspective. In addition, the water distribution infrastructure of ZAWA is aged, poorly maintained and irrelevant design for effective water distribution. In the circumstances, implementing technical cooperation project for NRW reduction activities is very challenging. ZAWA should utilize such analysis for its planning and management.

(3) C/Ps for the project

ZAWA has to dispatch and increase full-time staff for accelerating project activities. Through the

evaluation survey, the team found that C/Ps have difficulties for participating in the project activities due to their own tasks in ZAWA. Therefore, ZAWA has to consider the situation, and make an effort to set work environment for smooth implementation of the Project.

(4) Sustainability of ZAWA activities

ZAWA should modify the organizational structure plan in order to smooth implementation of the project and water service sustainably and independently. The project has already submitted the revised organizations structure plan to Director General of ZAWA, however, the structure is still under discussion in related department, and has not been submitted to ZAWA board members yet. So that Director General has to propose a revised organization structure to ZAWA board as an agenda by July at the latest, and proceed structure modification according to the proposal by the project until August 2015. For instance, the collaboration between GIS section and SBM section causes inefficiency for data input and register procedure. ZAWA board should understand the situation and integrate both sections as one unit in order to improve efficiency immediately.

(5) NRW reduction team

The team requests that ZAWA Directors and board members should approve the proposal that set up a new team for NRW reduction, in order to overcome the critical obstacles on water leakage before the end of the project. According to the law, ZAWA should provide continual and safe water supply service to all the people in Zanzibar. Through this terminal evaluation survey, the team confirmed that ZAWA officers understand the problem on non-revenue water and have to resolve the problem. In order to tackle for non-revenue water problem, ZAWA has to allocate necessary resources, and to contribute to Non-Revenue Water reduction.

(6) MIS utilization

The Planning and Policy section in ZAWA should share 'MIS report' to all directors, ZAWA board and Ministry of Lands, Housing, Water and Energy (MLHWE) in order to check the ZAWA's activities' sustainability and independency. The team found that MIS report is compiled monthly, but not utilized. Therefore, ZAWA board members should recognize the contents of MIS report in weekly meeting as a material of organization management.

(7) Close communication between ZAWA board members and the project

The team requests that ZAWA board members have to approve the projects' attendance to the board meeting in order to promote understanding project activities among board members immediately. To promote achieving outputs in the project, the team asks the Project to conduct close communication between ZAWA board members and the project concerning problems and progresses of the project.

(8) Modification of PDM

The project should revise and confirm figures on the Verifiable Indicator of Overall Goal of the PDM3-2 in the JCC. In the Indicator, 'Ratio of collected/ billed customers' and 'Ratio of collected/ billed amount' should be submitted to JCC immediately.

(9) Project Extension

The team proposes the project extension in order to achieve the project objectives, and to fulfill the project activities that confirmed in the PDM. At present, the project faces difficulties to promote the Output 4 in the PDM because even though DON CONSULTANTS is making the tender document for the AfDB's loan project, the submission of it is delay and also procurement for pilot project is delay.

6-2. After the Project Ends

(1) Coordinating environment around water service

The team requests that MLHWE support legislation which relates to water supply service and license for distribution system construction for smooth implementation of project activities, including customer management, tackling for Non-Revenue Water reduction.

7. Lessons Learned

(1) Sharing the problem

Sharing problem is important factor for success of projects because if problem is shared, the project

makes quick action to resolve the problem such as prioritization of tasks and allocation of resources. So that it could contribute to smooth implementation with sharing the problem. In addition to that, the project and board meeting of ZAWA would contribute more to project implementation from the beginning of the project.

And through the project, collaboration among all deputy directors is very important in order to tackle critical problems for the project implementation.

(2) Communications for project implementation

Through the interview, the team found that communication was dramatically improved since the project changed the way of communication with C/Ps through applying on the job training. So that, the project has to deeply consider the way of communication in order to implement the project.

(3) Designing PDM

The team recognizes that grasping the current situation on C/Ps, organization and circumstances is very important for designing projects. Since the beginning of the project, the project has changed the PDM twice drastically. The team understands that the PDM in the beginning included too many achievements in a limited project period. Considering ZAWA's situation at that time, tackling non-revenue water problem should be put as the first priority in the project. Therefore, at the designing stage of the project, JICA and consultants has to find the core problem and narrow down the outputs which contribute to resolve the core problem directly at the beginning stage of the project.

8. Follow-up Situation

The team proposes the project extension in order to achieve the project objectives. At present, the project faces difficulties to promote the Output 4 in the PDM because even though DON CONSULTANTS is making the tender document for the AfDB's loan project, the submission of the document is delay and also material procurement for pilot project is delay.