

Republic of the Philippines

Ex-Post Evaluation of Technical Cooperation Project
“Small Water District Improvement Project”

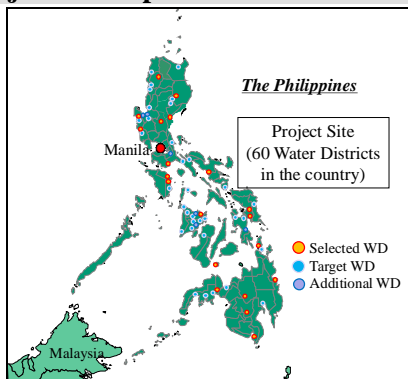
External Evaluator: Keisuke Nishikawa, Japan Economic Research Institute Inc.

0. Summary

This project was implemented to provide financial and technical assistance to small water districts (hereinafter referred to as ‘WD’) with an aim to improve the services and management of these WDs. The objective of this project was consistent with the development plan and needs of the Philippines both at the time of planning and ex-post evaluation, as well as the priority areas of Japan’s ODA policy at the time of planning. Therefore, the relevance of this project is high. The effectiveness at the time of project completion is also high with general achievement of the five outputs expected, leading to the achievement of the project purpose through the implementation of this project. Operational and financial indicators of the WDs have continued to improve on average after the completion of the project meaning that the overall goal has generally been achieved. In addition, this project has not caused any negative environmental or social impacts, and an impact is considered to have been generated. Therefore, the effectiveness and impact of this project can be said to be high. With regard to project implementation, the efficiency was judged to be fair as the project cost exceeded the planned amount due to an extension of the cooperation period. Regarding sustainability, while the operational and financial statuses of the WDs have improved as a whole, it was observed that difficulties to receive low-interest loans from the Local Water Utilities Administration (hereinafter referred to as ‘LWUA’), which is required to be financially independent, had become a bottleneck in further management improvement. Another issue was that some WDs have an excessive number of staff. Based on these findings, the sustainability of the effects produced in this project is fair.

In light of the above, this project is evaluated to be satisfactory.

1. Project Description



Project Locations



Elevated Water Tank constructed in this Project
(San Marcelino Water District)

1.1 Background

In the Philippines, until the 1960s, water supply services were provided mainly by Local Government Units (hereinafter referred to as ‘LGUs’) but, in 1973, Presidential Decree 198 authorized the formation of WDs. The decree also established LWUA, a government-owned and controlled corporation, to provide WDs with technical and financial assistance and to serve as their regulator.

In 2004, Executive Order (hereinafter referred to as ‘EO’) 279 was approved to provide for comprehensive reform of the financing policies of the water supply sector and to streamline LWUA’s organization structure. The EO 279 mandates that LWUA focus its lending operation and assistance on less creditworthy water districts with the aim of raising them to creditworthy status and become independent.

However, a number of small WDs were still facing various problems such as a shortfall of financial resources, weaknesses in technical, institutional and managerial capabilities, insufficient supply, poor water quality, a high level of non-revenue water and so on. These WDs were also suffering from excessive debt incurred through initial investment, an inadequate capability in operation, and inadequacies in maintenance and rehabilitation of facilities, resulting in a decrease in the number of beneficiaries.

Under this circumstance, the Government of the Philippines requested the Government of Japan to implement the “Small Water Districts Improvement Project” to provide financial and technical assistance to small WDs and to improve the services and management of these WDs. This project was eventually implemented.

While this project was initially planned to be implemented for five years, the Terminal Evaluation, which was conducted toward the end of the project period, recommended an extension of the project by pointing out that although the WDs were applying the skills and knowledge acquired through the project, they needed to improve their method of practical application. Following this recommendation, JICA and LWUA agreed to extend the project, leading to an extension of one year and eight months.

1.2 Project Outline

Overall Goal	Water supply services and management of target water districts are improved.
Project Purpose	<ol style="list-style-type: none">1. Water supply services and management of selected water districts are improved.2. Guidelines for improvement of water supply services and financial viability of the target water districts (excluding 20 selected water districts)

Outputs ¹	Output 1	Profiles of target water districts are prepared and the water districts to be improved by the Project are selected.
	Output 2	Improvement Plans for services and financial viability of selected water districts are prepared, updated and implemented as scheduled.
	Output 3	Water supply facilities of selected water districts are improved.
	Output 4	Overall management capacity of target water district personnel is strengthened.
	Output 5	LWUA's technical support for target water districts is enhanced and this experience is disseminated to other water districts.
Total cost (Japanese Side)		1,028 million yen
Period of Cooperation		August, 2005 – March, 2012 (of which the extension period: August, 2010 – March, 2012)
Implementing Agency		Local Water Utilities Administration (LWUA)
Other Relevant Agencies / Organizations		Department of Public Works and Highways (August, 2005 – June, 2008 and October, 2011 – March, 2012) Department of Health (July, 2008 – September, 2011)
Supporting Agency / Organization in Japan		NJS Consultants Co., Ltd.
Related Projects		[ODA Loan] Provincial Cities Water Supply Project (1988 – 2007, implemented over five phases) Rural Water Supply Project (1977 – 2015, implemented over five phases until 2015 with a change of project name during this period) [Grant Aid] The Project for Improvement of Water Quality in Local Areas (2002 – 2005) and its Follow-Up Project (2010 – 2013) [Other Donors] The following and other donors have cooperated in various projects. World Bank: LGU Urban Water & Sanitation Project (1999 – 2006), etc. Asian Development Bank: Small Towns Water Supply Sector Project (1996 – 2005), etc. Germany: Provincial Towns Water Supply Project (2003 – 2006), etc.

¹ In analyzing Output – Project Purpose – Overall Goal, a PDM as of the Terminal Evaluation of the extended phase conducted in February 2012 was used. While it was revised from time to time to include the indicators from the originally-planned PDM, it basically remained as the change of expressions.

1.3 Outline of the Terminal Evaluation²

1.3.1 Achievement Status of Project Purpose at the time of the Terminal Evaluation

There were three indicators set to measure the achievement levels of the Project Purpose. Regarding the first indicator, to improve operation and financial indicators of the selected WDs, improvements were seen as a whole and the project effects were confirmed, while the data for some indicators were not sufficiently developed. Two other indicators were both judged to have been achieved.

1.3.2 Achievement Status of Overall Goal at the time of the Terminal Evaluation

In the Terminal Evaluation, it was anticipated that the staff of the WDs supported by this project would continue the skills fostered through seminars, workshops, OJT training etc. to obtain loans from financial institutions while applying the skills to further improve operational status. In this way, operational and financial indicators would be improved and the overall goal would be achieved.

1.3.3 Recommendations at the time of the Terminal Evaluation

The following four recommendations were made in the Terminal Evaluation of the extended phase of this project (based on the ‘Summary of Evaluation Result’ in the Terminal Evaluation).

- 1) In order to enhance project sustainability, LWUA was recommended to strengthen the existing consultation mechanism between WDs and LWUA through management advisors. Through this mechanism, the technology transfer process would be continued through the service of the management advisors free of charge.
- 2) LWUA was recommended to make efforts to establish cooperative relationships among small WDs.
- 3) To disseminate good practices, it was recommended that LWUA invite ‘improved’ WD managers and staff as lecturers to LWUA seminars, etc.
- 4) In line with LWUA’s social responsibility, it was recommended that LWUA study the possibility of providing loans with lower interest rates and longer periods of repayment to small WDs.

In addition to these four recommendations above, the following ‘lesson learned’ was proposed to LWUA according to the material provided by JICA³.

- ✓ To measure the project outputs objectively not only during the project but also after

² Terminal Evaluation studies were conducted before the end of the original period and the extended period. In this section, the outline of the Terminal Evaluation for the extended phase is described as it was conducted at the end of the entire project.

³ This ‘lesson learned’ was stated here as it could be regarded as a ‘recommendation’.

the project, it would be necessary to introduce a system to continuously monitor the operational and financial indicators of the target WDs.

2. Outline of the Evaluation Study

2.1 External Evaluator

Keisuke Nishikawa (Japan Economic Research Institute Inc.)

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: October, 2014 – September, 2015

Duration of the Field Study: January 8 – February 6, 2015 and April 5 – 18, 2015

2.3 Constraints during the Evaluation Study

The following constraints were experienced in making the evaluation judgment in this ex-post evaluation study.

- While a total of 60 WDs were assisted in this project, it was difficult to visit all the WDs scattered around the country due to time constraints in this ex-post evaluation study. A total of 14 WDs in the Central Luzon Region and Panay Island were visited. While this number is judged to have been sufficient in capturing the overall picture of the project, Mindanao Island could not be visited due to unstable security. In Mindanao, 12 WDs benefited from assistance in this project, but their operation and maintenance status could not be grasped apart from the operational and financial indicators submitted from WDs to LWUA.
- In examining operational and financial indicators, an attempt was made to collect data from 54 WDs which were supported during the initial project period (hereinafter referred to as 'original period'). However, there were some WDs that stopped operations, whose water supply services were transferred to LGUs, and that had not submitted data to LWUA. Therefore, in analyzing operational and financial indicators, the figures of the WDs without submission of data to LWUA were estimated by using the average rate of increase or by assuming that there were no improvements. Consequently, it is necessary to regard them as rough indications rather than accurate figures.

3. Results of the Evaluation (Overall Rating: B⁴)

3.1 Relevance (Rating: ③⁵)

3.1.1 Relevance to the Development Plan of the Philippines

⁴ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁵ ③: High, ②: Fair, ①: Low

In the ‘Medium-Term Philippine Development Plan 2004-2010’, the national development plan of the Philippines at the time of planning, a supply of safe potable water to 633 waterless towns⁶ outside Metro Manila was positioned as a priority. Also, in the Executive Order issued in 2004, the development of independent and sustainable WDs was an urgent task.

In the ‘Philippine Development Plan 2011-2016’, the national development plan at the time of project completion, water was seen as a basic need, the right of the people, and a component supporting economic growth. In relation to the water supply, there were priority strategies such as the implementation of priority programs in waterless areas, the development of a water source to meet the demand, and an expansion of the supply area.

At the water sector level, ‘The Philippine Water Supply Sector Roadmap (2nd Edition)’ was formulated in 2010 with one of the medium-term outputs being the development of adequate infrastructure particularly in the water supply areas with less than 50% service coverage.

In the Philippine water sector, LWUA is in charge of technical and financial assistance to WDs, while a number of organizations are involved as to be stated later. LWUA, as a corporation under the Department of Public Works and Highways (hereinafter referred to as ‘DPWH’), was transferred to the Department of Health by EO 738 issued in July 2008 and was again transferred back to DPWH by EO 62 in October 2011. Despite these changes in the supervising governmental department, their mission to provide financial, technical and organizational support and to set regulations on regional water suppliers nationwide has remained unchanged.

Based on the above, this project can be said to have been consistent with the development plans at the national and sector levels at the time of project planning and completion (2012) particularly in terms of the expansion of the water supply.

3.1.2 Relevance to the Development Needs of the Philippines

At the time of planning of this project, there was a gap between the objectives listed in the water sector policy and the reality under harsh fiscal situations in the Philippines. One of the reasons was that there were a number of water suppliers⁷ (WDs, LGUs and

⁶ Towns with less than 50 percent potable water supply coverage

⁷ Water District: Although shown as ‘district’, it is not an area but an entity. It is established in a town with a population of over 20,000 and is basically a water supplier based on an independent financial system. According to LWUA, there were 514 WDs supplying water to approximately 19 million people as of the end of 2013 (The Water Districts Directory 2003-2004 is the latest published data, and according to this, there were 447 WDs in the country supplying to approximately 15 million people.)

Local Government Unit: As of 2005, approximately 350 LGUs were supplying water to approximately 7 million people. (Source: Ex-ante Evaluation Report)

Community-Based Organizations: Local residents (communities) operate and manage point-water sources (wells) and communal water tap systems. In 2005, approximately 35 million people accessed this system. (Source: Ex-ante

Community-Based Organizations) under poor financial conditions, who were unable to contribute to the development of a water source and the expansion of supply areas and whose independence of water supply management was questioned. Out of these water suppliers, small WDs with less management independence generally had problems such as budget shortages, shortcomings in technical, organizational and management capabilities, insufficient water supply, poor water quality, and high non-revenue water rates. Due to these problems, this project focused particularly on support to small WDs experiencing more issues among all water suppliers, and selected 54 WDs as 'Target WDs', while the WDs with some improvements expected, out of which the WDs expected to become more financially independent through relatively small-scale additional financial inputs and capacity strengthening on water supply management, were selected as 'Selected WDs' to which some improvements of facilities were supported and for which improvements in management and service provision were planned. Therefore, this project can be said to have responded to the needs of small-scale WDs at the time of planning.

By implementing this project, many of the targeted WDs generally improved financial statuses and water supply services as will be stated later. However, they cannot be said to have reached a sufficient level and many of them need further improvements. Moreover, their funding sources were limited and it was difficult for them to obtain cues toward management improvement such as expansion of customer base through facility development.

At the national level and according to the estimate in a monitoring program jointly undertaken by WHO and UNICEF, households with an individual water supply comprised 43% of those in the Philippines in 2012 (61% in urban areas and 26% in rural areas), showing steady increases from 33% in 2000 and 38% in 2005⁸. In the progress report of the Millennium Development Goals (hereinafter referred to as 'MDGs'), it was additionally confirmed that a proportion of people with access to safe water⁹ increased to 84.4% in 2011 from 77.4% in 2004 (before the commencement of this project). However, as the proportion of all households connected to a water supply network is still less than half, and as approximately 15% of the nationals have no access to safe water, it can be said that there existed a need to improve the water supply services at the time of project completion.

3.1.3 Relevance to Japan's ODA Policy

This project was consistent with the ODA Charter and 'Poverty Reduction', a priority area

Evaluation Report)

⁸ Including a water supply to individual households by the WDs supported in this project

⁹ In the Philippines, access to potable water by households is defined as whether they are able to access improved potable water sources, which includes not only water connections to houses, but also communal taps, boreholes, protected wells and springs. Consequently, there is a gap in the rate between the WHO/UNICEF data and the report on MDGs.

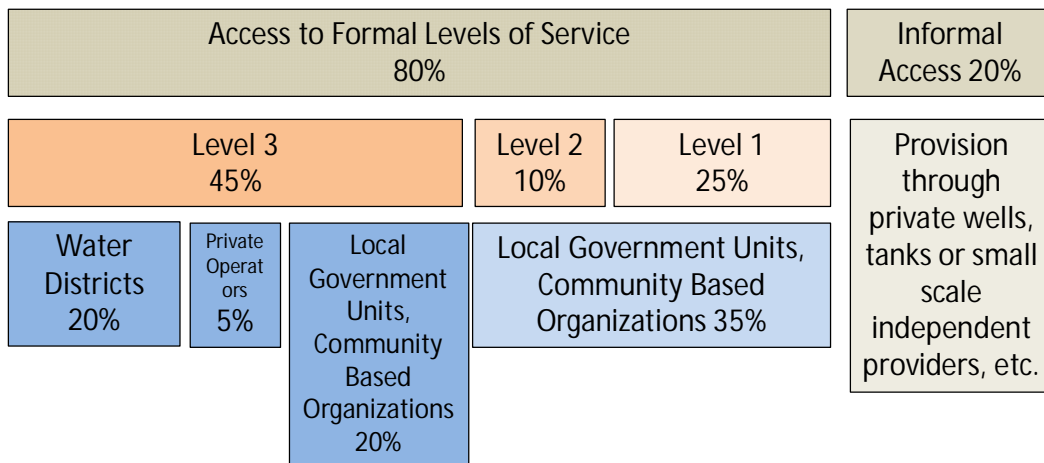
in the Medium-Term Policy on ODA as well as the priority area, ‘Correction of Disparities – Improvements in Basic Living Conditions (Improvement in Water Supply)’, specified in the Country Assistance Policy and the Country Program toward the Philippines. Therefore, the relevance to Japan’s ODA policy at the time of planning can be said to have been high.

This project was consistent with the development plan and needs of the Philippines both at the time of planning and completion, as well as Japan’s ODA policy at the time of planning. Therefore, the relevance of this project is high.

[Current Institutional Arrangement of the Philippine Water Sector and Its Challenges]

In the Philippines, a number of organizations are involved in water supply and its structure is said to be complicated. Therefore, this column describes LWUA’s position and the overview of the water sector (current situation and challenges) as follows.

According to ‘The Philippine Water Supply Sector Roadmap (2nd Edition)’ (2010), in the Philippines, while approximately 80% of households have formal access to water, the remaining 20% have only informal access and are unable to enjoy water supply services. Among the households with formal access, the ones with individual access to water remain at 45% of the total, and the proportion of WDs, supported by LWUA, is 20%, which is less than half of it (refer to the figure below).



Source: Prepared from ‘The Philippine Water Supply Sector Roadmap, 2nd Edition’, p.10

Note: Level 1 – Water is supplied through wells or springs in the community

Level 2 – Water is supplied through communal water taps

Level 3 – Water is supplied to individual households through water supply pipelines.

Figure: Access to Water

As shown in the figure, it can be observed that there are private operators, LGUs, community based organizations, and WDs as the organizations to provide water supply services, as well as houses with private supplies through wells, tanks, or purchases from small scale independent providers with informal access. In terms of institutional aspects, there are a number of governmental organizations in addition to LWUA and LGUs in the Philippine water sector which have the following roles.

Department of Environment and Natural Resources (DENR)

DENR promulgates regulations for the control of water and standards for water.

Department of the Interior and Local Government (DILG)

DILG provides capacity building support to LGUs (provision of training, coordination of master plan preparation, provision of information on financing, etc.).

Department of Finance (DOF) / Government Financing Institution (GFI)

DOF/GFI provides financing support for the water supply sector.

Department of Publics Works and Highways (DPWH)

DPWH provides technical support to LGUs, LWUA's supervising department.

National Economic and Development Authority (NEDA)

NEDA coordinates the preparation of the national development plan and investment programs.

National Water Resources Board (NWRB)

NWRB plans and coordinates the water sector policies of the Philippines. It also regulates and supervises water service providers.

Metropolitan Waterworks and Sewerage System (MWSS)

In charge of water supply and sewerage services in Metro Manila; It also serves as the regulatory agency in the capital region.

While a number of organizations are related to the water sector in this way, many institutional issues have been pointed out in that the activities are duplicated and the implementation of the policy is not well coordinated. Major problems stated in the Roadmap are summarized in the table below.

Table: Institutional Issues in the Water Supply Sector

Issue Area	Details
Institutional fragmentation	<ul style="list-style-type: none">• Weak and fragmented institutional framework• Uncoordinated sector planning and lack of monitoring
Inadequate support to rural water supplies	<ul style="list-style-type: none">• Inadequate support in technical design criteria, project financing, management, operation and maintenance• Limited capacity of LWUA or DILG, etc. to provide support services to water supply providers
Low tariff and cost-recovery level	<ul style="list-style-type: none">• Water utilities being unable to sustain operations and expand coverage• Different tariff levels, structures and setting methodologies across individual service providers
Low performance of water utilities	<ul style="list-style-type: none">• Unsatisfactory performance of water service providers
Weak and fragmented regulatory framework	<ul style="list-style-type: none">• Lack of transparency• Impedance of effective regulation due to the lack of sector information at the service provider
Sector investment and financing	<ul style="list-style-type: none">• Low public and private sector investment in the water supply sector• Limited access to financing for service expansion of small utilities

Lack of water supply and sanitation sector information	<ul style="list-style-type: none"> • General lack of sector information and continuous updating • Lack of reliable data and the absence of a systematic monitoring
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Source: Prepared from 'The Philippine Water Supply Sector Roadmap, 2nd Edition'

In response to these issues, the Roadmap sets goals to improve the institutional environment through an improvement of regulations and integrated sector planning, development of capacities of related parties, and strengthening of collaboration between various organizations. This project was designed to relieve 'inadequate support to rural water supplies', 'low performance of water utilities', and the 'lack of water supply and sanitation sector information' among the issues listed above. However, as stated in '3.4.1 Related Policy and Institutional Aspects for the Sustainability of Project Effects', an institutional fragmentation, where it is not clear which organization should take the leading role among various organizations involved and a possibility of continuation of LWUA's financial assistance to WDs are still regarded as issues.

3.2 Effectiveness and Impact¹⁰ (Rating:③)

3.2.1 Effectiveness

In this project, a team of experts was routinely involved with selected WDs, including areas from facility improvement to promoting management improvement. In other target WDs, this project mainly provided seminars, etc. and instructed on the preparation of improvement plans. Their effectiveness was evaluated by comprehensively examining the achievement levels of the indicators for Outputs 1 to 5 and Project Purpose at the time of project completion¹¹.

The indicators of the project were revised several times, particularly when the mid-term evaluation of the original period was conducted. However, all of them remained as slight word changes and no changes of indicators that would have affected the evaluation judgment were observed.

3.2.1.1 Project Output

1) Output 1: Profiles of target water districts are prepared and the water districts to be improved by the Project are selected.

Indicator 1: Profiles of target WDs prepared by January 2006.

Indicator 2: Selection criteria of WDs to be improved prepared by February 2006.

¹⁰ Sub-rating for Effectiveness is to be put together with consideration of Impact.

¹¹ Outputs 1 to 3 were related to the selection of WDs, preparation of improvement plans and improvement of water supply facilities which were not the contents concerning capacity development often used as outputs in technical cooperation projects though they had an aspect related to work procedures of facilities development, etc.

Indicator 3: Final list of selected WDs agreed upon by LWUA by March 2006.

After 60 small WDs with characteristics described in ‘3.1.2 Relevance to the Development Needs of the Philippines’ were selected from all over the country in August 2005, profiles of each WD were prepared and completed in February 2006. Out of these 60 WDs, 6 WDs which eventually did not express their intentions to participate, were excluded, while the other 54 WDs became the final target WDs. Out of these 54 WDs, 20 WDs were designated for improvement of facilities and were selected in accordance with the following absolute and relative criteria.

<Absolute Criteria>

- Small-scale and less creditworthy WDs
- WDs without experience or future plans of ODA assistance
- WDs without plans to split or merge

<Relative Criteria>

- Geographical weighting: Focus on the Visayas and Mindanao regions
- WDs with limited debt from LWUA, large population with a water supply, and a low debt level per served population

The WDs selected under these criteria were approved at the Joint Coordinating Committee for the project in May, 2006. In this project, an additional 10 WDs were also selected during the extended period with similar criteria and assistance being extended. 8 of these WDs were selected from the target WDs that had not been selected as WDs during the original period, and the remaining 2 WDs were selected from those of the Follow-Up Cooperation of the Grant Aid project, ‘The Project for Improvement of Water Quality in Local Areas’, being implemented at the same time in August 2010 with approval from LWUA.

The period allotted for achievement of the above indicators was delayed by one month respectively from to original plan. According to the team of experts and LWUA, this project commenced with the arrival of the expert team, which actually took place in August 2005 contrary to the expected date of July 2005, and no negative influences were seen in terms of generating the project effects. In this ex-post evaluation study, no influences from this slight delay were actually observed, and it can be judged that Output 1 was achieved as a result.

2) Output 2: Improvement Plans for services and financial viability of selected water districts are prepared, updated and implemented as scheduled.

Indicator 1: Improvement plans of the first 10 WDs agreed upon with WDs by July 2006 and of the second 10 WDs by July 2007.

The improvement plans for water supply management / services for selected WDs were prepared so that each WD received assistance from the expert team including meetings and follow-ups. As for the schedule, 20 WDs were divided into 2 groups and the improvement plans of the first 10 WDs were prepared by July 2006. The preparation of the improvement plans of the remaining 10 WDs was completed by July 2007. Also during the extended period, improvement plans were formulated for the additional 10 WDs (8 WDs in 2010, and 2 WDs in 2011).

Based on the above, it was heard that improvement plans were formulated for all selected WDs with a planned schedule during the original and extended periods.

In light of the above and regarding the achievement level of this project, Output 2 can be said to have been achieved as improvement plans were formulated and implemented as scheduled at the time of project completion.

3) Output 3: Water supply facilities of selected water districts are improved.

Indicator 1: Detailed design and tender documents for the facility improvement of the first 10 WDs prepared by March 2007 and the second 10 WDs prepared by March 2008.

Indicator 2: Facility improvement works of the first 10 WDs completed by March 2008 and of the second 10 WDs completed by March 2009.

For this output, 2-step indicators; detailed design and tender document preparation for facility improvement of selected WDs and the actual improvement works, had been set. The detailed design and the preparation of tender documents were prepared in May 2007 for the first 10 WDs and in May 2008 for the next 10 WDs. During the extended period, the tender documents and a detailed design of the rehabilitation works were prepared for Abuyog WD (a WD for the Follow-Up of the Grant Aid Project), one of the 10 WDs. With respect to facility improvement works, the improvement works of the water supply facilities were carried out as originally planned for the 20 selected WDs of the original period and Abuyog WD in the extended period¹². The design details were based on the

¹² Regarding the 20 selected WDs during the original period, works were completed in May 2008 for the first 10 WDs and in March 2009 for the next 10 WDs. Rehabilitation works of the existing pump station at Abuyog WD in the extended period commenced in November 2011 and completed in December 2011.

discussions among the parties concerned (LWUA, WDs, expert team, etc.) including community meetings. According to the Implementing Agency, they reflected the needs of the WDs. Also, project counterparts worked on the formulation of improvement plans under the instruction of the project experts and learned the procedures and knowledge. While some WDs had slight delays in schedule, it was heard that there were no major negative influences on the actual generating of project effects. Consequently, it can be judged that there were no problems.

Therefore, Output 3 can be said to have been achieved as expected.

4) Output 4: Overall management capacity of target water district personnel is strengthened.

Indicator 1: Knowledge on management and O/M of the personnel of target WDs are strengthened.

Indicator 2: Knowledge and skills on management and O/M of the personnel of selected WDs are strengthened.

Since the Indicators 1 and 2 for Output 4 are similar and there are many common activities, it was considered that no major differences between the outputs achieved in selected WDs and target WDs. The achievement levels of the generated outputs, ‘securing of funds by utilizing the experiences of this project’ and ‘strengthening of management capacities’, were jointly analyzed for both types of WDs.

[Securing of funds by utilizing the experiences of this project]

In this project, 12 training courses and 9 workshops/seminars were held during the original and extended periods.

The staff members from WDs who participated in them said that they could learn the formulation of improvement plans and the basics of financial management, facility operation, and maintenance and technical management. Consequently, 6 of the target WDs were able to obtain funds for water supply facility development through a special budget (Non-LWUA Initiated Fund, hereinafter referred to as ‘NLIF’) outside LWUA’s recurrent budget by the end of the project. Moreover, 6 WDs were approved to borrow LWUA’s ordinary loans (recurrent budget). In this way, there were cases observed where proposals were prepared based on what they had learned in this project. As for the selected WDs, 14 out of 20 WDs submitted proposals to NLIF and obtained funds by the end of the project which demonstrates that the effects of this project were generated at a high rate.

According to the Implementing Agency, the number of WDs that could receive financial assistance from government organizations including other funding sources between 2009 and 2012, during the cooperation period, was 41 out of 60 WDs supported in this project.

[Strengthening of management capacities]

As can be seen as actual effects in the above-mentioned improvement of fund securing, opinions of the participants of training programs, etc were heard that they could gain long-term perspective by learning the method and concepts of improvement plan formulation, which was very useful in proposing new requests. It was also heard that the training sessions in this project were held by the expert team and LWUA counterparts who vigorously visited each WD to implement OJT activities, and additionally held training, workshops, and seminars in the Visayas and Mindanao regions. The ingenuity to make it easier for neighboring WDs to participate in this way was a major factor and made it possible to cover a number of WDs.

Through the implementation of this project, staff members from selected WDs particularly commented that they could acquire the knowledge and skills toward further improvement of their operation and management capacities. Throughout the project period, the selected WDs not only became able to attend seminars but also regularly receive direct assistance from the expert team and apply what they learned through the seminars as their water supply facilities were improved in the project. In addition, it is worthwhile to note that this project introduced community meetings in selected WDs as a measure to improve marketing strategies.

Training on financial management, facility operation and maintenance, and technical management were conducted in both selected and target WDs, and the target WDs gradually improved their facilities through other funding sources. It was commented that there were no remarkable differences observed between selected and target WDs in terms of the knowledge and skills acquired, and it was inferred that there were no major gaps in the influences on operation.

Based on the above, Output 4 can be said to have been generally achieved as the improvement of capacities were observed in many WDs by the time of project completion.

5) Output 5: LWUA's technical support for target water districts is enhanced and this experience is disseminated to other water districts.

Indicator 1: Knowledge of LWUA counterpart personnel on the financial and technical condition and on water supply system improvement of target WDs are strengthened.

Indicator 2: Knowledge of LWUA on the effective improvement methodology for target WDs is enhanced.

With regard to the capacity development of LWUA counterparts working with the expert team in this project, it was planned that the expert team would transfer the technology and methodology needed for management improvement of WDs through activities such as the preparation of an improvement plan and facility improvement works. As a result of project implementation, the following effects were observed.

- This project provided an opportunity to obtain knowledge on hydraulic analysis and a practical approach on the formulation of comprehensive plans etc.
- Understandings of the current status of WDs were expanded as they visited target WDs frequently to have consultations and were involved in workshops and community meetings.
- They recognized that community meetings, preparation of comprehensive improvement plans, and the implementation of a participatory approach were effective for the improvement of the WDs' current statuses.

LWUA counterparts also commented that by attending project seminars and workshops, they could have more profound knowledge on the methodologies for the improvement of WDs (survey and profiling of WDs, formulation of selection criteria for WDs to be supported, provision of lectures and advice to WDs, support on the preparation of improvement plans, management of procurement work, inspection of construction works, financial analysis, etc.). Therefore, it was assumed that the planned items were implemented and the counterparts were able to gain a deeper knowledge.

LWUA has assigned one management advisor for every 10 – 15 WDs to provide them with management and technical advice routinely. The activities of this project were supported as a whole by the expert team and the counterparts of this project who frequently visited each WD in addition to these management advisors.

In light of the above, Output 5 is considered to have been generally achieved as the knowledge described as indicators had been improved as planned.

3.2.1.2 Achievement of Project Purpose

In this project, it was seen that the indicators of each Output had been improved as a

whole by the completion of the project. Coupled with LWUA's routine advice, the Project Purpose would be achieved with the implementation of project activities and the above Outputs achieved through them. Therefore, it is considered that there is a sufficient causal relationship between the Outputs and the Project Purpose.

Although the purpose of this project was initially 'Water supply services and management of selected water districts are improved, and the guidelines for improvement of water supply services and financial viability of the target water districts (in 40 water districts excluding selected water districts) are prepared'. However, it was eventually organized into two purposes as follows.

1. Water supply services and management of selected water districts are improved.

2. Guidelines for improvement of water supply services and financial viability of the target water districts (excluding 20 selected water districts) are prepared.

The levels of achievement (at the time of project completion) of these indicators, which were set to measure the achievement level of the Project Purpose, were as shown in Table 1. Regarding the first purpose, it was confirmed that the facility improvement in selected WDs played an extremely vital role in increasing the number of connections leading to an improvement in their financial conditions. The satisfaction level of water users with water supply services was also confirmed to have been generally high in the satisfaction survey conducted during the Terminal Evaluation of the extended period. Consequently, the first purpose can be said to have been achieved as a whole. Concerning the second purpose, the 'formulation of improvement plans' in target WDs, which was set as an indicator, it was confirmed to have been implemented in all target WDs¹³. During the extended period, the plans were also formulated for the 6 WDs covered in the Follow-Up of the Grant Aid Project. Therefore, the second purpose can also be said to have been achieved.

¹³ During the field survey, it was confirmed that the plan meant the formulation of financial improvement plan, differencing from the improvement plan in selected WDs.

Table 1: Achievement Level of Project Purpose

Purpose	Indicator	Actual Performance
Project Purpose	Indicator 1-1: Operation and financial indicators of all the selected WDs are improved by 2010.	number of active connections, number of connection per staff, collection efficiency rate, non-revenue water rate, operating cost rate, current ratio, principal-interest repayment ratio, earning ratio, etc. have been improved as a whole, and this project clearly contributed to the management and financial improvement of selected WDs.
	Indicator 1-2: Satisfaction of the selected WDs' water users is elevated by 2010.	A result was drawn that the water users in 19 out of 20 selected WDs, except Balatan WD, which stopped operations in 2010 ¹⁴ , were satisfied with the quality of water supply services.
	Indicator 2-1: Improvement plans of the target WDs (34 WDs) are prepared by March 2009.	All 34 WDs whose facilities were not improved, prepared respective improvement plans (financial section only). Moreover, support on the preparation of improvement plans was extended to 6 WDs assisted in the Follow-Up Cooperation of the Grant Aid Project.

Source: Prepared from the Terminal Evaluation Report of the extended period of this project and the responses from LWUA

In light of the above, as all the indicators were achieved, it can be judged that the Project Purpose was generally achieved.

It can be said that 5 Outputs of this project were seen to have been generally achieved, and the achievement of the Outputs realized the achievement of the Project Purpose. Therefore, the effectiveness of this project at the time of project completion is judged to be high.

3.2.2 Impact

3.2.2.1 Achievement of Overall Goal

Overall Goal: Water supply services and management of target water districts are improved.

As the Overall Goal of this project, it was expected in 34 target WDs which did not receive any facility improvement support that the indicated services and measures for management improvement would be put into concrete action by the completion of the project and the indicators would actually improve by 2015.

A design of this project was structured with a link in which improvement plans were

¹⁴ While Balatan WD resumed operation in October 2012 after halting water supply services from March 2010 till September 2012, the volume of water from the drilled well was not sufficient (especially during the summer) and the water supply has been very unstable. Their financial conditions are not sound. In 2014, a plan to take water in from the Balatan River to supply water was approved, but LWUA was looking for a funding source at the time of ex-post evaluation.

formulated, and operational and financial indicators would then improve leading to the improvement of management in the WDs supported in this project. As this flow can be judged to have rationality and coherence in the actual implementation of the project, there is logical consistency between the Project Purpose and the Overall Goal.

Table 2: Achievement Level of Overall Goal

Goal	Indicator	Actual Performance
Overall Goal	Operation and financial indicators of all target WDs are improved by 2015.	As of 2013, operational and financial indicators of target WDs were improving as a whole. The creditworthiness of those WDs was also generally improving, but creditworthiness of many WDs was still low.

Source: Analyzed and Judged Based on the Information Provided by LWUA

In the ex-post evaluation study, operational and financial indicator figures for 2005 and 2011-2013 of 54 WDs, which were supported from 2005 in this project, were obtained. The operational and financial indicators of 6 WDs assisted in the Follow-Up Cooperation of the Grant Aid Project could be collected for 2011 – 2013 only. Therefore, the data from 54 WDs, supported from the original period, were used in making comparisons to the planning stage.

The change rates of major indicators are shown in Table 3.

Table 3: Changes in Operational and Financial Indicators

		Operational Indicator						Financial Indicator	
		No. of active connection	Served population	Service coverage	Collection efficiency	No. of connection per staff	Production volume	Non-revenue water rate	Total Revenue
Selected WDs	2005→2011	147%	145%	129%	106%	124%	92%	97%	203%
	2005→2013	164%	168%	144%	107%	127%	123%	119%	252%
	2011→2013	112%	116%	112%	100%	102%	134%	123%	124%
Target WDs	2005→2011	134%	151%	121%	103%	110%	120%	86%	227%
	2005→2013	153%	169%	130%	101%	126%	125%	78%	274%
	2011→2013	114%	112%	108%	99%	114%	105%	91%	121%

Source: Calculated from the Information Provided by LWUA

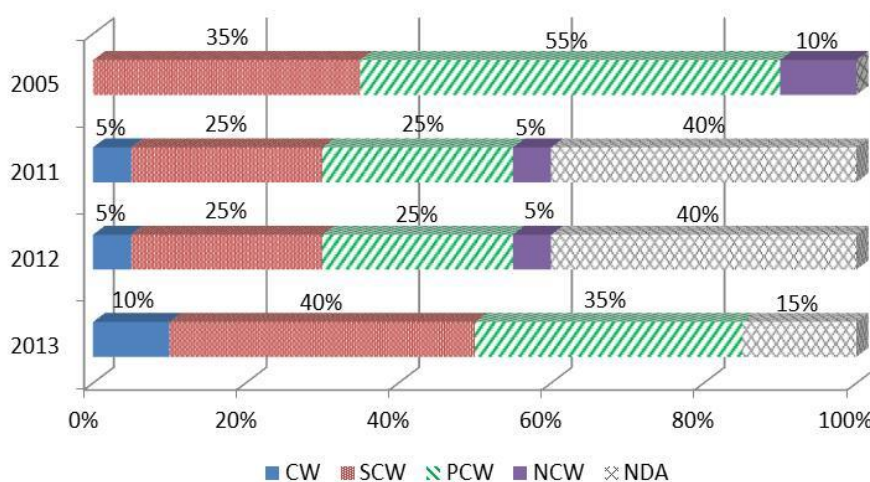
Note 1: Served population: Number of active connection x Household size

Service coverage: WD served population / Total population of the area covered by WD

Note 2: The WDs without submission of some data to LWUA were calculated as 'no improvement' or by using 'average values of the adjacent 2 years'. Therefore, the rate of changes is not necessarily accurate and indicative. 2 WDs out of target WDs were excluded from calculation as they stopped operations or were merged with an LGU after this project commenced.

Regarding the changes in operational and financial indicators, a substantial improvement can be observed from the above table regardless of selected or target WDs. The number of active connections, for example increased by an average of 47% in selected WDs from 2005 (at the time of planning) to 2011 (at the time of completion) and by 64% from 2005 to 2013 (at the time of ex-post evaluation). The data shows that the number of connections increased by 12% after project completion. The same applies to target WDs showing an increase of 34% from 2005 to 2011 and 53% from 2005 to 2013. LWUA has set the target number of connections per staff member at more than 120 in small WDs, with the selected WDs currently having 105 and the target WDs with current number of 112 in 2013. Although they have not reached the target, it was observed that they have both improved.

The only indicator with a concern is the Non-revenue water rate of selected WDs. While it decreased (=improved) slightly from 2005 to 2011, it increased (=worsened) by 23% from 2011 to 2013. However, the cause was not clear as it was not captured by LWUA¹⁵. Also, while the service coverage rate has been improving as a whole, there are a number of WDs with one-digit actual rates, with the highest WD being 56% (in 2013), which shows a lot of room yet for improvement .

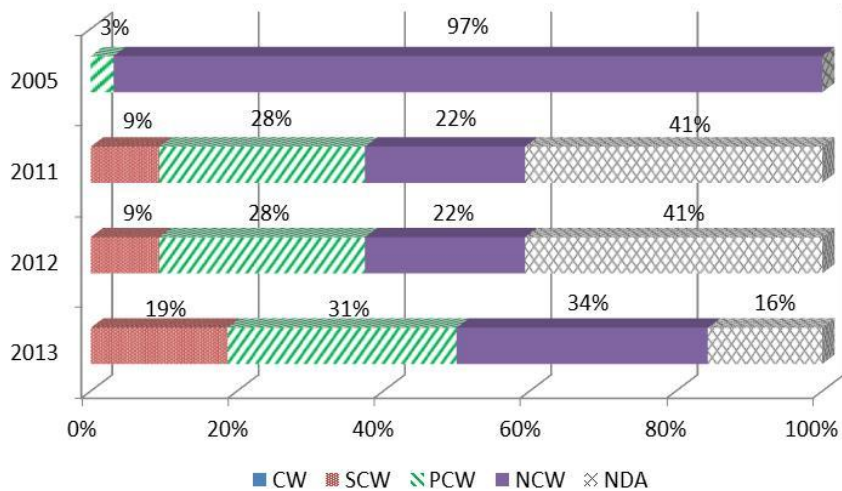


Source: Prepared Based on the Information Provided by LWUA

Note: CW (Creditworthy), SCW (Semi-creditworthy), PCW (Pre-creditworthy), NCW (Non-creditworthy), NDA (No data (unable to analyze))

Figure 1: Credit Rating of Selected Water Districts

¹⁵ According to the Implementing Agency, there were WDs with problems of having no water meters installed so that accurate non-revenue water rates could not be calculated in any way.



Source: Prepared Based on the Information Provided by LWUA

Note: CW (Creditworthy), SCW (Semi-creditworthy), PCW (Pre-creditworthy), NCW (Non-creditworthy), NDA (No data (unable to analyze))

Figure 2: Credit Rating of Target Water Districts

The financial indicator, as seen in Table 3, has significantly improved on average in both selected and target WDs, and the revenue has continued to increase even after project completion. LWUA analyzes each WD’s financial condition and classifies whether WDs have sufficient creditworthiness for LWUA loans into 4 categories, from a higher category to a lower one as ‘CW (Creditworthy)’, ‘SCW (Semi-Creditworthy)’, ‘PCW (Pre-Creditworthy)’, and ‘NCW (Non-Creditworthy)’. Figures 1 and 2 indicate the creditworthiness of selected and target WDs of this project, and among selected WDs in 2005, the WDs classified as SCW comprised 35% of the total, PCW 55%, and NCW 10%. While it is difficult to interpret a subsequent tendency because of years when up to 40% of WDs recorded ‘No Data (NDA)’, WDs with a CW rating started to emerge with the implementation of this project, and WDs with a creditworthiness of CW or SCW reached half of all selected WDs in 2013. The same tendency is true with target WDs; while 97% of them were NCW in 2005, 19% of them were classified as SCW, and 31% as PCW in 2013, demonstrating that the overall financial conditions have improved.

In this way, the Overall Goal was generally achieved with a number of WDs improving their operational and financial indicators not only during the project implementation but also after the implementation.

However, while general improvement can be seen, it can be said that further development and management improvement efforts are necessary since, for example, there were a number of WDs stagnant at a one-digit service coverage rate, as mentioned

above, and more than half of the WDs were still at a rating lower than PCW without sufficient ability to borrow. It was occasionally observed during the site visit of the ex-post evaluation that, among the WDs without improvements in operational and financial situations, some had their management affected by external factors other than their water supply services, such as damages to distribution networks and transmission pipes by a typhoon and the collapse of a bridge where main transmission pipes were placed. There were also some cases where LWUA's management advisors were involved in the actual management of some WDs not showing any improvement due to poor management functions.

The operational and financial data of the WDs covered in this project were collected and sorted by LWUA¹⁶, but LWUA was not capturing the situation on whether the improvement plans formulated during the project were utilized and revised after project completion and the overall picture was not clear. As far as the site survey was conducted, there were various selected WDs, from those not utilizing and revising the plan at all to those reviewing and utilizing it.

¹⁶ It was confirmed that they were holding regular meetings with the JICA Philippine Office and keeping operational and financial indicators of the targeted 60 WDs on a spreadsheet.

[Beneficiary Survey Results on Water Supply Services]

In the ex-post evaluation study, interview surveys on water supply services were conducted with a total of 242 residents in 9 WDs in the Central Luzon Region and Panay Island (in the Visayas), where site surveys were carried out, out of a total of 60 WDs supported in this project¹⁷. The main results were as shown below.

Q. Do you think that the stability of the water supply has improved as a result of the project?

Yes	No
83.8%	16.2%

Q. Do you think that the quality of service has improved as a result of the project?

Improved	Same	Worse
53.3%	40.5%	6.2%

Q. Do you think that the water pressure has improved as a result of the project?

Improved	Same	Worse
64.5%	31.0%	4.5%

Q. Do you see any changes to your lifestyle as a result of the project?

Improved	Same	Worse
64.6%	30.8%	4.6%

Q. Are you generally satisfied with the water supply services?

Satisfied	Not satisfied
84.6%	15.4%

As shown above, favorable evaluation was observed regarding the improvement of water supply services by implementing this project. Three quarters of the respondents who chose 'Same' regarding the improvement of water quality and pressure commented that there had been no problems with the water quality or pressure already before the implementation of the project. Including such respondents, it is considered that a number of beneficiaries are satisfied with the water supply services as shown in their responses on the satisfaction level. Common responses provided as examples of a change in lifestyle were that they no longer needed to fetch water or that cooking and washing became easier.

¹⁷ 242 respondents from a total of 45,303 beneficiaries. 7 WDs in Central Luzon (142 in total) and 2 WDs in Panay Island (100 in total). The average number of members in one family was 4.90 and 3.3% of household expenditures were directed to water charges.

3.2.2.2 Other Impacts

(1) Impact on the Natural Environment

According to the Implementing Agency, noise and traffic congestion associated with the works occurred during the implementation of facility improvement works, but there were no cases in which they became major problems. In fact, no negative effects or complaints, etc. due to the works were seen during or after the project implementation. Therefore, it is assumed that there were no problems.

With regard to water supply, the contribution to the increase in the proportion of the population receiving safe water with the realization of stable supply¹⁸ is considered a positive impact.

(2) Resettlement and Land Acquisition

According to the Implementing Agency, facilities such as water reservoirs and pump stations were constructed for selected WDs. According to the Implementing Agency, no cases of land acquisition and resident resettlement associated with them occurred. Therefore, there seems to have been no problems. In the beneficiary survey, no respondents commented that resettlement or land acquisition cases took place.

As stated above, the logic of this project is considered to have been coherent as it was structured in a way that the improvement of services and management in selected WDs would improve and the measures toward the improvement of target WDs would be indicated, (Project Purpose: at the time of completion), leading to the improvement of services and management of target WDs (Overall Goal). While the achievement of the Project Purpose was judged at the time of completion, further potential improvements through the period of the ex-post evaluation were checked mainly with its operational and financial indicators. Although there were variations among the WDs, it was judged that they were moving toward the achievement of the Overall Goal as a whole.

However, there is no roadmap drawn on how WDs lacking positive improvement of indicators and borrowing capacity will be able to become independent, and this is an area to be improved. It was thought important to strengthen efforts in enhancing the operational and financial indicators of the WDs lacking the aforementioned improvement. In addition, improvement plans need to be revised regularly, and it is essential to ensure that the WDs not submitting data, do so, so that their management situations will be adequately understood.

No particular negative impact on the natural environment, resettlement, or land acquisition

¹⁸ While no quantitative data could be obtained, treatment of discharged water (wastewater), outside of this project scope, was not implemented properly with just ground penetration in some areas. It is therefore necessary to develop such facilities in the future.

has occurred and it is considered that there are no problems.

As for the effectiveness and impact as a whole, the achievement of the Outputs leads to the achievement of the Project Purpose. Also, improvements of various operational and financial indicators in many WDs are expected to lead to the achievement of the Overall Goal in a desirable manner. Therefore, the effectiveness and impact of this project is high.

3.3 Efficiency (Rating:②)

3.3.1 Inputs

In this project, the following components were applied to carry out various activities.

Table 4: Inputs into the Project

Inputs	Plan	Actual (at completion)
(1) Dispatch of Experts	6 long-term experts	4 long-term experts (2 in the original period, 2 in the extended period) 9 short-term experts (7 in the original period, 2 in the extended period)
(2) Training in Japan	Not specified	5 (4 in the original period, 1 in the extended period) * Not specific to this project. JICA's group training program was utilized.
(3) Provision of Equipment	Simplified water quality analyzer, Billing and collection-related equipment, office equipment for project management, etc.	Simplified water quality analyzer, Billing and collection-related equipment, office equipment for project management, etc.
(4) Local Consultants ¹⁹	Not specified	12 (10 in the original period, 2 in the extended period)
(5) Local Contractors ²⁰	Not specified	4 (3 in the original period, 1 in the extended period)
(6) Facilities Improvement Support	Facilities improvement support: 200 million yen	Facilities improvement cost: approximately 234 million yen (93.691 million Pesos) (Approx. 230 million yen (91.4 million Pesos) in the original period and approx. 4 million yen (2.291 million Pesos) in the extended period)
(7) Others	Training and workshop costs in the Philippines	Training and workshop costs in the Philippines

¹⁹ Contracted out to effect a detailed design and manage construction of the facilities of selected water districts

²⁰ Contracted out to construct water supply facilities in selected water districts

		(The cost could not be obtained)
Total Cooperation Cost from Japan	Approximately 700 million yen	1,028 million yen
Input from the Philippine Government	Counterpart personnel cost, Travel expenses, Water quality test equipment, Project office, Land necessary for facility improvement of selected water districts	Original period: 4.5 million Pesos Extended period: 1.8 million Pesos Utilities and communications expenses at the Project office, Travel expenses, Purchase of billing and collection system, training (personnel cost not included)

3.3.1.1 Elements of Inputs

The inputs of this project are as shown in Table 4. Since the project period was extended as to be stated later, actual inputs exceeded the original plan. It was judged at the end of the original period that there were some WDs with room to improve on the method of utilizing the skills and knowledge acquired, as to be stated later. Therefore, some support such as for the formulation of improvement plans were added for some WDs. During the extended period, 6 WDs without sufficient effectiveness generated in the Grant Aid Project, implemented in the past, were also added and supported in terms of operation and management as well as the maintenance of treatment plants. These inputs are considered to have been adequate for the improvement of operation and maintenance in those WDs.

According to LWUA and at the time of ex-post evaluation, comments were obtained on the inputs from the Philippine side for the generation of project effects stating that the number of counterparts assigned to cover all 20 WDs during the original period was adequate.

3.3.1.2 Project Cost

The actual project cost including the extended period was 1,028 million yen, exceeding the planned project cost of approximately 700 million yen (146%). The actual expenses at the completion of the original period were not available as the original period ended in July 2010 of the financial year and the expenses were not divided and sorted out.

The significant increase in the project cost was mainly due to the support for the 10 WDs by extending the project period, as to be stated later, during which the cooperation with some target WDs from the original period and WDs supported in the Grant Aid Project was added.

3.3.1.3 Period of Cooperation

The cooperation period of this project was planned to be for 5 years from July 2005 to June 2010, and the original period was 5 years from August 2005 to July 2010. As described in 'Effectiveness Output 1', there were no negative influences due to the change of period.

In the Terminal Evaluation of the original period (March 2010), it was judged that while the Project Purpose was achieved as a whole, there were some WDs with some issues in terms of sustainability, that is, there were some WDs with room to improve or the method of utilizing the skills and knowledge acquired through the project. Therefore, the project period was extended by 1 year and 8 months. As a result, this project was extended until March 2012. As this extension has an aspect of making additional inputs to enhance the sustainability of the effects generated in the project, the actual project period exceeded the originally expected plan (133% of the planned period).

In consideration of LWUA's resources, the size and inputs of the project seem to have been adequate. However, as it was judged at the end of the original period that there was room to improve on the method of utilizing the skills and knowledge acquired, the project was decided to be extended. As a consequence, the project cost was 146% of the original plan and the project period was 133% of the original plan. As both of them exceeded the plan (less than 150%), the efficiency is judged to be fair.

3.4 Sustainability (Rating:②)

3.4.1 Related Policy and Institutional Aspects for the Sustainability of Project Effects

The Government of the Philippines was giving a priority to the water sector, particularly the access to potable water for rural households in the 'Philippine Development Plan 2011-2016', with a target to supply potable water to 86% of the households by 2016. At the sector level, 'The Philippine Water Supply Sector Roadmap (2nd Edition)' was formulated in 2010 with one of the medium-term outcomes set to develop adequate infrastructure particularly in the water supply areas where the service coverage rate is less than 50%. In this way, it can be observed that the importance of water supply has remained high in national and sector level policies during the ex-post evaluation or thereupon.

As already stated, a number of government organizations are involved in the water sector; however, it is supposed that no integrated water supply services are provided as there is an issue of which organization should take a leading role not being clear enough. This project, with a framework in which LWUA supports WDs, does not seem to offer LWUA, which is supposed to be self-financed while prohibited from operating a deficit, any incentive to lend

to small WDs with management concerns and take risks by itself except when subsidies, etc. for financing to WDs can be obtained from the government. At the time of ex-post evaluation, LWUA was dependent on the budget from the central government as well as donors for funds to be financed to WDs for investment in facility expansion. On the other hand, while it was indicated in this study that the rehabilitation and expansion of facilities as well as the improvement of management capacities in WDs were an effective measure for management improvement, many WDs are in circumstances where borrowing of funds through LWUA is not an easy task. In this way, continuation of financial assistance from LWUA to WDs is considered to have certain institutional challenges.

3.4.2 Organizational Aspects of the Implementing Agency for the Sustainability of Project Effects

Although LWUA was transferred from DPWH to the Department of Health by EO 738 issued on July 23, 2008, it became an organization under DPWH again by EO 62 issued on October 26, 2011. However, a mission to provide financial, technical and organizational assistance to WDs throughout the country in addition to setting regulations has not changed. LWUA had 393 staff members as of the end of 2014, and the Deputy Administrator (in charge of area operations) is responsible for the monitoring of LWUA-funded projects in WDs. The WDs Development Unit (a total of 3 units in Luzon, Bicol & Visayas and Mindanao) is in charge of the organizational development of WDs, and management advisors belong to this unit.

It is perceived that small WDs have extremely fragile organizational structures, especially in terms of human resources, and LWUA's management advisors are playing an important role in looking after 10 to 15 WDs to provide advice on their management. A certain level of structure to support WDs has been developed and management advisors visit each WD once every one to several months with the cost borne by LWUA and depending on the seriousness of the issues such WDs may have. However, many of the WDs visited during the ex-post evaluation study revealed that management advisors' visits were not frequent enough.

The organizational structures of each WD varied depending on the organizational size, but they have a General Manager under the Board of Directors and staff members such as accountants and water technicians are allocated. An organization consisting of at least several posts will be necessary to operate WDs. As seen in '3.2.2.1 Achievement of Overall Goal', while the number of service connections per staff is approaching 120, set as a target by LWUA, it was 105 in selected WDs and 112 in target WDs, and the number of staff tended to be excessive in the case of very small WDs. Out of the WDs supported in this project, the WDs with less than 90 connections per staff (three quarters of the target) were

25% of selected WDs and 29% of target WDs (in 2013).

Based on the above, while there were no major problems in terms of implementation structure as a whole, some issues were observed in that more frequent visits by LWUA's management advisors are desirable and some WDs need to increase the number of connections per staff.

3.4.3 Technical Aspects of the Implementing Agency for the Sustainability of Project Effects

LWUA has a section in charge of training and has been implementing various training sessions for technical staff members in the fields of planning, design, construction, operation and maintenance. Also, manuals on feasibility studies, detailed design procedures, and water supply construction, etc. were developed and utilized. When a project funded by LWUA is implemented, WDs are able to receive technical assistance from LWUA during various design and construction supervision stages on a chargeable basis.

In terms of the relationship between the effectiveness and sustainability of this project, the Terminal Evaluation of this project during its extension phase considered that the technical skills and knowledge transferred from Japanese experts to LWUA counterparts would be entrenched as the counterparts had high motivation to strengthen skills and knowledge even after the completion of this project.

When checked with LWUA during the ex-post evaluation, there were opportunities for some counterparts particularly in the water quality area to become lecturers for training, etc. though there were no such records documented. The management advisors who took part in the seminars of this project were also providing advice in their routines by utilizing the knowledge acquired through this project²¹. However, no programs were established at LWUA by directly or systematically utilizing the skills and knowledge obtained in this project, and it could not be confirmed that an overall improvement had been achieved by sharing the outcomes of the project within the organization. Moreover, no efforts were seen in particular to compile individual information of WDs, including the WDs covered under this project, for conducting a comprehensive analysis and information sharing with an intention to resolve their issues.

The facilities improved under the support of this project were confirmed to have been managed and utilized generally in good condition. Out of 5 selected WDs visited in the ex-post evaluation, 4 of them had no problems in operation and maintenance, but one of them had a pump damaged when a typhoon hit the WD making it unusable. However, a substitute pump was installed to continue the water supply.

²¹ As an example, they were instructing each WD how to construct and operate the tariff collection database introduced in this project.

Based on the above, an organization-wide effort is expected as a system to share the direct outcomes of this project was not established though LWUA had a certain level of techniques needed to instruct WDs.

3.4.4 Financial Aspects of the Implementing Agency for the Sustainability of Project Effects

Since LWUA's technical assistance described in '3.4.3 Technical Aspects of the Implementing Agency for the Sustainability of Project Effects' has to be paid by each WD, the financial situation on LWUA's lending is analyzed here as the financial analysis necessary to sustain the effects generated in this project²².

As shown in Table 5, most of LWUA's revenue comes from the interest earned through lending to WDs²³, and the overall balance is often in surplus. A deficit was recorded in 2011 due to a temporary increase in operational expenses, but it came back to a surplus from the following year. However, the interest income is gradually decreasing and the amount of loans has been decreasing in recent years as shown in Table 6. The provision of NLIF contributed largely to the higher amount of loans to WDs in 2009 and 2010, and it has become difficult to lend stably to WDs after the lending through NLIF came to an end. LWUA is meeting various expenses with the interest income from the loans repaid by WDs, and the principal is used to relend to WDs.

Table 5: LWUA's Actual Income and Expenses

(Unit: thousand Pesos)

	2010	2011	2012	2013
Interest Income	1,487,000	1,148,204	1,032,733	873,845
Service Income	202,463	30,895	29,988	45,410
Fines and Penalties	14,676	20,998	26,838	47,083
Miscellaneous	16,088	35,569	17,368	21,816
Gross Income	1,720,227	1,235,665	1,106,927	988,154
Total Expenses	1,388,486	2,467,602	807,092	899,842
Net Income from Operations	331,742	-1,231,937	299,835	88,313
Other Income	3,423,972	-129,520	645,005	66,439
Net Income before tax	335,166	-1,361,457	944,840	154,752
Income Tax	98,946	-409,321	77,103	27,393
Net Profit	236,220	-952,135	867,737	127,359

Source: Data Provided by LWUA

²² LWUA needs a transport budget for management advisors to visit WDs. While no detailed information was obtained regarding the securing of a training budget for each WD, it is estimated that the WDs with increasing revenue are able to secure a budget as seen in the analysis of financial status in '3.2.2.1 Achievement of Overall Goal', whereas comments were heard from indebted WDs that it was difficult to secure budget.

²³ When LWUA provides technical assistance, LWUA charges 9% of the basic construction cost plus contingencies in the case of feasibility studies or designing and 4% in the case of construction supervision to WDs, as technical fees.

Table 6: Amount of Loans from LWUA to Water Districts

(Unit: million Pesos)

	2009	2010	2011	2012
Loan to Water Districts	1,109	1,434	708	595

Source: Data Provided by LWUA

Lending is conducted based on the aforementioned creditworthiness category of WDs (4 ranks), set by LWUA and the proposed project details, and the focus of LWUA is to lend to WDs classified as SCW, PCW and NCW as creditworthy WDs can access other financial institutions for their loan needs. The lending criteria are based on a judgement of whether the project is feasible (repayable), and the tariff ceiling is set within 5% of the average income of households belonging to the low-income group in that area. A restriction is also imposed that no tariff hikes of over 60% can be made from the previous tariff structure (normally up to once a year) ²⁴.

With respect to the financial situations of the WDs targeted in this project, revenues are increasing as seen in '3.2.2.1 Achievement of Overall Goal' and their creditworthiness is also improving as a whole. However, while sufficient analysis could not be done due to a lack of data, there were many WDs with a substantial amount of debt from past borrowings from LWUA, with many cases of past due repayment. In addition, as LWUA is required to be ensured of profitability in lending, it is not easy for small WDs applying for loans to pass the loan assessment and some WDs among those visited in the site survey were not approved for loans though they wanted them. Therefore, some WDs will be required under the current situation to improve operational indicators by rehabilitating and expanding facilities using other funding sources so that their financial status will improve and an adequate financial standing to receive loans will be established.

Although water supply is positioned as an important priority in the policy, a variety of related organizations and water suppliers exist in the sector, and integrated water supply services do not seem to be deployed. In terms of organizational aspect, LWUA has the role of providing WDs with financial and technical assistance, and management advisors are assigned to instruct WDs; but, an issue was seen in that the number of staff members against the number of service connections in small WDs tends to be excessive. Financially, while small WDs still need additional loans, LWUA has a dilemma of not being able to lend easily to the small WDs with a large amount of outstanding loans and low credit ratings as it is required to ensure profitability.

²⁴ Water tariffs differed from one WD to another, but the authority to set them is practically with LWUA as it has receivables and WDs cannot decide them freely.

The small WDs supported in this project were in various conditions; while some WDs were steadily increasing their revenues and had higher credit ratings, other WDs were not improving and in a state of inability to receive loans.

In light of the above, some minor problems have been observed in terms of the policy background, organizational and financial aspects in this project. Therefore, the sustainability of the project effects is fair.

4. Conclusion, Lesson Learned and Recommendations

4.1 Conclusion

This project was implemented to provide financial and technical assistance to small water districts (hereinafter referred to as ‘WD’) with an aim to improve the services and management of these WDs. The objective of this project was consistent with the development plan and needs of the Philippines both at the time of planning and ex-post evaluation, as well as the priority areas of Japan’s ODA policy at the time of planning. Therefore, the relevance of this project is high. The effectiveness at the time of project completion is also high with general achievement of the five outputs expected, leading to the achievement of the project purpose through the implementation of this project. Operational and financial indicators of the WDs have continued to improve on average after the completion of the project meaning that the overall goal has generally been achieved. In addition, this project has not caused any negative environmental or social impacts, and an impact is considered to have been generated. Therefore, the effectiveness and impact of this project can be said to be high. With regard to project implementation, the efficiency was judged to be fair as the project cost exceeded the planned amount due to an extension of the cooperation period. Regarding sustainability, while the operational and financial statuses of the WDs have improved as a whole, it was observed that difficulties to receive low-interest loans from the Local Water Utilities Administration (hereinafter referred to as ‘LWUA’), which is required to be financially independent, had become a bottleneck in further management improvement. Another issue was that some WDs have an excessive number of staff. Based on these findings, the sustainability of the effects produced in this project is fair.

In light of the above, this project is evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendation to the Implementing Agency

Further Management Improvement of WDs through Facilities Improvement Support and Private Sector Entry

A number of WDs without freedom to set their water tariffs were facing the challenge of not being able to expand their customer base as they could not develop water sources and

distribution networks, all of which was caused by a lack of borrowing capacity. Some of the selected WDs improved their management due to the facilities improvement support becoming a big cue for them. Therefore, it is considered to be a beneficial viewpoint to create a cue for improvement of the WDs with a high possibility of improvement by special lending at low interest rates using a governmental special budget or the donors' integrated fund so that the facilities will be developed. In addition, it would be a strategy to develop facilities by promoting the entry of the private sector into operations. By doing so, it will become possible to gradually increase the WDs to a higher creditworthiness, in other words, encouraging their independence.

Monitoring of Management / Organizing and Accumulation of Information as Best Practice

While LWUA's management advisors are providing advice on management and maintenance of each WD, LWUA as a whole was not compiling individual information of each WD to conduct a comprehensive analysis to resolve issues. Accumulation of information of the WDs with good management as best practices will be useful for information sharing among management advisors and resolution of issues in poorly managed WDs. Therefore, it is considered to be desirable to implement these measures.

4.2.2 Recommendations to JICA

None

4.3 Lessons Learned

Implementation by Groups of Water Supply Facilities Improvement

The 20 selected WDs where water supply facilities were developed in this project were divided into 10 WDs each, and improvement works were carried out at different times. This measure was taken by confirming the limitation of human resources in the number of experts and the counterpart organization, and the works were supported in sequence at a feasible size, which consequently made it possible to give sufficient instruction to all the WDs, from design through completion. Therefore, when similar works are implemented, it will be important from the perspective of generating project effects that a feasible schedule be secured by dividing the whole schedule into phases.

Making a Cue to Better Management by Facilities Improvement

Many of the WDs needed to increase revenues to improve borrowing capacity, but as shown in '4.2.1 Recommendation to the Implementing Agency', facilities of selected WDs were developed through the Grant Aid in this project which enabled many WDs to expand their

customer bases and improve financial conditions. Among the target WDs which did not receive facilities improvement, some were finding it difficult to expand their facilities through new loans due to the large amount of past debt though the revenues were gradually increasing. Such WDs have not been able to expand their water supply service areas. In this project, as facilities improvement support paved the way to WDs' self-reliance, it is considered to be an effective strategy to examine the possibility of using external funds and to implement facilities development as well.

Monitoring of Project Effects through Regular Discussions

It is essential for LWUA to keep providing appropriate instructions and take necessary measures each time so that the WDs supported in this project practically apply the knowledge acquired. For this purpose, it is thought to have been effective that JICA and LWUA held regular discussions on the operational and financial conditions of the WDs supported and that they monitored the project's effects at least until the time of ex-post evaluation to understand the situations. It is desirable to implement and continue similar monitoring activities in similar projects.

(End)