Internal Ex-Post Evaluation for Technical Cooperation Project

conducted by Nigeria Office: January 2026

Country Name	**Federal Capital Territory Reduction of Non-Revenue Water Project**
Federal Republic of Nigeria	

I. Project Outline

<table>
<tr><td>Background</td><td colspan="3">Rapid population growth in urban areas of Nigeria resulted in inability of water supply services to meet the demand. In particular, the capital city of Abuja, the Federal Capital Territory, experienced rapid population growth due to the influx of people seeking employment opportunities associated with the economic growth. As a result, the percentage of people who use the improved water sources in the Federal Capital Territory was 41% in 2011, which was far below the national average for urban areas (74%). The Federal Capital Territory Water Board (FCTWB), a responsible body for water supply under the Federal Capital Territory Administration (FCTA), recognized the urgent needs for taking countermeasures, such as expansion of the water supply area, construction of a new water treatment plant, and so on.
FCTWB also faced another problem of high non-revenue water (NRW) rate, which was estimated to be around 40%. Although its strategic plan (2011-2015) set a goal of lowering the rate to 25% by 2015, the lack of technology and planning knowledge limited to take effective measures for reduction of NRW.</td></tr>
<tr><td rowspan="2">Objectives of the Project</td><td colspan="3">Through, (i) monitoring and estimating level of NRW, (ii) establishing methods/operational procedures for effective NRW reduction through implementing pilot projects, and (iii) developing a medium-term strategic plan, the project aims at strengthening FCTWB's capacity for NRW reduction, thereby contributing to the routine implementation of NRW reduction activities in the service areas of FCTWB.</td></tr>
<tr><td colspan="3">1. Overall Goal: Non-Revenue Water reduction activities are routinely implemented in the service area of FCTWB.
2. Project Purpose: Capacity of FCTWB for NRW reduction is strengthened.</td></tr>
<tr><td>Activities of the project</td><td colspan="3">1. Project site: Federal Capital Territory (FCT)
Pilot Area Office: Jabi, Garki I and Gudu
2. Main activities: (i) monitoring and estimating level of NRW of the service areas of FCWTB, (ii) establishing methods/operational procedures for effective NRW reduction through implementing pilot projects at Pilot Metering Areas (PMAs) under pilot Area Offices, (iii) and developing a medium-term strategic plan of FCTWB for NRW reduction, utilizing the results of (i) and (ii) above.
3. Inputs (to carry out above activities)
Japanese Side
1) Experts: 16 persons
2) Trainees received: 4 persons
3) Equipment: vehicles, ultrasonic flow meters, solar systems, GIS software, flow meters, data loggers, water leak detectors, generator, sluice valves, etc.
4) Local cost: Costs for facility construction: upgrading (modification) of billing system, Chamber construction for zonal meters and bulk meters
Nigerian Side
1) Staff allocated: 57 persons
2) Facilities: Project Offices and Facilities
3) Local cost: Costs for chamber construction for bulk meters and PMA was partially implemented by the Nigerian side.</td></tr>
<tr><td>Project Period</td><td>(ex-ante) October 2014-March 2018 (42 months)
(actual) November 2014-November 2018 (48 months)</td><td>Project Cost</td><td>(ex-ante) 438 million yen, (actual) 675 million yen</td></tr>
<tr><td>Implementing Agency</td><td colspan="3">Federal Capital Territory Administration (FCTA)/ Federal Capital Territory Water Board (FCTWB)</td></tr>
<tr><td>Cooperation Agency in Japan</td><td colspan="3">Yachiyo Engineering Co., Ltd.
Yokohama Water Co., Ltd.</td></tr>
</table>

II. Result of the Evaluation

<Constraints on Evaluation>

- Due to conflicting schedules, face to face interviews was substituted with questionnaire, which was filled out and approved by the GM FCTWB.

<Special Perspectives Considered in the Ex-Post Evaluation>

- Continuous status of the Project Purpose (Indicator 1 and 3 of the Project Purpose) was verified as factors of achievement level of the Overall Goal.

1 Relevance/Coherence

[Relevance]

<Consistency with the Development Policy of Nigeria at the Time of Ex-Ante Evaluation >

The project was consistent with the development policy of Nigeria at the time of ex-ante evaluation. The development strategy "Vison20:2020," adopted in December 2009, set a target of 75% by 2015 and 100% by 2020 for the percentage of people using improved water sources in the country. However, as mentioned above ("Background"), the percentage of people using improved water sources in urban areas was declining as the population grows, and the National Technical Working Group on water and sanitation for "Vison20:2020" had been working to improve this situation in urban areas. One of the measures was to reduce NRW.

<Consistency with the Development Needs of Nigeria at the Time of Ex-Ante Evaluation >

The project was consistent with the development needs of Nigeria at the time of ex-ante evaluation. The high NRW rate was an issue to be tackled as mentioned above ("Background").

<Appropriateness of Project Design/Approach>

The project design/approach was appropriate. As for the consideration to the vulnerable and equality, it was expected that NRW reduction contributes to increasing in supply coverage and ultimately to deliver equitable benefits to vulnerable. As to overall design, no problem attributed to the project design/approach was confirmed.

<Evaluation Result>

In light of the above, the relevance of the project is ③[1].

[Coherence]

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

The project was consistent with the Japan's ODA policy to Nigeria at the time of ex-post evaluation. One of the priority areas for assistance was promotion of social development focusing on urban areas including the Federal Capital Territory. Especially, improvement of water supply service through facility construction and technical transfer is one of the focuses[2].

<Collaboration/Coordination with other JICA's interventions>

Any collaboration/coordination between the project and other JICA's intervention was not clearly planned at the time of ex-ante evaluation.

<Cooperation with other institutions/ Coordination with international framework>

Any the cooperation/coordination with other institutions was not clearly planned at the time of ex-ante evaluation.

<Evaluation Result>

In light of the above, the coherence of the project is ②.

[Evaluation Result of Relevance/Coherence]

In the light above, the relevance/coherence of the project is ③.

2 Effectiveness/Impact

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

At the time of project completion, the Project Purpose was almost achieved as planned, as the medium-term strategic plan for NRW reduction (2019-2023) was approved (Indicator 1), FCTWB's staff gained skills and knowledge necessary for NRW reduction (Indicator 2), and the NRW ratio of each PMA had been monitored (Indicator 3).

<Continuation Status of Project Effects at the Time of Ex-Post Evaluation>

By the time of the ex-post evaluation, the project effects have been partially continued. Although the medium-term strategic plan for NRW reduction was approved, it has not been implemented as mentioned below. The staff members have sustained necessary skills.

<Status of Achievement of the Overall Goal at the Time of Ex-Post Evaluation>

At the time of ex-post evaluation, the Overall Goal has not been achieved. NRW Reduction operation according to the medium-term strategic plan for NRW reduction (2019-2023) has only partially implemented due to lack of budget provision. An annual plan for the medium-term strategic plan formulated includes various aspects; some parts are being implemented, such as "Sub-surface Leakage Detection", "Data Collection of Monthly System Input Volume", "Survey on Trunk, Distribution, Service Networks and Reservoirs etc." and "Human Resource Development", which do not require considerable cost and human power.

<Other Impacts at the Time of Ex-Post Evaluation>

No negative impacts on the environment have been observed, according to FCTWB.

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is ②.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results	Source
(Project Purpose) Capacity of FCTWB for NRW reduction is strengthened.	Indicator 1 The medium-term strategic plan for NRW reduction (2019-2023) is approved by FCTA by the end of the Project.	Status of the Achievement (Status of the Continuation): Mostly achieved as planned (Project Completion) The medium-term strategic plan was reviewed and approved by the governing Board of FCTWB on behalf of FCTA on 5th September 2018.	JICA documents
	Indicator 2 Relevant staff of FCTWB (i.e. members of NRW Management Team and Pilot NRW Action Teams) become equipped with skills and knowledge necessary for NRW reduction according to the criteria set by the Project for each level.	Status of the Achievement (Status of the Continuation): Mostly achieved as planned (continued) (Project Completion) Relevant staff's capacity for NRW reduction became equipped with skills and knowledge necessary for NRW reduction, which was confirmed by the final assessment. NRW Unit was newly created during the Project. (Ex-Post Evaluation) The staff members have sustained necessary skills.	JICA documents, FCTWB
	Indicator 3 NRW ratio of each PMA is	Status of the Achievement (Status of the Continuation): Mostly achieved as planned (not continued) (Project Completion)	JICA documents

[1] ④ : very high, ③ : high, ② : moderately low, ① : low

[2] Source: MOFA, ODA Data book 2014

	monitored.	NRW ratio of each PMA had been monitored since PMA meter problems were solved and PMA coding in the billing system was completed. (Ex-Post Evaluation) No clear information.	
(Overall Goal) Non-Revenue Water reduction activities are routinely implemented in the service area of FCTWB	Indicator 1 NRW reduction operations are carried out according to the medium-term strategic plan for NRW reduction (2019-2023).	(Ex-Post Evaluation) not achieved The indicator 1 of the Overall Goal, while the following targets in the table were set in the medium-term strategic plan, is not achieved because the NRW reduction activities under the plan have not been implemented due to a lack of budget provision in the 2019 - 2021 FCTA Statutory Budget. “Sub-surface Leakage Detection”, “Data Collection of Monthly System Input Volume”, “Survey on Trunk, Distribution, Service Networks and Reservoirs etc.” and “Human Resource Development”, which do not require considerable cost and human power.	FCTWB

	2019	2020	2021	2022
Target NRW (%)	45.5	42.7	39.9	35.1

3 Efficiency

The project cost considerably exceeded the plan (the ratio against the plan: 154%) and the project period slightly exceeded the plan (the ratio against the plan: 114%).

These changes resulted from the amendment to the original project plan, where the implementing agency and JICA agreed to extend the project duration and adjust project costs accordingly.

Outputs were produced as planned.

In the light above, the efficiency of the project is ②.

4 Sustainability

<Policy Aspect>

There has been policy support, such as “Medium-Term Strategic Plan on Non-Revenue Water Reduction covers 2022-2026”. In addition, Services Connection Policy/Procedures, legal framework and service charter will cover the entire life cycle of FCTWB for NRW reduction activities.

<Institutional/Organizational Aspect>

The NRW Unit used to be under the Distribution Department; however, at the time of ex-post evaluation it was under office of the General Manager to work cross-sectoral, and the setting has been functioning. To implement the NRW reduction operations according to the Medium-term Strategic Plan on NRW Reduction, 28 number staff will be engaged to promote/disseminate the system activities introduced by the project, which is sufficient, according to FCTWB.

Network or cooperative linkage have been established through designation of the trained personnel assigned for the NRW unit and circulated information for their nomination and inaugurated them respectively. The NRW Unit’s function for network or cooperative linkage has been increasing after its relocation to office of the General Manager.

<Technical Aspect>

According to FCTWB, the staff members have sustained necessary skill and knowledge to promote/disseminate the system through training system and On the Job Training (OJT). Manual/guidelines/materials prepared by the project have been utilized through circulation to members.

<Financial Aspect>

FCTWB was not able to secure the necessary budget for promotion/dissemination of the system introduced by the project for the year 2019 - 2021 because there was no budget provision (delay in approval, delay in disbursement, limited allocation to FCTWB, etc.). However, FCTWB attempted to overcome this bottleneck in securing funding by creating a new budget code for non-revenue water reduction efforts in the FCTA's statutory budget, which has resulted in continuous budget allocations from fiscal year 2022 onwards.

Budget/Funding for NRW Reduction Operations

(mil. NGN)	2019	2020	2021	2022	2023	2024	2025
Planed in the Strategic Plan	34.1	34.6	50.7	51.4	52.0	-	-
Actual budget proposal (Upper: Recurrent, Lower: Capital)	34.2 99.0	34.2 99.0	34.9 99.0	48.4 103.3	48.9 76.3	58.3 116.0	22.3 7.7
Actual budget allocation	0	0	0	151.7	60.7	62.0	31.0

<Environmental and Social Aspect>

No issue on the environmental and social aspect has been observed, and it has not been necessary to take any countermeasures.

<Evaluation Result>

In light of the above, some problems have been observed in terms of the financial aspect of the implementing agency, however, some measures are underway. Therefore, the sustainability of the project effects is ③.

5 Summary of the Evaluation

The project achieved the Project Purpose almost as planned but did not achieve the Overall Goal. After the project completion, the project effects have partially continued. As for the sustainability, some problems have been observed in terms of the financial aspect of the implementing agency. As for the efficiency, the project cost significantly exceeded the plan and the project period slightly exceeded the

plan.
Considering all of the above points, this project is evaluated to be partially satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:
Implementation of the reviewed tariff rates and expansion of water supply coverage area is necessary to greatly improve the sustainability of the project components and revenue generation capacity of FCTWB.

1. Staff of FCTWB using the Leakage Detection tool

2. Leakage Detection tool Calibration in progress

3. First location of detected leakage at Apo district

4. Second location of detected leakage in Apo district.