

THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

2-6(1): Monitoring Sheet Ver.2
(excluding Activity 1-2, 1-4, 2-1 & 2-2)
[Session-2]

12th December 2017

Ms. Selenia M. Matimelo

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)
National Water Supply and Sanitation Council (NWASCO)
Japanese Experts

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[Overall Goal : Urban water supply infrastructure is managed in a sustainable way by each Commercial Utility (CU).]

[Project Purpose : The structure for operation is strengthened in LWSC, WWSC, LpWSC and KWSC.]

[Output 1 : Capacity of MWDSEP on evaluating CU is strengthened.]
Outline of Activity : Formulate Evaluation Manuals for CUs

[Output 2 : Capacity of LWSC, WWSC, LpWSC and KWSC is evaluated.]

Target : Evaluate CUs and Identify Challenges and Gaps

[Output 3 : Midterm Business Plan and Human Resource Development Plan is prepared by LWSC, WWSC, LpWSC and KWSC]
Target : Formulate Midterm Business Plan and Human Resources Development Plan

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2. Delay of Work Schedule and/or Problems

3. Modification of the Project Implementation Plan

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1. Progress

1-1 Input

[Zambian Side]- Project Personnel

- Project Director (PD): Acting Director of DWSS, MWDSEP:
Eng. Oswell Katooka
- Project Manager (PM): Principal Community Development Officer, DWSS, MWDSEP:
Ms. Selenia M. Matimelo
- Senior Engineer – Urban Water and Sanitation, DWSS, MWDSEP until middle of September 2017:
Eng. Kalapa B. Charles
- Senior Engineer – Urban Water and Sanitation, DWSS, MWDSEP from the end of September 2017:
Eng. Michael Mwamba Museba

To be continued

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1. Progress

1-1 Input

[Zambian Side]- Project Personnel

- Managing Director (MD), Lusaka Water and Sewerage Company (LWSC) until the middle of July 2017:
Dr. Sylvester Mashamba
- Managing Director (MD), Lusaka Water and Sewerage Company (LWSC) from the middle of July 2017:
Eng. Jonathan Kampata
- MD, Western Water and Sewerage Company (WWSC):
Mr. Wamuwi Changani
- MD, Luapula Water and Sewerage Company (LpWSC):
Eng. Kenneth Chense
- MD, Kafubu Water and Sewerage Company (KWSC):
Eng. Athanasius K. Mwaba

To be continued

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1-1 Input

- Acting Human Resource and Administration (HRA) Director, LWSC:
Mr. Christopher Walimuntu
- Human Resources (HR) Manager, WWSC:
Ms. Pauline Sakala
- HR Manager, LpWSC:
Mr. Barnard Chama
- HR Director, KWSC until the end of August 2017:
Mr. Portipher Phiri
- **Acting HRA Manager, KWSC from the beginning of September 2017 :**
Mr. Brian Ng'onga

To be continued

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1-1 Input

- Chief Inspector, National Water Supply and Sanitation Council (NWASCO):
Mr. Peter Mutale
- **Senior Inspector, NWASCO:**
Ms. Chola Mbilima
- **Senior Inspector, NWASCO:**
Mr. Hara Kasenga

To be continued

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[Zambian Side]- Office Space

- Office space in Ministry of Local Government (MLG) until the 21st July 2017
- Office space in LWSC from the 24th July 2017

[Japanese Side]- Project Personnel

- Chief Adviser/Water Supply Service Management 1:
Mr. IGARASHI Hideyuki
- Deputy Chief Adviser/ Water Supply Service Management 2/ Strengthening of Organizational Capacity:
Mr. FUJIYAMA Taketoshi
- Human Resources Development/ Evaluation:
Mr. WADA Yoshiharu
- O&M of Water Supply Facility:
Mr. MIWA Shinji

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1-2 Progress of Activities

Activity 1-1: To collect Policy, Strategy and Information related to CUs in Zambia

- This Project commenced in accordance with the overall plan as contained in the National Water Supply and Sanitation Capacity Development Strategy (2015- 2020)
- The Strategy stated that its objectives are related to the capacity development of Water and Sanitation Function of MWDSEP.
- MWDSEP and NWASCO are responsible for evaluation of CUs' organizational and individual capacity.
- In this Project, local CU counterparts comprise LWSC, WWSC, LpWSC and KWSC.
- Project Team had interviews with four CUs in order to identify various challenges on water supply service and examine evaluation indicators.

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Activity 1-2: To decide Target parameters covered by the Evaluation Manual

[By Eng. Michael Mwamba Museba]

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Activity 1-3: To formulate the Evaluation Manual

- In principle, each CU evaluates their own capacity at organizational and individual level by using Evaluation Manual.
- Project Team prepared Evaluation Manual in light of evaluation to be standardized, so that CUs evaluate the capacity quantitatively in the constant rule.

The Evaluation Manual is categorized into three;

- 1) **Performance Indicators for water supply service,**
- 2) **Evaluation Items for Management Capacity** and
- 3) **Evaluation Items for Communication & Negotiation Capacity**

To be continued ¹³

Activity 1-3: To formulate the Evaluation Manual

Each sheet in the Evaluation Manual consists of the following subjects.

1) **Subjects of Performance Indicators for water supply service**

Definition, Purpose, Interviewee, Background and Concept, Evaluation Criteria, Causes, Points to be considered and Evaluation Example

2) **Subjects of Evaluation Items for Management Capacity & 3) Evaluation Items for Communication & Negotiation Capacity**

Purpose of Indicator, Evaluation Criteria, Causes for Result of Evaluation and Points to be considered, etc.

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Activity 1-4: To share Purpose and Components of the Evaluation Manual to Staffs of MWDSEP and CU

[By Eng. Michael Mwamba Museba]

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Activity 1-5: To conduct Training for MWDSEP and CU Staff on how to utilize the Evaluation Manual

- **NWASCO trained MWDSEP and CUs how to utilize the Evaluation Manual in support of JICA Expert Team. The training took place on 9th August 2017 in Lusaka.**

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Activity 2-1. To conduct evaluation based on the Evaluation Manual.

[By Eng. Michael Mwamba Museba]

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Activity 2-2. To analyze the result of evaluation taken place in Activity 2-1.

[By Eng. Michael Mwamba Museba]

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Activity 2-3. To grasp and clarify current situation of 4 CUs based on data analysis & prepare report.

Project Team prepared the report on evaluation results in accordance with the following contents.

Report of Capacity Assessment based on Evaluation Manual - CONTENTS -

1. Overview of CUs evaluated based on Evaluation Manual
2. Purpose of evaluating CUs (Capacity Assessment)
3. Composition of Position by CU
4. Method of Capacity Assessment
 - 4.1 Organizational Level
 - 4.2 Individual Level
 - 4.3 Process of Evaluation
 - 4.4 Observation and Improvement of Evaluation Manual through Evaluation of CUs
 - 4.5 Days required for self-evaluating CU

To be continued ¹⁹

Activity 2-3. To grasp and clarify current situation of 4 CUs based on data analysis & prepare report.

5. Result of Capacity Assessment

5.1 Organizational Level

(1) Performance Indicators (PIs)

1) LWSC, 2) WWSC, 3) LpWSC, 4) KWSC

(2) Management Capacity

1) LWSC, 2) WWSC, 3) LpWSC, 4) KWSC

5.2 Individual Level

1) LWSC, 2) WWSC, 3) LpWSC, 4) KWSC

6. Challenges based on the Assessment Result

6.1 Organizational Level

1) LWSC, 2) WWSC, 3) LpWSC, 4) KWSC

6.2 Individual Level

1) LWSC, 2) WWSC, 3) LpWSC, 4) KWSC

Activity 2-4. To make a list of challenges of 4 CUs.

- For the reference of formulation of Midterm Business Plan (MBP) and Human Resources Development Plan (HRDP) which will be formulated in Output 3, the Project Team made the lists of not only challenges but also preliminary priorities in dealing with urgency and their solutions.

Refer to Session 2-7 for the detail of challenges.

To be continued ²¹

Activity 2-4. To make a list of challenges of 4 CUs.

The Challenges were summarized regarding the organizational level

[PIs]

- Three CUs faced

P10: high NRW ratio
as "Very Serious"

- Two CUs faced

P4: the existing asbestos and old pipes,
P6: malfunction of mechanical and electrical equipment
P19: lack of effective awareness-raising activities
as "Very Serious".

[Management Capacity]

- Two CUs faced

M13: no self-learning system
M14: no evaluation system for trainees' efforts
as "Very Serious".

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Activity 2-4. To make a list of challenges of 4 CUs.

The Challenges were summarized regarding the organizational level

[Communication & Negotiation Capacity of the individual level]

- Two CUs faced

C1: lack of leadership

C3: lack of qualification

C4: lack of communication and coordination

as "Serious" for the directors/managers' level (Level 1) and

C2: lack of leadership and supervision

C4: lack of communication and coordination

as "Serious" for the managers/supervisors' level (Level 2) of
Technical Department.

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Activity 3-1. To hold a workshop for all target CUs to share the challenges and possible solution.

- Workshop for all target CUs to share the challenges and possible solution was held in the morning of 12th December.

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Activity 3-2. To establish task force for each target CU to work on developing human resource development plan.

- Task force for each Target CU to work on developing HRDP was established at 1st JCC held in March. According to current organization of each CU, Task force member are update at 3rd JCC.

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Activity 3-3 to 3-9

- Activity 3-3 to 3-9 has not been done at this moment.

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1-3 Achievement of Output

[Output1. Capacity of MWDSEP on evaluating CUs is strengthened.]

Indicator 1-1: The Evaluation Manual for evaluating CUs is approved by MWDSEP.

- Component and evaluation items, etc. shown in the Evaluation Manual for CUs were approved by MWDSEP through the 2nd JCC on the 9th August 2017. Through conducting the evaluation, the challenges on the Evaluation Manual are identified, these will be reflected to the revision of the Evaluation Manual.

Indicator 1-2: The way to utilize the Evaluation Manual is understood by MWDSEP staff in charge of urban water supply.

- In the training session after the 2nd JCC, the way to utilize the Evaluation Manual for four CUs was introduced by NWASCO as well as MWDSEP who is responsible for evaluation.

To be continued ²⁷

[Output2. Capacity of LWSC, WWSC, LpWSC and KWSC is evaluated.]

Indicator 2-1: Challenges of each CU is clarified.

- Through Activity 2-1 to 2-5, challenges of each CU were identified. Challenges and gaps of each CU were shared in the workshop on 12th December 2017 as per Activity 3-1.

[Output3. Midterm Business Plan and Human Resources Development Plan is prepared by LWSC, WWSC, LpWSC and KWSC.]

Indicator 3-1: Midterm Business Plan and Human Resources Development Plan is logically prepared in a manner consistent with target figure of key performance indicator.

- Output 3 will be obtained in Activity 3-1 to 3-9 that is scheduled to take place from December 2017 to October 2018.
- Project Team will clarify challenges as Output 2 and formulate Midterm Business Plan and Human Resources Development Plan based on challenges.

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1-4 Achievement of the Project Purpose

Project Purpose: The structure for operation is strengthened in LWSC, WWSC, LpWSC and KWSC.

Indicator: Human Resources Development Plan of LWSC, WWSC, LpWSC and KWSC is prepared and approved by board members of each CU.

- Project Purpose will be achieved through activities of Output 3.

1-5 Changes of Risks and Actions for Mitigation

- No concerns for the Project implementation to date.

1-6 Progress of Actions undertaken by JICA

- No concerns for the Project implementation to date.

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1-7 Progress of Actions undertaken by Gov. of Zambia

(1) Office Space in MWDSEP

- MWDSEP provided the office for Japanese Experts in the building of MLG in February 2017.
- Since the office space being occupied by DWSS in Mukuba Pension House is limited, MWDSEP has not prepared office space for the Project yet.

(2) Office Space in LWSC

- LWSC provided the office which six members (four Japanese Experts and two Local staff) can use for the Project.
- Japanese Experts cannot utilize it throughout the term of the Project. During absence of four experts, LWSC will provide another office for local staff (Project Facilitator and Assistant Engineer).

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2 Delay of Work Schedule and/or Problems (if any)

(1) Office Spaces

It may cause problems in case MWDSEP does not provide office spaces for the Japanese Experts.

(2) Limited Manpower

It caused problems of activities for Output-1, particularly Activity 1-3 related to formulate the Evaluation Manuals. Project Team sometimes faced difficulties in efficiently managing the Project due to limited manpower of MWDSEP

Action to be taken:

(1) Office Spaces

LWSC has provided office spaces for the Japanese Experts in HQ of LWSC temporarily in July instead of MWDSEP, while MWDSEP will be supposed to provide the office spaces as well

(2) Limited Manpower

PM and staff of MWDSEP in charge of the Project have coped with occupying their assignments to formulate the Evaluation Manual in compliance with the Project schedule.

To be continued³¹

2 Delay of Work Schedule and/or Problems (if any)

(3) Budget of Evaluation Activity

It caused problems of activities for Output-2, particularly Activity 2-1 related to conduct evaluation based on the Evaluation Manuals. Project Team sometimes faced difficulties in efficiently managing the Project, because the budget for the evaluation activities of the Project in FY2017 had not been estimated by NWASCO.

Action to be taken:

(3) Budget of Evaluation Activity

The inspectors of NWASCO will follow-up the benchmarking for WWSC and LpWSC every three months. The budget for the evaluation activities for the Project will be secured from FY2018 by NWASCO.

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2 Modification of the Project Implementation Plan

Modification Document	Contents of Modification	Date
Amendment of RD	a) Change of Implementation agency from MLGH to MWDSEP	16 th March 2017
	b) Change of Assigned name of Japanese Experts	
	c) Deletion of Machinery and Equipment	
Revision of PDM	a) Change of Assigned name of Japanese Experts	17 th March 2017 (1 st JCC)
	b) Deletion of Machinery and Equipment	
Revision of PDM	a) Change of Implementation agency from MLGH to MWDSEP	9 th August 2017 (2 nd JCC)
	b) Change of Assigned name of Project Personnel from Zambian Side in accordance with change of Implementation agency from MLGH to MWDSEP	

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**THE PROJECT FOR STRENGTHENING CAPACITY OF
URBAN WATER SUPPLY INFRASTRUCTURE IN THE
REPUBLIC OF ZAMBIA**

**2-6(2): Monitoring Sheet Ver.2
(Only Activity 1-2, 1-4, 2-1 & 2-2)**

[Session-2]

12th December 2017

**Eng. Michael Mwamba Museba
Ministry of Water Development, Sanitation and
Environmental Protection (MWDSEP)
National Water Supply and Sanitation Council (NWASCO)
Japanese Experts**

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1-3 Achievement of Output

1-4 Achievement of the Project Purpose

1-5 Changes of Risks and Actions for Mitigation

1-6 Progress of Actions undertaken by JICA

1-7 Progress of Actions undertaken by Gov. of Zambia

2. Delay of Work Schedule and/or Problems

3. Modification of the Project Implementation Plan

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Activity 1-2: To decide Target Parameters covered by the Evaluation Manual

Project Team conducted preliminary survey with using questionnaire and interview to decide target parameter by the evaluation manual. Survey result schematically are shown as following table.

(To be continued)

Activity 1-2: To decide Target Issues covered by the Evaluation Manual

(1) LWSC-1:

Issues	Causes
a) Number of PI ● Few PIs (10 in number).	● Using PIs as evaluation of the benchmark of NWASCO.
b) Geological Information System (GIS) Database ● Lack of pipe information in GIS Database.	● No linkage with the other Databases. ● Limited human resources.

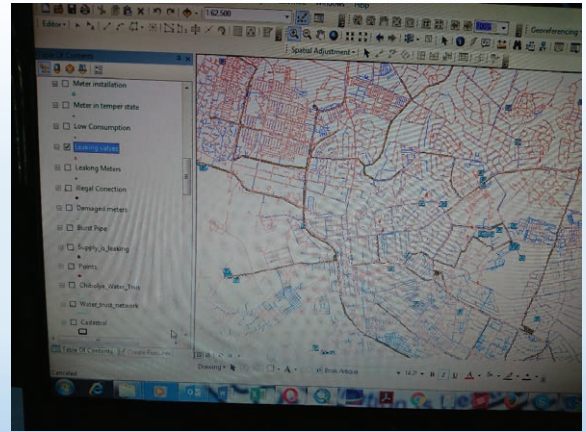
(To be continued)

Activity 1-2: To decide Target Issues covered by the Evaluation Manual

(1) LWSC-2:

Issues	Causes
c) Pipe Location <ul style="list-style-type: none"> ● Un-certainly over exact location of the existing pipeline. 	<ul style="list-style-type: none"> ● Imprecise database of pipeline location.
d) NRW Management <ul style="list-style-type: none"> ● High Non-Revenue Water (NRW) ratio (46%*5). 	<ul style="list-style-type: none"> ● Difficulties in reduction of apparent and real loss due to deteriorated water meters, deterioration of pipes and lack of leak detectors. ● Lots of illegal connections due to easiness of illegal connections. ● Lots of malfunctioning water meters because water meters were not checked without equipment such as test-bench that calibrates water meters.

(To be continued) ⁷



Pipe Information on GIS Database
(Lack of Pipe Information)

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(2) WWSC:

Issues	Causes
a) GIS Database <ul style="list-style-type: none"> ● Lack of pipe information in GIS Database. 	<ul style="list-style-type: none"> ● Limited human resources.
b) WTP Treatment Process <ul style="list-style-type: none"> ● Metal odor from tap water. 	<ul style="list-style-type: none"> ● Inappropriate treatment process.
c) NRW Management <ul style="list-style-type: none"> ● High NRW ratio (54%: NAWASCO). 	<ul style="list-style-type: none"> ● Lots of illegal connections due to easiness of illegal connections. ● Non-implementation of NRW reduction due to lack of skilled staff for detecting leaks and lack of leak detectors. ● Lots of malfunctioning water meters because water meters were not checked without equipment such as test-bench that calibrates water meters in addition to lack of skilled staff who can calibrate the water meters. ● Lack of plumbers to repair leakage.



Leakage from Distribution Pipes

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(3) LpWSC-1:

Issues	Causes
a) GIS Database <ul style="list-style-type: none"> ● Lack of pipe information in GIS Database. 	<ul style="list-style-type: none"> ● Limited human resources.
b) O&M at Mansa WTP <ul style="list-style-type: none"> ● Difficulties in the response to sudden change of raw water quality. ● Lack of management of service reservoir. 	<ul style="list-style-type: none"> ● Inappropriate water treatment management due to lack of skilled staff for maintaining water supply facilities. ● Lack of skilled staff for maintaining water supply facilities.
c) NRW Management <ul style="list-style-type: none"> ● High NRW ratio (70%: NAWASCO). 	<ul style="list-style-type: none"> ● Non-implementation of NRW reduction due to difficulties in identifying illegal connections and lack of staff to patrol illegal connections.
<ul style="list-style-type: none"> ● Unreliable NRW ratio. 	<ul style="list-style-type: none"> ● Lack of bulk meters at service reservoirs due to no plan to install the bulk meters.

(To be continued) ¹¹

(3) LpWSC-2:

Issues	Causes
d) Leakage Management <ul style="list-style-type: none"> ● Wide spread leakage. 	<ul style="list-style-type: none"> ● No visual leakage patrols <u>due to no a dedicated leakage management section.</u> ● no leakage report system by customers <u>due to no a dedicated leakage management section.</u> ● No Implementation leakage reduction <u>due to no a dedicated leakage management section.</u>
e) Arrear of Water Tariff <ul style="list-style-type: none"> ● Arrear of water tariff from large consumers. 	<ul style="list-style-type: none"> ● Difficulties in collecting from large water consumers due to insufficient training programs for staff to raise awareness on tariff collection.
f) Construction Management <ul style="list-style-type: none"> ● Lack of construction management. 	<ul style="list-style-type: none"> ● No construction supervisors in the CU.

Project Team supposed some of causes underlined in '(3) d)' from aspect of evaluation result by using Evaluation Manual, because of no information available

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Leakage from Distribution Pipes

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(4) KWSC:

Issues	Causes
a) O&M at ITAWA WTP <ul style="list-style-type: none"> ● Deterioration of the concrete structure at ITAWA WTP. ● Malfunction of the filter control panel. 	<ul style="list-style-type: none"> ● Constructed in 1955. ● Insufficient maintenance due to lack of skilled staff to maintain facilities appropriately. ● Deterioration of equipment due to lack of skilled staff to maintain various equipment. ● Inadequacy of equipment replacement due to lack of skilled staff to maintain equipment.
b) Distribution Management <ul style="list-style-type: none"> ● Existence of asbestos pipes 	<ul style="list-style-type: none"> ● Insufficient intelligibility of staff concerning the importance of control panel. ● Buried according to original design. ● Non-implementation of asbestos pipe replacement due to lack of training concerning hazardous materials.
<ul style="list-style-type: none"> ● Deterioration of distribution pipes. 	<ul style="list-style-type: none"> ● Non-implementation of distribution pipe replacement due to no plans to replace distribution pipe.

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(4) KWSC:

Issues	Causes
c) O&M <ul style="list-style-type: none"> ● Malfunctioning flow meter. 	<ul style="list-style-type: none"> ● Insufficient intelligibility of some staff concerning water distribution management. ● Inadequate O&M for the flow meter due to lack of understanding of the necessity of flow meters. .
d) Procurement of parts <ul style="list-style-type: none"> ● Delay of repairing leakage. 	<ul style="list-style-type: none"> ● No repair tools and materials to be procured promptly.
e) NRW Management <ul style="list-style-type: none"> ● High NRW ratio (54%*7) 	<ul style="list-style-type: none"> ● Various reasons such as leakage, lots of illegal connections due to social aspects, meter inaccuracies due to no replacement of malfunctioning water meters.

Note*7: Source KWSC at the 2nd JCC

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Leakage from Distribution Pipes

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Activity 1-4: To share Purpose and Components of the Evaluation Manual to Staffs of MWDSEP and CU

- Project Team selected 21 PIs through the result of interviews with four CUs and examination of the INDICATORS FOR THE URBAN AND PERI-URBAN WATER SUPPLY AND SANITATION SECTOR REPORT of Nwasco.
- Project Team proposed 19 evaluation items for management capacity and 6 items for communication & negotiation capacity.

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Activity 2-1. To conduct evaluation based on the Evaluation Manual.

Project Team together with Nwasco staff evaluated LWSC, WWSC, LpWSC and KWSC in terms of PIs, Management Capacity and Communication & Negotiation Capacity. Actual evaluation was done by a self-evaluation of Managing Director, Department Directors/Managers. Moreover, Project Team verified whether CUs assessed their capacity properly on the basis of calculation especially in terms of PIs.

Through conducting the evaluation, the defects on the Evaluation Manual were identified as follows. These will be reflected to the revision of the Evaluation Manual.

- The causes which were not contained in the Evaluation Manual were mentioned.
- In case that the evaluation criteria was selected as "Good", some causes were not mentioned.
- It was difficult for CUs to evaluate because they were not familiar with some PIs apart from the indicators on the benchmarking by Nwasco.

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Activity 2-2. To analyze the result of evaluation taken place in Activity 2-1.

Project Team analyzed the result of evaluation and sorted out CUs' challenges by items which were mentioned in Activity 1-2.

CUs evaluated 21 PIs and 19 parameters of Management Capacity at an organization level.

Capacity level is composed of five (5) categories; 'Very Serious', 'Serious', 'Not Good Enough', 'Good', and 'Very Good'.

To be continued

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Activity 2-2. To analyze the result of evaluation taken place in Activity 2-1.

The percentages of 'Very Serious' and 'Serious' challenges on PIs and parameters of Management Capacity are as shown in the following table.

CU	PI	Management Capacity
LWSC	19.0%	10.6%
WWSC	57.1%	47.4%
LpWSC	38.1%	31.6%
KWSC	42.8%	36.9%

Refer to Session 2-7 for the detail and causes of challenges .

To be continued²⁰

Activity 2-2. To analyze the result of evaluation taken place in Activity 2-1.

Meanwhile, CUs evaluated six (6) parameters of Communication & Negotiation Capacity as an individual level. Capacity level is composed of five (5) categories, the same as that at an organization level. The ranges by categories of Communication & Negotiation Capacity are as shown in the following table.

CU	'Serious'	'Not Good Enough'	'Good'	Total
LWSC	0.0%	50.0%	50.0%	100%
WWSC	50.0%	50.0%	0.0%	100%
LpWSC	83.3%	26.7%	0.0%	100%
KWSC	0.0%	100.0%	0.0%	100%

Refer to Session 2-7 for the detail and causes of challenges .

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**THE PROJECT FOR STRENGTHENING CAPACITY
OF URBAN WATER SUPPLY INFRASTRUCTURE
IN THE REPUBLIC OF ZAMBIA**

7: Confirmation of Evaluation Report by NWASCO

[Session-2]

12th December 2017

Mr. Peter Mutale/Mr. Kasenge Hara

**Ministry of Water Development, Sanitation and
Environmental Protection (MWDSEP)**

**National Water Supply and Sanitation Council (NWASCO)
Japanese Experts**

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2. Composition of the Evaluation Report

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1. Overview of CUs evaluated based on Evaluation Manual
2. Purpose of evaluating CUs (Capacity Assessment)
3. Composition of Post by CU
4. Method of Capacity Assessment
 - 4.1 Organizational Level
 - 4.2 Individual Level
 - 4.3 Process of Evaluation
 - 4.4 Observation and Improvement of Evaluation Manual through Evaluation of CUs
 - 4.5 Days required for self-evaluating CU
5. Result of Capacity Assessment
 - 5.1 Organizational Level
 - 5.2 Individual Level
6. Challenges based on the Assessment Result
 - 6.1 Organizational Level
 - 6.2 individual Level

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3.1 Performance Indicators (PIs)-2

P11: Customer meters
P12: Bulk meters
P13: Water quality parameters tested at purification plants
3) Aspects to be improved mainly by Capacity Development (Non-technical aspects)
P14: Cost recovery level
P15: Collection ratio
P16: Number of staff working especially for water (Number/'000 water connections)
P17: Implementation of training
P18: Complaint handling
P19: Awareness-raising on NRW reduction, water saving, collection of water charges, etc.
4) Aspects to be improved mainly by Program Approach
P20: Sewerage coverage (including On-site Facilities)
5) General Aspect
P21: Year of work experience on water supply service

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1. Purpose of evaluating CUs (Capacity Assessment)

- Learn the status-quo of water supply service of four CUs
- Formulate Midterm Business Plans and Human Resource Development Plans of four CUs based on the Status-quo.

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3. Evaluation Parameters

3.1 Performance Indicators (PIs)-1

1) Aspects to be improved mainly by Facility Investment
P1: Continuity of supply
P2: Overall water supply coverage
P3: Surplus purification capacity
P4: Transmission and distribution mains
P5: House connections
P6: Mechanical and electrical equipment
P7: Rate of facility utilization
2) Aspects to be improved mainly by Capacity Development (Technical Aspect)
P8: O&M of the facilities
P9: Drawings of pipe facilities
P10: NRW ratio

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3.2 Parameters of Management Capacity -1

1) Internal Policy and Planning
M1: Review on Short, Middle and Long Term Plan
M2: Evaluation Method to achieve Goal
2) Finance
M3: Analysis on Annual Financial Status
M4: Financial Improvement Status towards achievement of Goal
M5: Status of Metered Rate
M6: Budget Arrangement based on Historical Record and Result of Management Evaluation
M7: Utilization of Manual of Meter Reading, Billing and Tariff Collection
3) Governance, Management and Human Resources
M8: Average Length of Service with CUs or Other Water Authority

6

3.2 Parameters of Management Capacity -2

M9: Record of Working Time
M10: System to evaluate Work Performance Capacity towards Goal
M11: Allocation and Input of Staff according to the Work Load
M12: Self-evaluation System at Individual Level
M13: Self-learning Support System
M14: Evaluation of Trainee's Efforts
4) Customer Relation
M15: Development of Customer's Information
M16: Time to respond to Customer's Complaint
M17: Record for dealing with Customer's Complaints
M18: Customer's Survey
M19: Promotion of Customer's Awareness

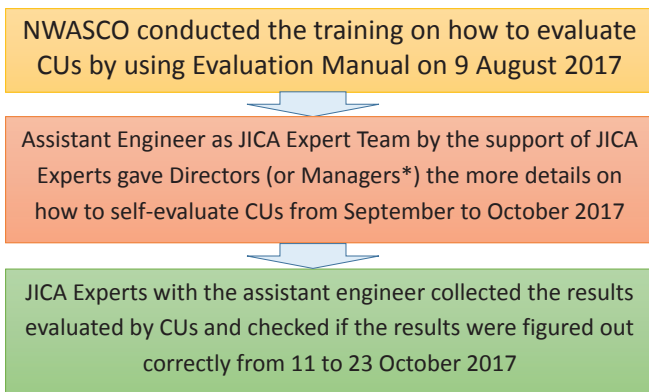
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3.3 Parameters of Communication & Negotiation Capacity

Evaluation Parameters on Communication & Negotiation Capacity	Level 1	Level 2		Level 3
		HRA Dep.	Other Dep.	
1) Leadership				
C1: Capacity to achieve goal and to raise the standards of the leadership	X			
C2: Capacity to supervise staff efficiently and effectively and to strengthen the division and or department		X	X	
2) Human Development				
C3: Capacity to improve qualification of staff in terms of post and job description	X	X	X	
3) Negotiation and Coordination				
C4: Capacity to convince the third parties to understand different ideas and opinions	X	X	X	
4) Data Collection and Utilization				
C5: Capacity to collect data and to apply for analysis for the water supply service	X		X	X
5) Communication with Customers				
C6: Capacity to communication with customers in order to provide them with high quality water supply service				X

8

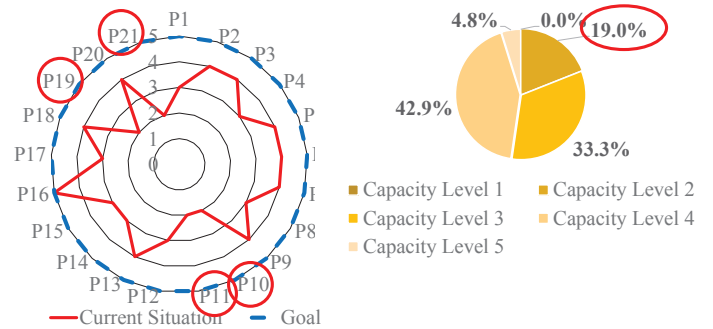
4. Process of Evaluation



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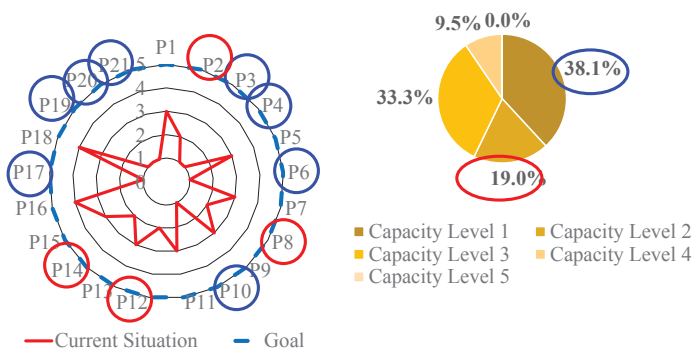
5. Evaluation Result

5.1 Distribution of Result on PIs (LWSC):



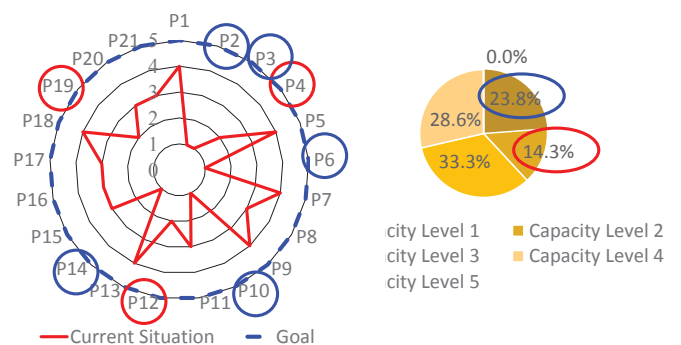
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5.2 Distribution of Result on PIs (WWSC):



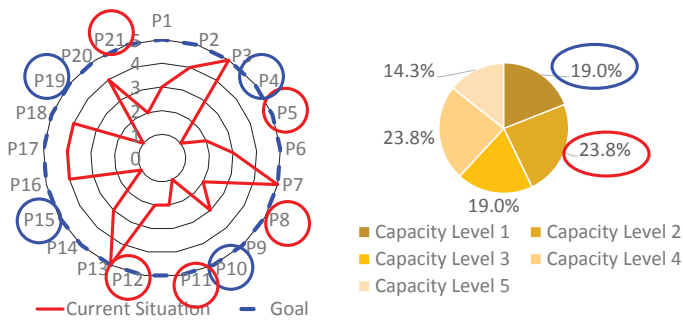
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5.3 Distribution of Result on PIs (LpWSC):



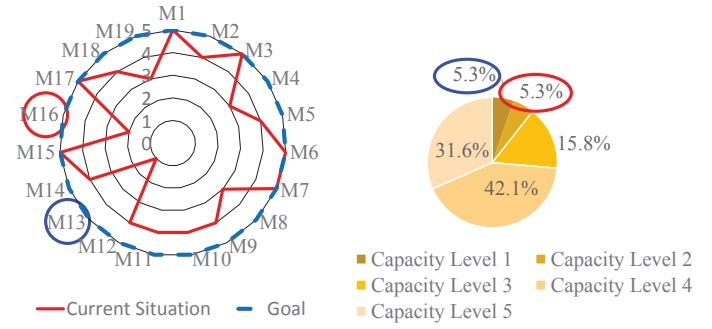
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5.4 Distribution of Result on PIs (KWSC):



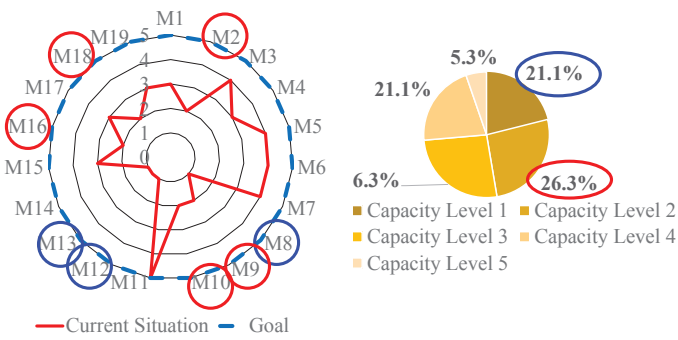
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5.5 Distribution of Result on Management Capacity (LWSC):



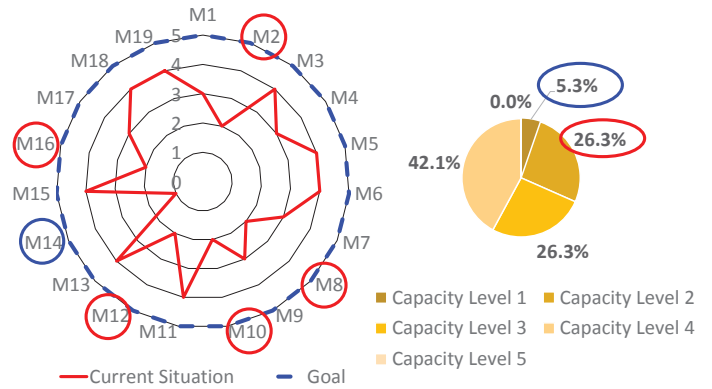
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5.6 Distribution of Result on Management Capacity (WWSC):



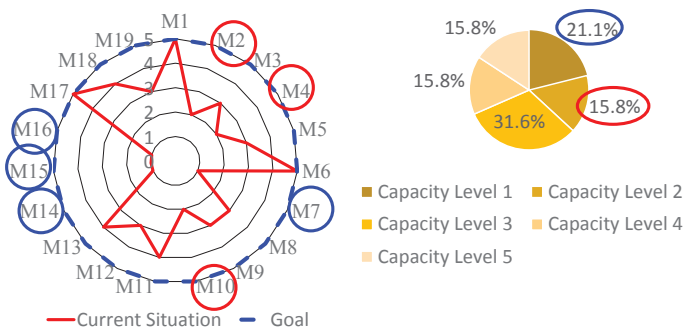
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5.7 Distribution of Result on Management Capacity (LpWSC):



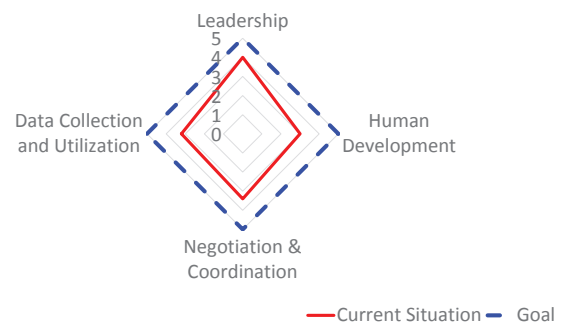
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5.8 Distribution of Result on Management Capacity (KWSC):



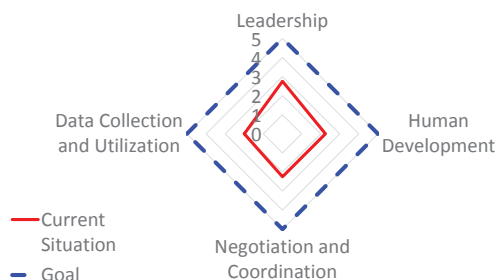
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5.9 Distribution of Result on Communication & Negotiation Capacity at Director Level (LWSC):



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5.10 Distribution of Result on Communication & Negotiation Capacity at Manager Level (WWSC):



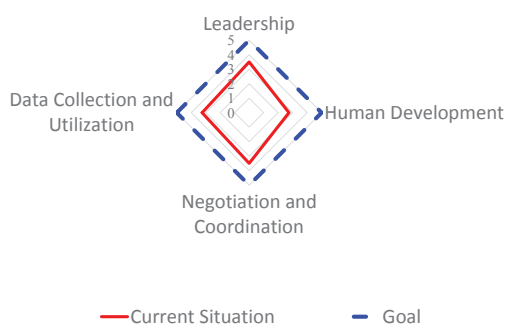
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5.11 Distribution of Result on Communication & Negotiation Capacity at Manager Level (LpWSC):



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5.12 Distribution of Result on Communication & Negotiation Capacity at Directors' Level (KWSC):



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6. Evaluation Result (Main Factors)

6.1 Performance Indicators that Common Challenges were observed among four CUs

- ◆ Challenges on PIs depend on CU. The following are relatively main factors of common challenges among LWSC, WWSC, LpWSC and KWSC.

Performance Indicators (PIs)	Summary of Main Factors
P4: Transmission and distribution mains	<ul style="list-style-type: none"> Existence of asbestos pipes
P10: NRW ratio	<ul style="list-style-type: none"> Existence of asbestos pipes Existence of Deteriorated pipes Much leakage Lack of leakage detection Defect of monitoring system for illegal connections Lack of awareness activities
P19: Awareness-raising on NRW reduction, water saving, collection of water charges, etc.	<ul style="list-style-type: none"> Lack of awareness activities
P21: Year of work experience on water supply service	<ul style="list-style-type: none"> Retirement

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6.2. Parameters of Management Capacity that Common Challenges were observed among four CUs

- ◆ Challenges on Management Capacity also depend on CU. The following are relatively main factors of common challenges among LWSC, WWSC, LpWSC and KWSC.

Parameters of Management Capacity	Summary of Main Factors
M16: Time to respond to Customer's Complaint	There are no training programs to make staff understand the necessary of a quick action and on how to manage the quick action

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6.3 Parameters of Communication & Negotiation Capacity that Common Challenges were observed among four CUs

- ◆ Challenges on Communication & Negotiation Capacity also depend on CU. The following are relatively main factors of common challenges among LWSC, WWSC, LpWSC and KWSC at Directors' (or Managers'*) and Managers' (or Supervisors'*) Level.

Parameters of Communication & Negotiation Capacity	Summary of Main Factors
Human Development	
C3: Capacity to improve qualification of staff in terms of post and job description	There are no training programs to make executive officers understand the necessity of human resource development.

* For WWSC and LpWSC

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7. Challenges and Outline of Solution

7.1 PIs- LWSC

Challenges	Outline of Solution	Means to solve Challenge		
		Infra.	T.A.*	Pro.**
Challenges that require Medium to Long-term Solutions				
P10: NRW ratio is 36-50%.	Reduction of NRW		X	X
P11: Functioning customer meters are supposed to be installed for every household, but more than 30% of them are missing or not working well.	Replacement of customer meters		X	X
P19: A few effective awareness-raising activities have been implemented.	Conducting of the training on awareness-raising activities		X	
P21: Average year of work that staff have experience on water supply service is 8-15 years.	Accumulation of technologies		X	

*Technical Assistance, **Procurement

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7.2 PIs- WWSC-1

Challenges	Outline of Solution	Means to solve Challenge		
		Infra.	T.A.	Pro.
Challenges that require Urgent Solutions				
P3: Surplus capacity to maximum design capacity is less -30%.	Augmentation of Treatment plant capacity	X	X	
P4: ACP, old CI and old SP pipes make up 75% of main pipelines.	Replacement of ACPs	X		
P6: More than 30% of installed major mechanical and electrical equipment are malfunctioning.	Replacement of mechanical & electrical equipment		X	X
P10: NRW ratio is more than 50%	Reduction of NRW		X	X
P17: Training is quite rare or not provided at all.	Increase of the training		X	
P19: No or minimal effective awareness-raising activities have been implemented.	Conducting of the training on awareness-raising activities		X	
P20: Sewer coverage is zero.	Development of sewer system and or sanitation facilities	X	X	
P21: Average year of work that staff have experience on water supply service is zero to seven years.	Accumulation of technologies		X	

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7.2 PIs- WWSC-2

Challenges	Outline of Solution	Means to solve Challenge		
		Infra.	T.A.	Pro.
Challenges that require Medium to Long-term Solutions				
P2: Overall service coverage is 50-69%.	Increase of service coverage	X	X	
P8: CU has O&M manuals which are not effective.	Preparation of O&M manuals		X	
P12: There are not enough functioning bulk meters for accurate flow rate of water production.	Installation of bulk meters		X	X
P14: All O&M costs apart from depreciation of water supply facilities are fully covered by water tariff.	Reduction of O&M cost and or increase of revenue	X	X	

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7.3 PIs- LpWSC-1

Challenges	Outline of Solution	Means to solve Challenge		
		Infra.	T.A.	Pro.
Challenges that require Urgent Solutions				
P2: Overall service coverage is less than 50%	Increase of service coverage	X	X	
P3: Surplus capacity to maximum design capacity is less than minus (-) 30%.	Augmentation of Treatment plant capacity	X	X	
P6: More than 30% of installed major mechanical and electrical equipment are malfunctioning.	Replacement of mechanical & electrical equipment		X	X
P10: NRW ratio is more than 50%	Reduction of NRW		X	X
P14: Only part of the O&M costs excluding depreciation of water supply facilities are covered by water tariff.	Reduction of O&M cost and or Increase of revenue	X	X	

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7.3 PIs- LpWSC-2

Challenges	Outline of Solution	Means to solve Challenge		
		Infra.	T.A.	Pro.
Challenges that require Medium to Long-term Solutions				
P4: Asbestos, old cast iron and old steel pipes make up 50-75% of main pipelines.	Replacement of asbestos pipes	X		
P12: There are not enough functioning bulk meters for accurate flow rate of water production.	Installation of bulk meters		X	X
P19: A few effective awareness-raising activities have been implemented.	Conducting of the training on awareness-raising activities		X	

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7.4 PIs- KWSC-1

Challenges	Outline of Solution	Means to solve Challenge		
		Infra.	T.A.	Pro.
Challenges that require Urgent Solutions				
P4: Asbestos, old cast iron and old steel pipes make up 75% of main pipelines.	Replacement of asbestos pipes	X		
P10: NRW ratio is more than 50%.	Reduction of NRW		X	X
P15: Collection ratio is less than 60%.	Strengthening of tariff collection system		X	
P19: No or minimal effective awareness-raising activities have been implemented.	Conducting of the training on awareness-raising activities		X	

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7.4 PIs- KWSC-2

Challenges	Outline of Solution	Means to solve Challenge		
		Infra.	T.A.	Pro.
Challenges that require Medium to Long-term Solutions				
P5: 80-94% of house connections are more than 25 years old.	Replacement of service pipelines	X	X	
P8: Facilities have O&M manuals which are not effective, leading to O&M deficiency.	Preparation of O&M manuals		X	
P11: Functioning customer meters are supposed to be installed for every household, but more than 30% of them are missing or not working well.	Replacement of customer meters		X	X
P12: There are not enough functioning bulk meters for accurate flow rate of water production.	Installation of bulk meters		X	X
P21: Average year of work that staff have experience on water supply service is 8-15 years.	Accumulation of technologies		X	

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7.5 Management Capacity- LWSC

Challenges	Outline of Solution	Means to solve Challenge	
		T.A.	Pro.
Challenges that require Urgent Solutions			
M13: There is no a self-learning system.	Establishment of a self-learning system for staff	X	
Challenges that solution is required for a certain period			
M16: It takes a week to respond to customer's complaint.	Strengthening of customer service	X	

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7.6 Management Capacity- WWSC-1

Challenges	Outline of Solution	Means to solve Challenge	
		T.A.	Pro.
Challenges that require Urgent Solutions			
M8: Average length of service with current CU is less than five years.	Accumulation of technologies	X	
M12: There is no a self-evaluation system.	Establishment of a self-evaluation system for staff	X	
M13: There is no a self-learning system.	Establishment of a self-learning system for staff	X	

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7.6 Management Capacity- WWSC-2

Challenges	Outline of Solution	Means to solve Challenge	
		T.A.	Pro.
Challenges that require Medium to Long-term Solutions			
M2: Evaluation method has not been established.	Establishment of evaluation system for staff	X	
M9: Recording system for the working time has been developed but the working time for all the staff has not been recorded yet.	Encouragement of recording for working time	X	
M10: Evaluation system for work performance is under development.	Establishment of evaluation system for staff	X	
M16: It takes a week to respond to customer's complaint.	Strengthening of customer service	X	
M18: Customer survey has never been conducted but the survey is under consideration.	Conducting of the training on customer survey	X	

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7.7 Management Capacity- LpWSC

Challenges	Outline of Solution	Means to solve Challenge	
		T.A.	Pro.
Challenges that require Urgent Solutions			
M14: Trainees' efforts have not been evaluated.	Establishment of evaluation system for trainees' efforts	X	
Challenges that require Medium to Long-term Solutions			
M2: Evaluation method has not been established.	Establishment of evaluation system for staff	X	
M8: Average length of service with current CU is five to 10 years.	Accumulation of technologies	X	
M10: Evaluation system for work performance is under development.	Establishment of evaluation system for staff	X	
M12: A self-evaluation system is under development.	Establishment of a self-evaluation system for staff	X	
M16: It takes a week to respond to customer's complaint.	Strengthening of customer service	X	

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7.8 Management Capacity- KWSC-1

Challenges	Outline of Solution	Means to solve Challenge	
		T.A.	Pro.
Challenges that require Urgent Solutions			
M7: There are no manual, or even if there is a manual, it has not been used at all.	Preparation of O&M manuals for meter reading, billing & tariff collection, and conducting of their training	X	
M14: Trainees' efforts have not been evaluated.	Establishment of evaluation system for trainees' efforts	X	
M15: Customers' information has not been developed at all.	Development of database on customer information	X	
M16: It takes at least 10 days to respond to customer's complaint.	Strengthening of customer service	X	

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7.8 Management Capacity- KWSC-2

Challenges	Outline of Solution	Means to solve Challenge	
		T.A.	Pro.
Challenges that require Medium to Long-term Solutions			
M2: Evaluation method has not been established.	Establishment of evaluation system for staff	X	
M4: Financial status has not been improved at all.	Conducting of the training on financial analysis	X	
M10: Evaluation system for work performance is under development.	Establishment of evaluation system for staff	X	

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8. Observation and Improvement of Evaluation Manual through Evaluation of CUs

JICA Expert Team practically observed the following challenges required for improving Evaluation Manual.

- Actual causes that CU has been facing were not stated in Evaluation Manual.
- In case that 'Good' was selected, the causes were not clarified in the answer sheets.
- Some complements were furthermore required to figure out the particular PI.

Evaluation Manual will be finalized based on the above observations.

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9. Days required from giving briefing to collect the result of self-evaluating CUs-1

- Project Team is confident that Evaluation Manual was well-designed in order for CUs easily to self-evaluate them.
- JICA Expert Team gave a brief by the meeting, phone conversation and or emails on how to evaluate CU by utilizing Evaluation Manual from 14 August 2017.
- CUs started self-evaluating after receiving a brief.

10. Days required from giving briefing to collect the result of self-evaluating CUs-2

CUs	Date of giving a Brief	Date of completing Self-Evaluation	Days required for Self-Evaluation 1)	Number of evaluated Staff at Individual Level 2)	Days required for Self-Evaluation per evaluated staff 3) = 1)/2) x 100
LWSC	14 Aug.	20 Oct.	68 days	23	3.0 days/staff
WWSC	4 Oct.	12 Oct.	9 days	24	0.4 days/staff
LpWSC	6 Sep.	12 Oct.	37 days	16	2.3 days/staff
KWSC	26 Sep.	20 Oct.	25 days	19	1.3 days/staff

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11. Days required from giving briefing to collect the result of self-evaluating CUs-3

According to some of CUs' executive officer and JICA Expert Team's observation, it seems that there are various factors such as:

- Time constraint to self-evaluate,
- Insufficient intelligibility of Evaluation Manual,
- Interest in evaluation of CUs,
- Motivation, etc.

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12. Challenges for Capacity Assessment & Capacity Development to be sustained based on Evaluation Manual

- Strong Commitment by MWDSEP and NWASCO,
- Incentive such as subsidy by central government, required for project implementation,
- Commitment of pre-condition as budget approval for project implementation,
- Others

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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

2-8: Schedule to be Implemented [Session-2]

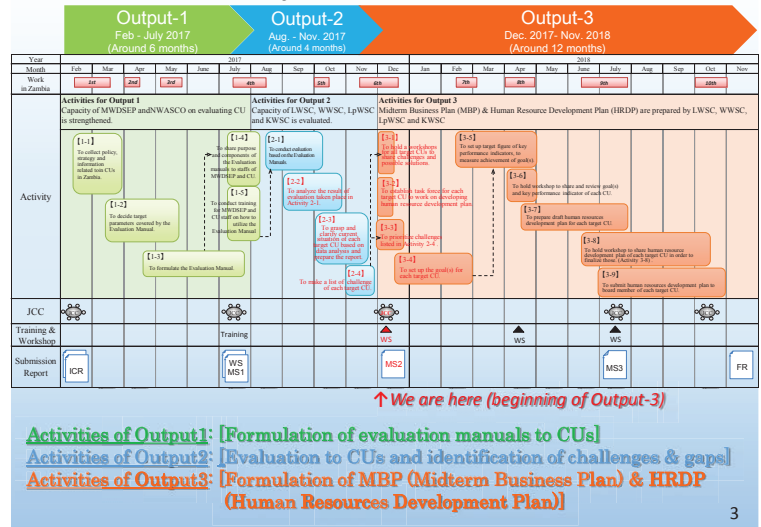
12th December 2017

Mr. Hideyuki IGARASHI

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

National Water Supply and Sanitation Council (NWASCO)
Japanese Experts

2. Schedule of the Project



3. Activities of each Output

(1) Activity-1: Formulation of evaluation manuals to CUs

- [1-1] Collect policy, strategy and information related to 4 CUs in Zambia
- [1-2] To decide target issues covered by the Evaluation Manual
- [1-3] To formulate the Evaluation Manual
- [1-4] To share purpose and components of the Evaluation manuals to staff of MWDSEP and CU
- [1-5] To conduct **training** for MWDSEP and CU staff on how to utilize Evaluation Manual

(2) Activity-2: Evaluation to CUs and identification of challenges & gaps

- [2-1] To conduct evaluation based on the Evaluation Manual
- [2-2] To analyze the result of evaluation taken place in Activity 2-1
- [2-3] To grasp and clarify current situation of 4 CUs based on data analysis & prepare report
- [2-4] To enlist challenge of 4 CUs

(3) Activity-3: Formulation of MBP & HRDP

- [3-1] To hold **workshop** for 4 CUs to share challenges and possible solutions
- [3-2] To establish taskforce for 4 CUs to work on developing MBP & HRDP
- [3-3] To prioritize challenges listed in Activity 2-4
- [3-4] To set up the goal(s) for 4 CUs
- [3-5] To set up target figure of key performance indicators, to measure achievement of goal(s)
- [3-6] To hold **workshop** to share and review goal(s) and key performance indicator of 4 CUs
- [3-7] To prepare Draft MBP & HRDP for 4 CUs
- [3-8] To hold **workshop** to share MBP & HRDP of 4 CUs in order to finalize MBP & HRDP
- [3-9] To submit MBP & HRDP to board member of 4 CUs

2. Training & Workshop for MBP & HRDP

Activity	Contents	Participants	Schedule
Training [1-5]	Make staff understand method to evaluate CUs	<ul style="list-style-type: none"> ● Team for Formulation of Evaluation Manual ● 4 CUs 	9 Aug 2017 (Done)
WS1 [3-1]	Share challenges & gaps on 4 CUs	<ul style="list-style-type: none"> ● Team for Formulation of Evaluation Manual ● Task Force for formulation of MBP & HRDP 	Today AM (12 Dec 2017)
WS2 [3-6]	Share contents of activities of Task Force for formulation of MBP & HRDP	<ul style="list-style-type: none"> ● Team for Formulation of Evaluation Manual ● Task Force for formulation of MBP & HRDP 	Apr 2018
WS3 [3-9]	Share MBP & HRDP	<ul style="list-style-type: none"> ● Team for Formulation of Evaluation Manual ● Task Force for formulation of MBP & HRDP ● Board of four CUs ● 7 CUs (Representative & HR Manager) 	Jul 2018

THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

4: General Explanation of Today's Workshop by JICA Expert Team

19th April 2018

Mr. Hideyuki IGARASHI

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

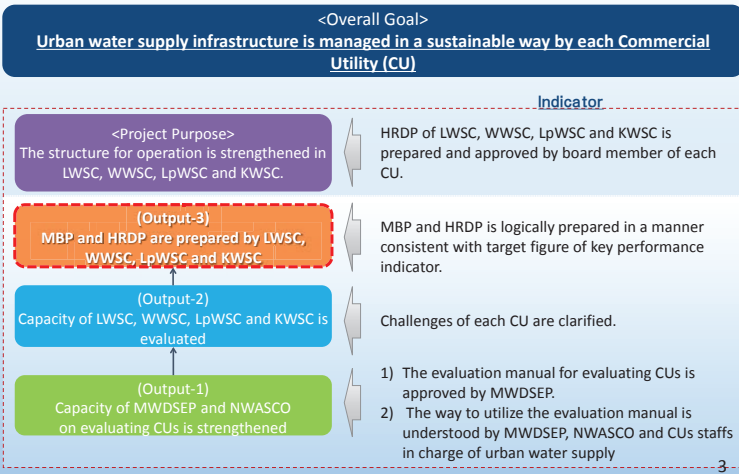
National Water Supply and Sanitation Council (NWASCO)
Japanese Experts

Contents

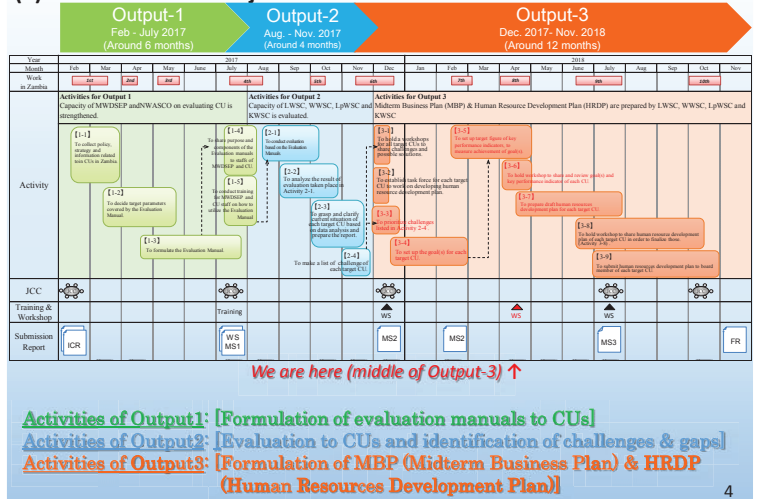
1. Brush up the Project
 - (1) Outlines of the Project
 - (2) Schedule of the Project
2. Activities of each Output
3. Procedure of Workshop

1. Brush up the Project

(1) Outlines of the Project



1. Brush up the Project (2) Schedule of the Project



2. Activities of each Output

(1) Activity-1: Formulation of evaluation manuals to CUs

- [1-1] Collect policy, strategy and information related to 4 CUs in Zambia
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(2) Activity-2: Evaluation to CUs and identification of challenges & gaps

- [2-1] To conduct evaluation based on the Evaluation Manual
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- [3-7] To prepare Draft MBP & HRDP for 4 CUs
- [3-8] To hold **workshop** to share MBP & HRDP of 4 CUs in order to finalize MBP & HRDP
- [3-9] To submit MBP & HRDP to board member of 4 CUs

3. Procedure of Workshop

Purpose of Workshop

→ To share & review goal(s) and key performance indicator of 4 CUs

[Procedure]

(1) Briefing on this Workshop

→ This presentation

(2) Explanation of Prioritization of Challenges, Setting-up of the Goals & Verifiable Indicators

→ by NWASCO

(3) Presentation of (1) Prioritized Challenges, Goals & Verifiable Indicators [Activity 3-3, 3-4 and 3-5] & (2) PR Activities

→ by each CU

(4) Viewpoints of **incentive for sustainable implementation** after the Project

→ by PD & Discussion at Question and Answer Session

THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

5: Explanation on Prioritization of Challenges, Setting-up of the Goals and Verifiable Indicators by NWASCO

19th April 2018

Mr. Peter Mutale

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

National Water Supply and Sanitation Council (NWASCO)
Japanese Experts

1

1. Prioritization of Challenges (Activity3-3)

◆ 1.1 Targeted Challenges to examine Priority Criteria

- Project Team will formulate Midterm Business Plan (MBP) and Human Resources Development Plan (HRDP) at Output 3 stage.
- Time frame for MBP and HRDP as urgent projects is from the year 2019 to 2023.
- The urgent projects include solution of the ‘Very Serious’ challenges which were observed through the Evaluation based on the Evaluation Manual.
- Project Team set-up priority criteria among ‘Very Serious’ challenges.
- Meanwhile, since LWSC has no ‘Very Serious’ on PIs, Project Team will prioritize challenges among ‘Serious’ challenges on PIs.

2

1. Prioritization of Challenges (Activity3-3)

1.2 Overall Vision and Goal

1) National Development Plan

- Ministry of Local Government and Housing (MLGH*) has been adopting ‘National Water Supply and Sanitation Capacity Development Strategy (2015- 2020)’ and ‘National Urban Water Supply and Sanitation Programme (2011- 2030)’ as shown in next slides.

* Water sector was transferred to Ministry Water Development, Sanitation and Environment Protection (MWDSEP) since February 2017.

3

1. Prioritization of Challenges (Activity3-3)

1.2 Overall Vision and Goal

1) National Development Plan

<p>National Water Supply and Sanitation Capacity Development Strategy (2015 – 2020)</p> <p>National Urban Water Supply and Sanitation Programme (2011 – 2030)</p>

Sector vision:

- Clean and safe water supply and sanitation for all by 2030

Sector Goals / Targets:

- Improve access to appropriate, environmental friendly sanitation by all Zambians;
- Attainment of 80 percent access to clean water supply to all by 2015 and 100 percent by 2030
- Fully integrated and sustainable water resource management.

Note: Goal and target only for sanitation is excluded.

4

1. Prioritization of Challenges (Activity3-3)

1.2 Overall Vision and Goal

1) Outline of Overall Goal

- Summary of National Development Plan is to achieve supplying safe and clean water at 100% by the year 2030.
- The Project Team examined priority of solution of challenges in terms of importance and urgency, considering overall goal stated in National Development Plan.

5

1. Prioritization of Challenges (Activity3-3)

1.3 Goal or Objective (Mission Statement) in the Strategic Plan by CU

- In order to sort out challenges to be solve preferentially, Project Team referred to objectives indicated in the short-medium-term strategic plan as shown below that each CU has.
- As for updating of a strategic plan, Project Team also referred to objectives of a recent strategic plan, as it is likely that the objectives of a strategic plan is not revised drastically.

1. Strategic Plan (2018 -2022) of LWSC
2. Strategic Plan (2017 to 2020) of WWSC
3. Strategic Plan (2019 to 2023) of LpWSC
4. Strategic Plan (2018 to 2020 under preparation) of KWSC

6

1. Prioritization of Challenges (Activity3-3)

1.4 Priority Criteria of challenges

1) Action Priority Matrix

- Priority criteria should be unified and facilitated in order for all the CUs to prioritize various challenges to be solved.
- Otherwise, projects which are proposed by CUs will not be consistent, and CUs will be confused to prioritize the challenges.
- Project Team focused on the key factors such as 'Importance' and 'Urgency' to make priority criteria.

7

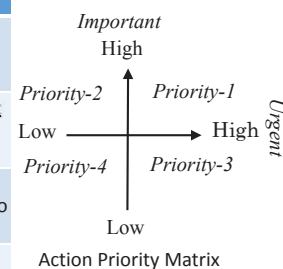
1. Prioritization of Challenges (Activity3-3)

1.4 Priority Criteria of challenges

1) Action Priority Matrix

Actions by the priority.

Priority	Action to solve challenges	Outline of Actions
1	Urgent and Important: DO	If a task is both <u>urgent</u> and <u>important</u> , take actions immediately.
2	Not Urgent, but Important: DECIDE	If a task is <u>important</u> , but <u>not urgent</u> , set a due date and take actions later.
3	Urgent, but not Important: DELEGATE	If a task is <u>urgent</u> , but <u>not important</u> , the best thing is to delegate it to someone else.
4	Not Urgent and Not Important: DELETE	If a task is <u>neither important nor urgent</u> , it should not be prioritized. Drop it or take actions when you have some extra time.



8

1. Prioritization of Challenges (Activity3-3)

1.4 Priority Criteria of challenges

2) Evaluation of Importance and Urgency

The following are instruction on how to evaluate Importance and Urgency to solve various challenges.

- **How to evaluate importance? :**
Consider challenges that must be solved definitely in order to achieve goal or objective of CUs' own plans like strategic plans. While each challenge corresponds with 'Important', '2' can be scored.
- **How to evaluate urgency? :**
Unless actions are taken soon, consider what kinds of influences occur, who receive the influences and how the influence impacts on other projects. While each challenge corresponds with 'Urgent', '1' can be scored.

Maximum score will be '3' as Priority-1.

9

1. Prioritization of Challenges (Activity3-3)

1.5 Prioritization of Challenges

- The challenges were prioritized based on the instruction in terms of 'importance' and 'urgency' in Previous slide.
- The items and challenges that were evaluated as Priority-4 will be excluded from MBP and HRDP.

Presentation by CUs will show the results that challenges by CU were prioritized in terms of 'Importance' and 'Urgency'

10

2. Setting up of the Goals (Activity3-4)

- Goals of four CUs for the year 2023 were set-up based on status-quo of the water supply service & water supply facilities, background of the past investment and the strategic plan in terms of PIs, Management Capacity and Communication & Negotiation Capacity respectively.

3. Setting up of the Variable Indicators (Activity3-5)

- Verifiable indicators for the year 2023 were set-up in consideration with some stages in terms of PIs, Management Capacity and Communication & Negotiation Capacity respectively.

11

4. Aggregation of Items for solving Challenges

4.1 Factors to aggregate Items

- In order to solve the challenges through evaluation of Performance Indicators (PIs) and management capacity, some of the challenges must be solved as the particular items are aggregated with the other items.
- The following show factors whether items should be aggregated or not.

Factors to aggregate Items	Results for aggregating Items
● <u>Same priority level</u>	To achieve much efficient results in the same period than implementation of the project independently.
● <u>Direct correlation</u>	
● <u>Parts of challenges</u>	

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4. Aggregation of Items for solving Challenges

4.2 Aggregated Items

- Based on the factors to aggregate Items and Results, Project Team examined the possibility for aggregating items to solve challenges.
- The items to be aggregated will be explained in CUs' presentation.
- Item will be aggregated with the other items in more than two factors out of three factors to aggregate items.

THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

19th April 2018
Christopher S. Walimuntu
Acting Director Human Resources

VISION

To be the leading water and sanitation Utility in Africa

MISSION

Sustainable provision of quality water supply and sanitation services

1

2

**Activity 3-3, 3-4, 3-5:
Prioritization of challenges,
Setting-up of Goals and
verifiable Indicators by LWSC**

1. Goal or Objective (Mission Statement) in Strategic Plan by LWSC

Strategic Plan (2018 -2022) of LWSC

1. Business Development and Business Sustainability; whose strategic objective will be *“To Attain Financial Viability”*
2. Water and Sanitation Infrastructure Development; whose strategic objective will be *“To improve access to quality water supply and sanitation services”*;

3

4

1. Goal or Objective (Mission Statement) in Strategic Plan by LWSC

Strategic Plan (2018 -2022) of LWSC

3. Infrastructure Operations and maintenance: whose strategic objectives will be *“To*
a. reduce water losses and improve systems for measurement and management of NRW;
b. institutionalize Asset Management to get best utility from assets; and
c. To improve organizational efficiency;”

4. Staff Productivity: whose strategic objective will be *“To Improve Staff Productivity”*, and

5. Corporate image enhancement: whose strategic objective will be *“To Enhance Communication and Customer Care”*

5

2. Prioritization of Challenges (Activity 3-3)

2-1. Scoring for prioritizing challenges on Pls of LWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
1	P10: NRW Ratio	36 - 50%	2	1	3	1
2	P11: Customer Meters	Functioning customer meters are supposed to be installed for every household, but more than 30% of them are missing or not working well.	2	1	3	1
3	P19: Awareness-raising on NRW reduction, water saving, collection of water charges, etc.	A few effective awareness-raising activities have been implemented.	2		2	2
4	P21: Year of Work Experience on Water Supply Service	8-15 years			0	4

Note: Items in the columns which are highlighted in yellow will be aggregated with other items to be solved from the aspect of efficient implementation of the project as stated in NWASCO's presentation

6

2. Prioritization of Challenges (Activity 3-3)

2-2. Scoring for prioritizing challenges on Management Capacity of LWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
1	M13: Self-learning Support System	There is no a self-learning system.	2		2	2

7

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of LWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
1	P10: NRW ratio	NRW ratio is 36% - 50%.	NRW will be reduced from 46% (current) to 30%.	NRW Ratio: A. 30% B. 34% C. 38% D. More than 42%	1
2	P11: Customer meters	Functioning customer meters are supposed to be installed for every household, but more than 30% of them are missing or not working well.	Installation ratio of customer meter will be increased from 67% (current) to 100%.	Ratio of Water Meter Installation: A. 100% B. 90% C. 80% D. less than 70%	1

8

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of LWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
3	P19: Awareness-raising on NRW reduction, collection of water charges, etc	A few effective awareness-raising activities have been implemented.	A system for effective awareness-raising activities is established.	Frequency and platforms that can be monitored. Eg radio shows, brochures, News letter etc. on; A. Monthly B. Bimonthly C. Biannually D. Annually or less	1
4	P21: Year of experience	Average year of work that staff have experience on			4

10

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-2. Goals and Verifiable Indicators on Management Capacity of LWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
1	M13: Self-learning Support System	There is no self-learning system.	Training by utilizing a self-learning system is conducted.	Status after introduction of self-learning support system: A. Utilized for directors and managers or supervisors B. Utilized for only managers or supervisors C. Only introduced but not utilized D. Not introduced	2

PR Activity for this Project

- Posters about the project have been pasted as part of sensitization to employees and the public.

11

4. PR Activity for this Project

- LWSC Newsletter



12

IEC Training of CSA's and Community mobilisers.



13

4.PR Activity for this Project

4-2. Putting up of PR Poster to share this Project to Customer

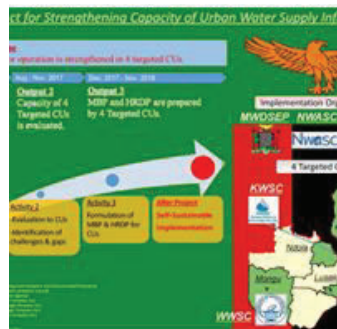


14

4.PR Activity for this Project

4-3. Uploading Document onto your Facebook Pages, Website

Lusaka Water & Sewerage Company
Published by Chisonge Mwape
Like This Page · 11 April ·



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**THE PROJECT FOR STRENGTHENING CAPACITY OF
URBAN WATER SUPPLY INFRASTRUCTURE IN THE
REPUBLIC OF ZAMBIA**

**Activity 3-3, 3-4, 3-5: Prioritization of challenges, Setting-up
of Goals and verifiable Indicators by WWSC**

19th April 2018

Ms. Pauline Sakala

**Ministry of Water Development, Sanitation and
Environmental Protection (MWDSEP)**

**National Water Supply and Sanitation Council (NWASCO)
Japanese Experts**

1

Vision/Mission Statement

Vision

“To become a financially viable and be the most customer centered water and sewerage utility company in Zambia”

Mission Statement

“To effectively and efficiently provide adequate and potable water supply and sewerage services to all the population in the urban and Peri-urban areas of Western Province of Zambia”

2

1. Goal or Objective in Strategic Plan by WWSC

Strategic Plan (2016 -2020) of WWSC

1. Increase Billing Efficiency from 89% to least 95%
2. Increase Billing Money from K19.4 million to K30.5 million
3. Increase and maintain collection efficiency from 73% to 100%
4. Improve Water quality compliance from 96% to 99%
5. **Reduce NRW from 51% to 40%**
6. **Improve Asset Management from 51% to 85% planned works**
7. Increase Hours of Supply in each district from 16 to 24hrs

3

Cont...

8. To implement a comprehensive performance management system by 2020.
9. To increase the number of connections from 15,700 to 30,000 by 2020
10. To reduce customer complaints per 100 connections from 12 to 5 by 2020.
11. To reduce staff costs in relation to billing and collection from 75% to 56% by 2020
12. To implement a comprehensive ICT system that will fully integrate all business operations

4

2. Prioritization of Challenges (Activity 3-3)

2-1. Scoring for prioritizing challenges on PIs of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
1	P3: Surplus Purification Capacity	Less than -30%	2		2	2
2	P4: Transmission and Distribution Mains	More than 75% of transmission and distribution mains are asbestos pipes, old cast iron pipes (excluding ductile cast iron) or old steel pipes, with rust significantly blocking flow.		1	1	3
3	P6: Mechanical and Electrical Equipment	More than 30% of installed major mechanical and electrical equipment (such as pumps, electrical transformers and generators) are not operated due to serious failures.		1	1	3

5

2. Prioritization of Challenges (Activity 3-3)

2-1. Scoring for prioritizing Challenges on PIs of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
4	P10: NRW Ratio	More than 50%	2	1	3	1
5	P17: Implementation of Training	Training is quite rare or not provided at all.			0	4
6	P19: Awareness-raising on NRW reduction, water saving, collection of water charges, etc.	No or minimal effective awareness-raising activities have been implemented.	2		2	2
7	P20: Sewerage Coverage (including On-site Facilities)	0%			0	4
8	P21: Year of Work Experience on Water Supply Service	0-7 years			0	4

Note: Items in the columns which are highlighted in yellow will be aggregated with other items to be solved from the aspect of efficient implementation of the project as stated in NWASCO's presentation

6

2. Prioritization of Challenges (Activity 3-3)

2-2. Scoring for prioritizing Challenges on Management Capacity of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
1	M8: Average Length of Service with CUs or Other Water Authority	Less than five years			0	4
2	M12: Self-evaluation System at Individual Level	There is no a self-evaluation system.			0	4
3	M13: Self-learning Support System	There is no a self-learning system.			0	4

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2. Prioritization of Challenges

2-3. Scoring for prioritizing Challenges on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Managers						
1	C1: Executive Officers: Capacity to achieve goal and to raise the Standards of the Leadership	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.			0	4
2	C3: Executive Officers, Managers and or Supervisor: Capacity to improve Qualification of Staff in terms of Post and Job Description	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.			0	4

2. Prioritization of Challenges

2-3. Scoring for prioritizing Challenges on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Managers						
3	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2		2	2

9

2. Prioritization of Challenges

2-3. Scoring for prioritizing Challenges on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Managers						
4	C5: Executive Officers, Managers and or Supervisors, and General Officers: Capacity to collect Data and to apply for Analysis for the Water 4 Supply Service	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2	1	3	1

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2. Prioritization of Challenges

2-3. Scoring for prioritizing Challenges on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Human Resources and Administration Department						
5	C2: Managers and or Supervisors: Capacity to supervise Staff efficiently and effectively and to strengthen the Division and or Department	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.			0	4

11

2. Prioritization of Challenges

2-3. Scoring for prioritizing Challenges on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Human Resources and Administration Department						
6	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2		2	2

12

2. Prioritization of Challenges

2-3. Scoring for prioritizing Challenges on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Commercial Service Department						
7	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.			0	4

13

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
1	P3: Surplus Purification Capacity	Surplus capacity to maximum design capacity is less than -30%.	Human Resources Development Plan is prepared for engineers who can formulate plans to raise the surplus capacity to maximum design capacity less than 10% and human resources is developed.	Ratio of surplus capacity to maximum capacity and other process: A. -10% B. Less than -20% C. Planning D. Study	2

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
2	P4: Transmission and distribution mains	Asbestos, old cast iron and old steel pipes make up 75% of main pipelines	Ratio of deteriorated pipes will be reduced to 45%.	Ratio of deteriorated Pipelines: A. 45% B. 50% C. 60% D. More than 65%	3
3	P6: Mechanical and electrical equipment	More than 30% of installed major mechanical and electrical equipment are malfunctioning	Mechanical and electrical engineers can be trained.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	3

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
4	P10: NRW ratio	NRW ratio is more than 50%	NRW rate will be reduced from 51% (current) to 40%.	NRW Ratio: A. 40% B. 43.5% C. 47.0% D. More than 50.5%	1
5	P17: Implementation of training	Training is quite rare or not provided at all	-	-	4

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
6	P19: Awareness-raising on NRW reduction, collection of water charges, etc.	No or minimal effective awareness-raising activities have been implemented.	A system for effective awareness-raising activities is established.	Frequency of Awareness Meeting: A. Monthly B. Bimonthly C. Biannually D. Annually or less	2
7	P20: Sewerage coverage	Sewer coverage is zero.	-	-	4

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
8	P21: Year of work experience on water supply service	Average year of work that staff have experience on water supply service is zero to seven years.	-	-	4

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-2. Goals and Verifiable Indicators on Management Capacity of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
1	M8: Average Length of Service with CUs or Other Water Authority	Less than five years.	-	-	4
2	M12: Self-evaluation System at Individual Level	There is no a self-evaluation system.	-	-	4
3	M13: Self-learning Support System	There is no a self-learning system.	-	-	4

19

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Managers					
1	C1: Executive Officers: Capacity to achieve goal and to raise the Standards of the Leadership	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	-	-	4
2	C3: Executive Officers, Managers and or Supervisor: Capacity to improve Qualification of Staff in terms of Post and Job Description	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	-	-	4

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Managers					
3	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training to make staff understand the necessity of negotiation and coordination with staff and/or customers is conducted.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	2

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Managers					
4	C5: Executive Officers, Managers and or Supervisors, and General Officers: Capacity to collect data and to apply for analysis for the water supply service	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well	Training on how to develop and utilize data is conducted	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	1

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Human Resources and Administration Department					
5	C2: Managers and or Supervisors: Capacity to supervise Staff efficiently and effectively and to strengthen the Division and or Department	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	-	-	4

23

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of WWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Human Resources and Administration Department					
6	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training to make staff understand the necessity of negotiation and coordination with staff and/or customers is conducted.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	2

24

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
7	C:3 Executive Officers, Managers and or Supervisor: Capacity to improve Qualification of Staff in terms of Post and Job well. Description	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work of Post and Job well.	-	-	4

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4.PR Activity for this Project

4-1. Activity for Sensitization of Staff concerning this Project



26

4.PR Activity for this Project

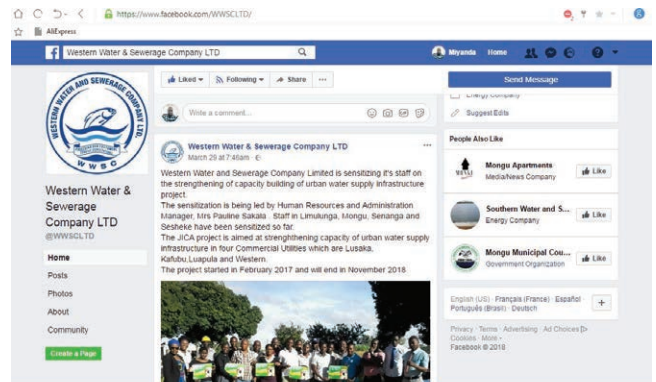
4-2. Putting up of PR Poster to share this Project to Customer



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4.PR Activity for this Project

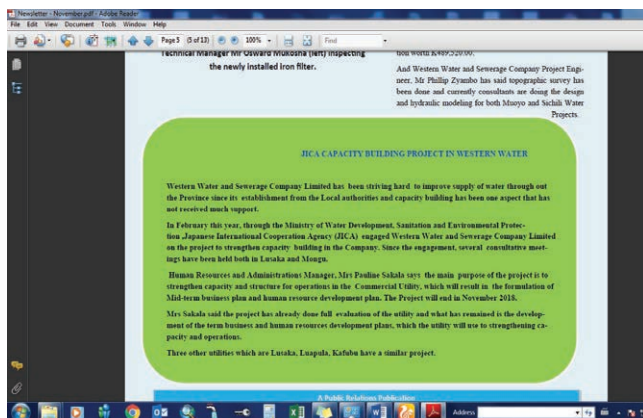
4-3. Uploading Document onto your Facebook Pages, Website



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4.PR Activity for this Project

4-4. Newsletter Oct – Dec 2017 issue



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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

Activity 3-3, 3-4, 3-5: Prioritization of challenges, Setting-up of Goals and verifiable Indicators by LpWSC

19th April 2018

Ms. Keren Nasiyongo

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

**National Water Supply and Sanitation Council (NWASCO)
Japanese Experts**

1

2

1. Goal or Objective (Mission Statement) in Strategic Plan by LpWSC

Strategic Plan (2019 -2023) of LpWSC

2. Increase the cost coverage from 45% to full cost recovery to **improve business viability**
 - a. Increase the number of customers from 7,500 to 25,000
 - b. Install prepaid meters to increase collection efficiency to 100%
 - c. Recover the K16.3m debt through prepaid metering
3. Increase sanitation coverage from 4% to 50%
 - a. Secure investment financing
 - b. Install sewage pipes in un-served areas
 - c. Provide sewage treatment facilities in all districts

3

4

1. Goal or Objective (Mission Statement) in Strategic Plan by LpWSC

Strategic Plan (2019 -2023) of LpWSC

6. Human Capital Reliability
 - a. Implement a robust training programme
 - b. Implement a robust performance assessment system

5

6

1. Goal or Objective (Mission Statement) in Strategic Plan by LpWSC

Strategic Plan (2019 -2023) of LpWSC

1. Increase the service coverage from 50% to 100%
 - a. Secure investment financing in addition to the AfDB funding
 - b. Reduce NRW
 - c. Optimize technical operations
 - d. Expand production plants
 - e. Install production plants
 - f. Expand the pipe network

1. Goal or Objective (Mission Statement) in Strategic Plan by LpWSC

Strategic Plan (2019 -2023) of LpWSC

4. Reduce NRW from 72% to 25%
 - a. Install zone meters
 - b. Replace aged pipes
 - c. Replace malfunctioning meters
 - d. Eliminate pipe cutting disconnections by installing prepaid meters
 - e. Implement the caretaker approach of zone leaders
5. Improve asset management through GIS mapping
 - a. Map all the assets on GIS
 - b. Train employees to regularly update new installations on GIS
 - c. Automate the plants using real time SCADA GIS

2. Prioritization of Challenges (Activity 3-3)

2-1. Scoring for prioritizing challenges on PIs of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
1	P2: Overall Water Supply Coverage	Less than 50%	2	1	3	1
2	P3: Surplus Purification Capacity	Less than -30%	2	1	3	1
3	P6: Mechanical and Electrical Equipment	More than 30% of installed major mechanical and electrical equipment (such as pumps, electrical transformers and generators) are not operated due to serious failures.		1	1	3

Note: Items in the columns which are highlighted in yellow will be aggregated with other items to be solved from the aspect of efficient implementation of the project as stated in NWASCO's presentation

2. Prioritization of Challenges (Activity 3-3)

2-1. Scoring for prioritizing challenges on PIs of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
4	P10: NRW Ratio	More than 50%	2	1	3	1
5	P14: Cost Recovery Level	Only part of the O&M costs (excluding depreciation of water supply facilities) are covered by water tariff. 'Annual Billed Revenue for Water / Total Annual Operating Costs for Water Excluding Depreciation and Financing Tariff' < 1	2		2	2

7

2. Prioritization of Challenges (Activity 3-3)

2-2. Scoring for prioritizing challenges on Management Capacity of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
1	M14: Evaluation of Trainee's Efforts	Trainees' efforts have not been evaluated.	2		2	2

8

2. Prioritization of Challenges

2-3. Scoring for prioritizing challenges on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Managers						
1	C1: Executive Officers: Capacity to achieve goal and to raise the Standards of the Leadership	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2		2	2
2	C3: Executive Officers, Managers and or Supervisor: Capacity to improve Qualification of Staff in terms of Post and Job Description	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2		2	2

2. Prioritization of Challenges

2-3. Scoring for prioritizing challenges on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Managers						
3	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still and or Supervisors: insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2		2	2

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2. Prioritization of Challenges

2-3. Scoring for prioritizing challenges on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Technical Department						
4	C2: Managers and or Supervisors: Capacity to supervise Staff efficiently and effectively and to strengthen the Division and or Department	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2		2	2

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2. Prioritization of Challenges

2-3. Scoring for prioritizing challenges on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Technical Department						
5	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still and or Supervisors: insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2		2	2

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2. Prioritization of Challenges

2-3. Scoring for prioritizing challenges on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Technical Department						
6	C5: Executive Officers, Managers and or Supervisors, and General Officers: Capacity to collect data and to apply for analysis for the water supply service	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2	1	3	1

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2. Prioritization of Challenges

2-3. Scoring for prioritizing challenges on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
Technical Department						
7	C6: General Officers: Capacity to communicate with Customers in order to provide them with high Quality Water Supply Service	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	2		2	2

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
1	P2: Overall water supply coverage	Overall service coverage is less than 50%.	Overall water supply coverage will be increased from 42% to 60%.	Service Coverage Ratio: A. 38.0% B. 37.5% C. 37.0% D. Less than 36.5%	1
2	P3: Surplus purification capacity	Surplus capacity to maximum design capacity is less than -30%.	Surplus capacity to maximum design capacity is more than 0%	Ratio of surplus capacity to maximum design capacity: A. More than 0% B. More than -5% C. More than -15% D. Less than -25%	1

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
3	P6: Mechanical and electrical equipment	More than 30% of installed major mechanical and electrical equipment are malfunctioning.	Mechanical and electrical engineers can be trained	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	3
4	P10: NRW ratio	NRW ratio is more than 50%.	NRW ratio will be reduced from 70% to 63%.	NRW Ratio: A. 63.0% B. 65.0% C. 66.5% D. More than 68.0%	1

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
5	P14: Cost Recovery Level	Only part of the O&M costs excluding depreciation of water supply facilities are covered by water tariff.	Water supply facilities can be well-maintained and repaired.	Number of engineers to repair water supply facilities: A. All the technical engineers for maintenance to enable to repair water supply facilities B. 75% of all the technical engineers for maintenance to enable to repair water supply facilities C. 50% of all the technical engineers for maintenance to enable to repair water supply facilities D. Less than 25% of all the technical engineers for maintenance to enable to repair water supply facilities	2

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-2. Goals and Verifiable Indicators on Management Capacity of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
1	M14: Evaluation of Trainee's Efforts	Trainees' efforts have been evaluated.	A system for trainees' effort is established.	Evaluation of trainees' efforts: A. Annually evaluated the trainees' efforts in the dedicated unit established or human resource development department and feed-back the result of evaluation to job description B. Annually evaluated the trainees' efforts in the dedicated unit established or human resource development department but not feed-back the result of evaluation to job description C. Established the dedicated unit to evaluate trainees' efforts D. Not established the dedicated unit to evaluate trainees' efforts	2

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Managers					
1	C1: Executive Officers: Capacity to achieve goal and to raise the Standards of the Leadership	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training on how to lead staff is conducted.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	2

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Managers					
2	C3: Executive Officers, Managers and or Supervisor: Capacity to improve Qualification of Staff in terms of Post and Job Description	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training to make staff understand the necessity of human resource development is conducted.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	2

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Managers					
3	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training to make staff understand the necessity of negotiation and coordination with staff and/or customers is conducted.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	2

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Technical Department					
4	C2: Managers and or Supervisors: Capacity to supervise Staff efficiently and effectively and to strengthen the Division and or Department	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training on how to lead staff is conducted.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	2

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Technical Department					
5	C4: Executive Officers, Managers and or Supervisors: Capacity to convince the third Parties to understand different Ideas and Opinions	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training to make staff understand the necessity of negotiation and coordination with staff and/or customers is conducted.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	1

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
Technical Department					
6	C5: Executive Officers, Managers and or Supervisors, and General Officers: Capacity to collect data and to apply for analysis for the water supply service	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training to make staff understand the necessity of development and utilization of data is conducted.	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	1

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-3. Goals and Verifiable Indicators on Communication & Negotiation Capacity of LpWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
7	C6: General Officers: Capacity to communication with customers in order to provide them with high quality water supply service	Performance is still insufficient in terms of standards of current post. Therefore, staff must make an effort to work well.	Training to make staff understand the necessity of communication with customers is conducted	Frequency of the Training: A. Bimonthly B. Quarterly C. Biannually D. Annually or less	2

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4.PR Activity

4-1. Activity for Sensitization of Staff concerning this Project



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4.PR Activity

4-2. Putting up of PR Poster to share this Project to Customer



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4.PR Activity

4-3. Uploading Document onto your Facebook Pages, Website



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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

Activity 3-3, 3-4, 3-5: Prioritization of challenges, Setting-up of Goals and verifiable Indicators by KWSC

19th April 2018

Mr. Brian Ng'onga

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

**National Water Supply and Sanitation Council (NWASCO)
Japanese Experts**

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2. Prioritization of Challenges (Activity 3-3)

2-1. Scoring for prioritizing challenges on PIs of KWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
1	P4: Transmission and Distribution Mains	More than 75% of transmission and distribution mains are asbestos pipes, old cast iron pipes (excluding ductile cast iron) or old steel pipes, with rust significantly blocking flow.		1	1	3
2	P10: NRW Ratio	More than 50%	2	1	3	1
3	P15: Collection Ratio	Less than 60%	2		2	2
4	P19: Awareness-raising on NRW reduction, water saving, collection of water charges, etc.	No or minimal effective awareness-raising activities have been implemented.	2		2	2

Note: Items in the columns which are highlighted in yellow will be aggregated with other items to be solved from the aspect of efficient implementation of the project as stated in NWASCO's presentation

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of KWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
1	P4: Transmission and Distribution Mains	More than 75% of transmission and distribution mains are asbestos pipes, old cast iron pipes (excluding ductile cast iron) or old steel pipes, with rust significantly blocking flow.	Ratio of aged pipes will be 64%.	Ratio of deteriorated Pipelines: A. 64% B. 67% C. 70% D. More than 72%	3
2	P10: NRW Ratio	More than 50%	NRW ratio will be reduced from 67% to 40%.	NRW Ratio: A. 40.0% B. 46.5% C. 52.5% D. More than 60.0%	1

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1. Goal or Objective (Mission Statement) in Strategic Plan by KWSC

Strategic Plan (2018 -2020) of KWSC

To Provide efficient and high quality water and sewerage services within the company's prescribed operational are on a sustainable commercial basis

2

2. Prioritization of Challenges (Activity 3-3)

2-2. Scoring for prioritizing challenges on Management Capacity of KWSC

No.	Items	Challenges	Importance	Urgency	Total	Priority
1	M7: Utilization of Manual of Meter Reading, Billing and Tariff Collection	There are no manual, or even if there is a manual, it has not been used at all.	2	1	3	1
2	M14: Evaluation of Trainee's Efforts	Trainees' efforts have not been evaluated.			0	4
3	M15: Development of Customer's Information	Customers' information has not been developed at all.	2	1	3	1
4	M16: Time to respond to Customer's Complaint	It takes at least 10 days to respond to customer's complaint.			0	4

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-1. Goals and Verifiable Indicators on PIs of KWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
3	P15: Collection Ratio	Less than 60%	Collection ratio will be increased from 55% to 80%.	Collection Ratio: A. 80.0% B. 74.0% C. 67.5% D. Less than 61.0%	2
4	P19: Awareness-raising on NRW reduction, water saving, collection of water charges, etc.	No or minimal effective awareness-raising activities have been implemented.	A system for effective awareness-raising activities is established.	Frequency of Awareness Meeting: A. Monthly B. Bimonthly C. Biannually D. Annually or less	2

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-2. Goals and Verifiable Indicators on Management Capacity of KWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
1	M7: Utilization of Manual of Meter Reading, Billing and Tariff Collection	There are no manual, or even if there is a manual, it has not been used at all.	Necessary manuals are prepared.	Preparation of Manual: A. Prepared manual which is composed of meter reading, billing and tariff collection B. Prepared manual which is composed of meter reading and billing C. Prepared manual only for meter reading D. Not prepared	1
2	M14: Evaluation of Trainee's Efforts	Trainees' efforts have been evaluated.	-	-	4

3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-2. Goals and Verifiable Indicators on Management Capacity of KWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
3	M15: Development of Customer's Information	Customers' information has not been developed at all.	Customers' information can be developed.	Development of Customer Information: A. Customer sections to enable develop customer list in terms of all the information required B. Customer sections to enable develop customer list in terms of only partial information C. Collected customer information and or data D. Conducted the training on customer information but not collected customer information and not developed yet at all	1

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3. Setting-up of the Goals (Activity 3-4) and Setting-up of the Verifiable Indicators (Activity 3-5)

3-2. Goals and Verifiable Indicators on Management Capacity of KWSC

No.	Items	Challenges	Goal	Verifiable Indicators	Priority
4	M16: Time to respond to Customer's Complaint	It takes at least 10 days to respond to customers' complaint.	-	-	4

4.PR Activity for this Project

4-1. Activity for Sensitization of Staff concerning this Project

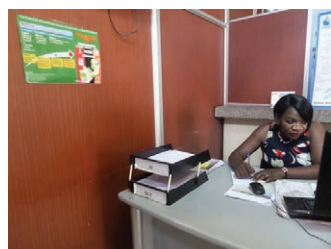
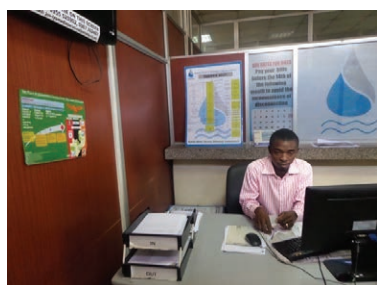


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4.PR Activity for this Project

4-2. Putting up of PR Poster to share this Project to Customer



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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

10: Schedule to be Implemented

19th April 2018

Mr. Hideyuki IGARASHI

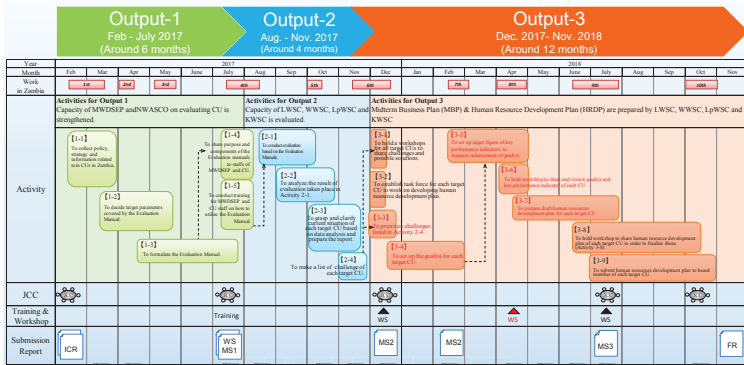
Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

National Water Supply and Sanitation Council (NWASCO)
Japanese Experts

Contents

1. Schedule to be implemented
2. Activities of each Output
3. Training & Workshop for MBP & HRDP
4. Comments for Question and Answer Session

1. Schedule to be implemented



We are here (middle of Output-3) ↑

- Activities of Output 1: [Formulation of evaluation manuals to CUs]
- Activities of Output 2: [Evaluation to CUs and identification of challenges & gaps]
- Activities of Output 3: [Formulation of MBP (Midterm Business Plan) & HRDP (Human Resources Development Plan)]

2. Activities of each Output

(1) Activity-1: Formulation of evaluation manuals to CUs

- [1-1] Collect policy, strategy and information related to 4 CUs in Zambia
- [1-2] To decide target issues covered by the Evaluation Manual
- [1-3] To formulate the Evaluation Manual
- [1-4] To share purpose and components of the Evaluation manuals to staff of MWDSEP and CU
- [1-5] To conduct training for MWDSEP and CU staff on how to utilize Evaluation Manual

(2) Activity-2: Evaluation to CUs and identification of challenges & gaps

- [2-1] To conduct evaluation based on the Evaluation Manual
- [2-2] To analyze the result of evaluation taken place in Activity 2-1
- [2-3] To grasp and clarify current situation of 4CUs based on data analysis & prepare report
- [2-4] To enlist challenge of 4 CUs

(3) Activity-3: Formulation of MBP & HRDP

- [3-1] To hold workshop for 4 CUs to share challenges and possible solutions
- [3-2] To establish taskforce for 4 CUs to work on developing MBP & HRDP
- [3-3] To prioritize challenges listed in Activity 2-4
- [3-4] To set up the goal(s) for 4 CUs
- [3-5] To set up target figure of key performance indicators, to measure achievement of goal(s)
- [3-6] To hold workshop to share and review goal(s) and key performance indicator of 4 CUs
- [3-7] To prepare Draft MBP & HRDP for 4 CUs
- [3-8] To hold workshop to share MBP & HRDP of 4 CUs in order to finalize MBP & HRDP
- [3-9] To submit MBP & HRDP to board member of 4 CUs

3. Training & Workshop for MBP & HRDP

Activity	Contents	Participants	Schedule
Training [1-5]	Make staff understand method to evaluate CUs	<ul style="list-style-type: none"> ● Team for Formulation of Evaluation Manual ● 4 CUs 	9 Aug 2017 (Done)
WS1 [3-1]	Share challenges & gaps on 4 CUs	<ul style="list-style-type: none"> ● Team for Formulation of Evaluation Manual ● Task Force for formulation of MBP & HRDP 	12 Dec 2017 (Done)
WS2 [3-6]	Share contents of activities of Task Force for formulation of MBP & HRDP	<ul style="list-style-type: none"> ● Team for Formulation of Evaluation Manual ● Task Force for formulation of MBP & HRDP 	Today PM (19 Apr 2018)
WS3 [3-9]	Share Draft MBP & HRDP	<ul style="list-style-type: none"> ● Team for Formulation of Evaluation Manual ● Task Force for formulation of MBP & HRDP ● 7 CUs (Representative & HR Manager) 	Jul 2018

4. Comments for Question and Answer Session

a. Viewpoints of incentive for sustainable implementation after the Project from PD

evaluation → challenge → priority → goal → MBP & HRDP

- A CU needs HRDP of data collection & utilization (C5) for General Officer class.
- However, a CU did not enlist challenge by "C5" for General Officer class.
- A CU enlisted challenge by "C5" for only Manager class.
- Therefore, the plan for General Officer class can not be formulated.

Next year

- A CU is able to evaluate again and enlist challenge for General Officer class.
- Therefore, a CU is able to revise MBP & HRDP of data collection & utilization (C5) for General Officer class

→ One of the sustainable implementation after the Project

THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

3. Explanation of the Project Review by JICA Expert Team (Pert-1)

30th January 2019

Mr. Hideyuki IGARASHI

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

National Water Supply and Sanitation Council (NWASCO)
Japanese Experts

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Contents

1. Procedure of this JCC
2. Brush up the Project
3. Activities of each Output
4. Sustainable Implementation after the Project

2

1. Procedure of the final JCC

Purpose of JCC

→ To review the Project by each C/P

[Procedure of this JCC]

(1) Briefing on this JCC

→ This presentation

(2) Explanation of the Project Review

→ by MWDSEP

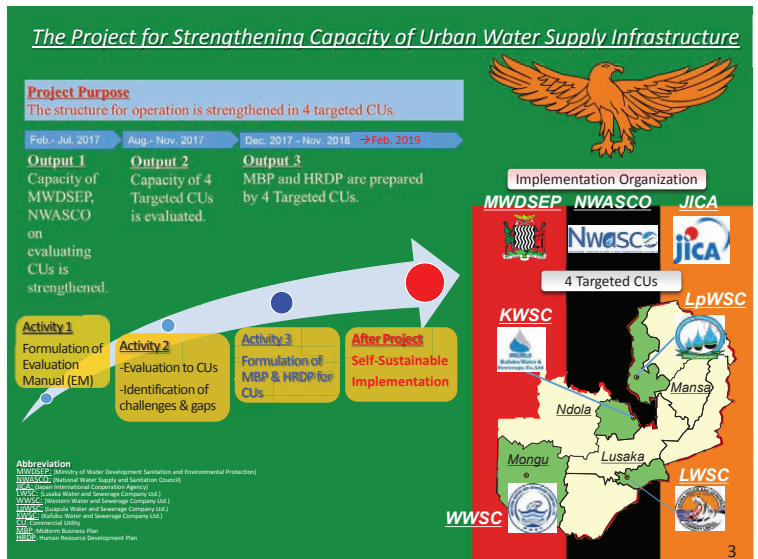
→ by NWASCO

→ by each CU

(3) Explanation of the Project Brief Note

→ by JICA Expert Team

3



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3. Activities of each Output

(1) Activity-1: Formulation of evaluation manuals (EM) to CUs

- [1-1] Collect policy, strategy and information related to 4 CUs in Zambia
- [1-2] To decide target issues covered by the Evaluation Manual
- [1-3] To formulate the Evaluation Manual
- [1-4] To share purpose and components of the Evaluation manuals to staff of MWDSEP and CU
- [1-5] To conduct training for MWDSEP and CU staff on how to utilize Evaluation Manual

(2) Activity-2: Evaluation to CUs and identification of challenges & gaps

- [2-1] To conduct evaluation based on the Evaluation Manual
- [2-2] To analyze the result of evaluation taken place in Activity 2-1
- [2-3] To grasp and clarify current situation of 4CUs based on data analysis & prepare report
- [2-4] To enlist challenge of 4 CUs

(3) Activity-3: Formulation of MBP & HRDP

- [3-1] To hold workshop for 4 CUs to share challenges and possible solutions
- [3-2] To establish taskforce for 4 CUs to work on developing MBP & HRDP
- [3-3] To prioritize challenges listed in Activity 2-4
- [3-4] To set up the goal(s) for 4 CUs
- [3-5] To set up target figure of key performance indicators, to measure achievement of goal(s)
- [3-6] To hold workshop to share and review goal(s) and key performance indicator of 4 CUs
- [3-7] To prepare Draft MBP & HRDP of each target CU
- [3-8] To finalize MBP & HRDP of each target CU
- [3-9] To be approved of MBP & HRDP by board members of 4 CUs

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4. Sustainable Implementation after the Project

(1) Letter from MWDSEP to NWASCO

MWDSEP issued the letter to NWASCO on 26th November, 2018 to ensure sustainability of activities in targeted CUs and to scale up to the remaining seven CUs

(2) NWASCO's Policy

- ◆ NWASCO will request all the CUs to make capacity assessment at organizational and individual levels in July or August. CUs will then finalize formulation or review of the MBP & HRDP in November every year.
- ◆ NWASCO conducts monitoring of progress in reviews and implementation of the MBP & HRDP every year.
- ◆ NWASCO will invite the workshop for all the CUs in October 2019.
- ◆ NWASCO will request the other seven CUs to make a capacity assessment based on the evaluation manual in January 2020.

(3) Trial Exercise and Monitor

NWASCO monitored progress of a series of activities from capacity assessment to formulation of MBP & HRDP which four CUs had a review in cooperation with JICA Expert Team from July 2018 to January 2019.

(4) Utilization of EM

JICA Experts discussed with Donors to utilize capacity assessment using EM after the Project.

(5) Support for Formulation of NRW Reduction Programme (next presentation)

JICA Experts supported targeted CUs to formulate the programs for countermeasures against NRW which is common challenges for each CU. It will contribute to formulate new or revised MBP and HRDP and detailed annual plans after the termination of the Project.

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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

3. Explanation of the Project Review by JICA Expert Team (Pert-2)

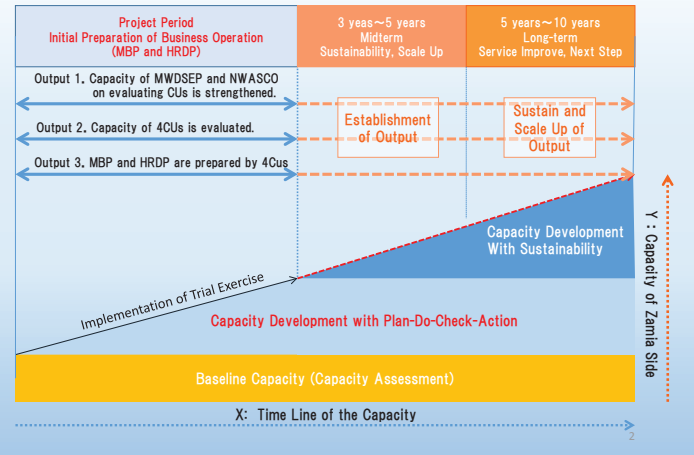
30th January 2019

Ms. Kimiko TAMOTSU

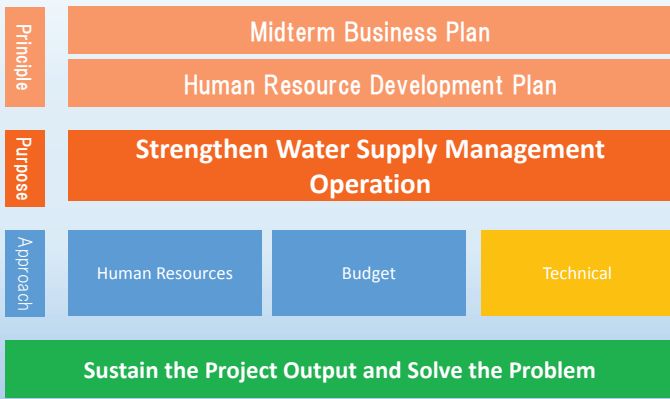
Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

National Water Supply and Sanitation Council (NWASCO)
Japanese Experts

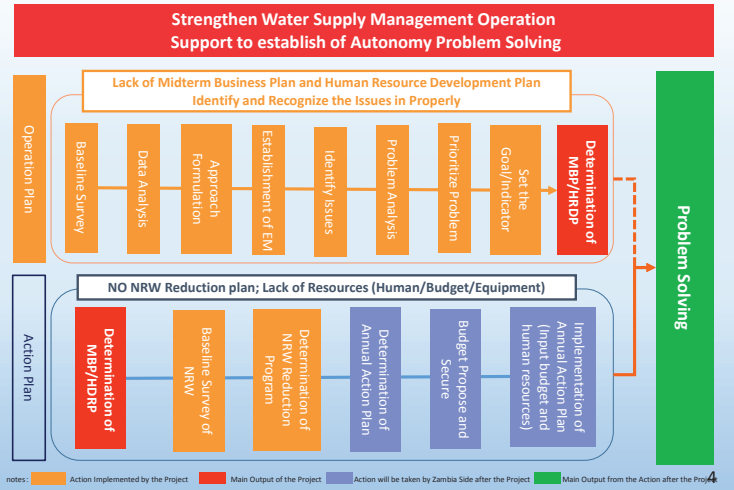
1. Location and Output of the Project



2. Structure of the Project



3. Summary of the Activities



4. Additional Activities(NRW Reduction)



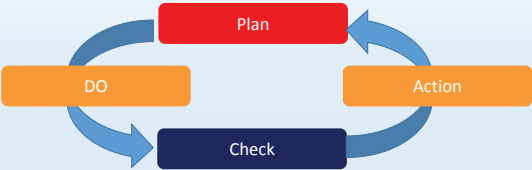
4. Additional Activities(NRW Reduction)

Example) Established NRW Reduction Program

Challenges	Brief Summary of Survey Result	NRW Reduction Operation Program (Draft)	Purpose of Operation	Technical Effect	Reasons that NRW Reduction Operation is not required as a program at this moment
1. Calculation of NRW Ratio					
<ul style="list-style-type: none"> No bulk meters installed at the outlets of service reservoirs and District Metered Areas (DMAs) 	<ul style="list-style-type: none"> There are about 250 bulk flow meters including intake ones. About 100 flow meters out of about 250 are not functioning, making-up about 40%. Flow meters were not sorted out by their purpose (for intake, outlets of service reservoirs or outlets of DMAs). It was difficult to clarify which flow meters can be used for measuring System Input Volume (SIV) in terms of NRW reduction operation. 	<ul style="list-style-type: none"> Identify points of flow meters at SIV Install bulk flow meters, if there are no flow meters or there are defective flow meters. 	<ul style="list-style-type: none"> Calculate NRW ratio based on accurate flow rate measured by bulk flow meters. 	<ul style="list-style-type: none"> Implement NRW reduction operation efficiently. 	
<ul style="list-style-type: none"> No billing system developed well 	<ul style="list-style-type: none"> (Meter Reading) Particular branch office managers suspect performance of water meter readers, the managers are interested in introducing DMRs. [Billing System] LWSC uses 'Engineering Design Analysis Management System' which is connected to the headquarters. Data of meter reading is input in each branch office and checked 	<ul style="list-style-type: none"> Establish systematical water meter reading system by using Digital Meter Reading System (DMR). 	<ul style="list-style-type: none"> Improve accuracy of water meter reading data 	<ul style="list-style-type: none"> DMR is able to avoid human errors of meter reading in a sequence of the works between meter reading and data input. 	

5. Proposal for the Future Plan

1. Improve MBP and HRDP with PDCA Cycle



2. Establish the detail action plan for each challenges

3. Secure the budget with cost estimate

4. Commit and implement the determined action Plan

PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

FIFTH JOINT COORDINATING COMMITTEE (5th JCC)

Eng. Michael M. Museba

Ministry of Water Development, Sanitation and Environmental Protection (MWDSEP)

30th January, 2019

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Contents of the Presentation

1. Project Overview

2. Project Objectives

3. Project Evaluation and Activities

4. Outputs

5. Challenges and Solutions

Project Overview

- Zambia's population has been growing rapidly; 3.4 Million in 1964 and over 17 Million in 2019
- Water Supply critical – deteriorated facilities, illegal connections, NRW at 48%
- March 2015 – request made to Japan to implement the Project on Capacity Development and O & M of Water Supply Systems
- CUs lacked comprehensive Human Resource Development Plans to conduct training, and Ministry had no tool to evaluate the implementation structures of CUs
- 30th August 2016 – Project signed between MLGH and JICA

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Project Objectives

- **Overall Objective:** To establish appropriate operation system for CUs and improve appropriate technology
- 1. **Specific Objectives at Organization Level:**
 - To strengthen the Capacity of MWDSEP to guide the sector
 - To develop the Capacities of CUs to manage their operations sustainably within the conditions of resource constraints
 - To develop the Capacities of Local Authorities (LAs) in resource mobilization, resource allocation prioritization, resource utilization and shareholder responsibilities for sustainable Water supply and sanitation (WSS) service delivery.
 - To strengthen the Capacity of NWASCO to optimize the utility of its database and to upscale its coverage.
- 2. **Specific Objectives at Individual Level:**
 - To enhance the HR performance in the WSS sector
 - To recruit and retain both male and female staff in the sector

Project Evaluation and Activities

- Evaluation was divided into 3 parts: Performance Indicators, Management Capacity and Communication and Negotiation Capacity
- 22 Performance Indicators were grouped according to the aspect of activities being reported as follows:
 - Aspect to be improved by Facility Investment
 - Aspect to be improved by Capacity Development for Technical aspect
 - Aspects to be improved by Capacity Development for Non-technical aspect
 - Aspect to be improved by Program Approach

Outputs

- Output 1:** Formulation of evaluation manuals for CUs
- Output 2:** Evaluation of CUs and identification of gaps and challenges
- Output 3:** Formulation of MBPs & HRDPs

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Where are we on the project monitoring sheet?

- **3-9 : To approve of MBP and HRDP by board member of each target CU**
- LpWSC and WWSC have had their plans approved
- Approval important so that the monitoring of the implementation of plans and lessons learnt could start

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Challenges and Solutions

Before (Challenge)	After (Solution)
<ul style="list-style-type: none"> • Evaluation manuals were inadequate or not in place • Staff untrained on how to use evaluate CUs 	<ul style="list-style-type: none"> • Evaluation manuals for CUs formulated • Staff trained on how to use evaluate CUs
<ul style="list-style-type: none"> • Unable to evaluate and identifying challenges and gaps faced by CUs 	CUs able to evaluation and identify of challenges & gaps, and take appropriate action
<ul style="list-style-type: none"> • Plans existed but not MBP and HRDP 	MBP & HRDP formulated and approved or ready for approval by the boards

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Challenges and Solutions

EX: NRW Management Study, Aarhus Denmark

- The second largest city in Denmark supplies 270,000 customers with 15 million cubic metres per year of water safe to drink directly from the tap.
- The water utility, Aarhus Water, has focused on optimising water distribution and today the key performance indicators on efficiency are very impressive.
- Over the last 10 years Aarhus Water has managed to reduce its NRW to 6 % and the real pipe loss is only 1.4 cubic metres/km/day.
- The Infrastructure Leakage Index (ILI) is down to 0.83

Challenges and Solutions

EX: NRW Management Study, Aarhus Denmark

- Old pipes not necessarily the problem In Denmark, water consumption has decreased by 30 percent over a period of 25 years.
- During the same period GDP increased by 40 percent. In addition, average water losses have been reduced to 7 percent due to political focus on the problem and legal regulation that has motivated the water utilities, consulting companies and technology providers to develop new cost efficient leakage monitoring technologies and leakage management systems.
- This proves that high levels of water losses are not correlated with the age of the pipes.
- If the water distribution system is well maintained and managed even very old pipes may perform well.
- Eleven percent of water pipes in Copenhagen are over 100 years old and 76 percent are more than 60 years old.
- Nonetheless, the city has a NRW level below 5 %.

STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE ZAMBIA

Kasenga Hara

January 2019

Ensuring Better Services and Fair Value

Contents

1. Background of project
2. Achievements
3. Challenges
4. Way forward
5. Expansion

Background

- All CUs had strategic plans – final or draft
- Project targeted action areas for optimal improvements
- Overall objective – urban water supply infrastructure is managed in a sustainable way by CUs.
- Outputs:
 - 1; Capacity of Ministry to evaluate CUs is strengthened
 - 2; Capacity of CUs (4) is evaluated
 - 3; MBP and HRDP are formulated

Background - activities

- I. Data collection, setting of parameters and formulation of Evaluation Manual.
- II. Training on use of the Evaluation Manual
- III. Trial assessments based on E.M by CUs.
- IV. Formulation of MBPs and HRDPs.
- V. Approval of the MBP and HRDPs by the CU Boards.

Achievements from the project

- CUs have concise and focused plans to enable enhanced performance
- Shift from silo-planning to integrated planning involving depts., enabling goal congruence.
- Instilled a sense of ownership via bottom – up approach.
- Use of E.M enabled deeper probing of challenges, hence outlining practical solutions.

Review of the Project

- Relevance: HIGH
- Effectiveness: RELATIVELY HIGH
- Efficiency: RELATIVELY HIGH
- Impact: HIGH
- Sustainability: RELATIVELY HIGH

Challenges encountered

- Delays were encountered from CUs (inability to mobilise depts.)
- E.M is quite bulky and needs dedicated time.
- Reassignment of staff... (requiring retraining).



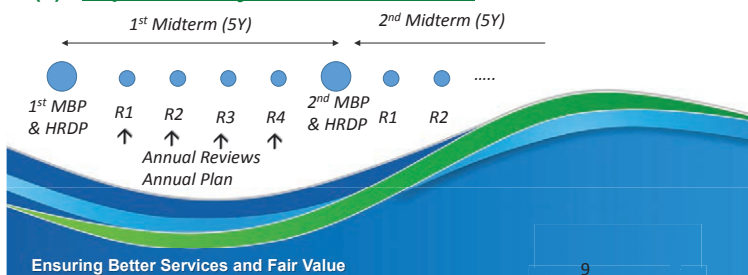
WAY FORWARD



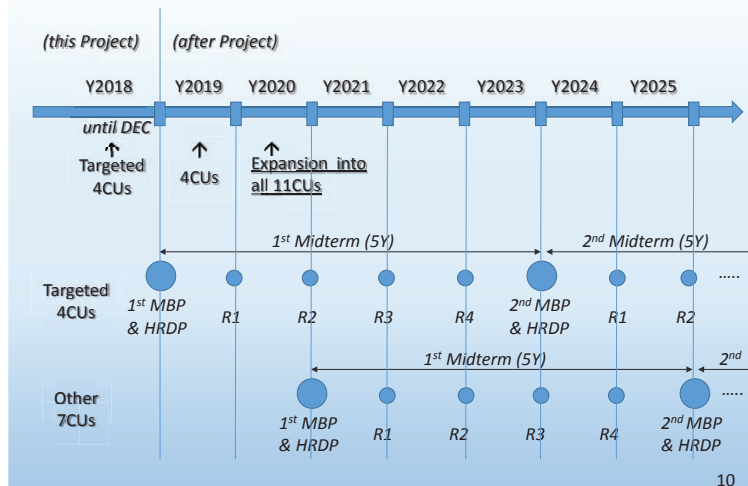
NWASCO will;

(1) Conduct annual inspections of implementation of MBP & HRDP, in line with already existing benchmark system

(2) Expand this system into all 11 CUs.



Expansion Plan to all 11 CUs



Thank you



Water Supply

Sanitation

Balancing commercial and consumer interests



THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

5th Joint Coordination Committee

30th January 2019

Ms. Mwiche Sekeleti Musabaila

Lusaka Water and Sewerage Company

1.Contents of the Presentation

1.Introduction

2. Summary of the Project

3. Problem and Solutions

4. Challenges after the Project

5. Way forward

1. Introduction

- The Japan International Cooperation Agency (JICA) is providing Technical Assistance for strengthening Capacity of Urban Water Supply Infrastructure for Commercial Utilities (CU) in Zambia.
- Lusaka Water and Sewerage Company is one of the CU that was considered under the project.
- The JICA project team conducted capacity assessment of CUs to identify their challenges and gaps.
- Project used a tool called an Evaluation Manual
- The Evaluation Manual is composed of Performance Indicators which have been aligned to the National Water Supply Council (NWASCO) benchmark system and other key areas for Management Capacity and Communication & Negotiation Capacity.

2. Summary of the Project



1. Formulation of evaluation manuals to Cus
 - Questionnaires were used as data collection tools
2. Evaluation to CUs and identification of challenges & gaps
 - Manual used to assess the CU using the Performance Indicators and key areas for Management Capacity and Communication & Negotiation Capacity.
3. Formulation of MBP (Midterm Business Plan) & HRDP (Human Resources Development Plan)
 - LWSC working with the JICA experts formulated the MBP and HRDP based on the assessment results

2. Summary of the project (2)

RELEVANCE

No.	BEFORE	AFTER
1.	Not clear where the problems were on NRW	Strengthened capacity to pin point the problems on NRW
2.	Strategies were not adequately addressing the NRW reduction	Strategies to address the key challenges were reinforced and have been formulated
3.	Training plan was developed not fully implemented	Corporate training plan revised to address the identified challenges inclusive of budgets

2. Summary of the project (3)

EFFECTIVENESS

No.	BEFORE	AFTER
1.	Complaints not resolved timely	Customers receive more hours of supply due to improved complaints resolution
2.	More vandalism of water and sewer lines and throwing of rubbish in sewer pipes	Customers have been able to throw rubbish in designated areas making the water not to be contaminated
3.	Lack of proper communication channels on the NRW, water conservation and behavioral change	Developed a communication strategy to inform customers on awareness raising on NRW, water supply and sanitation service

2. Summary of the project (4)

IMPACT

No	BEFORE	AFTER
1.	Challenges were not prioritized in the order of importance and urgency	The steps of identification and prioritizing of challenges has been institutionalized
2.	NO MBP & HRDP	MBP & HRDP in place
3.	Challenges not resolved holistically	CU able to resolve problems

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2. Summary of the project (5)

EFFICIENCY

NO.	BEFORE	AFTER
1.	Staff productivity was low as seen by key performance indicators	Improvement in staff productivity
2.	Project helped to cost activities from the challenges identified	Expenditures are according to key priority areas

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2. Summary of the project (6)

SUSTAINABILITY

No.	BEFORE	AFTER
1.	Inadequate tools to enhance the implementation of the Strategic Plan	Enhanced tools - customized the evaluation manual into the planning process and implementation of annual plans
2.	Lack of MBP and HRDP	MBP and HRDP to be used as bankable documents to source for funding from Cooperating Partners and other International Financial Institutions
3.	Lack of adequate skills in planning, monitoring and evaluation	Identified required competence skills in the planning, implementation, monitoring and evaluation in key staff of the organization which requires training

3. Problem and Solutions

No.	PROBLEM	SOLUTION
1.	lack of understanding the project to an extent of staff turnover	Train more staff on the use of evaluation manual and project implementation
2.	Inadequate funding to implement the projects in the MBP and HRDP	Source for funding from International Financing Institutions and other Cooperating partners
3.	Commitment of some staff to take part in the project as they feel its not their mandate	Engagement of key staff, train and integrate in job profiles/ PMS
4.	Challenges in appreciating the evaluation manual by most staff	Conduct sensitization and identify champions
5.	Inadequate training by the JICA team	Conduct more trainings (TOT)
6.	Differences in evaluation methods	Harmonize evaluation methods in the sector

4. Challenges After the Project

Budget constraints –for the project activities e.g. E learning platform

➤ not budgeted for under LWSC

➤ Hope to use the approved Board submission to source for funding

Staff turnover

➤ Integrate in the mainstream of the organization

Some project activities may be overtaken by events

➤ Changes in the operating environment interventions change

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Rough Schedule of Implementation Plan

Project	Source of funds	OUTPUT	TIME FRAME 2019 - 2023															
			2019				2020				2021				2023			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
(1) NRW Reduction Project: Established of 30 DMAs																		
Team Leader	N/A	Appointment of team leader																
Review and develop NRW water Strategy	N/A																	
Distribution Management	LWSC	200km of distribution network replaced																
Construction Supervision	LWSC	supervision conducted																
Procurement of portable flow meter	LWSC	Portable flow meter procured and in use																
Installation of boundary valves diameter 200mm to 300mm	LWSC	320 units of shice valves procured and installed																
Replacement of deteriorated pipes	LWSC	200kms of deteriorated piped replaced																
Installation of 100 bulk flow meters at outlets of reservoirs/DMA's	LWSC																	
Installation of customer meters	LWSC	75,000 property meters procured and installed (25,000 annually)																
(1-8) Leakage management)	LWSC	Conduct leakage tests to identify leaks																
(1-9) PR activity (15MM)	LWSC	Report on awareness raising of NRW activities																
B. Human Resource Development Plan																		
(2) Establishment of self-learning system																		
(2-1) Project Manager	N/A																	
(2-2) Establishment of the system (1.5MM)	N/A																	
(2-3) Procurement of PC (20 units)	N/A																	

Thank you

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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

5th Joint Coordination Committee

30th January 2019

Ms. PAULINE M. SAKALA
Western Water and Sewerage Company

Contents of the Presentation

1. Summary of the Project

2. Overview of Activities

3. Problem and Solutions

4. Challenges after the Project

1. Summary of the Project



Formulation of evaluation manual

- Provided content through responses to questionnaires for formulation of Evaluation Manual

Evaluation of CU and identification of challenges & gaps

- Carried out evaluation of the CU with JICA experts under three major aspects i.e Performance indicators, Management capacity & Communication & negotiation capacity

Formulation of Midterm Business Plan & Human Resources

Development Plan in conjunction with JICA experts based on evaluation results

Overview of Activities

1. Formulation of evaluation manuals

- Attended a trainings on the use of Evaluation Manual.

2. Evaluation to CUs and identification of challenges & gaps

- Evaluation of WWSC – October 2017
- Presentation of the results of the evaluation
- Conducted PR activities (newsletter, Facebook flyers etc)
- Consultative meetings on the formation of MDP & HRDP

3. Formulation of MBP & HRDP

- Draft copy of the MDP & HRDP prepared
- Conducted a Trial Exercise on the formulation of MDP & HRDP.
- MDP & HRDP prepared and approved by the Board.

1. Summary of the Project

RELEVANCE

No.	BEFORE	AFTER
01	No formulated strategy on NRW and capacity development	Strategies on NRW and capacity development have been formulated <ul style="list-style-type: none"> • Reduction of NRW
02	No deliberate training programme in place	Areas of training were identified together with corresponding budget requirements. <ul style="list-style-type: none"> • Capacity for employees developed
03	No capacity in place to identify challenges	Evaluation Manual to help with tools and procedures in identifying challenges <ul style="list-style-type: none"> • MDP & HRDP developed internally

1. Summary of the Project

EFFECTIVENESS

ITEM	BEFORE	AFTER	REASON/CAUSE
01. Mechanical and Electrical Equipment	Very Serious	Serious	Major mechanical and electrical equipment were replaced recently
02. Systems to evaluate Work Performance capacity towards goal	Serious	good	Implementation of Performance Management System
03. No specific budget for program to source funds	very serious	good	Budget in place that can be used to source funds from various stakeholders

1. Summary of the Project

IMPACT

No.	BEFORE	AFTER
01	No development of MDP and HRDP	CU able to develop its own MDP and HRDP
02	Challenges were not critically analyzed and put in order of importance and urgency. Difficult to group	Improved planning process
03	Compromised water quality and supply hours	Improved water quality and supply hours due to new filters and pumps and motors

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1. Summary of the Project

EFFICIENCY

No.	BEFORE	AFTER
01	Difficult to identify indicators and grouping them in priority order – Data not usually accurate and reliable	Able to come up with indicators and to prioritize the activities
02	Dependent on the Consultants	MDP & HRDP can be developed internally
03	Trainings were done without critical analysis of the challenges and consideration of importance and urgency	Provide tailor made training to employees
04	Inaccurate measuring methods of calculating NRW	Able to calculate NRW through acquisition of domestic and bulk meters

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1. Summary of the Project

SUSTAINABILITY

No.	BEFORE	AFTER
01	There was no capacity to develop MDP & HRDP	Adequate knowledge has been imparted to continue with the planning process and implementation internally.
02	No MDP and HRADP in place	Prepare, implement and monitor annual work plans
03	Only relied on internally generated funds and grants from Government and other cooperating partners.	Seek for funds based on business proposals from stakeholders – Govt., donors, financial institutions, etc.
04	75% dilapidated network	Identified replacement of the 183km of pipe network and complete overhaul of the old infrastructure in the priority towns

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4. Problem and Solutions

No.	PROBLEM	SOLUTION
01	Staff turnover	Develop and implement employees retention programmes
02	Budget constraints – collection of data	Source funds from cooperating partners and financial institutions
03	Lack of adequate capacity in staff to understand the EM	Sensitization of employees on the importance of the project
04	Unskilled staff	Continue training staff on the use of the evaluation manual
05	Resistance (lack of serious commitment) by some staff to embrace the project	Enhance capacity development of staff through training programs

Challenges after the Project

CHALLENGES

- Budget constraints in financing some of activities in MDP & HRDP
- High staff turnover – Management level
- FUTURE ACTION PLAN AFTER MDP & HRDP
 - Come up with a business process management
 - Conduct a survey of the project
 - Come up with an action plan
 - Secure funding from donors or annual work plan
 - Implement.

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ROUGH SCHEDULE OF IMPLEMENTATION PLAN

NO	PROJECT	SOURCE OF FUNDS	GOAL	TIME FRAME IN QUARTERS															
				2019				2020				2021				2022			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
MID TERM BUSINESS PLAN																			
NRW Reduction project: Replacement of deteriorated pipes																			
1	Engagement of Team Leader	AfDB	Recruitment of team leader done.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	Distribution Management	AfDB	183km of main pipe lines replaced																
3	Construction Supervision	AfDB	183km of main pipe lines replaced																
4	Replacement of deteriorated pipes (183km)	AfDB	183km of main pipe lines replaced																
5	PR activity	AfDB	Report on PR activities																■

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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

5th Joint Coordination Committee

30th January 2019

**Mr. Barnard P. Chama
Luapula Water and Sewerage Company**

CONTENTS OF THE PRESENTATION

1. Overview of Activities

2. Summary of the Project

3. Problem and Solutions

4. Challenges after the Project

OVERVIEW OF ACTIVITIES

- Attended workshop to learn on how to undertake the projects by use the manual.
- Conducted self evaluations considering all relevant performance indicators and parameters of management capacity basing the manual.
- Actively analyzed the results of the evaluation and enlisted our challenges basing on the manual.
- Did trial exercise
- Came up with HRDP and MBP enshrining therein all inadequacies established during the evaluation of our operations. Both documents have been approved by the Board
- MD presented the project to the Ambassador of Japan to Zambia during his media visit to Luapula.

1. Summary of the Project(1)

Before	After
No training programme in place for NRW reduction	Training programme is in place for reduction of NRW (1-1) Team Leader (10MM) (1-2) Distribution Management (2MM) (1-3) Construction Supervision (40MM) (3-1) Project Manager (10days) (3-2) Trainer (Mechanical) (3 days) (3-3) Trainer (Electrical) (3 days)
No Mid-Term Business plan and Human Resources Development Plan in place.	Produced a Mid term Business Plan and Human Resources Development Plan for the period 2019 to 2023
(1-4) Replacement of deteriorated pipes (105km)	Replacement of deteriorated pipes (105km) awaits the contractor under the AfDB funded ISTWSSP and the JICA funding support

1. Summary of the Project (2)

Before	After
Use of the piano billing system which is not reliable leading to commercial losses	Training for Municipal Billing was conducted
Customers on flat rate leading to commercial losses	310 Customer meters have been installed for all customers who were on flat rate
(2-3) Repair of slow sand filters (3 No.)	A budget has been prepared and awaits funding
(5-3) Procurement of PC (10 units)	20 PC have been procured under the AfDB funded ISTWSSP and awaits delivery

PROBLEMS AND SOLUTIONS

Prepaid water meter valves not closing when battery is low leading to commercial losses.	<ul style="list-style-type: none"> • Introduced a route inspection of Prepaid water meters – • Repaired or replaced faulty water prepaid meters • Replaced the batteries
There were over 120 customers on flat rate charge leading to commercial losses.	<ul style="list-style-type: none"> • Replaced water stuck meters and installed new meter on properties which had no water meters
The metering ratio was less than 100% leading to commercial losses	<ul style="list-style-type: none"> • Installation of water meters to attain 100% metering ratio

CHALLENGES AFTER THE PROJECT

Funding for the budget and technical support to implement the activities on the MTBP and HRDP

- DMRS to reduce on NRW
- Leak detection equipment
- Repair of leakages
- Creation of DMA's
- Tools for network repair

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• THANK YOU

THE END

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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

5th Joint Coordination Committee

30th January 2019

**Mr. Brian Mwiinga Ngonga
Kafubu Water and Sewerage Company Limited**

Contents of the Presentation

- 1. Summary of the Project
- 2. Overview of Activities
- 3. Achievement of capacity Development
- 4. Problem and Solutions
- 5. Challenges after the Project

Summary of the Project

- **ACTIVITY 1 - August 2017 to November 2017**
 - Revision of formulated evaluation manual assisted by JICA Expert.
- **ACTIVITY 2 – up to December 2017**
 - Evaluation of Kafubu Water and Sewerage Company Limited (Commercial Utility) assisted by JICA Experts.
 - Identification of challenges and gaps with the help of JICA experts
- **ACTIVITY 3**
 - Formulation of MBP and HRDP -KWSC assisted by JICA expert
- **ACTIVITY 4 - to November 2018**
 - **Trial Exercise**
 - Evaluation of KWSC (Commercial Utility)
 - Identification of challenges and gaps
 - Formulation of MBP and HRDP

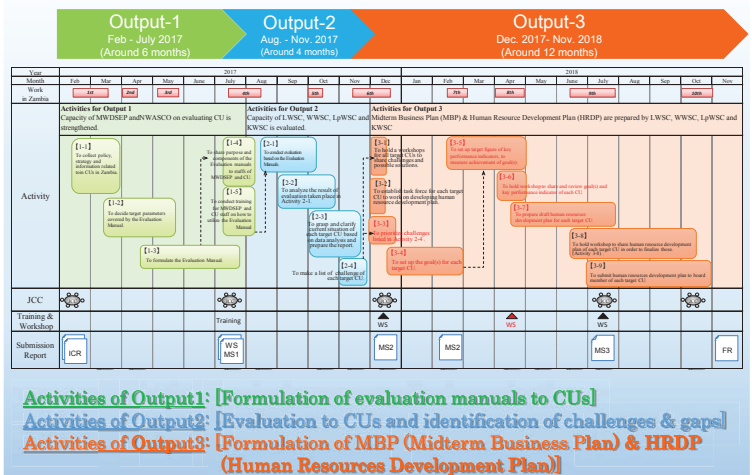
Summary of the Project con't

1. Evaluation of the CU (KWSC) and identification of Challenges using new tools (EM)
2. Proper Data Analysis with reference to able personnel to conduct a data analysis using provided tools.
3. Determination of MBP and HRDP - It provided for Identification, assessment and evaluation tools for KWSC which has improved effective problem identification and Action Plan Monitoring to the benefit of our customers
4. Prioritize Problems - Provision of a Model by the project as a tool - **Action Priority Matrix on Evaluation of Importance and Urgency**
5. Formulation of Midterm Business Plan - (MBP) & Human Resources Development Plan (HRDP)
6. Problem Identification through an Evaluation Manual
7. The incorporation of the EM into the formulation of MBP and HRDP will help sustain the Project for KWSC though there is need to invest in training for other members of staff to fully understand the importance of the exercise and tools.

PROBLEM AND SOLUTIONS

- The time which was allocated for trainees during the workshops for the project was not enough for them(us) to understand the project tools very well because of the bulk contents in some tools i.e. the EM required more time to understand. This affected the quality and time taken in submitting data/information when needed for analysis by Jica Experts. The number of consultative workshops interface meetings for trainees with experts should be increased for new learners.
- Challenges in understanding the evaluation manual and other tools introduced during the project but with time the Company managed.
- The manual still has some limitations but can be supplemented i.e.P21 was found not to be effective as KWSC was as new establishment compared to Performance indicator assessment.
- The Company had challenges at first to incorporate the project into operations but it has become as an extra tool for identification of problems and finding of resolutions
- Challenges in handling communication and negotiation capacity part in the EM i.e. whether to communicate to employees being assessed or not concerning their assessments results. This involved individual assessments done by supervisors. It was agreed that individuals should be informed to help them improve their performance rather than assessing them in privacy.

1. Summary of the Project



1. Summary of the Project

Before	After
<ul style="list-style-type: none"> ▪ Identification of problems /challenges not done in a formulated way i.e. no Evaluation Manuals involved which would lead to missing of some problems on the action plan. ▪ There was no clear grounded model on Evaluation of Importance and Urgency after identification problems. ▪ Awareness and emphasis on identified problems was not adequate and easily shared. 	<ul style="list-style-type: none"> ▪ Identification of problems using Evaluation Manual which is more effective ▪ Able to Prioritize Problems using a well grounded Model (Evaluation of Importance and Urgency) ▪ The awareness and emphasis of identified problems or needs have been well documented using a formulated Manual and easily shared in the organization for a common goal. ▪ Goals have been set in the MBP & HRDP with clear indicators to ensure ease monitoring.
<ul style="list-style-type: none"> ▪ Absence of clear monitoring route/progress on (KPI) for easy evaluation of performance till the end of year review 	<ul style="list-style-type: none"> ▪ Proper monitoring on performance using aggregated formulas using the MBP and HRDP provisions i.e. NRW to be reduced

2. Overview of Activities

(1) **Activity-1: Formulation of evaluation manuals to CUs**

- [1-1] Collect policy, strategy and information related to 4 CUs in Zambia
- [1-2] To decide target issues covered by the Evaluation Manual
- [1-3] To formulate the Evaluation Manual
- [1-4] To share purpose and components of the Evaluation manuals to staff of MWDSEP and CU
- [1-5] To conduct **training** for MWDSEP and CU staff on how to utilize Evaluation Manual

(2) **Activity-2: Evaluation to CUs and identification of challenges & gaps**

- [2-1] To conduct evaluation based on the Evaluation Manual
- [2-2] To analyze the result of evaluation taken place in Activity 2-1
- [2-3] To grasp and clarify current situation of 4CUs based on data analysis & prepare report
- [2-4] To enlist challenge of 4 CUs

(3) **Activity-3: Formulation of MBP & HRDP**

- [3-1] To hold **workshop** for 4 CUs to share challenges and possible solutions
- [3-2] To establish taskforce for 4 CUs to work on developing MBP & HRDP
- [3-3] To prioritize challenges listed in Activity 2-4
- [3-4] To set up the goal(s) for 4 CUs
- [3-5] To set up target figure of key performance indicators, to measure achievement of goal(s)
- [3-6] To hold **workshop** to share and review goal(s) and key performance indicator of 4 CUs
- [3-7] **To prepare Draft MBP & HRDP for 4 CUs**
- [3-8] **To hold workshop to share MBP & HRDP of 4 CUs in order to finalize MBP & HRDP**
- [3-9] To submit MBP & HRDP to board member of 4 CUs

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CHALLENGES

	STRATEGY	ACTION
High Non Revenue Water (NRW) of 64%	Reduce Non Revenue water to 25% by 2022	<ul style="list-style-type: none"> i. Installation of over 37,000 meters starting 2019. ii. Laying of new distribution lines in areas with dilapidated pipes. iii. Creation of District Metered Areas (DMA) to ensure measurement and management of water volumes .
Lack of NRW awareness of customers	Increased stakeholder engagement through Public Relations	<ul style="list-style-type: none"> i. Budget available in 2019 for various activities on NRW information to customers through Radio, TV, News letters and Electronic Communication. ii. Quarterly stakeholder meetings to increase awareness on NRW and water conservation by stakeholders such as affiliated organizations and customers. iii. Periodic press tours of project sites to explain problems that each project stage addresses.

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MBP AND HRDP

- The item was introduced in the Special Board meeting on 27th December 2018.
- Deliberation of the MBP and HRDP will take place on 4th February 2019 during the Special Board committee sitting before the approval by the Full Board sitting (The paper has been circulated to the Board members).

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THE PROJECT FOR STRENGTHENING CAPACITY OF URBAN WATER SUPPLY INFRASTRUCTURE IN THE REPUBLIC OF ZAMBIA

Project Brief Note by JICA Expert Team

30th January 2019

Ms. Kimiko TAMOTSU

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National Water Supply and Sanitation Council (Nwasco)
Japanese Experts

1. Background of the Project and Issues



Japan International Cooperation Agency



Ministry of Water Development, Sanitation and Environmental Protection.



- Assisted by international donors based on National Development Plan, urban & rural water supply system has been developed since commencement of water supply services.
- However due to the deteriorated water supply facilities and illegal connections, ratio of Non-Revenue Water (hereinafter referred to as "NRW") is high at 48%.

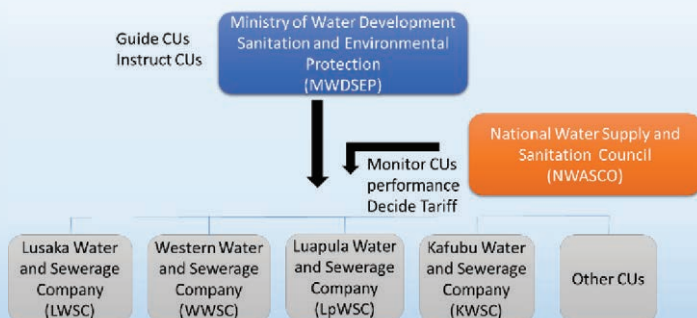
2. Approach Undertaken (PDM 1/2)

Project Monitoring Sheet I (Revision of Project Design Matrix)					
Project Title: "The Project for Strengthening Capacity of Urban Water Supply Infrastructure"					Version: 4.0
Implementing Agency: MWDSEP					Dated: 31st January 2019
Project Period: One year and nine months from the date when the first JICA Expert Team is dispatched.					
Project Title: Lusaka, Western, Luapula and Kafubu - Monitor CU's, WWSC, LpWSC and KWSC					
Overall Goal	Objectives	Years of Verification	Important Assumption	Achievement	Remarks
Urban water supply infrastructure is managed in a sustainable way by each Commercial Utility (CU)	Urban water supply infrastructure is managed based on the Strategic Plan and/or Human Resources Development Plan	Annual Report		None	
The structure for operation is strengthened in LWSC, WWSC, LpWSC and KWSC.	Human Resources Development Plan of LWSC, WWSC, LpWSC and KWSC is prepared and approved by board members of each CU.	Project Report	Senior management does not leave the CU	None	
Capacity of MWDSEP on evaluating CU is strengthened.	1.1 The Evaluation Manual for evaluating CU is approved by MWDSEP and Nwasco. 1.2 The way to utilize the Evaluation Manual is understood by MWDSEP and CU staffs in charge of urban water supply.	Project Report		None	
Capacity of LWSC, WWSC, LpWSC and KWSC is evaluated.	2.1 Challenges of each CU are clarified.	Project Report			
Medium Business Plan (MBP) and Human Resources Development Plan (HRDP) are prepared by LWSC, WWSC, LpWSC and KWSC.	3.1 MBP and HRDP are logically prepared in a manner consistent with target figure of key performance indicator.	Project Report			

2. Approach Undertaken (PDM 2/2)

Activities	Profits		Important Assumption
	The Zambian Side	The Japanese Side	
1.1 To collect policy, strategy and information related to CUs in Zambia 1.2 To decide target parameters covered by the Evaluation Manual. 1.3 To formulate the Evaluation Manual 1.4 To share purpose and components of the Evaluation Manual to staffs of MWDSEP, Nwasco and CU. 1.5 To conduct training for MWDSEP, Nwasco and CU staffs on how to utilize the Evaluation Manual.	Project Personnel 1. Acting Director of Department of Water Supply and Sanitation of MWDSEP 2. Principal Community Department Officer, Department of Water Supply and Sanitation of MWDSEP 3. Managing Director of LWSC, WWSC, LpWSC and KWSC 4. Director/Head of Human Resources of LWSC, WWSC, LpWSC and KWSC	Japanese experts 1. Chief Advisor/Water Supply Service Management 2. Deputy Chief Advisor/Water Supply Service Management/ Strengthening of Organizational Capacity 3. Human Resources Development Evaluation 4. O&M of Water Supply Facilities	A. Natural disaster/ political instability/ economic crisis that affect the project activities do not occur
2.1 To conduct evaluation based on the Evaluation Manual. 2.2 To analyze the result of evaluation taken place in Activity 2-1. 2.3 To grasp and clarify current situation of each target CU based on data analysis and prepare the report. 2.4 To make a list of challenges of each target CU.	5. Consultant Personnel from MWDSEP, LWSC, WWSC, LpWSC and KWSC to JICA Experts 6. Counterpart Personnel for task force of LWSC, WWSC, LpWSC, KWSC. 7. Other personnel mutually agreed upon as necessary	Equipment None.	A. Furnished offices for Japanese Expert Team are secured MWDSEP and LWSC B. Project personnel is assigned
3.1 To hold a workshop for all target CUs to share challenges and possible solutions. 3.2 To establish task force for each target CU to work on developing MBP and HRDP. 3.3 To prioritize challenges listed in Activity 2-4. 3.4 To set up the goal(s) for each target CU. 3.5 To set up target figure of key performance indicators, to measure achievement of goal(s). 3.6 To hold workshop to share and review goal(s) and key performance indicator of each CU. 3.7 To prepare draft MBP and HRDP of each target CU. 3.8 To finalize MBP and HRDP of each target CU. 3.9 To approve of MBP and HRDP by board member of each target CU.	Land, Building and Facilities 1. Office building and facilities necessary for the implementation of the Project 2. Office spaces and necessary facilities for the Japanese Experts, including internet connection and air conditioners 3. Other facilities mutually agreed upon as necessary Local Costs 1. Administration and operational costs including costs of DSA for business trip inside the country.	-	-Issues and countermeasures-

2. Approach Undertaken (Structure of C/P)



3. Results

- Determination of Evaluation Manual
⇒ Contents of the EM approved at 2nd JCC on Aug, 9th 2017
- Evaluation for CU and identify issues.
⇒ Based on the self evaluation based on using the EM, Each CU recognize their challenges.



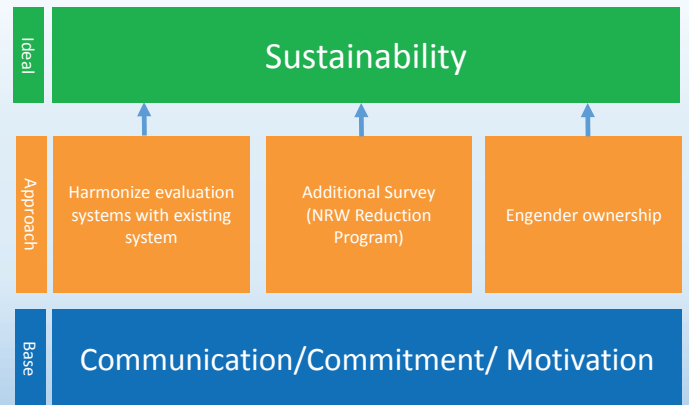
Established MBP and HRDP

4. Salient Efforts during Project Implementation

1. Establishment of the Planning System
2. Include cholera infection
3. Questionnaire for Evaluation System
4. Collaboration with other donors
5. Public Relations
6. Additional Survey



5. Challenges Addressed



APPENDIX. A-18
PROJECT POSTER

The Project for Strengthening Capacity of Urban Water Supply Infrastructure



Project Purpose

The structure for operation is strengthened in 4 targeted CUs.

Feb.- Jul. 2017

Output 1

Capacity of MWDSEP, NWASCO on evaluating CUs is strengthened.

Aug.- Nov. 2017

Output 2

Capacity of 4 Targeted CUs is evaluated.

Dec. 2017 - Nov. 2018

Output 3

MBP and HRDP are prepared by 4 Targeted CUs.

Activity 1

Formulation of Evaluation Manual

Activity 2

-Evaluation to CUs
-Identification of challenges & gaps

Activity 3

Formulation of MBP & HRDP for CUs

After Project

Self-Sustainable Implementation

Implementation Organization

MWDSEP **NWASCO** **JICA**



4 Targeted CUs

KWSC



LpWSC



Mansa

Lusaka

LWSC



Mongu



WWSC

Abbreviation
MWDSEP: (Ministry of Water Development, Sanitation and Environmental Protection)
NWASCO: (National Water Supply and Sanitation Council)
JICA: (Japan International Cooperation Agency)
LWSC: (Lusaka Water and Sewerage Company Ltd.)
LpWSC: (Luapula Water and Sewerage Company Ltd.)
KWSC: (Kafubu Water and Sewerage Company Ltd.)
CU: Commercial Utility
MBP: Midterm Business Plan
HRDP: Human Resource Development Plan

