

[All Attachments]

Attachment 1. Workflow Schedule and Activity Results

Workflow Schedule and Activity Results (Phase 1&2)

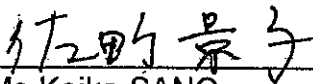
Project phase Calendar year	The 1 st Phase												The 2 nd Phase																																			
	2016												2017												2018												2019											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Project year																																																
Month																																																
Activities																																																
Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened																																																
1.1 MWIS&I NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data.																																																
1.2 MWIS&I NRW Unit plans and implements NRW reduction sensitization activities for the Counties.																																																
1.3 MWIS&I NRW Unit plans and implements NRW reduction campaigns.																																																
1.4 MWIS&I NRW Unit conducts reviews of KEWI NRW courses.																																																
1.5 MWIS&I NRW Unit conducts reviews of WASREB's NRW reduction activities.																																																
1.6 MWIS&I NRW Unit ensures the budget for the support mechanism based on its NRW reduction Mid-term vision.																																																
Use of NRW reduction standards by Urban WSPs are promoted by WASREB																																																
2.1 WASREB conducts survey of the usage of current NRW reduction standards.																																																
2.2 Based on the survey result as well as Output 4 and 5, WASREB revises the NRW reduction standards.																																																
2.3 WASREB promotes revised NRW standards through workshops.																																																
2.4 WASREB incorporates the review results of NRW reduction activities by MWIS&I NRW Unit in their activities.																																																
2.5 WASREB monitors and evaluates the usage of revised NRW standards.																																																
NRW related training capacity of KEWI is strengthened.																																																
3.1 KEWI studies current status of NRW reduction courses and its challenges.																																																
3.2 KEWI reviews NRW reduction training strategies and course contents.																																																
3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings.																																																
3.4 KEWI reflects the study results on the status of NRW trainings into NRW course contents and materials.																																																
3.5 KEWI incorporates the results of review by MWIS&I NRW Unit into NRW course contents.																																																
3.6 KEWI conducts trace studies of NRW reduction course participants.																																																
NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.																																																
4.1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs.																																																
4.2 Each Pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges.																																																
4.3 Each Pilot WSP identifies measures to solve challenges and formulates the NRW reduction plan.																																																
4.4 Each Pilot WSP formulates the annual NRW reduction plan including financial schedule based on the NRW reduction plan.																																																
4.5 Each Pilot WSP implements the annual NRW reduction plan.																																																
(1) Pilot Project for Leading WSPs (Meru & Embu WSPs)																																																
(2) [Pre-stage] Pilot Project for 4 Pilot WSPs																																																
(3) [Post-stage] Pilot Project for 3 Pilot WSPs																																																
4.6 Each Pilot WSP evaluates and analyzes implementation results and revises the plans.																																																
4.7 Each Pilot WSP produces the NRW reduction activity report annually.																																																
4.8 Each Pilot WSP holds regular NRW reduction meetings attended by relevant departments of WSP.																																																
Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.																																																
5.1 The project presents results and lessons of Output 4 and other NRW activities during WASPA meetings.																																																
5.2 The Project holds NRW thematic workshops in coordination with WASPA.																																																
5.3 The production of the brief notes.																																																
Legend																																																
Planned (Various coloring bars)																																																
Actual Activities																																																
Reports/Documents/Meetings																																																
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JCC meetings																																																
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Attachment 2. Results of Dispatch of JICA Experts

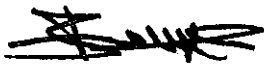
**Attachment 3. Original R/D and M/M for Amendment
of R/D**

RECORD OF DISCUSSIONS
ON
PROJECT FOR STRENGTHENING CAPACITY IN
NON-REVENUE WATER REDUCTION
IN
THE REPUBLIC OF KENYA
AGREED UPON BETWEEN
THE GOVERNMENT OF THE REPUBLIC OF KENYA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY


Nairobi, March 7th, 2016



Ms. Keiko SANO
Chief Representative
JICA Kenya Office



Prof. Fred H.K. SEGOR
Principal Secretary
State Department of National Water
Services
Ministry of Water and Irrigation
The Republic of Kenya



Dr. Kamau THUGGE
Principal Secretary
The National Treasury
The Republic of Kenya

Based on the Minutes of Meetings on the Detailed Planning Survey on the Project for Strengthening Capacity in Non-Revenue Water (hereinafter referred to as "NRW") Reduction (hereinafter referred to as "the Project") signed on 4th December, 2015 between the Ministry of Water and Irrigation (hereinafter referred to as "MWI") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA held a series of discussions with MWI and relevant organizations to develop a detailed plan of the Project.

Both parties agreed the details of the Project and the main points discussed as described in the Appendix 1 and the Appendix 2 respectively.

Both parties also agreed that MWI, Water Services Regulatory Board (hereinafter referred to as "WASREB"), and Kenya Water Institute (hereinafter referred to as "KEWI"), the counterparts of the Project, will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of the Republic of Kenya (hereinafter referred to as "Kenya").

The Project will be implemented within the framework of the Agreement on Technical Cooperation signed on 29th April, 2004 (hereinafter referred to as "the Agreement") and the Note Verbales exchanged on 10th and 16th July 2015 between the Government of Japan (hereinafter referred to as "GOJ") and the Government of Kenya (hereinafter referred to as "GOK").

Appendix 1: Project Description

Appendix 2: Main Points Discussed

Appendix 3: Minutes of Meetings on the Detailed Planning Survey of the Project

PROJECT DESCRIPTION

Both parties confirmed that there is no change in the Project Description agreed on in the Minutes of Meetings on the Detailed Planning Survey on the Project signed on 4th December, 2015 (Appendix 3).

I. BACKGROUND

The National Water Master Plan 2030 recommends that water resources must be properly managed, conserved, developed and more efficiently utilized considering future impact of climate change and rapid increase of population, economic growth, etc. NRW ratio in Kenya is 42% as of 2015. This figure means that half of treated water produced in the entire country is lost which results in the loss of half of the revenue which could have been used for further improvement of water access. In Vision 2030, GOK aims to reduce NRW ratio to 25% by 2020 and 20% by 2030. GOK has therefore implemented "the Project for Non-Revenue Water Management" supported by JICA from 2010 to 2014. Under this Project, WASREB developed the Standards for NRW Reduction, which consists of the NRW Reduction Guideline for use by WSB, the NRW Reduction Manual for use by WSP and Handbooks for use by technical staffs. Furthermore, KEWI has established new training course on NRW reduction, so it is desired to actualize the reduction of NRW ratio by applying materials that have been developed and training courses.

For sustainable NRW reduction, GOK requested the GOJ technical cooperation to strengthen capacity of the responsible organization to enhance the basic knowledge and the technical capacity for tackling NRW issue.

II. OUTLINE OF THE PROJECT

Outline of the Project is described in the Logical Framework (Project Design Matrix: PDM) (Annex 1) and the tentative Plan of Operation (PO, Annex 2). The PDM and PO shall be finalized in the additional survey within 3 months after the Project commencement.

1. Input

(1) Input by JICA

JICA will take, at its own expense, the following measures according to the normal procedure under the Technical Cooperation.

(a) Dispatch of Experts

- Chief adviser/NRW management
- NRW reduction specialist(s)
- Customer Management/Billing collection
- Training management
- Information/Public relation management
- Other experts if necessary

(b) Training

- Training in Japan (and/or in third country)
- (c) Machinery and Equipment
The equipment to be provided to the Kenyan side in the Project are tentatively itemized shown in Annex-3.

(2) Input by MWI, WASREB, KEWI and Pilot WSPs

MWI, WASREB, KEWI and Pilot Water Service Providers ("Pilot WSPs") will take necessary measures to provide at its own expense:

- (a) Assignments of counterpart personnel and support staff;
- (b) Payment of per-diem (daily allowance, transportation fee and accommodation fee) to the counterpart personnel;
- (c) Suitable office space with necessary equipment in MWI, KEWI, and Pilot WSPs;
- (d) Utilities charges such as electricity, water supply, if any;
- (e) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;
- (f) Costs of activities for sensitization and campaigns by MWI
- (g) Survey cost on the usage of current NRW reduction standards by WASREB
- (h) Expense for Training of Pilot WSPs at KEWI (short term course)
- (i) Expense for On-site training in Pilot WSPs by KEWI
- (j) Expense for On-site ToT in Pilot WSPs
- (k) Expense for NRW activities of Pilot WSPs
- (l) Information in obtaining medical service;
- (m) Available data (including maps and photographs) and information related to the Project;
- (n) Necessary facilities to the JICA experts for the remittance as well as utilization of the funds introduced into Kenya in connection with the implementation of the Project

2. Implementation Structure

Implementation Structure of the Project is given in the Annex 4. The roles and assignments of relevant organizations are as follows:

(1) MWI

(a) Project Director

Director of Department of Water Services, MWI will be responsible for overall administration and implementation of the Project.

(b) Project Manager

Deputy Director of Operation and Maintenance, State Department of National Water Services, MWI will responsible for daily operation of the Project, and administration and implementation of activities, related to output 1 and 5.

(2) WASREB

Chief Executive Officer, WASREB will be responsible for administration and implementation of activities, related to output 2.

(3) KEWI

Director, KEWI will be responsible for administration and implementation of activities, related to output 3.

(4) Pilot WSPs

Managing Directors, Pilot WSPs will be responsible for administration and implementation of activities, related to output 4.

(5) JICA Experts

The JICA experts will give necessary technical guidance, advice and recommendations to MWI, WASREB, KEWI, and Pilot WSPs on any matters pertaining to the implementation of the Project.

(6) Joint Coordinating Committee (JCC)

Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC will be held at least twice a year and whenever deems it necessary. JCC will approve an annual work plan, review overall progress, conduct evaluation of the Project, and exchange opinions on major issues that arise during the implementation of the Project. A list of JCC members is shown in the Annex 5.

3. Project Site(s) and Beneficiaries

Project Area: Kenya

Beneficiaries: Staffs of MWI, WASREB, KEWI, Urban WSPs

Pilot WSPs would be selected during the additional survey for three (3) months from the commencement of the Project.

4. Duration

Five (5) years (including the additional survey within 3 months)

5. Reports

(1) Monitoring Sheet on bi-annual basis until the project completion (every six (6) months).

(2) Also, Project Completion Report shall be drawn up one (1) month before the termination of the Project.

6. Environmental and Social Considerations

MWI, WASREB, and KEWI agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

III. UNDERTAKINGS OF GOK

1. GOK will take necessary measures to:

(1) ensure that the technologies and knowledge acquired by the Kenya nationals as a result of Japanese technical cooperation contributes to the economic and social development of Kenya, and that the knowledge and

experience acquired by the personnel of Kenya from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and

- (2) grant privileges, exemptions and benefits to the JICA experts above and their families; which are no less favorable than those granted to experts and members of the missions and their families of third countries or international organizations performing similar missions in the Republic of Kenya.
2. MWI will take necessary measures to conclude MOU with Pilot WSPs (in particular, Embu and Meru, which is supposed to start the NRW Reduction activities in the first year of the Project) and Counties responsible of Pilot WSPs for timely implementation of the Project for three purposes as below;
- a) To involve Counties for smooth implementation of the Project;
 - b) To acquire budget for NRW Reduction activities of Pilot WSPs; and
 - c) To confirm and agree the inputs and undertakings of Pilot WSPs.

An example MOU is shown in Annex-6.

3. GOK will take necessary measures to:
- (1) provide security-related information as well as measures to ensure the safety of the JICA experts;
 - (2) permit the JICA experts to enter, leave and sojourn in the Republic of Kenya for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees.
 - (3) exempt the JICA experts from taxes and any other charges on the equipment, machinery and other material necessary for the implementation of the Project;
 - (4) exempt the JICA experts from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to them and/or remitted to them from abroad for their services in connection with the implementation of the Project; and
 - (5) meet taxes and any other charges on the equipment, machinery and other material; referred to in II-7 above, necessary for the implementation of the Project.
4. GOK will bear claims, if any arises, against the JICA experts resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Project, except when such claims arise from gross negligence or willful misconduct on the part of the JICA experts.

IV. MONITORING AND EVALUATION

JICA and MWI, WASREB, KEWI will jointly and regularly monitor the progress of the Project through the Monitoring Sheets based on the PDM and PO. The Monitoring Sheets shall be reviewed every six (6) months.

Also, Project Completion Report shall be drawn up one (1) month before the

termination of the Project.

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting for the Project, MWI, WASREB and KEWI will take appropriate measures to make the Project widely known to the people of Kenya.

VI. Misconduct

If JICA receives information related to suspected corrupt or fraudulent practices in the implementation of the Project, MWI, WASREB, KEWI and relevant organizations shall provide JICA with such information as JICA may reasonably request, including information related to any concerned official of the government and/or public organizations of Kenya.

MWI, WASREB, KEWI and relevant organizations shall not, unfairly or unfavorably treat the person and/or company which provided the information related to suspected corrupt or fraudulent practices in the implementation of the Project.

VII. MUTUAL CONSULTATION

JICA and MWI, WASREB, KEWI will consult each other whenever any major issues arise in the course of Project implementation.

VIII. AMENDMENTS

The Record of Discussions may be amended by the Minutes of Meetings between JICA, MWI and The National Treasury.

The Minutes of Meetings will be signed by authorized persons of each side who may be different from the signers of the Record of Discussions.

Annex -1 Tentative Logical Framework (Project Design Matrix: PDM)

Annex -2 Tentative Plan of Operation

Annex -3 List of equipment

Annex -4 Implementation Structure of the Project

Annex -5 A List of Proposed Members of Joint Coordinating Committee

Annex -6 An example of MOU

Annex -7 Monitoring Form

MAIN POINTS DISCUSSED

I. Roles NRW Unit of MWI

NRW Unit of MWI has the following roles:

- a) Formulation of national policies and strategies for NRW reduction;
- b) Coordination of NRW reduction activities of related organizations; and
- c) Promotion of NRW reduction activities including sensitization of Counties.

II. Additional Survey

Both sides also agreed that the additional survey (within 3 months) will be conducted to review/decide on the following items upon commencement of the Project:

- a) Activities of Output 1. As official roles of NRW Unit is yet to be approved;
- b) Pilot WSPs of Output 4. Other than leading WSPs (Embu and Meru), more detail capacity assessment of WSPs and coordination with other development partners are required;
- c) Necessary equipment for the Project;
- d) Training in Japan or the third country

III. Terminology of WSPs in the Project

For the clarification purpose, both sides agreed with the following terminology of WSPs:

- (1) Target WSPs:
All Urban WSPs
- (2) Pilot WSPs:
Urban WSPs that the activities of Output 4 are conducted.
(Selection Criteria is described in XII)
- (3) Leading WSPs:
Pilot WSPs which have experiences of implementing JICA projects, and capacity and willingness to support other WSPs, namely Embu and Meru WSPs.

IV. Selection Criteria of Pilot WSPs

In addition to the two leading WSPs, as indicated above, the additional survey will be conducted at the inception stage of the Project to select seven (7) candidate WSPs, i.e., one (1) WSP each from seven (7) WSBs excluding Tana WSB using the following criteria. For project implementation, four (4) Pilot WSPs will be further prioritized as the first group of cooperation to be continued for three years. The remaining three (3) Pilot WSPs are the second group subject to review at the third year for their suitability and progress of the first group. For the selection of Pilot WSPs, factors such as capacity, ownership

and geographical distribution will be considered in addition to the criteria below:

Criteria

- Urban WSPs (of Very Large, Large, and Medium, as defined by WASREB's Impact report) ;
- WSPs locations clarified by JICA's security guideline;
- WSPs that are not receiving other development partners' assistance with similar activities of the Project;
- WSPs that have established NRW units;
- O&M Cost Recovery is 80 % or more;
- Metering Ratio is 75% or more;
- Water Coverage Ratio is 30% or more; and
- Water Service Hours is 10 hour or more.

V. Related Activities of other development partners

The activities of many development partners, international/national governmental /non-governmental organizations in the water sector of Kenya. Other development partners have formulation plans or implementing NRW-related projects. The selection of Pilot WSPs should be considered carefully. The project activities should also be carefully studied to prevent the overlapping of activities by the other development partners.

VI. Concluding Memorandum of Understanding (MOU)

Upon the completion of selection of Pilot WSPs, MWI will take necessary measures for the signing of MOU between Water Services Board and Pilot WSPs (initially, Embu and Meru whose activities will commence from the first year of the Project) which will be witness by MWI and Counties responsible for Pilot WSPs for smooth implementation of the Project with the following purposes:

- a) to involve Counties for smooth implementation of the Project;
- b) to acquire budget for NRW reduction activities of Pilot WSPs; and
- c) to confirm and agree the inputs and undertakings of Pilot WSPs.

VII. Flexible change of the Project design, output and activities

Both sides agreed that the Project design, output and activities may be reviewed and changed if roles of each organization were changed by Water sector reform result.

Project Design Matrix

Project Title: Project for Strengthening Capacity in Non-Revenue Water Reduction

Implementing Agency: MWI, WASREB, KEWI

Target Group: Urban WSPs

Period of Project: 5 years from the date when the first JICA Expert is dispatched

Project Site: The entire country of Kenya

Pilot Site: Embu, Meru, and others

Version 0
Dated

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p>Overall Goal Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.</p>	<p>1. X of Urban WSPs participate knowledge sharing activities established by the Project. 2. X of pilot Urban WSPs continue achieving target(s) set by the annual NRW reduction plan. 3. NRW annual report is continuously produced and disseminated.</p>	<p>MWI NRW Unit annual reports Pilot WSPs annual NRW reduction plans</p>	<p>NRW reduction remains as priority of MWI and WSPs.</p>		
<p>Project Purpose A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.</p>	<p>X of pilot Urban WSPs continue achieving targets set by the annual NRW reduction plan for two years.</p>	<p>NRW reduction plans Platform (online) Impact reports Project reports JCC meeting minutes</p>	<p>NRW reduction remains as priority of MWI and WSPs.</p>		
<p>Outputs 1. Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened.</p>	<p>1-1 All County representatives participate NRW related seminar(s). 1-2 NRW reduction campaigns are conducted semi annually. 1-3 NRW reduction annual reports are produced.</p>	<p>Materials for County seminar List of seminar participants Campaign materials NRW reduction annual reports Project reports JCC meeting minutes</p>	<p>Project budget of the CPs is secured. NRW Unit staff positions are fulfilled.</p>		
<p>2. Use of NRW reduction standards by Urban WAPs are promoted by WASREB.</p>	<p>2-1 NRW reduction standards are revised by year X. 2-2 Revised NRW reduction standards are disseminated to all Urban WSPs through workshop (s).</p>	<p>Revised NRW reduction standards Workshop program and list of participants Project reports JCC meeting minutes</p>	<p>Current WASREB's role and authority remains.</p>		
<p>3. NRW related training capacity of KEWI is strengthened.</p>	<p>3-1 KEWI conducts NRW reduction courses with contents incorporating on-site trainings and revised course materials. 3-2 Evaluations by the NRW course participants is higher than before the revision of course materials. 3-3 0% of NRW course participants formulate the workplans.</p>	<p>NRW reduction annual reports Revised course materials Revised course syllabus Course participants' evaluation sheets Project reports JCC meeting minutes NRW reduction annual reports Trace studies</p>	<p>KEWI continues to offer NRW short courses. Project budget of the CPs is secured.</p>		

<p>4. NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.</p>	<p>4-1 More than X of pilot Urban WSPs continuously make the annual NRW reduction plan based on the review of previous year's implementation. 4-2 More than X of pilot Urban WSPs continuously implement the annual NRW reduction plan formulated in 4-1. 4-3 More than X of pilot Urban WSPs are able to implement skills and activities that pilot Urban WSPs were not able to adopt prior to the Project. 4-4 More than X of pilot Urban WSPs are able to implement priority activities indicated in the NRW reduction plan. 4-5 More than X of pilot Urban WSPs train all of NRW personnel.</p>	<p>NRW reduction annual plans NRW reduction plans IMPACT reports Project reports JCC meeting minutes NRW reduction annual reports</p>	<p>Trained personnel do not leave WSPs Drastic climatic changes such as drought will not affect the water resources. Project budget of the CPs is secured.</p>	
<p>5. Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.</p>	<p>5-1 Case study and lessons learnt of Output 4 and other NRW activities are compiled and disseminated. 5-2 Regular meeting(s) of NRW is/are organized three times a year.</p>	<p>Compiled lessons learnt NRW regular meeting minutes and list of participants Project reports JCC meeting minutes NRW reduction annual reports</p>	<p>NRW reduction remains as priority of WSPs.</p>	
Activities				
<p>1.1 MWI NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data. 1.2 MWI NRW Unit plans and implements NRW reduction sensitization activities for the Counties. 1.3 MWI NRW Unit plans and implements NRW reduction campaigns. 1.4 MWI NRW Unit conducts reviews of KEWI NRW courses. 1.5 MWI NRW Unit conducts reviews of WASREB's NRW reduction activities.</p>				
<p>2.1 WASREB conducts a survey of the usages of current NRW reduction standards. 2.2 Based on the survey result as well as Outputs 4 and 5, WASREB revises the NRW reduction standards. 2.3 WASREB promotes revised NRW reduction standards through workshop(s). 2.4 WASREB incorporates the review results of NRW reduction activities by MWI NRW Unit in their activities. 2.5 WASREB monitors and evaluates the usages of revised NRW standards.</p>				
<p>3.1 KEWI studies current status of NRW reduction courses and its challenges. 3.2 KEWI reviews NRW reduction training strategies and course contents. 3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings. 3.4 KEWI reflects on-site NRW trainings into NRW course contents and materials. 3.5 KEWI incorporates the results of review by MWI NRW Unit into NRW course contents.</p>				
<p>3.6 KEWI conducts trace studies of NRW reduction course participants. 4.1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs. 4.2 Each pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges. 4.3 Each pilot WSP identifies measures to solve challenges and formulates the NRW reduction plan. 4.4 Each pilot WSP formulates the annual NRW reduction plan including financial schedule based on the NRW reduction plan. 4.5 Each pilot WSP implements the annual NRW reduction plan. 4.6 Each pilot WSP evaluates and analyzes implementation results and revise plans. 4.7 Each pilot WSP produces the NRW reduction activity report annually. 4.8 Each pilot WSP holds regular NRW reduction meetings attended by relevant departments of WSP</p>				
<p>5.1 MWI NRW Unit organizes NRW related regular meetings in cooperation with other relevant organizations. 5.2 WASREB compiles case studies/lessons learnt about NRW reduction activities.</p>				
<p>Note: "X" is the indicator that will be decided after the project commencement.</p>				

Inputs

The Japanese Side

1. Experts
2. Equipment/Tools/
Materials
3. Japan or third country training

The Kenya Side

1. Counterpart personnel
2. Equipment/Tools/
Materials
3. Facility/Office Space

Pre-Conditions

<Issues and countermeasures>

AS

AS

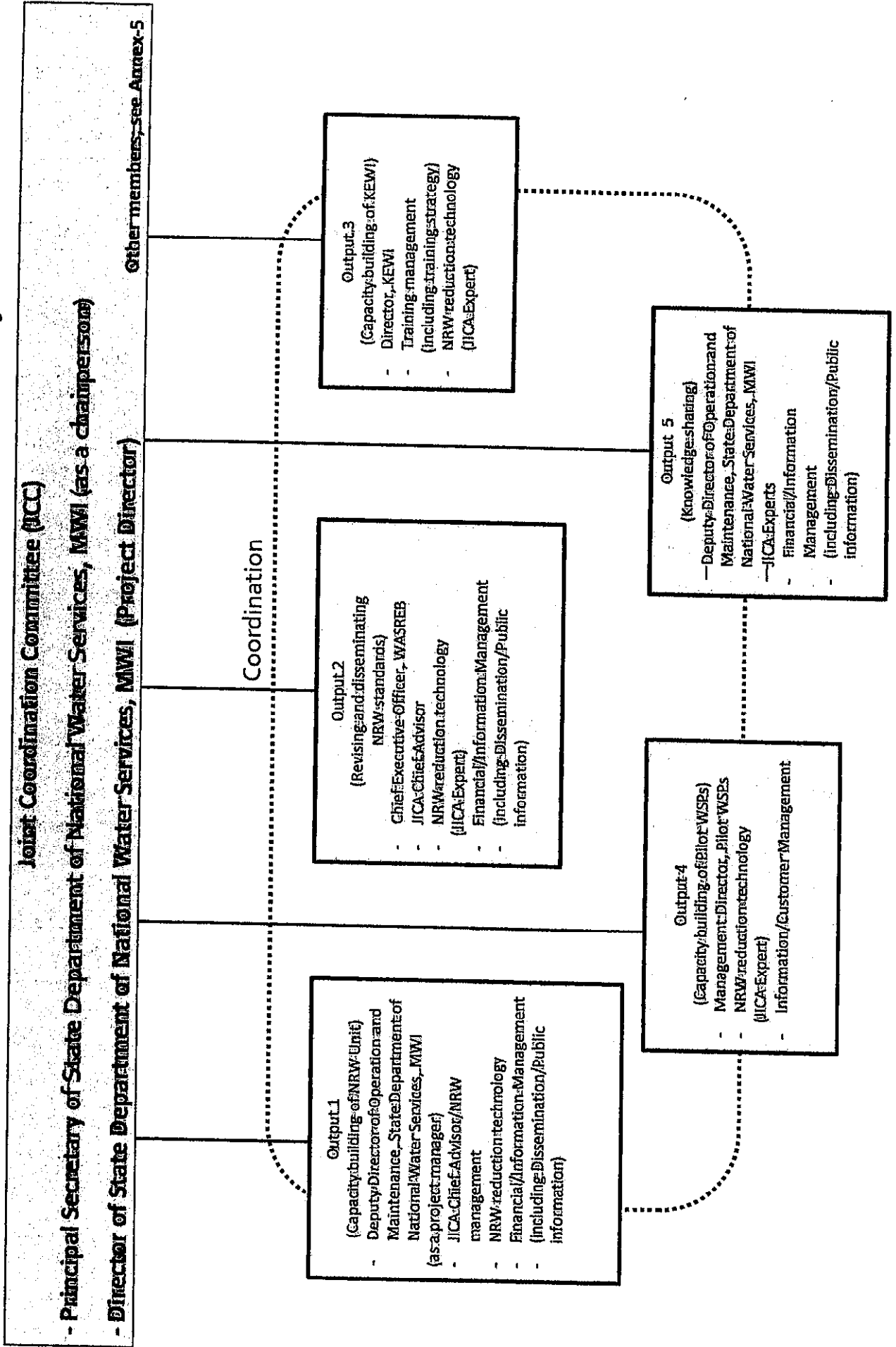
Table: Tentative List of Equipment

Name of Equipment
- Portable ultra-sonic flow meter(s)
- Leak detector(s)
- Water pressure gauge(s)
- Bulk meter(s)
- Data logger(s)
- Water pressure gauge(s)
- Meter test bench(s)
- Noise leak correlator
- Leak detection demonstration platform
- GPS (s)
- Laptop computer
- Multi copy machine (Scanner, printer and copy functions. A-3 size)
- Digital camera
- Projector
- Other necessary equipment for monitoring and supporting NRW reduction activities in Pilot WSPs



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Implementation Structure of the Project



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List of Members of Joint Coordinating Committee

Composition

1. Chairperson:
Principal Secretary, State Department of National Water Services, MWI
2. Project Director:
Director of Department of Water Services, MWI
3. Project Manager:
Deputy Director of Operation and Maintenance, State Department of National Water Services, MWI
4. Other Members
 - (1) The Kenya side:
 - 1) Head of Donor Coordination, MWI
 - 2) Chief Executive Officer, WASREB
 - 3) Director, KEWI
 - 4) Management Directors, Pilot WSPs (including, Leading WSPs)
 - 5) Other personnel assigned by Kenyan side
 - (2) The Japanese side:
 - 1) Chief Advisor
 - 2) Other experts
 - 3) Representatives of JICA Kenya Office
 - 4) Other personnel as mutually agreed upon

Note: Officials of the Embassy of Japan in the Republic of Kenya may attend the committee meeting.

(Example)

Memorandum of Understanding for
"PROJECT FOR STRENGTHENING CAPACITY IN
NON-REVENUE WATER REDUCTION"

This Memorandum of Understanding ("MoU") is made and entered by and among the following four parties:

[Name of WSB] as one party, represented by [Name, Position]
("[Abbreviated Name of WSB]);

and

[Name of Water Service Provider] as one party, represented by [Name, Position]
("[Abbreviated Name of WSP]);

witness by

Ministry of Water and Irrigation as one party, represented by [Name, Position]
("MWI");

and

[Name of County Government] as one party, represented by [Name, Position]
("the County");

1. Ground of the MoU

Based on the result of the survey conducted by JICA, [Abbreviated Name of WSP] has been selected as a Pilot Water Service Provider (WSP) of "Project for Strengthening Capacity in Non-Revenue Water Reduction" (the Project). This MoU is an agreement between the four parties specified above in regard to smooth implementation of the Project.

2. Dates of Validation and Completion of the MoU

This MoU shall be valid from the date of MoU signing, [Date, Month, Year] and till the completion of the Project,

3. Amendments of the MoU

Any necessary amendments and additions to the MoU may be negotiated among the four parties. Agreed amendments and additions shall be evidenced by a written document signed by all the parties.

Terms of Reference

1. The County shall support [Abbreviated Name of WSP], as its lawful owner, for the implementation of Non-Revenue Water Reduction activities of the Project.
2. [Abbreviated Name of WSP] shall be responsible for the following particulars during the period of the Project. Some of the particulars are for experts from Japan International Cooperation Agency (JICA). The County shall support [Abbreviated Name of WSP]'s smooth implementation of NRW reduction activities in regard to the particulars.
 - (a) Assignments of counterpart personnel and support staff
 - (b) Payment of per-diem (daily allowance, transportation fee and accommodation fee) to the counterpart personnel
 - (c) Provision of suitable workspace with furniture and equipment for JICA experts (for at least 4 personnel)
 - (d) Utilities charges such as electricity, water supply, if any
 - (e) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA
 - (f) Expense for NRW activities
 - (g) Provision of information on available medical services for JICA experts
 - (h) Provision of available data (including maps and photographs) and information necessary for project activities

[Name]
Chief Executive Officer
[Name of WSB]

[Name]
Managing Director
[Name of WSP]

Witness by

[Name]
[Position]
[Department]
Ministry of Water and Irrigation

[Position]
[Department]
[Name of County Government]

TO CR of JICA Kenya OFFICE

PROJECT MONITORING SHEET

Project Title : _____**Version of the Sheet: Ver.●● (Term: Month, Year - Month, Year)** _____**Name:** _____**Title: Chief Advisor** _____**Submission Date:** _____**I. Summary****1 Progress**

- 1-1 Progress of Inputs
- 1-2 Progress of Activities
- 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 Republic of Kenya
- 1-8 Progress of Environmental and Social Considerations (if applicable)
- 1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)
- 1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

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

- 2-1 Detail.
- 2-2 Cause
- 2-3 Action to be taken.
- 2-4 Roles of Responsible Persons/Organization (JICA, Gov. of the Republic of Kenya)

3 Modification of the Project Implementation Plan

- 3-1 PO
- 3-2 Other modifications on detailed implementation plan
(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

4 Preparation of Gov. of the Republic of Kenya toward after completion of the Project**II. PDM&PO as Project Monitoring Sheet I & II**

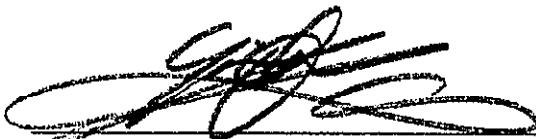
MINUTES OF MEETING
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
MINISTRY OF WATER AND IRRIGATION
THE REPUBLIC OF KENYA
ON
THE PROJECT FOR
STRENGTHENING CAPACITY IN NON-REVENUE WATER REDUCTION

The Detailed Planning Survey Team (the Team) organized by the Japan International Cooperation Agency (JICA), headed by Mr. Yoshiki OMURA visited Kenya from November 14th to December 4th, 2015 for the purpose of conducting Detailed Planning Survey of the Project for “Strengthening Capacity in Non-Revenue Water Reduction” (the Project):

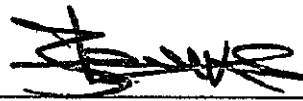
During its stay in Kenya, the Team exchanged views and had a series of discussions about the project outline with the Ministry of Water and Irrigation (MWI) and organizations concerned.

As a result of the discussions, both sides understood the matters referred to in the document attached hereto.

Nairobi, 4th December, 2015



Mr. Yoshiki OMURA
Leader
Detailed Planning Survey Team
Japan International Cooperation Agency



Professor Fred H. K. SEGOR
Principal Secretary
State Department of National Water Services
Ministry of Water and Irrigation
The Republic of Kenya



THE ATTACHED DOCUMENT

1. Major findings

(1) Current situation in Non-Revenue Water (NRW) reduction activities of Water Service Providers (WSPs)

The Team confirmed strong momentum towards NRW reduction among WSPs. Many WSPs have already established their NRW units and prepared NRW reduction plans in response to recent directions by Water Services Regulatory Board (WASREB). For example, NRW reduction activities of Mavoko WSP have dramatically increased in last year. However, the Team learned that most of the WSPs the Team visited still need external support to strengthen their NRW reduction activities to make their efforts more effective and efficient.

(2) Roles NRW Unit of MWI

The Team confirmed that recently established NRW Unit of MWI has following roles:

- a) Formulation of national policies and strategies for NRW reduction;
- b) Coordination of NRW reduction activities of related organizations; and
- c) Promotion of NRW reduction activities including sensitization of Counties.

(3) Utilization of the NRW Standards at WSPs

The Team found that the NRW standards that were developed have been disseminated to most of the urban WSPs. The case studies included in the standards are especially well received. The NRW reduction guideline, a part of the standards, has been utilized by many WSPs who prepared NRW reduction plans recently. However, the Team evaluated that the contents of the standards can be improved by incorporating practical examples of NRW reduction activities of WSPs.

(4) NRW Training Courses by Kenya Water Institute (KEWI)

The Team found that KEWI's current NRW training courses are largely theoretical based. In order to make the courses more applicable to WSPs' NRW reduction activities, the course contents need to be revised with creativity. The Team confirmed that KEWI is keen to provide more practice-oriented training courses.

(5) Related Activities of other development partners

The Team learned the activities of many development partners, international/national governmental /non-governmental organizations in the water sector of Kenya. The Team

initially selected some Water Service Providers (WSPs) as potentials for pilot WSPs of the Project. Meanwhile, the Team confirmed that other development partners have formulated plans or implemented NRW-related projects. Therefore, the selection of Pilot WSPs should be considered carefully. The project activities should also be carefully studied to prevent the overlapping of activities by the other development partners.

II. Formulation of the Project Framework

Regarding the Project framework, both sides agreed the following points:

(1) Aim of the Project

Both sides agreed that the Project is aiming to strengthen NRW reduction support mechanisms by MWI, WASREB, and KEWI so that WSPs can carry out their NRW reduction activities sustainably which will contribute to the reduction of NRW in Kenya.

(2) Summary of cooperation by Japanese side

Both sides agreed that the Japanese side will provide the following assistance to the Kenyan side to strengthen the above mentioned NRW reduction support mechanism.

- a) Providing technical advice to NRW Unit of MWI in coordination and promotion of NRW activities, and review on policy/strategy, if necessary.
- b) Revision of NRW reduction standards, and promotion, and compilation of NRW reduction case studies/lessons learnt by WASREB.
- c) Strengthening KEWI's practical training capacity of NRW short courses by KEWI.
- d) Improve the capacity of WSPs for planning and implementation of NRW reduction activities.
- e) Knowledge sharing of case study/lessons learnt of pilot WSPs to other WSPs.

The Project concept is shown in Annex-1, and the detailed project activities discussed in this survey are indicated in section XI.

III. Draft of Record of Discussion

Both sides agreed about the contents of the draft Record of Discussions ("R/D") shown in Annex-2.

R/D will be signed among MWI, the National Treasury, and JICA Kenya Office after the approval of R/D by JICA Headquarters.

IV. Change of Project Title

Both sides agreed to change the Project title from "The Project for NRW Rate Reduction" to "The Project for Strengthening Capacity in Non-Revenue Water Reduction".

V. Project area

Both sides agreed that the Project area is the entire nation of Kenya.

VI. Roles of the Kenyan Organizations of the Project

Both sides confirmed the roles of the Kenyan organizations as summarized in Annex-3, which may be subject to the further changes of laws and regulations.

VII. Operational Structure of the Project

Based on the roles of organizations discussed in Annex-3, both sides agreed the following operational structure of the Project:

(1) Responsible Organization of the Project:

- Ministry of Water and Irrigation (MWI), State Department of National Water Services

(2) Implementation Organizations

- MWI, State Department of National Water Services
- Water Services Regulatory Board (WASREB)
- Kenya Water Institute (KEWI)

(3) Joint Coordination Committee (JCC)

JCC will be held in every six months. The tentative Kenyan members of JCC are MWI, WASREB, KEWI, Leading WSPs (Embu and Meru) and pilot WSPs. The tentative Japanese members of JCC are the Expert team, JICA Kenya office, and the Embassy of Japan.

VIII. Duration of the Project

Both sides agreed that the duration of the Project is 5 years (including the additional survey (within 3 months)).

IX. Monitoring

Both side agreed that the monitoring of the Project will be conducted twice a year.

X. Terminology of WSPs in the Project

For the clarification purpose, both sides agreed with the following terminology of WSPs :

(1) Target WSPs:

All Urban WSPs

(2) Pilot WSPs:

Urban WSPs that the activities of Output 4 are conducted.

(Selection Criteria is described in XII)

(3) Leading WSPs:

Pilot WSPs which have experiences of implementing JICA projects, and capacity and willingness to support other WSPs, namely Embu and Meru WSPs.

XI. Project Framework

Both sides agreed the following tentative framework of the Project as below.

(1) Overall Goal

Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.

(2) Project Purpose

A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.

(3) Outputs

Output 1:

Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened.

Output 2:

Use of NRW reduction standards by Urban WSPs are promoted by WASREB.

Output 3:

NRW related training capacity of KEWI is strengthened.

Output 4:

NRW planning and/or implementation capacity of Pilot Urban WSPs is enhanced.

Output 5:

Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.

Both sides also agreed that the additional survey (within 3 months) will be conducted to review/decide following items after commencement of the Project:

- a) Activities of Output 1. As official roles of NRW Unit is yet to be approved;
- b) Pilot WSPs of Output 4. Other than leading WSPs (Embu and Meru), more detail capacity assessment of WSPs and coordination with other development partners are required;
- c) Necessary equipment for the Project;
- d) Training in Japan or the third country

XII. Selection Criteria of Pilot WSPs

In addition to the two leading WSPs, as indicated in section XI, the additional survey will be conducted at the inception stage of the Project to select seven candidate WSPs, i.e., one WSP each from seven WSBs excluding Tana-WSB using the following criteria¹. For project implementation, four Pilot WSPs will be further prioritized as the first group of cooperation to be continued for three years. The remaining three Pilot WSPs are the second group subject to review at the third year for their suitability and progress of the first group. For the selection of Pilot WSPs, factors such as capacity, ownership and geographical distribution will be considered in addition to the criteria below:

Criteria

- Urban WSPs (of Very Large, Large, and Medium, as defined by WASREB's Impact report) ;
- WSPs locations clarified by JICA's security guideline²;
- WSPs that are not receiving other development partners' assistance with overlapping activities of the Project;
- WSPs that have established NRW units;
- O&M Cost Recovery is 80 % or more;
- Metering Ratio is 75% or more;
- Water Coverage Ratio is 30% or more; and
- Water Service Hours is 10 hour or more.

¹ The performance index applied are derived from WASREB Impact Report No.7 (2014). If the index are changed, the selection criteria may be modified.

² Cooperation may be extended to Coast WSB as providing training opportunities in country and/or overseas.

XIII. Tentative Equipment list of the Project

The Tentative Equipment list of the Project is indicated below. Both sides agreed that JICA Headquarters will carefully consider the necessity, appropriateness, and quantity of these equipment by the time of signing R/D.

Table: Tentative List of Equipment

- Portable ultra-sonic flow meter(s)
- Leak detector(s)
- Water pressure gauge(s)
- Customer meter(s)
- Bulk meter(s)/Zonal meter(s)
- Data logger(s)
- Water pressure gauge(s)
- Meter test bench(s)
- Noise leak correlator
- Leak detection demonstration platform
- GPS (s)
- Laptop computer
- Multi-function machine (Scanner, printer and copy functions. A-3 size)
- Digital camera
- Projector
- Other necessary equipment for monitoring and supporting NRW reduction activities in Pilot WSPs

XIV. Major Inputs

Both sides confirmed that JICA's input will be basically human resources. Detailed contents of input (including some Major Undertakings) are indicated in Annex-4.

XV. Major Undertakings by the Kenyan side

(1) Concluding Memorandum of Understanding (MOU)

Upon the completion of selection of Pilot WSPs, MWI will take necessary measures for the signing of MOU between Water Services Board and Pilot WSPs (initially, Embu and Meru whose activities will commence from the first year of the Project) which will be witness by MWI and Counties responsible for Pilot WSPs for smooth implementation of the Project with the following reasons :

- a) to involve Counties for smooth implementation of the Project;
- b) to acquire budget for NRW reduction activities of Pilot WSPs; and

c) to confirm and agree to the inputs and undertakings of Pilot WSPs.

(2) Other Undertakings by Kenyan Side

Other relevant Undertakings are based on the Agreement on Technical Cooperation between The Government of Japan and The Government of the Republic of Kenya dated April 29, 2004 and as periodically reaffirmed subsequently.

XVI. Other Relevant Issues

(1) Flexible Change of the Project Design, Outputs and Activities

Both sides agreed that the Project design, outputs and activities may be reviewed and changed if roles of each organization were revised by Water sector reform.

(2) NRW Activities in the Pilot WSP

The NRW reduction activities in the pilot WSPs cover both physical and/or commercial losses. The NRW activities of the Project in each WSP will be decided through the prioritization of necessary NRW activities after the assessment of current NRW reduction activities and its challenges. The list of candidate NRW activities is shown in the following table. The number of required materials and equipment which are to be procured by JICA will be decided at the time of planning stage of activities. JICA will not cover the other costs including installation and construction costs.

Preliminary Activities	1) mapping
Activities for Physical Loss	1) isolation through zoning (DMA), 2) installation of master meter chamber, 3) installation of flow meters, 4) measurement of water pressure, 5) water balance analysis, 6) repair of surface leakage, 7) detection and repair of underground leakage 8) water pressure control, etc.
Activities for Commercial Loss	1) survey of customer meters, 2) updating of water meter register, 3) replacement of customer meters, 4) improvement of meter reading, 5) measures against illegal connection, 6) billing, etc.

(3) Per-diem and Other Travel Expenses of Counterparts

MWI mentioned financial constraints in providing counterparts with per diems and other travel expenses, and requested JICA's assistance. JICA replied that JICA expects MWI to make an effort to secure the budget for project activities including per diem; however, some costs such as workshop venue expenses can be shared. JICA added that in view of sustainability of the Project, development of own funding capability was preferable.

(4) Number of Custom Water Meters

MWI requested 300 pieces of customer water meters to be installed in each WSP for the project purpose. The Team replied to convey MWI's message to the Headquarters .

Annex-1: The Project concept

Annex-2: The draft R/D

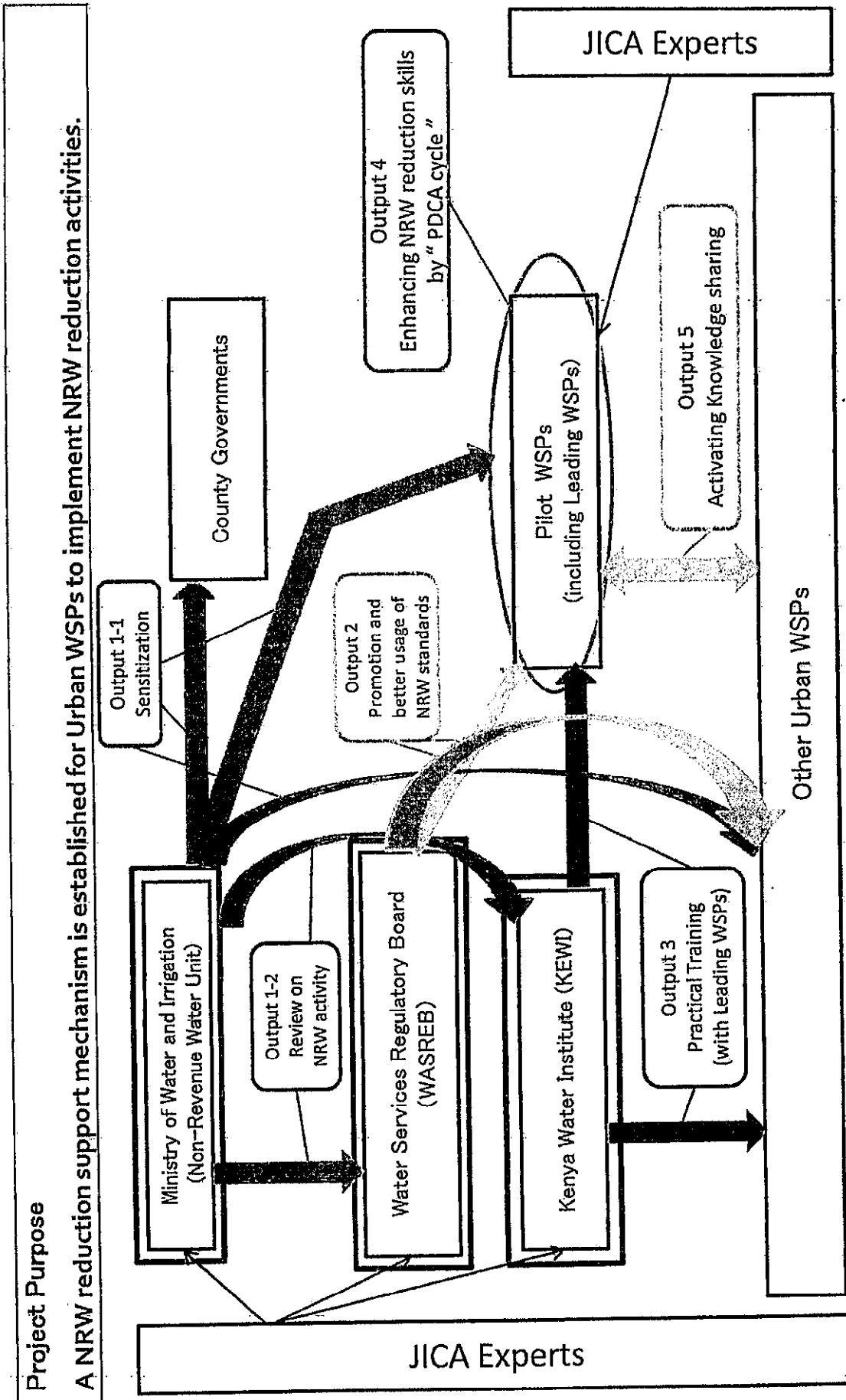
Annex-3: Organizational Chart

Annex-4: Major Inputs and Undertakings

i



Annex-1
 Project Design of
 "Project for Strengthening Capacity in
 Non-Revenue Water Reduction"

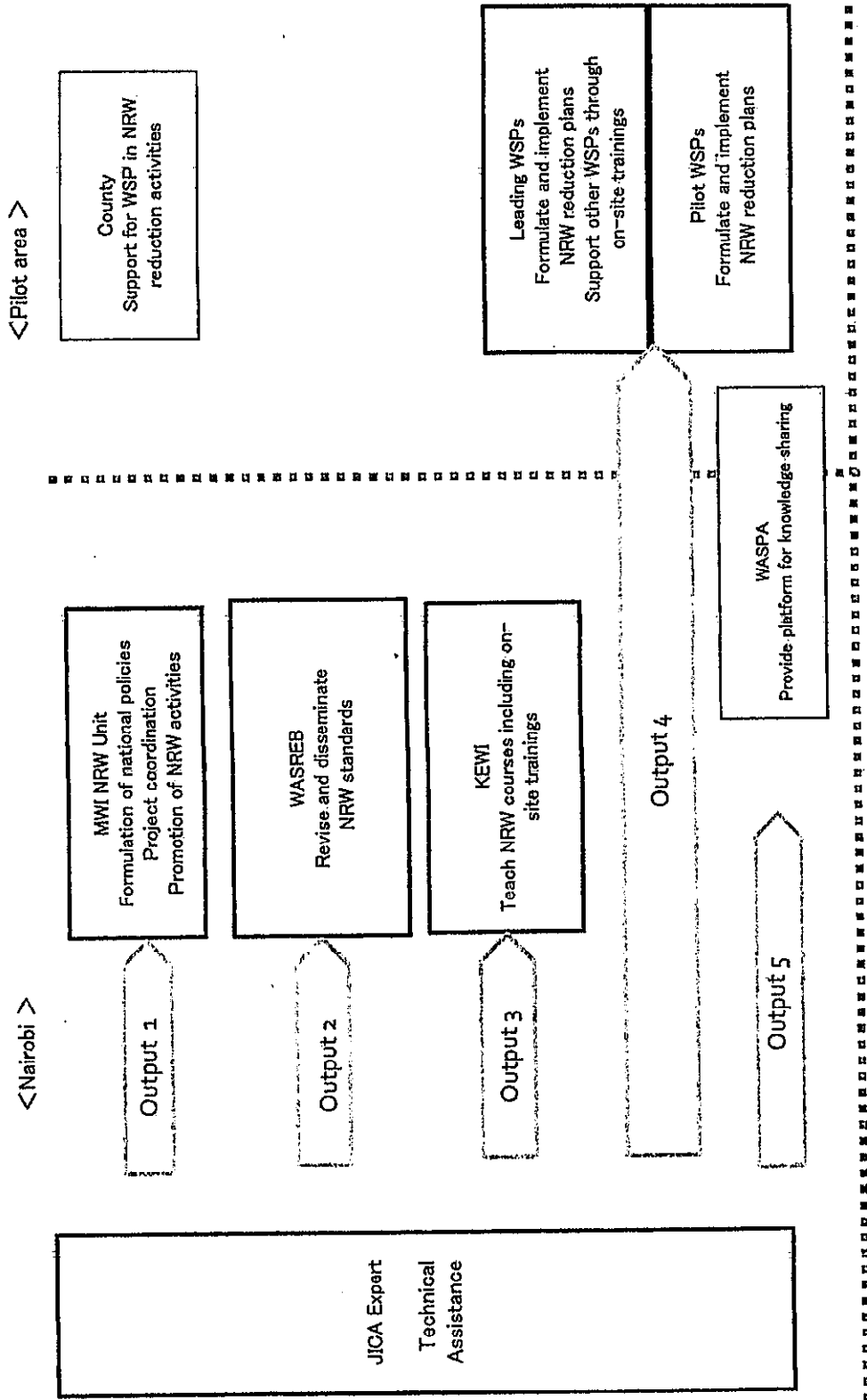


Black Arrow : Technical Advice from JICA Experts
 Red frame : Implementing Organization

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5

Organizational Chart in the Project



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2) R/D (May 27, 2019)



REPUBLIC OF KENYA
THE NATIONAL TREASURY AND PLANNING

W.S.
TNA
PP3
29/5

Telegraphic Address: 22921
Finance – Nairobi
FAX NO. 310833
Telephone: 2252299
When Replying Please Quote
Ref: TNT/RMD/79/78/02 Part II

THE NATIONAL TREASURY
P O BOX 30007 - 00100
NAIROBI

27th May, 2019

Joseph W. Irungu, CBS
Principal Secretary
Ministry of Water and Sanitation
NAIROBI



Dear *Bwana PS*

Amendment of Record of Discussions for the Project Strengthening Capacity in Non-Revenue Water Reduction in Kenya

We make reference to your letter ref WD/3/3/1338 Vol II (149) dated 30th April, 2019 on the above subject.

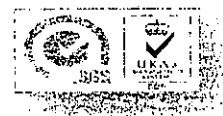
The Principal Secretary/National Treasury has signed the Minutes of Meetings (MoMs) amending the Record of Discussions for the Project Strengthening Capacity in Non-Revenue Water Reduction in Kenya.

The purpose of this letter, therefore, is to forward the duly signed MoMs.

Yours *Sincerely*

Jackson Kinjani, OGV
Director/ Resources Mobilization Department
For: PRINCIPAL SECRETARY/ NATIONAL TREASURY

Encl.



ISO 9001:2008
Certified.

**MINUTES OF MEETINGS
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
MINISTRY OF WATER AND SANITATION
FOR AMENDMENT OF THE RECORD OF DISCUSSIONS
ON
THE PROJECT FOR STRENGTHNING CAPACITY
IN NON-REVENUE WATER REDUCION IN THE REPUBLIC OF KENYA**

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and Ministry of Water and Sanitation (hereinafter referred to as "MWS") hereby agree that the Record of Discussions on THE PROJECT FOR STRENGTHENING CAPACITY IN NON-REVENUE WATER REDUCION signed on March 7, 2016 will be amended as follows;

1. Name of Implementing Agency

Before	Amended Version
Ministry of Water and Irrigation (MWI)	Ministry of Water and Sanitation (MWS)
Reason: Changing the name of the organization because of re-structure.	

2. Project Design Matrix

Before	Amended Version
Overall Goal	
Objectively Verifiable Indicators	
1. X of Urban WSPs participate knowledge sharing activities established by the Project. 2. X of pilot Urban WSPs continue achieving target(s) set by the annual NRW reduction plan.	1. 6 of Urban WSPs participate knowledge sharing activities established by the Project. 2. 6 of pilot Urban WSPs continue achieving target(s) set by the NRW reduction plan.
Project Purpose	
Objectively Verifiable Indicators	
X of pilot Urban WSPs continue achieving targets set by the annual NRW reduction plan for two years.	6 of pilot Urban WSPs continue achieving targets set by the NRW reduction plan for two years.
Output 2	
Objectively Verifiable Indicators	
2-1NRW reduction standards are revised by year X	2-1NRW reduction standards are revised by year 2020

Output 3	
Objectively Verifiable Indicators	
3-2 Evaluations by the NRW course participants is higher than before the revision of course materials.	3-2 The average score of the participants on the test conducted after the NRW reduction course is higher than before the implementation.
3-3 X% of NRW course participants formulate the work plans.	(3-3 deleted)
Output 4	
Objectively Verifiable Indicators	
4-1 More than X of pilot Urban WSPs continuously make the annual NRW reduction plan based on the review of previous year's implementation.	4-1 More than 8 Pilot WSPs formulate NRW reduction plan.
4-2 More than X of pilot Urban WSPs continuously implement the annual NRW reduction plan formulated in 4-1.	4-2 More than 6 Pilot WSPs self-review their achievement of previous year's NRW reduction plan and compile activity report.
4-3 More than X of pilot Urban WSPs are able to implement skills and activities that pilot Urban WSPs were not able to adopt prior to the Project.	4-3 Based on 4-2, more than 6 Pilot WSPs continuously formulate annual NRW reduction plan.
4-4 More than X of pilot Urban WSPs are able to implement priority activities indicated in the NRW reduction plan.	4-4 More than 6 Pilot WSPs continuously implement NRW reduction plan formulated in 4-1.
4-5 More than X of pilot Urban WSPs train all of NRW personnel.	4-5 More than 6 Pilot WSPs are able to use skills and /or implement activities which they could not employ before the Project.
	4-6 The amount of NRW in the selected distribution zones indicates decreasing tendency.
Output 5	
Objectively Verifiable Indicators	
5-1 Case study and lessons learnt of Output 4 and other NRW activities are compiled and disseminated.	5-1 Results and lessons from Output 4 and NRW activities are shared during WASPA meetings at least 3 times a year.
5-2 Regular meeting(s) of NRW is/are organized three times a year.	5-2 A NRW thematic workshop is organized every year.
	5-3 3 brief notes are produced during the Project

Activity for Output-1	
	(1.6 Added) 1.6 MWS NRW unit ensure the budget for the support mechanism bases on its NRW reduction Mid-term vision.
Activity for Output-4	
4.3 Each pilot WSP identifies measures to solve challenges and formulates the NRW reduction plan. 4.4 Each pilot WSP formulates the annual NRW reduction plan including financial schedule based on the NRW reduction plan. 4.5 Each pilot WSP implements the annual NRW reduction plan.	4.3 Each pilot WSP identifies measures to solve challenges. 4.4 Each pilot WSP formulates the NRW reduction plan including financial plan. 4.5 Each pilot WSP implements the NRW reduction plan.
Activity for Output-5	
5-1 MWI NRW Unit organizes NRW related regular meetings in cooperation with other relevant organizations. 5-2 WASREB compiles case studies/lessons learnt about NRW reduction activities.	5-1 The Project presents results and lessons of Output 4 and other NRW activities during WASPA meeting. 5-2 The Project holds NRW thematic workshops in coordination with WASPA. 5-3 The Project team produces brief notes.

3. Other terms

JICA, and MWS agree that Project Design Matrix (PDM) is amended as Annex-1 due to modification stated above. This amendment will become effective as of 22 January 2019.

Annex 1: PDM version 2

Annex 2: PO version 2

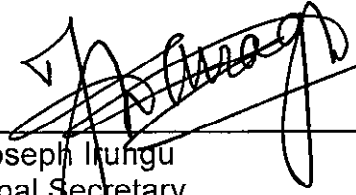
Annex 3: Record of Discussions (signed on March 7, 2016)

Nairobi, 22 January, 2019

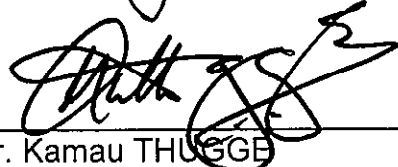



佐野 京子

Ms. Keiko SANO
Chief Representative
JICA Kenya Office



Mr. Joseph Ikungu
Principal Secretary
Ministry of Water and Sanitation
The Republic of Kenya



Dr. Kamau THUGGE
Principal Secretary
The National Treasury
The Republic of Kenya

Project Design Matrix

Version 2
Dated 31st July 2018

Project Title: Project for Strengthening Capacity in Non-Revenue Water Reduction

Implementing Agency: MWS, WASREB, KEWI

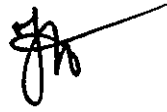
Target Group: Urban WSPs

Period of Project: Sept. 2016-Aug. 2021

Project Site: The entire country of Kenya

Pilot Site: Eldoret, Embu, Kisumu, Kilifi-Mariakani, Mavoko, Meru, Nakuru, Nyahururu, Ruiru-Juja

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p>Overall Goal Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.</p>	<p>1. 6 of Urban WSPs participate knowledge sharing activities established by the Project. 2. 6 of pilot Urban WSPs continue achieving target(s) set by the NRW reduction plan. 3. NRW annual report is continuously produced and disseminated.</p>	<p>MWS NRW Unit annual reports Pilot WSPs NRW reduction plans</p>	<p>NRW reduction remains as priority of MWS and WSPs.</p>		
<p>Project Purpose A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.</p>	<p>6 of pilot Urban WSPs continue achieving targets set by the NRW reduction plan for two years.</p>	<p>NRW reduction plans Platform (online) Impact reports Project reports JCC meeting minutes</p>	<p>NRW reduction remains as priority of MWS and WSPs.</p>		
<p>Outputs 1. Promotion and coordination of NRW reduction activities by MWS NRW Unit are strengthened.</p>	<p>1-1 All County representatives participate NRW related seminar(s). 1-2 NRW reduction campaigns are conducted semi annually. 1-3 NRW reduction annual reports are produced.</p>	<p>Materials for County seminar List of seminar participants Campaign materials NRW reduction annual reports Project reports JCC meeting minutes</p>	<p>NRW Unit staff positions are fulfilled.</p>		
<p>2. Use of NRW reduction standards by Urban WAPs are promoted by WASREB.</p>	<p>2-1 NRW reduction standards are revised by year 2020. 2-2 Revised NRW reduction standards are disseminated to all Urban WSPs through workshop (s).</p>	<p>Revised NRW reduction standards Workshop program and list of participants Project reports JCC meeting minutes NRW reduction annual reports</p>	<p>Current WASREB's role and authority remains.</p>		
<p>3. NRW related training capacity of KEWI is strengthened.</p>	<p>3-1 KEWI conducts NRW reduction courses with contents incorporating on-site trainings and revised course materials. 3-2 The average score of the participants on the test conducted after the NRW reduction course is higher than before the implementation.</p>	<p>Revised course materials Revised course syllabus Course participants' test scores Project reports JCC meeting minutes NRW reduction annual reports Trace studies</p>	<p>KEWI continues to offer NRW short courses.</p>		




<p>4. NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.</p>	<p>4-1 More than 8 Pilot WSPs formulate NRW reduction plan 4-2 More than 6 Pilot WSPs self-review their achievements of previous year's NRW reduction plans and compile activity report. 4-3 Based on 4-2, more than 6 Pilot WSPs continuously formulate annual NRW reduction plan. 4-4 More than 6 Pilot WSPs continuously implement NRW reduction plan formulated in 4-1. 4-5 More than 6 Pilot WSPs are able to use skills and/or implement activities which they could not employ before the project 4-6 The amount of NRW in the selected distribution zones indicates decreasing tendency</p>	<p>NRW reduction plans IMPACT reports Project reports JCC meeting minutes</p>	<p>Trained personnel do not leave WSPs Drastic climatic changes such as draught will not affect the water resources.</p>	
<p>5. Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.</p>	<p>5-1 Results and lessons from Output 4 and NRW activities are shared during WASPA meetings at least 3 times a year. 5-2 A NRW thematic workshop is organized every year. 5-3 3 brief notes are produced during the Project.</p>	<p>Complied lessons learnt NRW regular meeting minutes and list of participants Project reports JCC meeting minutes NRW reduction annual reports Brief notes</p>	<p>NRW reduction remains as priority of WSPs.</p>	
Inputs				
Activities				
<p>1.1 MWS NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data. 1.2 MWS NRW Unit plans and implements NRW reduction sensitization activities for the Counties. 1.3 MWS NRW Unit plans and implements NRW reduction campaigns. 1.4 MWS NRW Unit conducts reviews of KEWI NRW courses. 1.5 MWS NRW Unit conducts reviews of WASREB's NRW reduction activities. 1.6 MWS NRW Unit ensures the budget for the support mechanism based on its NRW reduction Mid-term vision.</p>	<p>2.1 WASREB conducts a survey of the usages of current NRW reduction standards. 2.2 Based on the survey result as well as Outputs 4 and 5, WASREB revises the NRW reduction standards. 2.3 WASREB promotes revised NRW reduction standards through workshop(s). 2.4 WASREB incorporates the review results of NRW reduction activities by MWS NRW Unit in their activities. 2.5 WASREB monitors and evaluates the usages of revised NRW standards. 3.1 KEWI studies current status of NRW reduction courses and its challenges. 3.2 KEWI reviews NRW reduction training strategies and course contents. 3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings. 3.4 KEWI reflects on-site NRW trainings into NRW course contents and materials. 3.5 KEWI incorporates the results of review by MWI NRW Unit into NRW course contents. 3.6 KEWI conducts trace studies of NRW reduction course participants.</p>	<p>The Japanese Side 1. Experts 2. Equipment/Tools/ Materials 3. Japan or third country training</p>	<p>The Kenya Side 1. Counterpart personnel 2. Equipment/Tools/ Materials 3. Facility/Office Space 4. Budget for activities</p>	<p>Pre-Conditions <Issues and countermeasures></p>
<p>4.1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs. 4.2 Each pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges. 4.3 Each pilot WSP identifies measures to solve challenges. 4.4 Each pilot WSP formulates the NRW reduction plan including financial plan. 4.5 Each pilot WSP implements the NRW reduction plan. 4.6 Each pilot WSP evaluates and analyzes implementation results and revise plans. 4.7 Each pilot WSP produces the NRW reduction activity report annually. 4.8 Each pilot WSP holds regular NRW reduction meetings attended by relevant departments of WSP</p>	<p>5.1 The Project presents results and lessons of Output 4 and other NRW activities during WASPA meeting. 5.2 The Project holds NRW thematic workshops in coordination with WASPA. 5.3 The Project team produces brief notes</p>			

Amended Plan of Operation (Version 2)


Project Title: Strengthening Capacity of Non-Revenue Water Reduction												Date: 31 July, 2018												
Inputs	Expert	1st Year				2nd Year				3rd Year				4th Year				5th Year				Remarks	Issue	Solution
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV			
	Chief Advisor / NRW management. (Mr. Masayuki Taguchi)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	NRW reduction specialist. (Mr. Noboru Saito)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Water distribution network (Mapping & Network analysis) (Mr. Shojo Mori)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Flow, Pressure and Leakage monitoring 1. (Mr. Junichi Takahashi)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Flow, Pressure and Leakage monitoring 2. (Mr. Shinichi Sekimoto)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Customer management / Billing collection 1. (Mr. Toshio Kano)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Customer management / Billing collection 2 (Mr. Naoki Harada)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Training management / Training strategy (Mr. Satoshi Shibasaki)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Information / Public relation management (Ms. Hiroko Sugimoto)	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Other experts if necessary	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Equipment	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Training in Japan or third country	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	In-country Training	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Activities	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Sub-Activities	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Output 1: Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	1.1 MWI NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	1.2 MWI NRW Unit plans and implements NRW reduction sensitization activities for the Counties.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	1.3 MWI NRW Unit plans and implements NRW reduction campaigns.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	1.4 MWI NRW Unit conducts reviews of KEWI NRW courses.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	1.5 MWI NRW Unit conducts reviews of WASREB's NRW reduction activities.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	1.6 MWI NRW Unit ensures the budget for the support mechanism based on its NRW reduction. Mid-term vision	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Output 2: Use of NRW reduction standards by Urban WAPs are promoted by WASREB.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	2.1 WASREB conducts a survey of the usages of current NRW reduction standards.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	2.2 Based on the survey result as well as Outputs 4 and 5, WASREB revises the NRW reduction standards.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	2.3 WASREB promotes revised NRW reduction standards through workshop(s).	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	2.4 WASREB incorporates the review results of NRW reduction activities by MWI NRW Unit in their activities.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	2.5 WASREB monitors and evaluates the usages of revised NRW standards.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	Output 3: NRW related training capacity of KEWI is strengthened.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	3.1 KEWI studies current status of NRW reduction courses and its challenges.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	3.2 KEWI revises NRW reduction training strategies and course contents.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	3.4 KEWI reflects on-site NRW trainings into NRW course contents and materials.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	3.5 KEWI incorporates the results of review by MWI NRW Unit into NRW course contents.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
	3.6 KEWI conducts trace studies of NRW reduction course participants.	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			

RECORD OF DISCUSSIONS
ON
PROJECT FOR STRENGTHENING CAPACITY IN
NON-REVENUE WATER REDUCTION
IN
THE REPUBLIC OF KENYA
AGREED UPON BETWEEN
THE GOVERNMENT OF THE REPUBLIC OF KENYA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

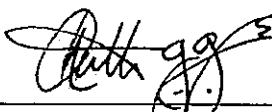
Nairobi, March 7th, 2016



Ms. Keiko SANO
Chief Representative
JICA Kenya Office



Prof. Fred H.K. SEGOR
Principal Secretary
State Department of National Water
Services
Ministry of Water and Irrigation
The Republic of Kenya



Dr. Kamau THUGGE
Principal Secretary
The National Treasury
The Republic of Kenya

Based on the Minutes of Meetings on the Detailed Planning Survey on the Project for Strengthening Capacity in Non-Revenue Water (hereinafter referred to as "NRW") Reduction (hereinafter referred to as "the Project") signed on 4th December, 2015 between the Ministry of Water and Irrigation (hereinafter referred to as "MWI") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA held a series of discussions with MWI and relevant organizations to develop a detailed plan of the Project.

Both parties agreed the details of the Project and the main points discussed as described in the Appendix 1 and the Appendix 2 respectively.

Both parties also agreed that MWI, Water Services Regulatory Board (hereinafter referred to as "WASREB"), and Kenya Water Institute (hereinafter referred to as "KEWI"), the counterparts of the Project, will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of the Republic of Kenya (hereinafter referred to as "Kenya").

The Project will be implemented within the framework of the Agreement on Technical Cooperation signed on 29th April, 2004 (hereinafter referred to as "the Agreement") and the Note Verbales exchanged on 10th and 16th July 2015 between the Government of Japan (hereinafter referred to as "GOJ") and the Government of Kenya (hereinafter referred to as "GOK").

Appendix 1: Project Description

Appendix 2: Main Points Discussed

Appendix 3: Minutes of Meetings on the Detailed Planning Survey of the Project

PROJECT DESCRIPTION

Both parties confirmed that there is no change in the Project Description agreed on in the Minutes of Meetings on the Detailed Planning Survey on the Project signed on 4th December, 2015 (Appendix 3).

I. BACKGROUND

The National Water Master Plan 2030 recommends that water resources must be properly managed, conserved, developed and more efficiently utilized considering future impact of climate change and rapid increase of population, economic growth, etc. NRW ratio in Kenya is 42% as of 2015. This figure means that half of treated water produced in the entire country is lost which results in the loss of half of the revenue which could have been used for further improvement of water access. In Vision 2030, GOK aims to reduce NRW ratio to 25% by 2020 and 20% by 2030. GOK has therefore implemented "the Project for Non-Revenue Water Management" supported by JICA from 2010 to 2014. Under this Project, WASREB developed the Standards for NRW Reduction, which consists of the NRW Reduction Guideline for use by WSB, the NRW Reduction Manual for use by WSP and Handbooks for use by technical staffs. Furthermore, KEWI has established new training course on NRW reduction, so it is desired to actualize the reduction of NRW ratio by applying materials that have been developed and training courses.

For sustainable NRW reduction, GOK requested the GOJ technical cooperation to strengthen capacity of the responsible organization to enhance the basic knowledge and the technical capacity for tackling NRW issue.

II. OUTLINE OF THE PROJECT

Outline of the Project is described in the Logical Framework (Project Design Matrix: PDM) (Annex 1) and the tentative Plan of Operation (PO, Annex 2). The PDM and PO shall be finalized in the additional survey within 3 months after the Project commencement.

1. Input

(1) Input by JICA

JICA will take, at its own expense, the following measures according to the normal procedure under the Technical Cooperation.

(a) Dispatch of Experts

- Chief adviser/NRW management
- NRW reduction specialist(s)
- Customer Management/Billing collection
- Training management
- Information/Public relation management
- Other experts if necessary

(b) Training

Training in Japan (and/or in third country)

(c) Machinery and Equipment

The equipment to be provided to the Kenyan side in the Project are tentatively itemized shown in Annex-3

(2) Input by MWI, WASREB, KEWI and Pilot WSPs

MWI, WASREB, KEWI and Pilot Water Service Providers ("Pilot WSPs") will take necessary measures to provide at its own expense:

- (a) Assignments of counterpart personnel and support staff;
- (b) Payment of per-diem (daily allowance, transportation fee and accommodation fee) to the counterpart personnel;
- (c) Suitable office space with necessary equipment in MWI, KEWI, and Pilot WSPs;
- (d) Utilities charges such as electricity, water supply, if any;
- (e) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;
- (f) Costs of activities for sensitization and campaigns by MWI
- (g) Survey cost on the usage of current NRW reduction standards by WASREB
- (h) Expense for Training of Pilot WSPs at KEWI (short term course)
- (i) Expense for On-site training in Pilot WSPs by KEWI
- (j) Expense for On-site ToT in Pilot WSPs
- (k) Expense for NRW activities of Pilot WSPs
- (l) Information in obtaining medical service;
- (m) Available data (including maps and photographs) and information related to the Project;
- (n) Necessary facilities to the JICA experts for the remittance as well as utilization of the funds introduced into Kenya in connection with the implementation of the Project

2. Implementation Structure

Implementation Structure of the Project is given in the Annex 4. The roles and assignments of relevant organizations are as follows:

(1) MWI

(a) Project Director

Director of Department of Water Services, MWI will be responsible for overall administration and implementation of the Project.

(b) Project Manager

Deputy Director of Operation and Maintenance, State Department of National Water Services, MWI will responsible for daily operation of the Project, and administration and implementation of activities, related to output 1 and 5.

(2) WASREB

Chief Executive Officer, WASREB will be responsible for administration and implementation of activities, related to output 2.

(3) KEWI

Director, KEWI will be responsible for administration and implementation of activities, related to output 3.

(4) Pilot WSPs

Managing Directors, Pilot WSPs will be responsible for administration and implementation of activities, related to output 4.

(5) JICA Experts

The JICA experts will give necessary technical guidance, advice and recommendations to MWI, WASREB, KEWI, and Pilot WSPs on any matters pertaining to the implementation of the Project.

(6) Joint Coordinating Committee (JCC)

Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC will be held at least twice a year and whenever deems it necessary. JCC will approve an annual work plan, review overall progress, conduct evaluation of the Project, and exchange opinions on major issues that arise during the implementation of the Project. A list of JCC members is shown in the Annex 5.

3. Project Site(s) and Beneficiaries

Project Area: Kenya

Beneficiaries: Staffs of MWI, WASREB, KEWI, Urban WSPs

Pilot WSPs would be selected during the additional survey for three (3) months from the commencement of the Project.

4. Duration

Five (5) years (including the additional survey within 3 months)

5. Reports

(1) Monitoring Sheet on bi-annual basis until the project completion (every six (6) months).

(2) Also, Project Completion Report shall be drawn up one (1) month before the termination of the Project.

6. Environmental and Social Considerations

MWI, WASREB, and KEWI agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

III. UNDERTAKINGS OF GOK

1. GOK will take necessary measures to:

(1) ensure that the technologies and knowledge acquired by the Kenya nationals as a result of Japanese technical cooperation contributes to the economic and social development of Kenya, and that the knowledge and

experience acquired by the personnel of Kenya from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and

- (2) grant privileges, exemptions and benefits to the JICA experts above and their families, which are no less favorable than those granted to experts and members of the missions and their families of third countries or international organizations performing similar missions in the Republic of Kenya.
2. MWI will take necessary measures to conclude MOU with Pilot WSPs (in particular, Embu and Meru, which is supposed to start the NRW Reduction activities in the first year of the Project) and Counties responsible of Pilot WSPs for timely implementation of the Project for three purposes as below;
- a) To involve Counties for smooth implementation of the Project;
 - b) To acquire budget for NRW Reduction activities of Pilot WSPs; and
 - c) To confirm and agree the inputs and undertakings of Pilot WSPs.

An example MOU is shown in Annex-6.

3. GOK will take necessary measures to:
- (1) provide security-related information as well as measures to ensure the safety of the JICA experts;
 - (2) permit the JICA experts to enter, leave and sojourn in the Republic of Kenya for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees.
 - (3) exempt the JICA experts from taxes and any other charges on the equipment, machinery and other material necessary for the implementation of the Project;
 - (4) exempt the JICA experts from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to them and/or remitted to them from abroad for their services in connection with the implementation of the Project; and
 - (5) meet taxes and any other charges on the equipment, machinery and other material, referred to in II-7 above, necessary for the implementation of the Project.
4. GOK will bear claims, if any arises, against the JICA experts resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Project, except when such claims arise from gross negligence or willful misconduct on the part of the JICA experts.

IV. MONITORING AND EVALUATION

JICA and MWI, WASREB, KEWI will jointly and regularly monitor the progress of the Project through the Monitoring Sheets based on the PDM and PO. The Monitoring Sheets shall be reviewed every six (6) months.

Also, Project Completion Report shall be drawn up one (1) month before the

termination of the Project.

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting for the Project, MWI, WASREB and KEWI will take appropriate measures to make the Project widely known to the people of Kenya.

VI. Misconduct

If JICA receives information related to suspected corrupt or fraudulent practices in the implementation of the Project, MWI, WASREB, KEWI and relevant organizations shall provide JICA with such information as JICA may reasonably request, including information related to any concerned official of the government and/or public organizations of Kenya.

MWI, WASREB, KEWI and relevant organizations shall not, unfairly or unfavorably treat the person and/or company which provided the information related to suspected corrupt or fraudulent practices in the implementation of the Project.

VII. MUTUAL CONSULTATION

JICA and MWI, WASREB, KEWI will consult each other whenever any major issues arise in the course of Project implementation.

VIII. AMENDMENTS

The Record of Discussions may be amended by the Minutes of Meetings between JICA, MWI and The National Treasury.

The Minutes of Meetings will be signed by authorized persons of each side who may be different from the signers of the Record of Discussions.

- Annex -1 Tentative Logical Framework (Project Design Matrix: PDM)
- Annex -2 Tentative Plan of Operation
- Annex -3 List of equipment
- Annex -4 Implementation Structure of the Project
- Annex -5 A List of Proposed Members of Joint Coordinating Committee
- Annex -6 An example of MOU
- Annex -7 Monitoring Form

MAIN POINTS DISCUSSED

I. Roles NRW Unit of MWI

NRW Unit of MWI has the following roles:

- a) Formulation of national policies and strategies for NRW reduction;
- b) Coordination of NRW reduction activities of related organizations; and
- c) Promotion of NRW reduction activities including sensitization of Counties.

II. Additional Survey

Both sides also agreed that the additional survey (within 3 months) will be conducted to review/decide on the following items upon commencement of the Project:

- a) Activities of Output 1. As official roles of NRW Unit is yet to be approved;
- b) Pilot WSPs of Output 4. Other than leading WSPs (Embu and Meru), more detail capacity assessment of WSPs and coordination with other development partners are required;
- c) Necessary equipment for the Project;
- d) Training in Japan or the third country

III. Terminology of WSPs in the Project

For the clarification purpose, both sides agreed with the following terminology of WSPs:

- (1) Target WSPs:
All Urban WSPs
- (2) Pilot WSPs:
Urban WSPs that the activities of Output 4 are conducted.
(Selection Criteria is described in XII)
- (3) Leading WSPs:
Pilot WSPs which have experiences of implementing JICA projects, and capacity and willingness to support other WSPs, namely Embu and Meru WSPs.

IV. Selection Criteria of Pilot WSPs

In addition to the two leading WSPs, as indicated above, the additional survey will be conducted at the inception stage of the Project to select seven (7) candidate WSPs, i.e., one (1) WSP each from seven (7) WSBs excluding Tana WSB using the following criteria. For project implementation, four (4) Pilot WSPs will be further prioritized as the first group of cooperation to be continued for three years. The remaining three (3) Pilot WSPs are the second group subject to review at the third year for their suitability and progress of the first group. For the selection of Pilot WSPs, factors such as capacity, ownership

and geographical distribution will be considered in addition to the criteria below:

Criteria

- Urban WSPs (of Very Large, Large, and Medium, as defined by WASREB's Impact report) ;
- WSPs locations clarified by JICA's security guideline;
- WSPs that are not receiving other development partners' assistance with similar activities of the Project;
- WSPs that have established NRW units;
- O&M Cost Recovery is 80 % or more;
- Metering Ratio is 75% or more;
- Water Coverage Ratio is 30% or more; and
- Water Service Hours is 10 hour or more.

V. Related Activities of other development partners

The activities of many development partners, international/national governmental /non-governmental organizations in the water sector of Kenya. Other development partners have formulation plans or implementing NRW-related projects. The selection of Pilot WSPs should be considered carefully. The project activities should also be carefully studied to prevent the overlapping of activities by the other development partners.

VI. Concluding Memorandum of Understanding (MOU)

Upon the completion of selection of Pilot WSPs, MWI will take necessary measures for the signing of MOU between Water Services Board and Pilot WSPs (initially, Embu and Meru whose activities will commence from the first year of the Project) which will be witness by MWI and Counties responsible for Pilot WSPs for smooth implementation of the Project with the following purposes:

- a) to involve Counties for smooth implementation of the Project;
- b) to acquire budget for NRW reduction activities of Pilot WSPs; and
- c) to confirm and agree the inputs and undertakings of Pilot WSPs.

VII. Flexible change of the Project design, output and activities

Both sides agreed that the Project design, output and activities may be reviewed and changed if roles of each organization were changed by Water sector reform result.

PM Form 1 PDM

Project Design Matrix

Version 0
Dated

Project Title: Project for Strengthening Capacity in Non-Revenue Water Reduction

Implementing Agency: MWI, WASREB, KEWI

Target Group: Urban WSPs

Period of Project: 5 years from the date when the first JICA Expert is dispatched

Project Site: The entire country of Kenya

Pilot Site: Embu, Meru, and others

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.	1. X of Urban WSPs participate knowledge sharing activities established by the Project. 2. X of pilot Urban WSPs continue achieving target(s) set by the annual NRW reduction plan. 3. NRW annual report is continuously produced and disseminated	MWI NRW Unit annual reports Pilot WSPs annual NRW reduction plans	NRW reduction remains as priority of MWI and WSPs.		
Project Purpose A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.	X of pilot Urban WSPs continue achieving targets set by the annual NRW reduction plan for two years.	NRW reduction plans Platform (online) Impact reports Project reports JCC meeting minutes	NRW reduction remains as priority of MWI and WSPs.		
Outputs 1. Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened.	1-1 All County representatives participate NRW related seminar(s). 1-2 NRW reduction campaigns are conducted semi annually. 1-3 NRW reduction annual reports are produced.	Materials for County seminar List of seminar participants Campaign materials NRW reduction annual reports Project reports JCC meeting minutes	Project budget of the CPs is secured. NRW Unit staff positions are fulfilled.		
2. Use of NRW reduction standards by Urban WAPs are promoted by WASREB.	2-1 NRW reduction standards are revised by year X. 2-2 Revised NRW reduction standards are disseminated to all Urban WSPs through workshop (s).	Revised NRW reduction standards Workshop program and list of participants Project reports JCC meeting minutes NRW reduction annual reports	Current WASREB's role and authority remains.		
3. NRW related training capacity of KEWI is strengthened.	3-1 KEWI conducts NRW reduction courses with contents incorporating on-site trainings and revised course materials. 3-2 Evaluations by the NRW course participants is higher than before the revision of course materials. 3-3 0% of NRW course participants formulate the workplans.	Revised course materials Course participants' evaluation sheets Project reports JCC meeting minutes NRW reduction annual reports Trace studies	KEWI continues to offer NRW short courses. Project budget of the CPs is secured.		

<p>4. NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.</p>	<p>4-1 More than X of pilot Urban WSPs continuously make the annual NRW reduction plan based on the review of previous year's implementation. 4-2 More than X of pilot Urban WSPs continuously implement the annual NRW reduction plan formulated in 4-1. 4-3 More than X of pilot Urban WSPs are able to implement skills and activities that pilot Urban WSPs were not able to adopt prior to the Project. 4-4 More than X of pilot Urban WSPs are able to implement priority activities indicated in the NRW reduction plan. 4-5 More than X of pilot Urban WSPs train all of NRW personnel.</p>	<p>NRW reduction annual plans NRW reduction plans IMPACT reports Project reports JCC meeting minutes NRW reduction annual reports</p>	<p>Trained personnel do not leave WSPs Draught will not affect the water resources. Project budget of the CFs is secured.</p>	
<p>5. Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.</p>	<p>5-1 Case study and lessons learnt of Output 4 and other NRW activities are compiled and disseminated. 5-2 Regular meeting(s) of NRW is/are organized three times a year.</p>	<p>Completed lessons learnt NRW regular meeting minutes and list of participants Project reports JCC meeting minutes NRW reduction annual reports</p>	<p>NRW reduction remains as priority of WSPs.</p>	
<p>Inputs</p>				
<p>Activities</p>		<p>The Japanese Side</p>	<p>The Kenya Side</p>	<p>Pre-Conditions</p>
<p>1.1 MWI NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data. 1.2 MWI NRW Unit plans and implements NRW reduction sensitization activities for the Counties. 1.3 MWI NRW Unit plans and implements NRW reduction campaigns. 1.4 MWI NRW Unit conducts reviews of KEWI NRW courses. 1.5 MWI NRW Unit conducts reviews of WASREB's NRW reduction activities. 2.1 WASREB conducts a survey of the usages of current NRW reduction standards. 2.2 Based on the survey result, as well as Outputs 4 and 5, WASREB revises the NRW reduction standards. 2.3 WASREB promotes revised NRW reduction standards through workshop(s). 2.4 WASREB incorporates the review results of NRW reduction activities by MWI NRW Unit in their activities. 2.5 WASREB monitors and evaluates the usages of revised NRW standards. 3.1 KEWI studies current status of NRW reduction courses and its challenges. 3.2 KEWI reviews NRW reduction training strategies and course contents. 3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings. 3.4 KEWI reflects on-site NRW trainings into NRW course contents and materials. 3.5 KEWI incorporates the results of review by MWI NRW Unit into NRW course contents. 3.6 KEWI conducts case studies of NRW reduction course participants. 4.1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs. 4.2 Each pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges. 4.3 Each pilot WSP identifies measures to solve challenges and formulates the NRW reduction plan. 4.4 Each pilot WSP formulates the annual NRW reduction plan including financial schedule based on the NRW reduction plan. 4.5 Each pilot WSP implements the annual NRW reduction plan. 4.6 Each pilot WSP evaluates and analyzes implementation results and revise plans. 4.7 Each pilot WSP produces the NRW reduction activity report annually. 4.8 Each pilot WSP holds regular NRW reduction meetings attended by relevant departments of WSP. 5.1 MWI NRW Unit organizes NRW related regular meetings in cooperation with other relevant organizations. 5.2 WASREB compiles case studies/lessons learnt about NRW reduction activities.</p>		<p>1. Experts 2. Equipment/Tools/ Materials 3. Japan or third country training</p>	<p>1. Counterpart personnel 2. Equipment/Tools/ Materials 3. Facility/Office Space</p>	<p><Issues and countermeasures></p>

Note: "X" is the indicator that will be decided after the project commencement.

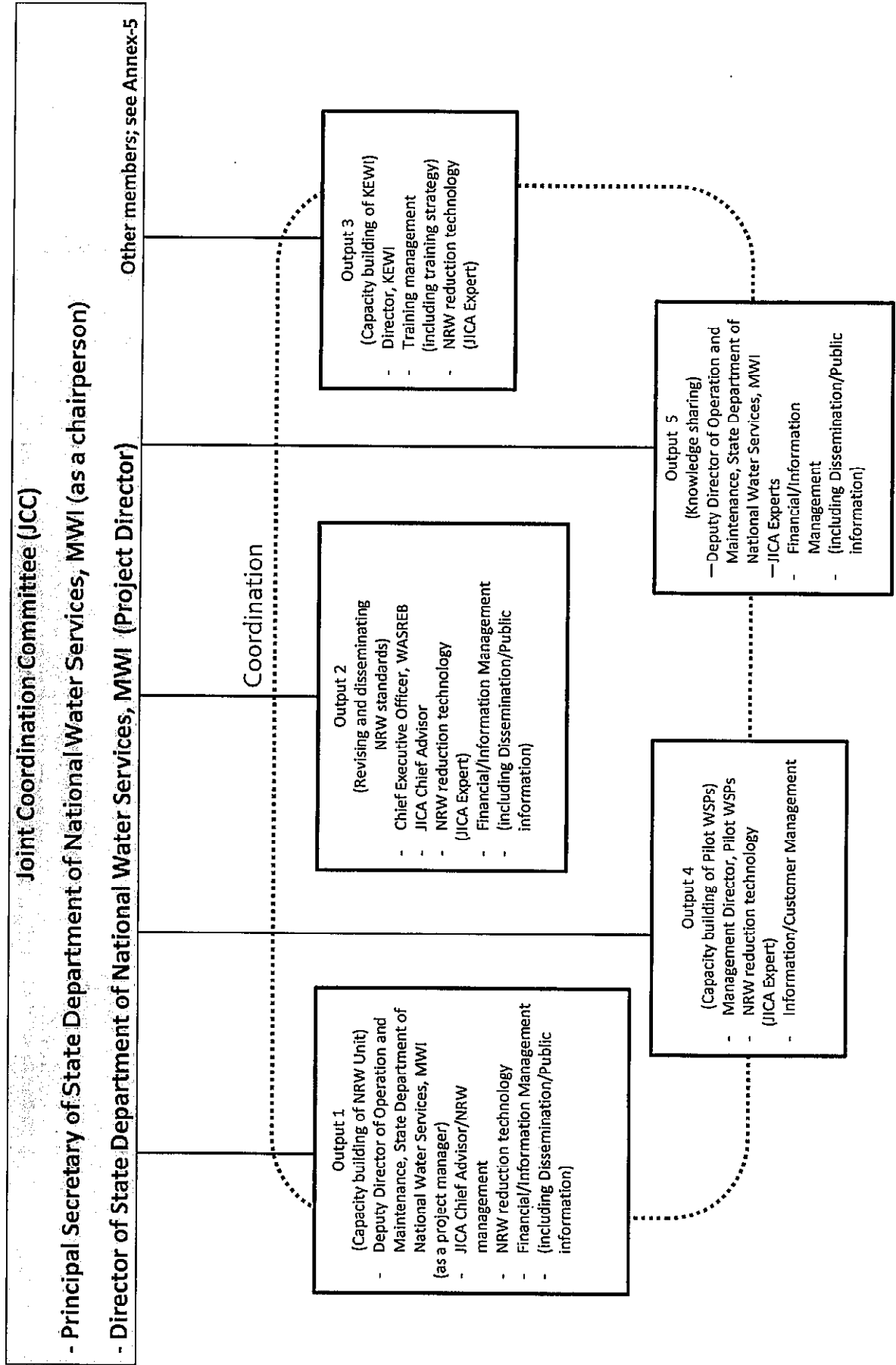
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Table: Tentative List of Equipment

Name of Equipment
- Portable ultra-sonic flow meter(s)
- Leak detector(s)
- Water pressure gauge(s)
- Bulk meter(s)
- Data logger(s)
- Water pressure gauge(s)
- Meter test bench(s)
- Noise leak correlator
- Leak detection demonstration platform
- GPS (s)
- Laptop computer
- Multi copy machine (Scanner, printer and copy functions. A-3 size)
- Digital camera
- Projector
- Other necessary equipment for monitoring and supporting NRW reduction activities in Pilot WSPs

Implementation Structure of the Project



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List of Members of Joint Coordinating Committee

Composition

1. Chairperson:
Principal Secretary, State Department of National Water Services, MWI
2. Project Director:
Director of Department of Water Services, MWI
3. Project Manager:
Deputy Director of Operation and Maintenance, State Department of National Water Services, MWI
4. Other Members
 - (1) The Kenya side:
 - 1) Head of Donor Coordination, MWI
 - 2) Chief Executive Officer, WASREB
 - 3) Director, KEWI
 - 4) Management Directors, Pilot WSPs (including, Leading WSPs)
 - 5) Other personnel assigned by Kenyan side
 - (2) The Japanese side:
 - 1) Chief Advisor
 - 2) Other experts
 - 3) Representatives of JICA Kenya Office
 - 4) Other personnel as mutually agreed upon

Note: Officials of the Embassy of Japan in the Republic of Kenya may attend the committee meeting.

(Example)

Memorandum of Understanding for
"PROJECT FOR STRENGTHENING CAPACITY IN
NON-REVENUE WATER REDUCTION"

This Memorandum of Understanding ("MoU") is made and entered by and among the following four parties:

[Name of WSB] as one party, represented by [Name, Position]
("[Abbreviated Name of WSB]");

and

[Name of Water Service Provider] as one party, represented by [Name, Position]
("[Abbreviated Name of WSP]");

witness by

Ministry of Water and Irrigation as one party, represented by [Name, Position]
("MWI");

and

[Name of County Government] as one party, represented by [Name, Position]
("the County");

1. Ground of the MoU

Based on the result of the survey conducted by JICA, [Abbreviated Name of WSP] has been selected as a Pilot Water Service Provider (WSP) of "Project for Strengthening Capacity in Non-Revenue Water Reduction" (the Project). This MoU is an agreement between the four parties specified above in regard to smooth implementation of the Project.

2. Dates of Validation and Completion of the MoU

This MoU shall be valid from the date of MoU signing, [Date, Month, Year] and till the completion of the Project,

3. Amendments of the MoU

Any necessary amendments and additions to the MoU may be negotiated among the four parties. Agreed amendments and additions shall be evidenced by a written document signed by all the parties.



Terms of Reference

1. The County shall support [Abbreviated Name of WSP], as its lawful owner, for the implementation of Non-Revenue Water Reduction activities of the Project.
2. [Abbreviated Name of WSP] shall be responsible for the following particulars during the period of the Project. Some of the particulars are for experts from Japan International Cooperation Agency (JICA). The County shall support [Abbreviated Name of WSP]'s smooth implementation of NRW reduction activities in regard to the particulars.
 - (a) Assignments of counterpart personnel and support staff
 - (b) Payment of per-diem (daily allowance, transportation fee and accommodation fee) to the counterpart personnel
 - (c) Provision of suitable workspace with furniture and equipment for JICA experts (for at least 4 personnel)
 - (d) Utilities charges such as electricity, water supply, if any
 - (e) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA
 - (f) Expense for NRW activities
 - (g) Provision of information on available medical services for JICA experts
 - (h) Provision of available data (including maps and photographs) and information necessary for project activities

[Name]
Chief Executive Officer
[Name of WSB]

[Name]
Managing Director
[Name of WSP]

Witness by

[Name]
[Position]
[Department]
Ministry of Water and Irrigation

[Position]
[Department]
[Name of County Government]

TO CR of JICA Kenya OFFICE

PROJECT MONITORING SHEET

Project Title : _____**Version of the Sheet: Ver.●● (Term: Month, Year - Month, Year)** _____**Name:** _____**Title: Chief Advisor** _____**Submission Date:** _____**I. Summary****1 Progress**

1-1 Progress of Inputs

1-2 Progress of Activities

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 Republic of Kenya

1-8 Progress of Environmental and Social Considerations (if applicable)

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

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

2-1 Detail

2-2 Cause

2-3 Action to be taken

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of the Republic of Kenya)

3 Modification of the Project Implementation Plan

3-1 PO

3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

4 Preparation of Gov. of the Republic of Kenya toward after completion of the Project**II. PDM&PO as Project Monitoring Sheet I & II**

**MINUTES OF MEETINGS
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
MINISTRY OF WATER & SANITATION AND IRRIGATION
FOR AMENDMENT OF THE RECORD OF DISCUSSIONS
ON
THE PROJECT FOR STRENGTHNING CAPACITY
IN NON-REVENUE WATER REDUCION IN THE REPUBLIC OF KENYA**

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and Ministry of Water & Sanitation and Irrigation (hereinafter referred to as "MWSI") hereby agree that the Record of Discussions on THE PROJECT FOR STRENGTHENING CAPACITY IN NON-REVENUE WATER REDUCION signed on January 22, 2019 will be amended as follows;

1. Name of Implementing Agency

Before	Amended Version
Ministry of Water and Sanitation (MWS)	Ministry of Water & Sanitation and Irrigation (MWSI)
Reason: Changing the name of the organization because of re-structure.	

2. Project Design Matrix

Before	Amended Version
Output 5	
Activities for Output 5	
-	add: 5-4 Conduct the support activities in response to the COVID-19 emergency
Reason: In response to the COVID-19 emergency at the request of MWSI.	

Based on the agreement in Minutes of Meetings, JICA, and MWSI agree that Project Design Matrix (PDM) is amended as Annex-1. This amendment will become effective from the date of signing.



H.K.

The parties acknowledge and agree that this Minutes of Meetings may be executed by electronic signature, which is considered as an original signature for all purposes and has the same force and effect as an original signature. "Electronic signature" includes faxed versions of an original signature or electronically scanned and transmitted versions (e.g., via pdf) of an original signature.

Annex 1: PDM version 3

Annex 2: Record of Discussions (signed on January 22, 2019)

Nairobi, [20th July 2020]



Mr. KOMORI Katsutoshi
Chief Representative
JICA Kenya Office



Mr. Joseph IRUNGU, CBS
Principal Secretary
Ministry of Water & Sanitation and
Irrigation
The Republic of Kenya

Project Design Matrix

Project Title: Project for Strengthening Capacity in Non-Revenue Water Reduction

Implementing Agency: MWS,WASREB,KEWI

Target Group: Urban WSPs

Period of Project: Sept. 2016-Aug. 2021

Project Site: The entire country of Kenya

Version 3.0


Dated 20th July 2020

Pilot Site: Eldoret, Embu, Kisumu, Kilifi-Mariakani, Mavoko, Meru, Nakuru,

Nyahururu, Ruiru-Juja

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal					
Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.	1. 6 of Urban WSPs participate knowledge sharing activities established by the Project. 2. 6 of pilot Urban WSPs continue achieving target(s) set by the NRW reduction plan. 3. NRW annual report is continuously produced and disseminated.	MWS NRW Unit annual reports Pilot WSPs NRW reduction plans	NRW reduction remains as priority of MWS and WSPs.		
Project Purpose					
A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.	6 of pilot Urban WSPs continue achieving targets set by the NRW reduction plan for two years.	NRW reduction plans Platform (online) Impact reports Project reports JCC meeting minutes	NRW reduction remains as priority of MWS and WSPs.		
Outputs					
1. Promotion and coordination of NRW reduction activities by MWS NRW Unit are strengthened.	1-1 All County representatives participate NRW related seminar(s). 1-2 NRW reduction campaigns are conducted semi annually. 1-3 NRW reduction annual reports are produced.	Materials for County seminar List of seminar participants Campaign materials NRW reduction annual reports Project reports JCC meeting minutes	NRW Unit staff positions are fulfilled.		
2. Use of NRW reduction standards by Urban WAPs are promoted by WASREB.	2-1 NRW reduction standards are revised by year 2020. 2-2 Revised NRW reduction standards are disseminated to all Urban WSPs through workshop (s).	Revised NRW reduction standards Workshop program and list of participants Project reports JCC meeting minutes NRW reduction annual reports	Current WASREB's role and authority remains.		
3. NRW related training capacity of KEWI is strengthened.	3-1 KEWI conducts NRW reduction courses with contents incorporating on-site trainings and revised course materials. 3-2 The average score of the participants on the test conducted after the NRW reduction course is higher than before the implementation.	Revised course materials Revised course syllabus Course participants' test scores Project reports JCC meeting minutes NRW reduction annual reports Trace studies	KEWI continues to offer NRW short courses.		

20.11.

4. NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.	4-1 More than 8 Pilot WSPs formulate NRW reduction plan 4-2 More than 6 Pilot WSPs self-review their achievements of previous year's NRW reduction plans and compile activity report. 4-3 Based on 4-2, more than 6 Pilot WSPs continuously formulate annual NRW reduction plan. 4-4 More than 6 Pilot WSPs continuously implement NRW reduction plan formulated in 4-1. 4-5 More than 6 Pilot WSPs are able to use skills and/or implement activities which they could not employ before the project 4-6 The amount of NRW in the selected distribution zones indicates decreasing tendency	NRW reduction plans IMPACT reports Project reports JCC meeting minutes	Trained personnel do not leave WSPs Drastic climatic changes such as draught will not affect the water resources.		
5. Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.	5-1 Results and lessons from Output 4 and NRW activities are shared during WASPA meetings at least 3 times a year. 5-2 A NRW thematic workshop is organized every year. 5-3 3 brief notes are produced during the Project. 5-4. Conduct the support activities in response to the COVID-19 emergency	Complied lessons learnt NRW regular meeting minutes and list of participants Project reports JCC meeting minutes NRW reduction annual reports Brief notes	NRW reduction remains as priority of WSPs.		
Activities		Inputs			
1.1 MWS NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data. 1.2 MWS NRW Unit plans and implements NRW reduction sensitization activities for the Counties. 1.3 MWS NRW Unit plans and implements NRW reduction campaigns. 1.4 MWS NRW Unit conducts reviews of KEWI NRW courses. 1.5 MWS NRW Unit conducts reviews of WASREB's NRW reduction activities. 1.6 MWS NRW Unit ensures the budget for the support mechanism based on its NRW reduction Mid-term vision.		The Japanese Side	The Kenya Side	Pre-Conditions	
2.1 WASREB conducts a survey of the usages of current NRW reduction standards. 2.2 Based on the survey result as well as Outputs 4 and 5, WASREB revises the NRW reduction standards. 2.3 WASREB promotes revised NRW reduction standards through workshop(s). 2.4 WASREB incorporates the review results of NRW reduction activities by MWS NRW Unit in their activities. 2.5 WASREB monitors and evaluates the usages of revised NRW standards. 3.1 KEWI studies current status of NRW reduction courses and its challenges. 3.2 KEWI reviews NRW reduction training strategies and course contents. 3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings. 3.4 KEWI reflects on-site NRW trainings into NRW course contents and materials. 3.5 KEWI incorporates the results of review by MWI NRW Unit into NRW course contents. 3.6 KEWI conducts trace studies of NRW reduction course participants.		1. Experts 2. Equipment/Tools/ Materials 3. Japan or third country training	1. Counterpart personnel 2. Equipment/Tools/ Materials 3. Facility/Office Space 4. Budget for activities	 <Issues and countermeasures>	
4.1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs. 4.2 Each pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges. 4.3 Each pilot WSP identifies measures to solve challenges. 4.4 Each pilot WSP formulates the NRW reduction plan including financial plan. 4.5 Each pilot WSP implements the NRW reduction plan. 4.6 Each pilot WSP evaluates and analyzes implementation results and revise plans. 4.7 Each pilot WSP produces the NRW reduction activity report annually. 4.8 Each pilot WSP holds regular NRW reduction meetings attended by relevant departments of WSP					
5.1 The Project presents results and lessons of Output 4 and other NRW activities during WASPA meeting. 5.2 The Project holds NRW thematic workshops in coordination with WASPA. 5.3 The Project team produces brief notes 5.4 The Project team conducts activities in response to the COVID-19 emergency					



**MINUTES OF MEETINGS
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY AND
MINISTRY OF WATER AND SANITATION AND IRRIGATION
FOR AMENDMENT OF THE RECORD OF DISCUSSIONS
ON
THE PROJECT FOR STRENGTHNING CAPACITY
IN NON-REVENUE WATER REDUCION IN THE REPUBLIC OF KENYA**

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and Ministry of Water and Sanitation and Irrigation (hereinafter referred to as "MWSI") hereby agree that the Record of Discussions on THE PROJECT FOR STRENGTHENING CAPACITY IN NON-REVENUE WATER REDUCION signed on 20th July, 2020 will be amended as follows;

1. Project Design Matrix

Before	Amended Version
Project Purpose	
Objectively Verifiable Indicators	
6 of pilot Urban WSPs continue achieving targets set by the NRW reduction plan for two years.	6 of the pilot WSPs continue achieving above 60% for 2years in the completion ratio of annually planned activities (based on the annual activity review sheet of the Annual Planning and Review template prepared in this project)

Before	Amended Version
Period of Project	
Sept. 2016-May. 2022	Sep.2016-June. 2022

There is an amendment for an Objectively Verifiable indicator for Project Purpose agreed on Minutes of Meetings of the 10th JCC as Annex-1. Based on Annex-2, Period of Project was extended by 8 months to May 2022 due to COVID-19. However, the ongoing spread of the COVID-19 has still delayed some activities, therefore, it was determined to extend Period of Project by an additional month.

JICA, and MWSI agree that Project Design Matrix (PDM) is amended as Annex-3 due to modification stated above. This amendment will become effective from the date of signing.

Annex 1: Minutes of Meetings on the 10th JCC

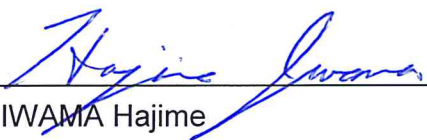
Annex 2: Letter on extension of the Project Period

Annex 3: PDM version 4


Annex 4: Record of Discussions (signed on 20th July, 2020)

8th April 2022

Nairobi,



Mr. IWAMA Hajime
Chief Representative
JICA Kenya Office



Eng. Joseph Njoroge
Principal Secretary
Ministry of Water and Sanitation and
Irrigation
The Republic of Kenya

Project Design Matrix

Project Title: Project for Strengthening Capacity in Non-Revenue Water Reduction

Implementing Agency: MWSI,WASREB,KEWI

Target Group:Urban WSPs

Period of Project: Sept. 2016-June. 2022

Project Site: The entire country of Kenya


Pilot Site: Eldoret, Embu, Kisumu, Kilifi-Mariakani, Mavoko, Meru, Nakuru,

Nyahururu, Ruiru-Juja

Version 4.0

Dated ** 2022

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal					
Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.	1. 6 of Urban WSPs participate knowledge sharing activities established by the Project. 2. 6 of pilot Urban WSPs continue achieving target(s) set by the NRW reduction plan. 3. NRW annual report is continuously produced and disseminated.	MWS NRW Unit annual reports Pilot WSPs NRW reduction plans	NRW reduction remains as priority of MWS and WSPs.		
Project Purpose					
A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.	6 of pilot Urban WSPs continue achieving above 60% for 2years in the completion ratio of annually planned activities (based on the annual activity review sheet of the Annual Planning and Review template prepared in this project)	NRW reduction plans Platform (online) Impact reports Project reports JCC meeting minutes	NRW reduction remains as priority of MWS and WSPs.		
Outputs					
1. Promotion and coordination of NRW reduction activities by MWS NRW Unit are strengthened.	1-1 All County representatives participate NRW related seminar(s). 1-2 NRW reduction campaigns are conducted semi annually. 1-3 NRW reduction annual reports are produced.	Materials for County seminar List of seminar participants Campaign materials NRW reduction annual reports Project reports JCC meeting minutes	NRW Unit staff positions are fulfilled.		
2. Use of NRW reduction standards by Urban WAPs are promoted by WASREB.	2-1 NRW reduction standards are revised by year 2020. 2-2 Revised NRW reduction standards are disseminated to all Urban WSPs through workshop (s).	Revised NRW reduction standards Workshop program and list of participants Project reports JCC meeting minutes NRW reduction annual reports	Current WASREB's role and authority remains.		
3. NRW related training capacity of KEWI is strengthened.	3-1 KEWI conducts NRW reduction courses with contents incorporating on-site trainings and revised course materials. 3-2 The average score of the participants on the test conducted after the NRW reduction course is higher than before the implementation.	Revised course materials Revised course syllabus Course participants' test scores Project reports JCC meeting minutes NRW reduction annual reports Trace studies	KEWI continues to offer NRW short courses.		

4. NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.	4-1 More than 8 Pilot WSPs formulate NRW reduction plan 4-2 More than 6 Pilot WSPs self-review their achievements of previous year's NRW reduction plans and compile activity report. 4-3 Based on 4-2, more than 6 Pilot WSPs continuously formulate annual NRW reduction plan. 4-4 More than 6 Pilot WSPs continuously implement NRW reduction plan formulated in 4-1. 4-5 More than 6 Pilot WSPs are able to use skills and/or implement activities which they could not employ before the project 4-6 The amount of NRW in the selected distribution zones indicates decreasing tendency	NRW reduction plans IMPACT reports Project reports JCC meeting minutes	Trained personnel do not leave WSPs Drastic climatic changes such as draught will not affect the water resources.		
5. Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.	5-1 Results and lessons from Output 4 and NRW activities are shared during WASPA meetings at least 3 times a year. 5-2 A NRW thematic workshop is organized every year. 5-3 3 brief notes are produced during the Project. 5-4. Conduct the support activities in response to the COVID-19 emergency	Complied lessons learnt NRW regular meeting minutes and list of participants Project reports JCC meeting minutes NRW reduction annual reports Brief notes	NRW reduction remains as priority of WSPs.		
Activities			Inputs		
1.1 MWS NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data. 1.2 MWS NRW Unit plans and implements NRW reduction sensitization activities for the Counties. 1.3 MWS NRW Unit plans and implements NRW reduction campaigns. 1.4 MWS NRW Unit conducts reviews of KEWI NRW courses. 1.5 MWS NRW Unit conducts reviews of WASREB's NRW reduction activities. 1.6 MWS NRW Unit ensures the budget for the support mechanism based on its NRW reduction Mid-term vision.			The Japanese Side	The Kenya Side	Pre-Conditions
2.1 WASREB conducts a survey of the usages of current NRW reduction standards. 2.2 Based on the survey result as well as Outputs 4 and 5, WASREB revises the NRW reduction standards. 2.3 WASREB promotes revised NRW reduction standards through workshop(s). 2.4 WASREB incorporates the review results of NRW reduction activities by MWS NRW Unit in their activities. 2.5 WASREB monitors and evaluates the usages of revised NRW standards. 3.1 KEWI studies current status of NRW reduction courses and its challenges. 3.2 KEWI reviews NRW reduction training strategies and course contents. 3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings. 3.4 KEWI reflects on-site NRW trainings into NRW course contents and materials. 3.5 KEWI incorporates the results of review by MWS NRW Unit into NRW course contents. 3.6 KEWI conducts trace studies of NRW reduction course participants. 4.1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs. 4.2 Each pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges. 4.3 Each pilot WSP identifies measures to solve challenges. 4.4 Each pilot WSP formulates the NRW reduction plan including financial plan. 4.5 Each pilot WSP implements the NRW reduction plan. 4.6 Each pilot WSP evaluates and analyzes implementation results and revise plans. 4.7 Each pilot WSP produces the NRW reduction activity report annually. 4.8 Each pilot WSP holds regular NRW reduction meetings attended by relevant departments of WSP 5.1 The Project presents results and lessons of Output 4 and other NRW activities during WASPA meeting. 5.2 The Project holds NRW thematic workshops in coordination with WASPA. 5.3 The Project team produces brief notes 5.4 The Project team conducts activities in response to the COVID-19 emergency			1. Experts 2. Equipment/Tools/ Materials 3. Japan or third country training	1. Counterpart personnel 2. Equipment/Tools/ Materials 3. Facility/Office Space 4. Budget for activities	 <Issues and countermeasures>



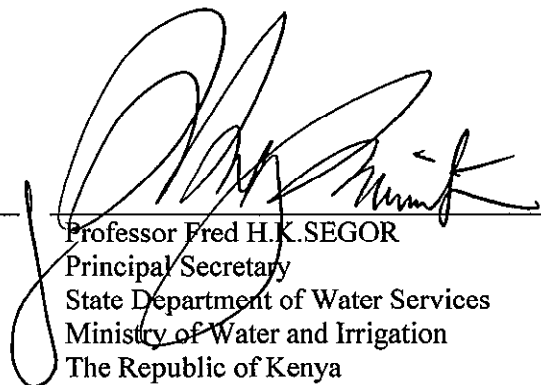
**Attachment 4. Minutes of Joint Coordination Committee
(including Monitoring Sheets and Annexes)**

MINUTES OF MEETING
ON
FIRST JOINT COORDINATION COMMITTEE
ON
THE PROJECT FOR
STRENGTHENING CAPACITY IN NON-REVENUE WATER REDUCTION
AGREED UPON BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
MINISTRY OF WATER AND IRRIGATION
THE REPUBLIC OF KENYA

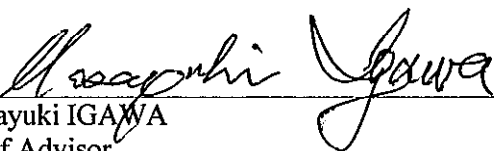
Nairobi, October 19, 2016



Kazuhiro TAMBARA
Senior Representative
JICA Kenya Office



Professor Fred H.K. SEGOR
Principal Secretary
State Department of Water Services
Ministry of Water and Irrigation
The Republic of Kenya



Masayuki IGAWA
Chief Advisor
JICA Expert Team

In accordance with the Record of Discussion (hereinafter referred to as R/D) signed on March 7, 2016, between the Ministry of Water and Irrigation (hereinafter referred to as "MWI") and Japan International Cooperation Agency (hereinafter referred to as "JICA") on the Project for Strengthening Capacity in Non-Revenue Water Reduction (hereinafter referred to as "the Project").

The Government of Japan has already dispatched JICA expert team (hereinafter referred to as "the Team") to Kenya. The Team submitted the Draft Work Plan to MWI and relevant organizations (hereinafter referred to as "Kenyan side"), and the Plan was discussed during the period from 11 to 19 October 2016.

The major points of discussion and agreement are summarized as follows:

1. Contents and Schedule of Draft Work Plan

The Kenyan side confirmed contents and schedule of the Project as indicated in the Draft Work Plan that was prepared and agreed on R/D and Minutes of Meetings (hereinafter referred to as M/M) signed on December 4, 2015. In addition, both sides agreed that the Draft Work Plan will be revised in detail after the completion of Baseline survey.

2. Duration of the Project

Duration of the Project is five (5) years from the date of dispatch of JICA Expert Team as indicated in R/D. The first group of experts have already been dispatched on October 10, 2016, therefore the duration of the Project is run from October 10, 2016 to October 9, 2021. The Project is divided into the following three phases.

Phase 1: From October, 2016 to September, 2017

Phase 2: From October, 2017 to September, 2019

Phase 3: From October, 2019 to September, 2021

3. Major Undertakings by Kenyan Side

Both sides agreed on the contents of the Major Undertaking by Kenyan side indicated in Draft Work Plan. JICA requests that the Kenyan side to timely execute the following input in accordance with R/D and M/M:

(1) Appointment of counterpart members

As indicated R/D, MWI, WASREB and KEWI have already assigned suitable counterpart members for effective implementation of the Project. The list of Kenyan counterpart members has been submitted to JICA Expert Team (Annex-2).



Counterpart members of Pilot WSPs (including Embu and Meru) will be assigned after the completion of the selection process of Pilot WSPs.

(2) Provision of office space

MWI and KEWI have prepared office space for the JICA experts with office furniture, telephone line and internet connection. Pilot WSPs will also provide suitable office spaces after the completion of the selection of Pilot WSPs.

(3) Allocation of the budget

MWI, WASREB and KEWI have already secured the budgets such as allowance and traveling costs for the counterpart and administrative personnel, and other running expenses necessary for the implementation of the Project.

4. Selection Process for Pilot WSPs

Kenyan side and JICA confirmed that Embu and Meru have already been selected as the Leading WSPs as indicated in R/D.

In addition, both sides agreed that seven (7) additional Pilot WSPs¹ will be selected out of fifteen (15) candidate Pilot WSPs based on the selection criteria below.

(1) The criteria for selecting Pilot WSPs

1) Prerequisite Criteria

a) WSPs meet the criteria described in the Minutes of Meetings signed on 4th December, 2015 (See Annex-3)

b) Counties, WSBs and WSPs have willingness to sign Memorandum of Understandings (MOU) for implementation of the Project.

2) Selection Criteria

a) NRW reduction activities based on NRW reduction plan

b) WSPs' organization and structures essential for NRW reduction

c) Technical capacity of WSPs on NRW reduction activities

d) Financial status relevant with NRW reduction activities

(2) The Potential Pilot WSPs

1) Athi WSB: Ruiru-Juja, Kiambu and Limuru

2) LVN WSB: Eldoret and Nzoia

¹ In sum, nine (9) Pilot WSPs (Embu, Meru and seven (7) other WSPs) will be selected for the Project.



- 3) LVS WSB: Kisumu
- 4) RV WSB : Nakuru and Eldama Ravine
- 5) Northern WSB: Nanyuki, Nyahururu and Isiolo
- 6) Tanathi WSB: Mavoko and Machakos
- 7) Coast WSB: Kilifi, Mariakani, and Kwale

5. Selection of the First/Second Stage Pilot WSPs

In order to implement the Project efficiently, JICA Expert Team will start the Project activities with the Leading WSPs in Phase 1. Remaining Pilot WSPs will be divided into two stages; 1. Four (4) Pilot WSPs will be further prioritized as the First stage Pilot WSPs in Phase 2; 2. The remaining three (3) Pilot WSPs will be the Second stage Pilot WSPs subject to the review of achievements of First stage Pilot WSPs at Phase 3.

The selection of First and Second stage Pilot WSPs will be taken into consideration of the accessibility and efficient utilization of human resources to secure enough time for the activities for the Second stage Pilot WSPs.

6. Change of the Original Implementation Structure

Both sides agreed that a part of the original Implementation structure has to be changed due to the new organizational structure of MWI as indicated below.

Position of Project Director:

Previous: Director of Water Services, MWI

Current: Water Secretary, MWI

Position of Project Manager:

Previous: Deputy Director Water Services, MWI

Current: Director of Water Sewerage and Sanitation Development, MWI

END

Annex-1: Draft Work Plan (Phase 1)

Annex-2: Counterparts list

Annex-3: Minutes of Meetings (signed on 4th December, 2015)

Annex-4: Record of Discussion (signed on 7th March, 2016)



Annex-1
Draft Work Plan (Phase 1)



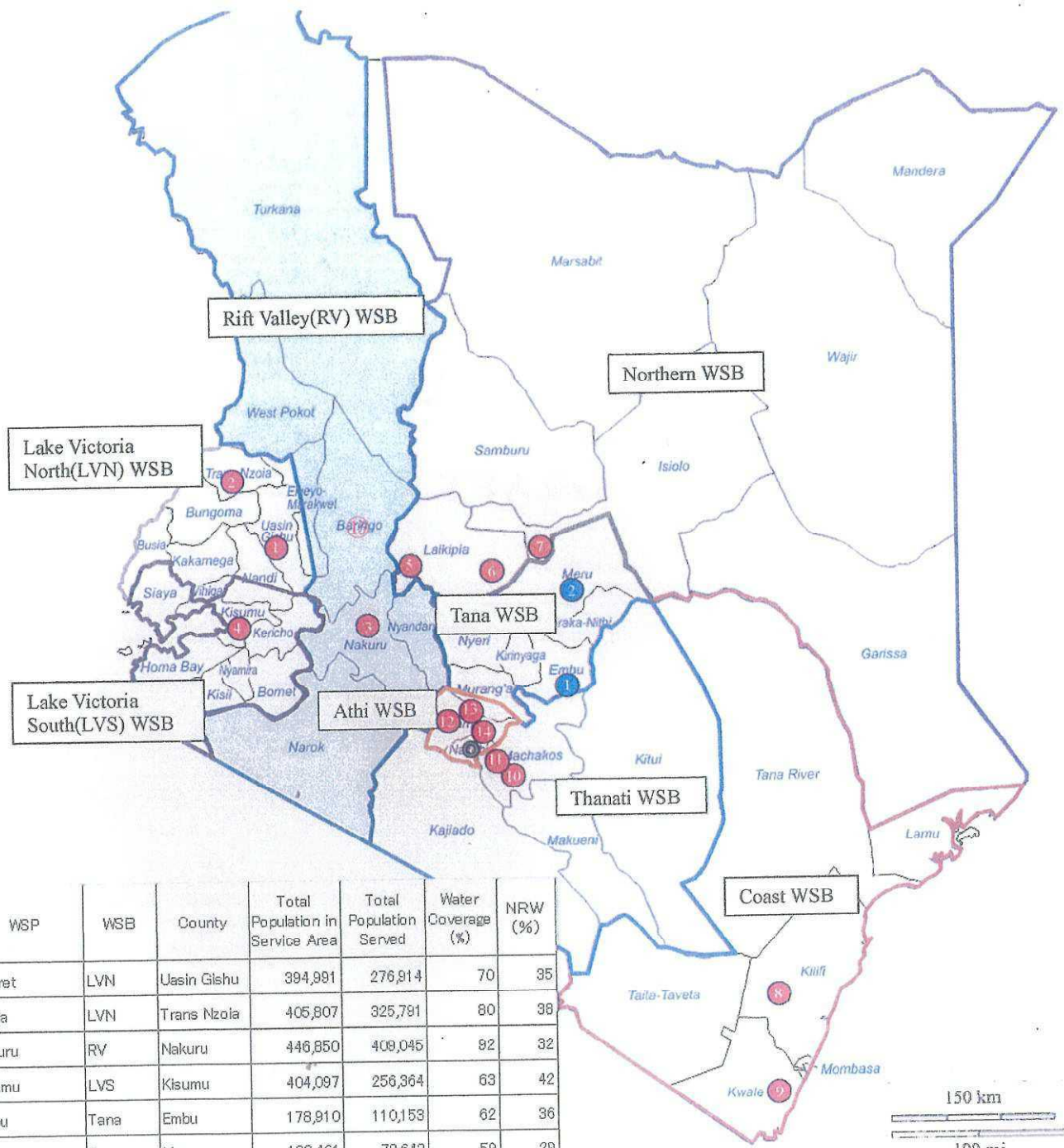
WORK PLAN 1

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No.	WSP	WSB	County	Total Population in Service Area	Total Population Served	Water Coverage (%)	NRW (%)
1	Eldoret	LVN	Uasin Gishu	394,981	276,914	70	35
2	Nzoia	LVN	Trans Nzoia	405,807	325,791	80	38
3	Nakuru	RV	Nakuru	446,850	409,045	92	32
4	Kisumu	LVS	Kisumu	404,097	256,364	63	42
1	Embu	Tana	Embu	178,910	110,153	62	36
2	Meru	Tana	Meru	133,461	78,643	59	29
5	Nanyuki	Northern	Laikipia	86,768	80,571	93	35
6	Nyahururu	Northern	Laikipia	73,798	57,780	78	49
7	Isiolo	Northern	Isiolo	62,421	33,193	53	35
8	Kilifi Mariakani	Coast	Kilifi	799,788	315,980	40	44
9	Kwale	Coast	Kwale	294,155	194,092	66	32
10	Machakos	Thanati	Machakos	213,105	114,010	53	26
11	Mavoko	Thanati	Machakos	182,093	111,132	61	46
12	Limuru	Athi	Kiambu	235,245	108,830	46	32
13	Ruiru-Juja	Athi	Kiambu	184,217	122,354	66	29
14	Kiambu	Athi	Kiambu	98,858	38,453	39	38
15	Chemususu	RV	Baringo	36,040	16,370	45	70

Location of Project Sites

AKS

AKS

AKS

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1. Project Outline

1.1 Project Background

Approx. 80% of the land of Kenya is in arid and semi-arid areas. Its people are reportedly experiencing “water stress” because of the decrease of the available water resource per person caused by the population growth. The Government of Kenya (GoK) has recognized the reduction of non-revenue water (NRW) as a priority issue to be addressed for the effective use of water resources. Meanwhile, many water service providers (WSPs) have taken NRW reduction measures for financial reasons since they became financially independent organizations. Although these measures reduced the NRW ratio to approx. 42% by 2015, many challenges still remain to be solved to achieve the goal of reducing the NRW ratio to 25% by 2030. (Impact Report 8)

Against this background, the Government of Japan (GoJ) has implemented the “Project for Management of Non-Revenue Water in Kenya (2010-2014)” (hereinafter as “the Previous Project”) together with three grant aid projects, the “Project for Augmentation of Water Supply System in Kapsabet Town (2007 – 2010),” “Project for Improvement of the Water Supply System in Embu and the Surrounding Area (2010 – 2013)” and “Project for Augmentation of Water Supply System in Narok Town (2013 – 2016).” As results of these projects, the facilities of Embu, Narok and Kapsabet WSPs have been improved and their capacity to reduce NRW has been improved in the pilot areas of the Previous Project. In addition, a short-term course on NRW reduction was established at the Kenya Water Institute (KEWI). Although an organizational structure required for WSPs to prepare a plan for NRW reduction was established by achieving the outputs in the Previous Project, only a few WSPs are implementing NRW reduction activities in accordance with plans. This may be because the plans have been prepared without consideration of capacities for implementing actual work, financial or human resources of WSPs were not fully taken into account. Therefore, it is necessary to develop a support system for WSPs to reduce NRW in accordance with realistic plans for fully utilizing the outputs of Previous Project.

The results of this situation analysis has led to establish a support system for WSPs to continuously reduce NRW by strengthening WSPs and the organizations associated with them. Thus, the “Project for Strengthening Capacity in Non-Revenue Water Reduction” (hereinafter “the Project”) has been requested by the GoK in 2014.

1.2 Objective of the Project

The Project aims at achieving the project purpose described in the PDM which is included in R/D signed in March 2016 between JICA and MWI. The Outputs in the PDM are shown in the Table below. It is worth mentioning that this Project is a technical cooperation project and the role of the JICA experts is not to lead the implementation of NRW reduction activities but to provide assistance to the Kenyan counterpart (CP) organizations to implement activities. It is crucial for the experts to fully

acknowledge that the ownership of the Project belong to CPs involved in NRW reduction from the MWI, County governments and Water Service Providers (WSPs).

Table 1.1 Outline of the Project

Item	Description
1) Overall Goal	Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.
2) Project Purpose	A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.
3) Output expected	【Output 1】 Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened.
	【Output 2】 Use of NRW reduction standards by Urban WSPs are promoted by WASREB.
	【Output 3】 NRW related training capacity of KEWI is strengthened.
	【Output 4】 NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.
	【Output 5】 Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.

1.3 Project Areas

The target area of the Project is the entire country of Kenya. More precisely, it is Nairobi where the major project CP organizations are presided, Meru and Embu Counties where the two Leading WSPs are located and the Counties where the seven (7) Pilot WSPs (selected from the 14 candidate WSPs after the Baseline survey) are located.

1.4 Project Concept

(1) Aim of the Project

The Project aims at contributing for the improvement of the financial situation of WSPs through the reduction of NRW. Achievements of Previous Project indicate that Embu and Meru WSPs had successfully implemented the NRW reduction activities. Two WSPs will be positioned as Leading WSPs, the Project aims at further strengthening their technical and operational capacities. Leading WSPs will assist other Pilot WSPs in improving their NRW reduction activities. Seven (7) Pilot WSPs will be selected from the 15 candidates WSPs. They will engage into NRW reduction activities as well. All 9 Pilot WSPs will be divided into two groups, the First stage WSPs and the Second stage WSPs, as the Project activities will be implemented in stages: the First stage WSPs in Phases 1 and 2, and the Second stage in Phase 3. The knowledge and lessons gained in Phase 1 will be reflected upon NRW reduction Standards which will be reviewed and revised by WASREB. The KEWI will provide trainings on NRW reduction. The regular meetings of WSPs will be held

in cooperation with WASPA, The Project aims at establishing support system for WSPs in Kenya to strengthening their capacity of NRW reduction upon completion of Project by utilizing improved organizational and technical capacity that will be strengthened through Project activities in the next five year.

Table 1.2 Project Phases and Key Activities

Phase	Term	Key Activities
Phase 1	October 2016 to September 2017 (1 year)	To review the situation of NRW activities and identify challenges and issues through Baseline survey. To select of Pilot WSPs. To assist Leading WSPs to enhance their capacity on NRW reduction activities. To prepare implementation structures of C/P for Phase 2. To carry out monitoring. hold meetings and workshop, and report.
Phase 2	October 2017 to September 2019 (2 years)	To complete strengthening the capacity of NRW Unit of MWI, KEWI and other relevant institutions by utilizing experiences of 4 Pilot WSPs. To continue activities for the Leading WSPs and to start activities for the First stage Pilot. To carry out monitoring, hold meetings and workshop, and report.
Phase 3	October 2019 to September 2021 (2 years)	To implement activities for Second stage Pilot WSPs lead by C/Ps by using NRW reduction technology obtained in previous Phases. To carry out monitoring. hold meetings and workshop, and report.

To encourage NRW reduction activities for urban WSPs in the county, the Project will establish NRW reduction support systems and support improving technical standards. For this purposes, the Project will implement activities of five Outputs shown below.

Output 1:

MWI NRW Unit (hereafter NRW Unit) in coordination with WASREB and KEWI will develop a system that facilitates NRW reduction activities of the Pilot WSPs. The activities include awareness creation for the County governments about the Project. In order to develop such a system, NRW Unit will review the activities of WASREB and KEWI and conduct awareness raising activities about NRW reduction in cooperation with other organizations concerned about NRW.

Output 2:

WASREB will revise the NRW reduction Standards (guidelines, manuals, etc.) when case studies and lessons are obtained from the activities of Output 4 and other activities. It shall support NRW reduction activities at the national level by disseminating the revised Standards to Urban WSPs and facilitating the use of the revised Standards.

Output 3:

KEWI needs to review its NRW reduction trainings to improve its contents in order to increase the

effectiveness of the Project. KEWI shall provide training courses linked with the activities of Leading WSPs (Meru and Embu WSPs) who have the experiences in conducting NRW reduction measures. This Project intend to make trainings offered by KEWI more closely linked with the real work situation of WSPs. The activities will not only improve the NRW reduction course contents, such as materials and teaching methodologies, it will equip KEWI lecturers with the skills and knowledge applicable to day to day NRW reduction activities of WSPs. The activities in this Output are expected to complete by the end of Phase 2. The achievements of Output 3 will contribute for NRW activities of Pilot WSPs in Phase 3.

Output 4:

Under the guidance of KEWI and Leading WSPs, the Pilot WSPs will implement NRW reduction activities. Since capacity to plan and implement NRW reduction activities differ in each WSP, appropriate NRW reduction approaches/activities fit to each WSP will be chosen so that the WSP can strengthen their capacity based on the needs. Through the implementation of activities, Pilot WSPs will learn how to plan, implement, review and modify NRW reduction plan following the PDCA cycle.

Output 5:

NRW Unit will disseminate the knowledge and information obtained from the Output 4 to Urban WSPs all over the county by organizing seminars and meetings on regular basis in cooperation with the Water Supply Providers Association (WASPA). The NRW Unit will prepare NRW reduction Standard that can be utilized by Urban WSPs.

(2) Project Design Matrix (PDM)

The Project activities will be implemented in accordance with the project design matrix (PDM) and the plan of operation (PO) of R/D signed in March 2016. The content of PDM is shown below.

Table 1.3 Project PDM

Narrative Summary	Objective Verifiable Indicators	Means of Verification
<p>【Overall Goal】 Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.</p>	<ol style="list-style-type: none"> 1. X of Urban WSPs participate knowledge sharing activities established by the Project 2. X of pilot Urban WSPs continue achieving target(s) set by the annual NRW reduction plan. 3. NRW annual report is continuously produced and disseminated. 	<ul style="list-style-type: none"> • MWI NRW Unit annual reports • Pilot WSPs annual NRW reduction plans
<p>【Project Purpose】 A NRW reduction support mechanism is established for Urban WSPs to implement NRW</p>	<p>X of pilot Urban WSPs continue achieving target set by the annual NRW reduction plan for two years.</p>	<ul style="list-style-type: none"> • NRW reduction Plans • Platform (outline) • Impact reports • Project reports • JCC meeting minutes

Narrative Summary	Objective Verifiable Indicators	Means of Verification
<p>reduction activities.</p> <p>【Output expected】 【Output 1】 Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened.</p>	<p>1-1 All County representative participate NRW related seminar(s). 1-2 NRW reduction campaigns are conducted semi annually. 1-3 NRW reduction annual reports are produced.</p>	<ul style="list-style-type: none"> • Materials for County seminar • List of seminar participants • Campaign materials • NRW reduction annual reports • Project reports • JCC meeting minutes
<p>【Output 2】 Use of NRW reduction standards by Urban WSPs are promoted by WASREB.</p>	<p>2-1 NRW reduction standards are revised by year X. 2-2 Revised NRW reduction standards are disseminated to all Urban WSPs through workshop(s).</p>	<ul style="list-style-type: none"> • Revised NRW reduction standards • Workshop program and list of participants • Project reports • JCC meeting minutes • NRW reduction annual reports
<p>【Output 3】 NRW related training capacity of KEWI is strengthened.</p>	<p>3-1 KEWI conducts NRW reduction courses with contents incorporating on-site trainings and revised course materials. 3-2 Evaluations by the NRW course participants is higher than before the revision of course materials. 3-3 X % of NRW course participants formulate the work plans.</p>	<ul style="list-style-type: none"> • Revised course materials • Revised course syllabus • Course participants' evaluation sheets • Project reports • JCC meeting minutes • NRW reduction annual reports • Trace studies
<p>【Output 4】 NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.</p>	<p>4-1 More than X of pilot Urban WSPs continuously make the annual NRW reduction plan based on the review of previous years implementation. 4-2 More than X of pilot Urban WSPs continuously implement the annual NRW reduction plan formulated in 4-1. 4-3 More than X of pilot Urban WSPs are able to implement skills and activities that pilot Urban WSPs were not able to adopt prior to the Project. 4-4 More than X of pilot Urban WSPs are able to implement priority activities indicated in the NRW reduction plan. 4-5 More than X of pilot Urban WSPs train all personnel of NRW reduction section.</p>	<ul style="list-style-type: none"> • NRW reduction annual reports • NRW reduction plans • Impact reports • Project reports • JCC meeting minutes • NRW reduction annual reports
<p>【Output 5】 Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.</p>	<p>5-1 Case study and lessons learnt of Output 4 and other NRW activities are compiled and disseminated. 5-2 Regular meeting(s) of NRW is/are organized three times a year.</p>	<ul style="list-style-type: none"> • Compiled lessons learnt • NRW regular meeting minutes and list of participants • Project reports • JCC meeting minutes • NRW reduction annual reports

Note: "Xs" in the table are the indicators that will be decided after the commencement of the Project.

(3) Project Purpose and Output

Fig. 1.1 below summarizes the Project Outputs, Project Purpose, the implementing organizations and its relation with the Outputs described in PDM (draft). The Project aims at the establishing support structure for Urban WSP in NRW reduction by MWI. The improvement of the management capacity of the Pilot WSPs including Leading WSPs and dissemination of nationwide NRW reduction activities are expected. Through these activities, the Project will increase the ownership of the NRW reduction measures of each implementing organization for the achievement of Overall Goal.

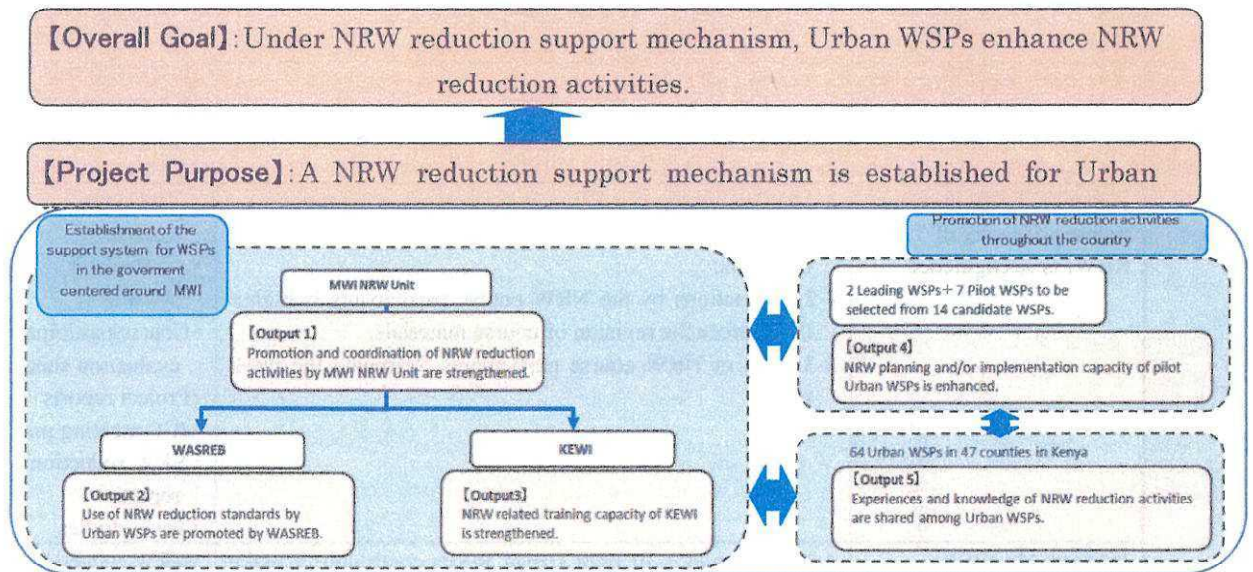


Fig.1.1 Project Purpose and Output

Table 1.4 and Fig. 1.2 describe the Project activities of each Output. The activities will be implemented in Phases 1, 2 and 3, intended to improving the capacity of the counterpart organizations phase by phase.

Table 1.4 Outline of activities of the Project

<p>【Activities for Output 1】</p> <p>1-1 MWI NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data.</p> <p>1-2 MWI NRW Unit plans and implements NRW reduction sensitization activities for the Counties.</p> <p>1-3 MWI NRW Unit plans and implements NRW reduction campaigns.</p> <p>1-4 MWI NRW Unit conducts reviews of KEWI NRW courses.</p> <p>1-5 MWI NRW Unit conducts reviews of WASREB's NRW reduction activities.</p>

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【Activities for Output 2】

- 2-1 WASREB conducts survey of the usage of current NRW reduction standards.
- 2-2 Based on the survey result as well as Output 4 and 5, WASREB revises the NRW reduction standards.
- 2-3 WASREB promotes revised NRW standards through workshop(s).
- 2-4 WASREB incorporates the review results of NRW reduction activities by MWI NRW Unit in their activities.
- 2-5 WASREB monitors and evaluates the usage of revised NRW standards.

【Activities for Output 3】

- 3-1 KEWI studies current status of NRW reduction courses and its challenges.
- 3-2 KEWI reviews NRW reduction training strategies and course contents.
- 3-3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings.
- 3-4 KEWI reflects on-site NRW trainings into NRW course contents and materials.
- 3-5 KEWI incorporates the results of review by MWI NRW Unit into NRW course contents.
- 3-6 KEWI conducts trace studies of NRW reduction course participants.

【Activities for Output 4】

- 4-1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs.
- 4-2 Each Pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges.
- 4-3 Each Pilot WSP identifies measures to solve challenges and formulates the NRW reduction plan.
- 4-4 Each Pilot WSP formulates the annual NRW reduction plan including financial schedule based on the NRW reduction plan.
- 4-5 Each Pilot WSP implements the annual NRW reduction plan.
- 4-6 Each Pilot WSP evaluates and analyzes implementation results and revises the plans.
- 4-7 Each Pilot WSP produces the NRW reduction activity report annually.
- 4-8 Each Pilot WSP holds regular NRW reduction meetings attended by relevant departments of WSP.

【Activities for Output 5】

- 5-1 MWI NRW Unit organizes NRW related regular meetings in cooperation with other relevant organizations.
- 5-2 WASREB compiles case studies/lessons learnt about NRW reduction activities.

(4) Process for Achieving Project Outputs

Fig. 1.2 shows the overall flow and the process of achieving each Output. The Objectively Verifiable Indicators (OVIs) of the Outputs will be achieved by implementing the Project activities. The results of the activities will be reviewed and if necessary, approaches and methodologies used for the implementation will be modified for the achievement of Outputs.

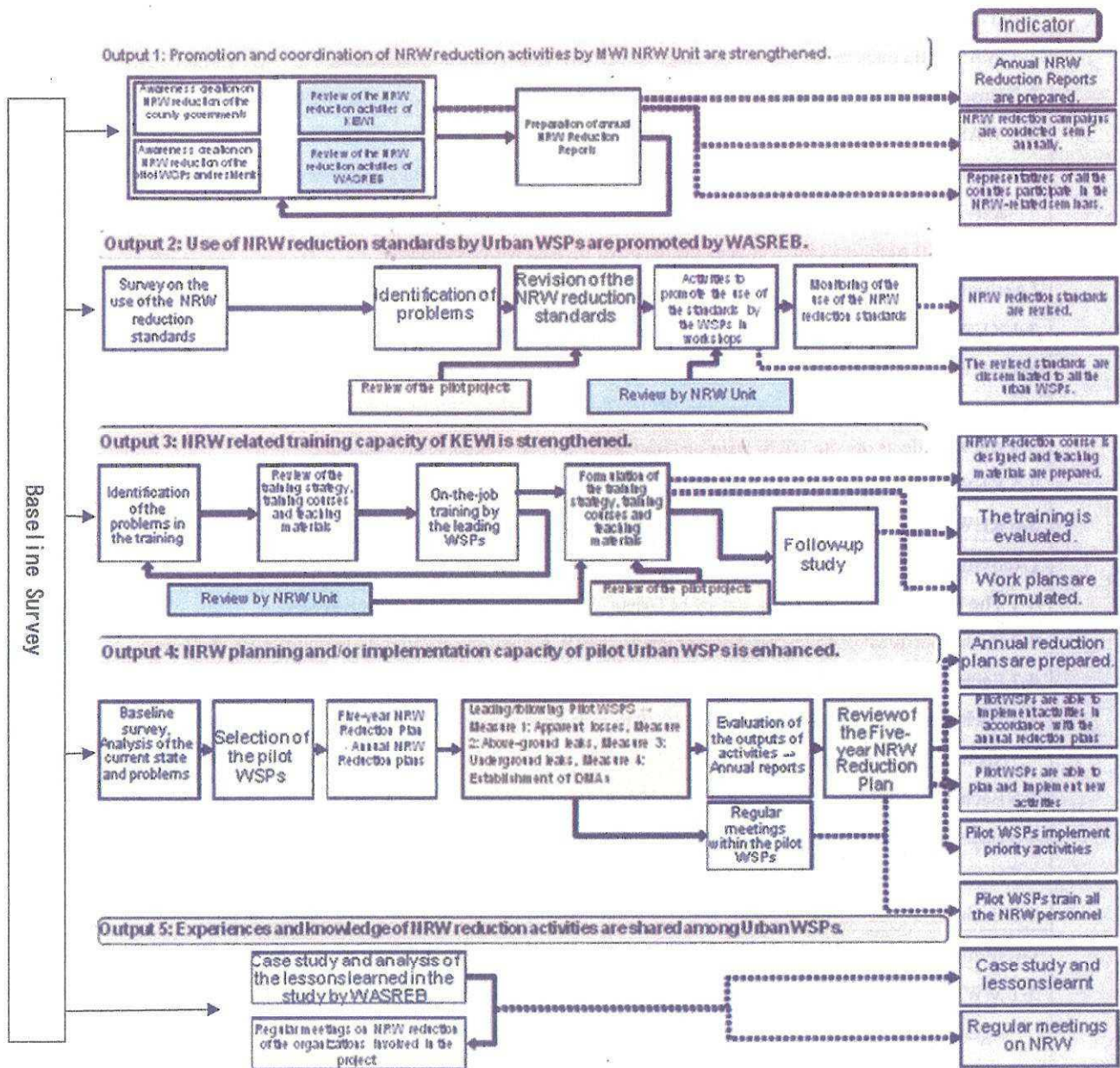


Fig. 2.3 Flow of Activities for Achieving Outputs

1.5 Issues to be concerned

(1) Verification of the Implementation Structure and Signing of MOU

The County governments are responsible for the supervision of the Urban WSPs. The ownership of WSP and its assets were transferred from the Water Service Boards (WSBs) in the administrative reform. Therefore, it is crucial that the Counties understand the Project and provide cooperation for its implementation. An effective project implementation system has to be developed with the Counties as

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the owner of WSPs. Main implementing organizations of Projects are MWI, WASREB, KEWI, Leading and Pilot WSPs. The selection of Pilot WSPs will be notified to the County governments so that the Project can obtain necessary cooperation from the Counties as well as WSBs. In order to obtain approval and cooperation from relevant organizations, MWI will need to sign Memoranda of Understanding (MoU) with them so that the Project can secure the smooth implementation and achievement of Output 4. The JICA experts will assist MWI in facilitating the signing of MoUs. As the water sector in Kenya is in a transitional phase upon approval of new Water Act, JICA experts must understand the roles and duties of relevant organizations, and adjust implementation structure to fit to the changes, and help CPs for signing of MoUs as soon as possible.

(2) Issues to be determined at Project's inception stage

The minutes of meeting (MM) signed on December 4, 2015 stipulates that the decision on the following four (4) items shall to be decided within three (3) months from the commencement of the Project. The duration of inception has been extended to four (4) months because the survey activities will be suspended for a month of December 2016.

- i) Final confirmation of assigned personnel of NRW Unit
- ii) Selection of the Pilot WSPs
- iii) Equipment and materials provided by Japan
- iv) Trainings in third country/ in Japan

(i) The assigned personnel to NRW Unit has been confirmed at the commencement of the Project. (ii) The final decision on selections of the Pilot WSPs by NRW Unit will be made within initial four months. (iii) For the provision of equipment for KEWI and for the Pilot WSPs (Outputs 3 and 4), the final decisions will be made at the same time as the selection of the Pilot WSPs. Therefore, it is necessary to discuss and obtain approval from CPs on the equipment shortly after the commencement of the Project. Meanwhile, the JICA experts are expected to assess its effectiveness and relevance of equipment's request from KEWI, *i.e.* leak noise correlator, leak detection workshop and water meter testing equipment, and water meters, whether they are relevant to assist Pilot WSPs. (iv) Regarding the trainings, the JICA experts are required to discuss with CPs using a draft training plan in Japan. Since all four items require the approval of JICA Headquarters, timely cooperation and assistance from CPs is crucial.

(3) Room for Flexibility in the Project Schedule

The Project will be implemented in accordance with PDM and PO to achieve OVIs of Outputs. However, when changes of activities are considered as necessary to adjust capacity of CPs or the changes caused by external factors/environment, there will be an occasion that flexible response to the situation is called for.

If the Project encounter such a situation, the progress of implementation and achievement of Outputs must first to be assessed. Then changes of plan should be discussed and agreed among the JICA experts and Kenyan CPs as well as with JICA. The process may lead to modifying the remaining activities. Flexible response is required in this kind of situation.

Particularly for the activities focusing on Pilot WSPs in Phase 3, the activities might have to be modified by taken into account of the achievement of Outputs in Phase 2.

- i) When the First stage Pilot WSPs have failed to achieve the NRW targets described in the annual action plans, implementation of activities to Second stage Pilot WSPs may be delayed or the activities may be revised.
- ii) Priority shall be given to the follow-up activities to the First stage Pilot WSPs over the implementation of Second stage Pilot WSPs.

(4) Roles of the Leading WSPs and the Process of Selecting Pilot WSPs

1) Role of the Leading WSPs

Meru and Embu WSPs, the Leading WSPs, are regarded as the successful models of Japan's assistance in NRW reduction. The management and staff of both WSPs are highly motivated for reducing NRW with sufficient knowledge and practical experience of NRW reduction. However, they can improve their knowledge and skills by making more realistic NRW reduction plans.

JICA has enough information and data of two Leading WSPs because of past assistance from JICA. Compared with the Leading WSPs, for the remaining Pilot WSPs, the amount of information and data is limited. Therefore, the Project activities will initially focus on two Leading WSPs and will extend to remaining WSPs in Phase 2 and after. By doing so, the Project will be able to use experiences and lessons learnt of Phase 1 in the following phases. In addition, experiences and lessons learnt from the Phase 1 can be shared among other WSPs during regular meetings of NRW in Output 5. The Project will propose a system that will encourage and engage other WSPs into NRW activities through knowledge sharing. For that purpose, two Leading WSPs and other Pilot WSPs are positioned separately.

2) Process of Selecting Pilot WSPs

The JICA experts will collect information on the NRW reduction activities of the candidate WSPs by conducting the Baseline survey upon the commencement of the Project. The JICA experts will prepare a questionnaire for the Baseline survey and send it to the candidate WSPs ahead of their site visits. The JICA experts will confirm the responses to the questionnaire when visiting WSPs.



(Additionally, local consultant will be employed to conduct the similar visits to fill the gap of experts' to visit all 14 WSPs.)

Based on the results of the Baseline survey of 14 WSPs, the Project will select seven (7) Pilot WSPs that have the most potential for achieving project Outputs. Nine (9) WSPs, including two Leading WSPs, will be the Pilot WSPs. The Project launch NRW reduction activities for Leading WSPs in Phase 1. This is because the Team has enough information and data of these two WSPs. From the remaining seven (7) Pilot WSPs, the Project will divide its activities into four (4) WSPs in Phase 2 (First stage Pilot WSPs) and three (3) WSPs in Phase 3 (Second stage Pilot WSPs) along with the project implementation timelines.

Fig. 1.1 shows the selection process of Pilot WSP. Approval of NWI is required for the finalization of selection of the Pilot WSPs except two Leading WSPs.

Assistance to the NRW reduction activities to the Leading WSPs (implemented with their own funds) shall be prioritized in Phase 1. The Outcomes of the activities will be shared among the other WSPs at the regular meetings of WASPA in order to encourage NRW reduction activities in entire country as sharing its knowledge can motivate the other Pilot WSPs to reduce NRW.

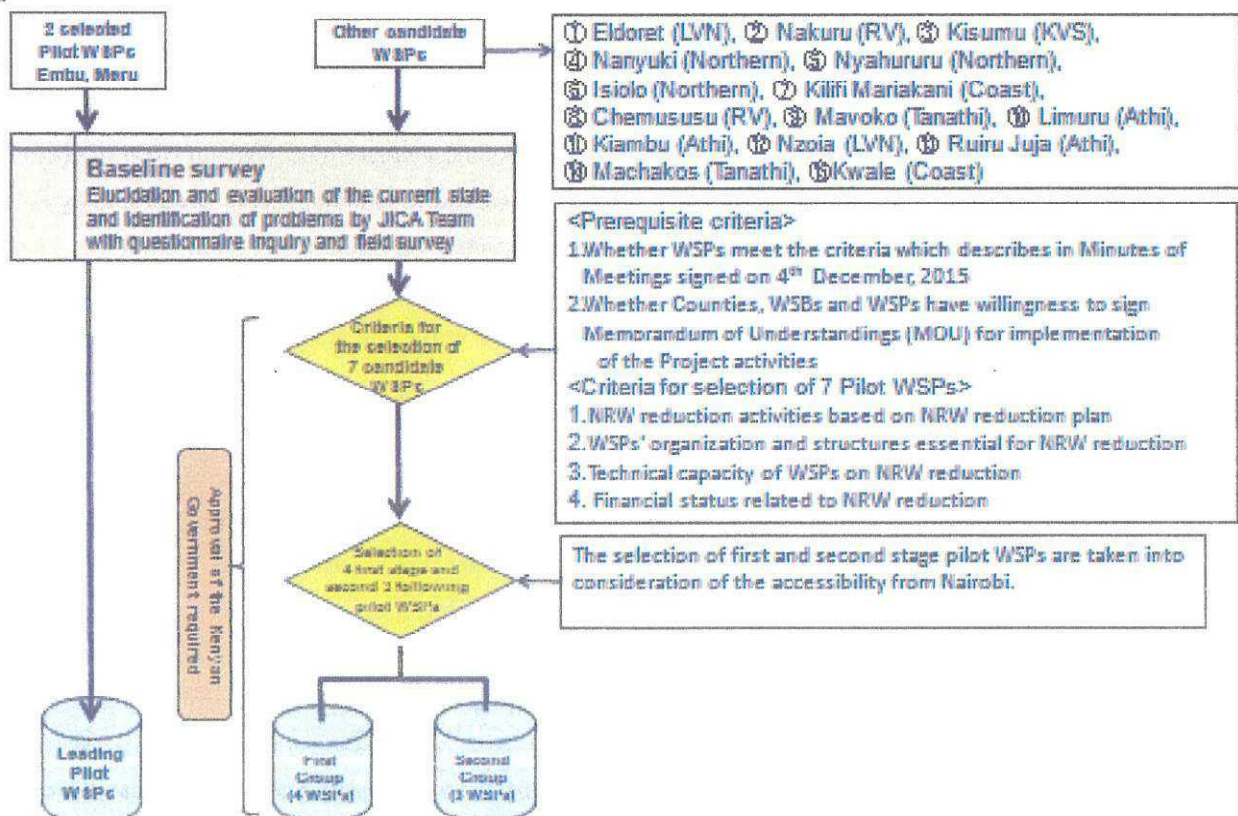


Fig. 1.3 Flow of Selection of 7 Pilot WSPs

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2. Project Implementation Policy

2.1 Understanding current status and monitoring

The framework of Project has been decided during the Detailed Planning Survey, but it was decided that the Baseline survey will be conducted during initial three month of Project implementation. It is because the number of organizations involved with the Project are many and it is necessary for the JICA experts to design detailed project implementation structure and activities. In Phase 1, it is necessary for the JICA experts to fully understand the current situation of the water sector in Kenya so that the experts can prepare an overall plan of the implementation and revise PDM and PO to adjust the project activities fit to the the real situation.

This work plan will be presented as draft plan for the first Joint Coordination Committee (JCC). The experts and CPs will review and revise work plan to reflect the results of Baseline survey and the revised work plan will be agreed in subsequent JCC.

2.2 Establishment of Urban WSP Assistance System

(1) Concept of Urban WSP Assistance Structure

Previous Project

“Project for Non-Revenue Water Management Project for Kenya” (hereafter Previous Project) implemented NRW reduction activities in thee (3) WSPs at DMA. The results were compiled into Non Revenue Water Reduction Standard issued by WASREB. For the aggregated reduction of NRW of Urban WSPs in Kenya, it is necessary to establish support system composed of multiple organizations. In the process, the achievements of Outputs and Project Purpose of Previous Projects must be utilized. To establish support system, following roles and responsibilities are expected from the participating organizations. When roles and responsibilities are met by each organization, the support systems for NRW reduction in Kenya is considered as established.

1) MWI NRW Unit

The key role of MWI NRW Unit (hereafter NRW Unit) is to promote implementation of NRW reduction activities of WSPs through coordinating with the Counties, the owners of WSPs, WASREB, and KEWI. NRW Unit will carry out the following activities:

- *Plan and Implement promotional activities to enhance understanding about NRW to County governments and assist them in managing of activities and obtaining necessary budgets.
- * Conduct reviews for NRW related activities of WASREB and KEWI, and provide them necessary advisory services to improve NRW related activities.



*Through conducting NRW reduction campaigns in coordination with County governments, assist Pilot WSPs to conduct NRW reduction activities etc.

2) WASREB :

WASREB will conduct user survey on NRW standards. Based on the survey results and activities of Pilot WSPs, WASREB will consider the revision of NRW Standards. Once standards is revised, it will distribute to WSPs by WASREB as well.

3) KEWI :

KEWI is the only training institutions providing NRW related trainings and their role is to plan and conduct trainings for each WSP to transfer the skills and knowledges about NRW reduction activities. To improve effectiveness of trainings, KEWI will offer hands-on trainings in coordination with the Leading WSPs.

4) Pilot WSPs (including Leading WSPs)

Through the project activities, the Pilot WSPs are expected to gain knowledge and skills on how to plan the NRW reduction activities, implement, review and evaluation the results. Based on evaluation, WSPs themselves will adjust or revise NRW reduction plans to fit to their on the ground situation. This leaning process is called PDCA cycle and it will enable WSPs to standardize the process and to repeat every year.

The Leading WSPs have basic infrastructures for water services provisions and their willingness to tackle for NRW reduction is already known by JICA. Also, JICA had already identified issues and challenges of NRW of these two WSPs. Additionally, they are familiar with JICA's assistance schemes. Therefore, the Project will launch its NRW reduction activities first focusing on the Leading WSPs so that the experiences and lessons leant from them can be shared and replicated to other Pilot WSPs. Leading WSPs will coordinate with KEWI to support skills-based NRW trainings for other WSPs.

5) WASPA

WASPA, in coordination with MWI, will provide a platform for sharing experiences and results of Output 4 to other WSPs.

(2)Review of Project Structures and Activities.

Diagram 2.1 indicates the current implementation structure of the Project. The Project aims at completing to assist strengthening two main organizations of Urban WSP support system (NRW Unit and KEWI) by the end of Phase 2. In Phase 3, while getting supports from above organization, the Project will focus its support on Pilot WSPs.

In case of drastic changes occurred in water supply sector in Kenya, or above organizations are not be able to play key roles after Phase 2, the Project may consider reviewing its support systems to those organizations. For this purpose, the Project will monitor the implementation system in water sector and capacity of implementing organizations while conducting activities in Phase 1. If necessary, implementation systems will be reviewed to adjust the situation.

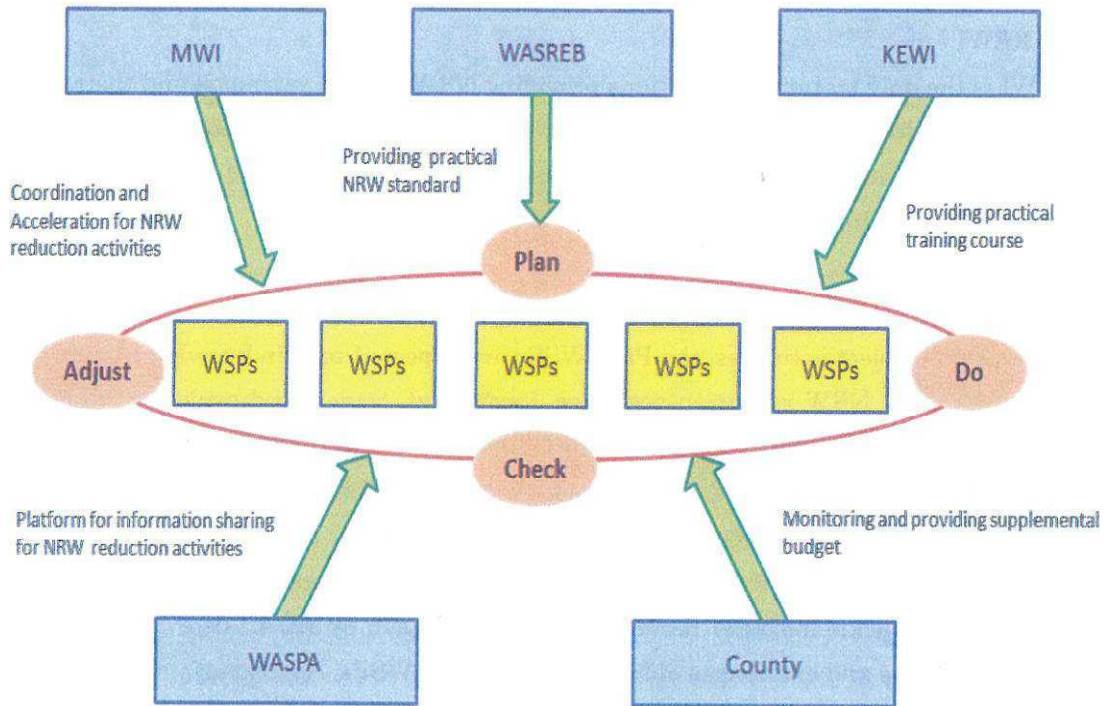


Fig. 2.1 Assistant System for Urban WSPs in the Project

2.3 Active Involvement of the County Governments

The County governments is the owner WSPs and provide WSPs necessary budgets. Previously WSBs owned assets of WSPs and were responsible to supervise them. This transition is the major change since the Previous Project and active involvement by the Counties to the Project will influence the success of Project. MWI will conduct awareness raising activities about NRW reduction to senior managements of County administrations at the meetings of the Council of Governors (COG). Monitoring of implementation of Pilot WSPs in Output 4 by County staff will be another involvement. The details of participations of County government will be determined based on the results of Baseline survey.

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2.4 Strategy for Strengthening KEWI

(1) Strategy for the Strengthening (draft)

The role of KEWI is a provider for NRW related skills trainings and become the hub of group trainings of Eastern African regions. The Project will use the existing contents of test piping course and partially revised lectures to strengthen the training programs in which the trainees practice leak detection technologies and the other methods for NRW reduction. In addition, the improvement of the IT technology and management of customers and business operation related to the NRW reduction activities will be included, making the trainings as comprehensive for NRW reduction measures.

(2) Innovation of the Lecture Contents (draft)

The JICA experts will assist to revise the existing training contents and to prepare training courses on new subjects such as;

i.) Improvement of audio and visual teaching materials and utilizing multimedia.

Video materials depicting NRW reduction skills and technologies including the overview of the NRW reduction measures such as the test piping course will be created. These materials should be available outside of KEWI, for example WSPs in remote areas with difficulty of participating in the training courses that they can self-train to improve their technical capacity.

ii) Synergic effects with the improvement of PC operating skills

The improvement of the PC operating skills can facilitate the use of various data. Examples are: the preparation of water balance tables; water distribution management sheet by distribution system; pipe network asset registers (including pipeline registers, valve registers and facility registers); and O&M reports; and the use of the GIS technology. Training courses for trainees with different levels of PC skills such as introductory, intermediate and advanced courses will be designed to improve the data management to bring the impact of the NRW reduction plans.

iii) Stock management/public financial management/cost-benefit analysis

Strengthening the facility management is important for the operation of water supply services. This includes the prioritization of inspection and repair works of facilities. Financial analysis tools such as public financial management and cost-benefit analysis will be used for the analysis of the cost-effectiveness of the NRW reduction measures and planning the extension of longevity and renewal of waterworks. By using these tools, WSPs can improve the business operation of NRW reductions of the commercial losses.

2.5 Counter Measures for NRW reduction

(1) Counter Measures to be applied

Table 2.1 indicates key activities of NRW strategies in Output 4. (The aim of this Project is

technological transfer, and not the installation of equipment and facilities.) Activities shown below will be applied to WSPs based on their situation and capacity of NRW reduction.

Table 2.1 Basic counter measures for NRW reduction

		NRW reduction Work		Counter measures
Type of NRW		Works to be attended		
Real loss	Leakage	Pipeline (distribution and service pipes and fittings)	Mapping	Drawing of pipeline and pipe net
			Zoning	Plan on DMA, Leal Monitoring Block and construction
			Minimum Night Flow	Searching leaks and identifying their locations.
			Leakage detecting	Using of detectors
			Repairing	Optimum repair manners
			Pipe net developing	Pipeline maintenance plan in zone, Replacement of pipes and fittings.
Apparent loss	Water theft	Searching water theft		Searching illegal connection
		Notice, Persuade		Contact and discussion with water thief
		Correction of thief		Cutting of illegal connection or meter installation.
		Fine and penalty		Charging fines and imposing punishment.
	Metering inaccuracy	Customer meter	Searching	Extracting defective meters
			Installation/replacement	Replacement of defective meters and relocation of their position
	Reading error	Meter replacement		Changing to easy readable meter, improving of condition of positions.
Date processing error		Reviewing data processing, reform programming errors		
Basic work performance	Data collection	Collection and reading		Extraction of errors of data collected and recorded
		Data analysis		Pipe flow analysis, improving countermeasures, re-setting of NRW rate.
		Consolidated managing system		GIS, Customer information, SCADA, Financial data management
	Planning	Pipeline improving plan		Identification of pipelines for replacement, Planning of pipe replacement.
		Water distribution managing plan		SCADA, water pressure and volume.
		Organization improving plan		Staffing, responsibilities, function, action, equipment
		Setting of suitable NRW rate		Estimation of B/C pre/post counter measures
	Legislation reform	Raising of sanction for intentional water theft, introducing of awarding system to staff.		
		Enlightening of users awareness		Public campaign, hearing, teaching

Based on the results of the Baseline survey, Pilot WSPs will select measures to improve and prioritize the implementation activities through preparation of capacity development plan. Examples of the measures at each stage of the development of NRW reduction activities (Fig. 2.2) are shown in Table 2.2.

GoK has set a national goal of reducing the national average NRW ratio from approx. 42% (in 2015) to 25% by 2030. It is crucial that appropriate reduction activities at each stage of NRW reduction will be used to achieve this goal.

This aim of this Project is technical transfer thus installation of equipment and facilities by JICA are not included. If Pilot WSP will required necessary equipment and facilities for NRW reduction activities, the Project will technically support WSPs to obtain installation plan and financial plans through the implementation of NRW reduction plan.

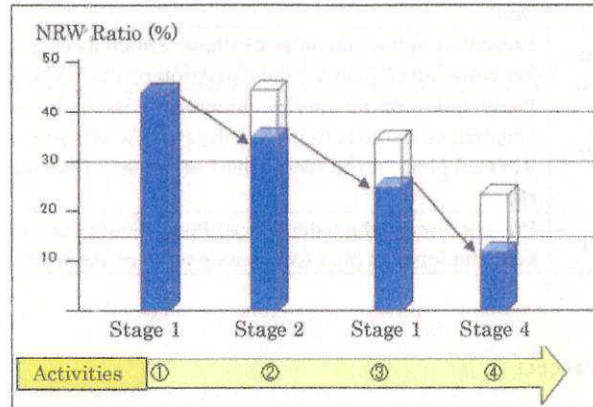


Fig.2.2 Developmental Stages of NRW Reduction

Table 2.2 Applicable Counter Measures for Development Stages of NRW Reduction

NRW rate		Counter measures
Stage 1	More than 40%	Repair of surface leakages, Identification of illegal connections, thoroughgoing installation of service meters, replacement of defective meters, saving and maintenance of pipeline data, measuring water flow volume and pressure of distribution pipes and analyzing for improving water services, saving and maintenance of customer data, review of water tariff and O&M cost.
Stage 2	30—40%	Repair of ground leakages, replacement of pipelines with leakages, repair of valves with leakages and pipelines which imply the occurrence of leaks by the ground subsidence, planning of introducing DMA management.
Stage 3	15—30%	Implementing full scale ground leakage detection in DMAs and repairing them, replacement of deteriorating pipelines, Regularizing meter accuracy, dissolving illegal connections.
Stage 4	Less than 15%	Thoroughgoing implementing of leakage protecting work in all areas.

Each Pilot WSP will prepare own NRW reduction plan for the next five years based on the capacity development plan. Based on the five-year plan, the WSP will prepare annual plan to secure the budget including the cost for implementation of project activities.

2.6 Dissemination and Sharing of the Project Outputs

(1) Workshops

Workshops/seminars will be organized to disseminate the results of the activities to the organizations involved in the water supply of Kenya.

Table 2.3 Planned Workshops

Phase	Planned date	Subjects/Contents
Phase 1	Sep. 2017	Explanation of activities for Output 1 to 5. Presentation of challenges of the Pilot WSPs that may face in the next five years and proposed solutions. Presentation of outcomes of the capacity development of the Leading WSPs.
Phase 2	Sep. 2018	Presentation of interim achievements of each output on the activities in Phase 2. Challenges in the activities of the Pilot WSPs and solutions. Revised plan for the second half of Phase 2 (including projection of the NRW ratio)
	Sep. 2019	Presentation the outcomes of Phase 2 such as case studies, etc. Presentation of plan for the extension of the NRW reduction activities.
Phase 3	Sep. 2020	Presentation of the interim outcomes of the activities in Phase 3. Challenges in the activities of the Pilot WSPs and solutions. Revised plan for the second half of Phase 3 (including the projection of NRW ratio)
	Sep. 2021	Presentation of the outcomes of Phase 3 such as cases studies, etc. Explanation of a plan for the extension of the NRW reduction activities

(2) Outcomes of the Project

Table 2.4 presents tangible outcomes expected from the implementation of activities.

Table 2.4 (1) Report and documents to be produced in 1st Phase

Title	Time of submission
Work plan 1	Within four months after commencement of Phase 1
Monitoring Sheet Ver. 1	Within four months after commencement of Phase 1
Monitoring Sheet Ver. 2	Within three months after the submission of Monitoring, sheet Ver.1.
Monitoring Sheet Ver. 3	Within three months after the submission of Monitoring, sheet Ver. 2.
Progress Report 1	Upon the completion of 1st Phase.

Table 2.4 (2) Report and documents to be produced in Phase 2

Title	Time of submission
Work plan 2	Within 4 month after commencement of 2nd Phase
Monitoring Sheet Ver. 4	Within 6 months after the submission of Monitoring sheet Ver. 3.
Monitoring Sheet Ver. 5	Within 6 months after the submission of Monitoring sheet Ver. 4.
Monitoring Sheet Ver. 6	Within 6 months after the submission of Monitoring sheet Ver. 5.
Monitoring Sheet Ver. 7	Within 6 months after the submission of Monitoring sheet Ver. 6.
Progress Report 2	Upon the completion of 2nd Phase

Table 2.4 (3) Report and documents to be produced in Phase 3

Title	Time of submission
Work plan 3	Within 4 month after commencement of 2nd Phase
Monitoring Sheet Ver. 8	Within 6 months after the submission of Monitoring sheet Ver. 7.
Monitoring Sheet Ver. 9	Within 6 months after the submission of Monitoring sheet Ver. 8.
Monitoring Sheet Ver. 10	Within 6 months after the submission of Monitoring sheet Ver. 9.
Monitoring Sheet Ver. 11	Within 6 months after the submission of Monitoring sheet Ver. 10.
Completion Report	Upon the completion of 3rd Phase

(3) Publicity awareness activities

1) Informing Mass Media

The Project will publicize its activities to media at the times of commencement and ending as well as when key activities were implemented by issuing press releases, holding press conference and workshops for the reporters with the aim to inform the population of Kenya about the plan and the outcomes of the Project.

2) Informing relevant Kenyan organizations, donors and NGOs

The Project information will be shared with relevant organizations, other donors and NGOs to gain their interests and encourage their participations to the Project. The appropriate communication tools and approaches will be selected. The Project will promote manuals and other technical documents created by the Project to other areas or other donors so they can be used widely.

(4) Trainings in Japan

The training programs in Japan will be organized in every phase. The training program in Phase 1 is focused on the management team and is scheduled around June 2017. The following trainings in phases (2 and 3), will focus technical personnel and are scheduled around June 2018 and 2020 respectively. Table 2.5 and Table 2.6 indicates the draft training schedules. The selection of participants and training contents will be determined after the consultation with CPs.



Table 2.5 Training Curriculum for Management Team (Draft)

Items of technical training	Training destination /Place to visit	Topics (lecture / training / discussion / site visit)	Venue	Days
Water Management and Administration	Tokyo waterworks Bureau / Its related facilities	<ul style="list-style-type: none"> • Waterworks of Japan (law, standards, vision, etc.) • Water supply management (performance indicators) • Pipeline net planning • Measures to reduce NRW • Water leakage detections • Exercise of water leakage prevention technology 	Tokyo waterworks Bureau/Its related facilities	3
Visits to water supply facilities	Tokyo waterworks Bureau / Its related facilities	<ul style="list-style-type: none"> • History of water supply • Customer service/complaint management • Pipe laying work of distributing pipes and feeding pipes • Water production facilities. 	Tokyo waterworks Bureau/Its related facilities	4
Visit to a water pipe manufacturer	Manufacturer	<ul style="list-style-type: none"> • Introduction of the pipes and fittings& its quality control (lecture) • Visiting production process Demonstration of piping installation 	Manufacturer	1
Visit to a valve Manufacturer	Manufacturer	<ul style="list-style-type: none"> • Introduction of branch saddles & valves (lecture) • Visiting production process 	Manufacturer	1
Visit to a water meter manufacturer	Manufacturer	<ul style="list-style-type: none"> • Introduction of water meters • Visiting production process 	Manufacturer	1
Holiday/ travel days				4
Total				14

Table 2.6 Training Curriculum for Action Team (Draft)

Items of technical training	Training destination /Place to visit	Topics (lecture / training / discussion / site visit)	Venue for training	Days
Water management training	Tokyo waterworks Bureau / Its related facilities	<ul style="list-style-type: none"> • Waterworks of Japan • Water supply management • Measures to reduce NRW • Water leakage detection technology • Introduction of the water supply equipment • Exercise of water leakage prevention technology 	Tokyo waterworks Bureau/Its related facilities	2
Visit to water supply facilities	Tokyo waterworks Bureau / Its related facilities	<ul style="list-style-type: none"> • History of water supply • Customer service/ complaint management • Pipe laying work of distributing pipes and feeding pipes • Water production facilities 	Tokyo waterworks Bureau/Its related facilities	3
Visit to water supply installation sites	Tokyo waterworks Bureau / Its related facilities	<ul style="list-style-type: none"> • inspection, testing, network map management • Installation of the water supply equipment • Mapping system 	Related to construction office	2
Visit of a water pipe manufacturer	Manufacturer	<ul style="list-style-type: none"> • Introduction of the pipes and fittings & its quality control (lecture) • Visiting production process 	Manufacturer	1

		• Demonstration of piping installation		
Visit of a valve Manufacturer	Manufacturer	• Introduction of branch saddles & valves (lecture) • Visiting production process	Manufacturer	1
Visit of a water meter manufacturer	Manufacturer	• Introduction of water meters • Visiting production process	Manufacturer	1
Holiday / travel days				4
			Total	14

(2) Training in third countries

Training in third countries may take place upon receiving requests from CP organizations and if the necessity of such trainings are been . Conducting third country trainings requires JICA's approval.

3. Project Implementation Structure

Efficient implementation of the NRW reduction measures will require inter-organizational cooperation among the relevant organizations in the central government such as MWI who supervises the water supply services, County governments, and WSPs. It is important that relevant sections of each organization will improve its management capacity.

3.1 Project Group

The Counterpart organizations and WSPs in Fig. 3.1 will implement the project activities under the supervision and guidance of JCC.

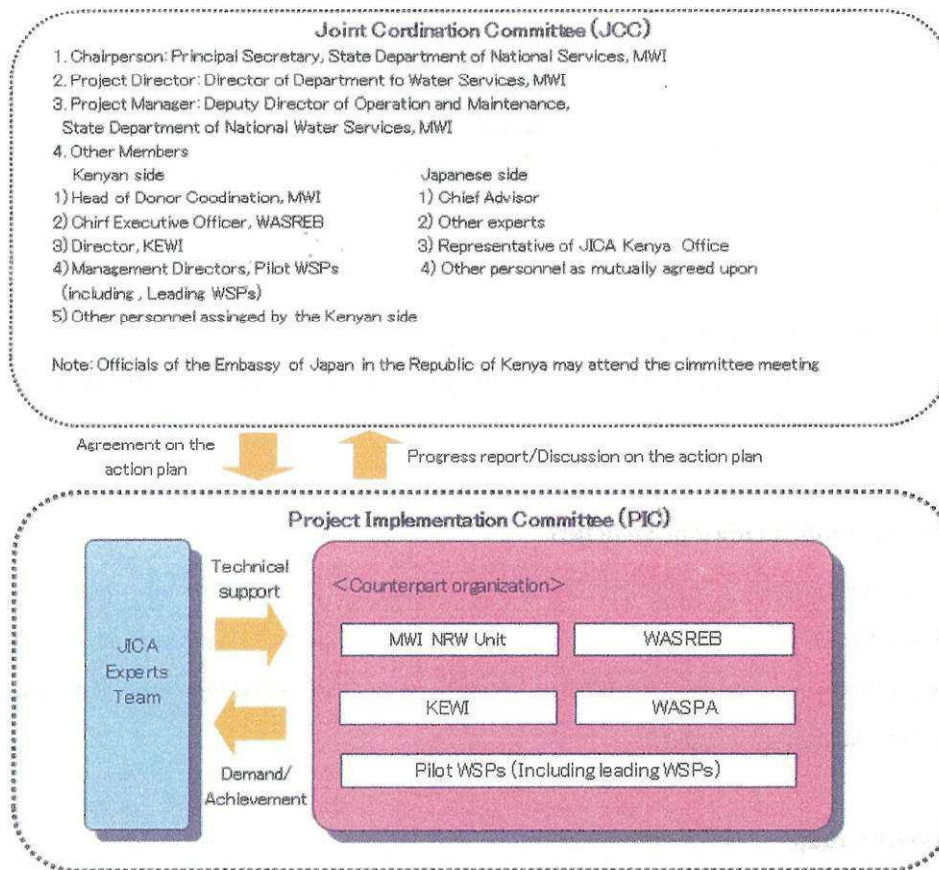


Fig. 3.1 Project Implementation Structure

Implementation structures of each project Output are shown in Table 3.1.

Table 3.1 Implementation structures for Outputs

	C/P organization	JICA Expert ^{*1}
Output 1	NRW Unit/MWI	Chief Adviser/NRW Management 1 NRW Reduction Specialist 2
Output 2	WASREB	Chief Adviser/NRW Management 1 NRW Reduction Specialist 2
Output 3	KEWI	NRW Reduction Specialist 2 Training Management/Training Strategy
Output 4	NRW Unit/MWI WASREB, KEWI, Counties, Leading and Pilot WSPs	Chief Adviser/NRW Management 1, NRW Reduction Specialist 2, Water distribution Network (Mapping & Network analysis), Flow/Pressure and Leakage Monitoring, and Customer management/Billing collection
Output 5	NRW Unit/MWI WASREB, Counties, WASPA	Chief Adviser/NRW Management 1, NRW Reduction Specialist 2, Information/Public Relation Management

Note) Member list of JICA expert is shown in Table 6.1

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3.2 Project Implementation Team

The Kenyan side of team is headed by the Water Secretary of MWI as the Project Director followed by the Director of Operation and Maintenance of MWI as the Project Manager. The Project Manager is responsible for the day to day implementation of Project activities. The members of the Project Implementation Team will be finalized at the first JCC which will be held at the commencement of Project.

Table 3.2 Project Members of Kenyan side

Project Group	Role and duty	Member
Project Director	Person in charge of the supervision of the Project: establishment of the organizational structure of the Kenyan side, negotiation with other organizations and the Counties.	Water Secretary, MWI
Project Manager	Assistant to the Project Director: implementation management, verification of the achievement and outcomes of activities, solving issues regarding implementation, etc.	Director of Operation and Maintenance, MWI
Management Team	<ul style="list-style-type: none"> •Activities related to Output 4, the preparation of a five-year plan for NRW reduction •Training activities related to Outputs 2, 3 and 4 including NRW management •Activities and planning/monitoring concerning the entire project •Overall management of the project 	Senior staff members of the following organizations: NRW Unit (MWI) WASREB KEWI Leading/Pilot WSPs
Action Team	<ul style="list-style-type: none"> •Activities at the leading WSPs (Output 4) •Activities related to Output 4 at the Pilot WSPs 	Staff members in charge of NRW reduction activities of the Leading and Pilot WSPs

3.3 Cooperation with Other Donors and Related Projects

Cooperation with other donors and relevant Kenyan organizations may bring efficiency and effectiveness to the Project. It is necessary to fully understand the assistance provided by other donors and organizations and avoid overlap of activities in Output 4 especially. Therefore, hearings to MWI or candidate WSPs will be conducted to obtain information about activities by other donors and organizations during the Baseline survey. Also hearings from other donors and organizations will be conducted, if necessary. Table 3.3 shows the current assistance of other donors that may be relevant to the Project.

Table 3.3 Other Donors involved with Water Service and NRW

Output	Counterparts	Donors' name	Possibility for areas of collaboration
Output 1	MWI/NRW Unit	GIZ, VEI, WASPA, KEWASNET	<ul style="list-style-type: none"> •To build up a supporting system of Counterparts. •To carry out public campaign using their tool kits.
Output 2	WASREB	GIZ	<ul style="list-style-type: none"> •To monitor the utilization of current NRW reduction Standards.

Output	Counterparts	Donors' name	Possibility for areas of collaboration
			• To review and improve the current NRW standards
Output 3	KEWI	WASPA	• To advertise KEWI's activities
Output 4	Pilot WSPs	KfW, USAID, WB, VEI, AFD, SNV, GIZ, AfDB	• To be determined after the Baseline survey. •
Output 5	MWI/NRW Unit WASREB	GIZ, SNV, VEI, WASPA	• To collect useful viewpoints for implementation of public awareness activities. • To select media or tools for disseminating information

Note; GIZ: German Society for International Cooperation, SNV: Netherlands Development Organization, VEI: Vitens Evides International, KEWASNET: Kenya Water and Sanitation CSOs Network, WB: World Bank, KfW: Kreditanstalt für Wiederaufbau, USAID: United States Agency for International Development, AFD: Agence Française de Développement; AfDB: African Development Bank

If selected Pilot WSPs are receiving assistance from other donors, details of its assistance must be studied by the Project to identify its synergistic effect through the collaboration.

4. Project Implementation Method

4.1 Phases of Project Implementation

The Project will be implemented in three phases:

- Phase 1: October 2016 – September 2017 (12 months)
- Phase 2: October 2017 – September 2019 (24 months)
- Phase 3: October 2019 – September 2021 (24 months)

4.2 Project Activities

Fig. 4.1 shows the timeline of the major activities of the Project. Inside of red square indicates activities of Phase 1. The detail of activities in this phase are described below.

4.3 Project Activities in Phase 1

Phase 1 is a planning period of the Project. Since about a year has passed from the Detailed Design Survey, there is a need to reassess the implementation structure and the capacity of CP organizations to reflect the current situation to PDM and PO.

The key actions of this period that will be based on the result of Baseline survey are: the selection of the Pilot WSPs; finalizing detailed work plan (activities and timelines); and a framework of an assistance for NRW reduction; and revision of PDM and PO. The activities of Phase 1 will be articulated as overall image of Project and lead to the implementation of activities of the NRW reduction in Phase 2 and 3.

JICA experts and C/Ps will implement the activities below.

(1) Baseline Survey (completed within four month from the commencement)

JICA experts will analyze the current activities of the CP organizations including MWI, WASREB and KEWI, and candidate Pilot WSPs and identify the challenges and interventions.

Based on the results of the Baseline survey, Pilot WSPs will be selected. Selection criteria and the results of selection will be examined and approved by CPs. Among the 15 candidates WSPs, the survey of the WSPs in restricted areas by JICA will be conducted by local consultant because of the limitation of time and the security concerns. JICA experts will compile, analyze, and evaluate the survey data.

It is essential to complete the Baseline survey within four months from the commencement of the Project for the timely project implementation. The key contents of the Baseline survey are described in Table 4.1.

Table 4.1 Baseline Survey Contents and Methodology

Content	Methodology
NRW Unit/MWI	
<ul style="list-style-type: none"> • State of the services provided by NRW Unit and its administrative capacity • State of the activities of the Council of Governors (including the frequency of the meetings, attendance to the meetings and cost-sharing) • Awareness creation activities for the County governments provided by MWI (including those not in the water supply sector) • Awareness creation activities for the public by MWI (including the themes and frequency of the activities and budget for each campaign) 	<ul style="list-style-type: none"> ✓ Interview with managers and persons in charge of NRW reduction and data collection. (the mandate of NRW Unit, HR plan, duties and job description, the Units action plan, management of budget, water supply service strategy, implemented campaigns, etc.) ✓ SWOT analysis to articulate the current state of the organization
WASREB	
<ul style="list-style-type: none"> • Level of the recognition of the NRW reduction standards • State of the use of the NRW reduction standards (frequency and cases of the use) • Evaluation of the NRW reduction standards by WSPs 	<ul style="list-style-type: none"> ✓ Interview with managers and persons in charge of NRW reduction and data collection (the mandate, roles, HR plan,

Content	Methodology
<ul style="list-style-type: none"> • State of activities at the monthly meetings of WASPA and the NRW and GIS Subcommittees (numbers of the participants, details of activities, meeting frequency, published documents, number of technical papers on NRW reduction, etc.) • The number of the members of WASPA (only urban WSPs) 	<p>duties, outline of field inspection and the inspection team, latest impact report, financial statement, NRW reduction standards, etc.)</p> <p>✓ SWOT analysis to identify the current state of the organization</p>
KEWI	
<ul style="list-style-type: none"> • Contents of the medium-term strategic plan (2016 – 2020) and the role of the training courses related to NRW (long-term, short-term NRW and GIS course) • Contents of available reference materials of NRW reduction courses (syllabuses, textbooks, etc.) • Available data of the NRW reduction courses (numbers of the trainees, courses per year, regular or irregular courses, etc.) • Equipment owned by the KEWI HQ and the state of its use and storage • Teaching methods used by the lecturers of KEWI • Availability of follow-up studies • Confirmation of the financial state, budget for the training on NRW • Degree of satisfaction to and request for the improvement of the training contents 	<p>✓ Interview with managers and persons in charge of NRW reduction and information gathering (mandate and roles, strategic planning, future planning, organizational structure and personnel assignment plan, state of the implementation of training, budgetary process, equipment owned, facilities, collection of financial statements, etc.)</p> <p>✓ SWOT analysis to identify the current state of the organization</p> <p>✓ Self evaluation of lectures by the lecturers in charge of the training</p> <p>✓ Interview with trainees</p>
Pilot WSPs	
<ul style="list-style-type: none"> • Organizational structures and personnel assignments (management supports, internal information sharing, qualification of trainees, etc.) • Availability of a medium- to long-term or annual NRW reduction plan • Customer management and management of drawings • State of the water meters (types, level of deterioration, etc.) installed and needs for the replacement of the meters • NRW reduction activities (availability of pre-set indicators of the plan, monitoring of the implementation of the plan, DMA management, water pressure control, awareness creation activities) • State of the equipment for NRW reduction (equipment owned, storage and usage) • Capacity in the practical work of the staff in charge of NRW reduction • Survey on the satisfaction of the water users about the water services (requests from the users) 	<p>✓ Interview and questionnaire with the executives, staff and engineers in charge of NRW reduction and data gathering (the serving population, number of customers, revenue, amount of water produced and sold, NRW ratio, number, duties and work experience of staff, internal information sharing, the level of awareness of the executives of NRW reduction, the use of the NRW reduction standards, etc.) collection of the maintenance record and leaks, customers data and map of the water supply systems, and field survey of the waterworks (site visits to water production plants, intake, transmission and distribution facilities, water kiosks, large-scale customers and sites of pipeline repair, etc.)</p> <p>✓ Survey of the satisfaction of the people, etc.</p>

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(2) Revision of Work Plan (within a month of the completion of the Baseline survey)

Based on the results of the Baseline survey, the Project Team (JICA experts and CPs) will have detailed pictures of current state of the relevant organizations and the Pilot WSPs. The Team will revise the framework, approaches and work schedule of the Project (Work Plan) which will be approved by JCC. The revision of the Work Plan for Phase 1 will take approx. four months after the commencement of the Project.

(3) JCC

JCC will be established for ensuring its smooth implementation. JCC will meet three times in Phase 1: at the commencement of the Project (October 2016); at the time of finalizing Work Plan which include the selection of the Pilot WSP and the beneficiaries of the Project (January 2017); and at the end of Phase 1 (September 2017). JCC will meet semi-yearly in Phases 2 and 3 in principle, for the confirmation of the Work Plan for the next phase and the confirming of the project's implementation and achievement of past six months, budget allocation, and the discussing important matters concerning the implementation of the Project.

Table 2.3 Timing and themes of JCCs in Phase 1

	Time	Theme
1st JCC	October 2016 (Submission of draft W/P Phase 1)	<ul style="list-style-type: none">• Submission and sharing of Draft W/P for Phase 1.• Confirmation of framework of Project• Confirmation of Project Period• Confirmation of the Undertakings of the Kenyan side (Appointment of C/Ps. Securing of budget by C/Ps organizations. Confirmation of candidates Pilot WSPs, Signing of MoU)
2nd JCC	January 2017 (Submission of and after 1st Joint monitoring finished.)	<ul style="list-style-type: none">• Reporting on the result of selection of the Pilot WSPs.• Reporting and discussion on the result of 1st Joint Monitoring.• Approval of finalized W/P Phase 1.• Confirmation of budget by C/Ps organization.
3rd JCC	September 2017 (completion of 2nd Joint monitoring)	<ul style="list-style-type: none">• Reporting and discussion on the result of Joint Monitoring.• Reporting and discussion on progress of the Project• Confirmation of implementation of the Undertaking of the Kenyan side.

(4) Joint Monitoring

JICA experts and CPs will jointly monitor the progress of the Project implementation and prepare a monitoring report in every six month. The results of the monitoring will be confirmed by JCC and revision of plan and approach will be reflected in the Work Plan. In Phase 1, the first monitoring report will be prepared in January 2017, the second and third reports will be prepared in every three month thereafter. Figure 4.2 shows the contents of monitoring sheet.

TO CR of JICA Kenya OFFICE

PROJECT MONITORING SHEET

Project Title : _____

Version of the Sheet: Ver.●● (Term: Month, Year - Month, Year)

Name: _____

Title: Chief Advisor _____

Submission Date: _____

I. Summary

1 Progress

1-1 Progress of Inputs

1-2 Progress of Activities

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 Republic of Kenya

1-8 Progress of Environmental and Social Considerations (if applicable)

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

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

2-1 Detail

2-2 Cause

2-3 Action to be taken

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of the Republic of Kenya)

3 Modification of the Project Implementation Plan

3-1 PO

3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

4 Preparation of Gov. of the Republic of Kenya toward after completion of the Project

II. PDM&PO as Project Monitoring Sheet I & II

Fig. 4.2 Monitoring sheet

(5) Project Implementation Committee (PIC)

It is recommended that the "Project Implementation Committee (PIC)" to be established, the members include the JICA experts and CPs. PIC will meet twice a month to monitor and manage the timely implementation of Project.

Outcomes and implementation schedule by the Management and Action Teams and the implementation regarding issues will be discussed during the PIC meeting. The process of PIC is expected to lead by CPs.

The fundamental role of JICA experts is to assist activities carried out by the CPs. The JICA experts need to prepare plan and project activities in a way that CP staff and organizations can implement them with minimum interference to their ordinary duties.

(6) Project Activities

Project activities will be implemented in Phase 1 through Phase 3. The aim of the Project is to improve

the activities gradually. The activities for each Output in Phase 1 are described below. (Reference: Fig. 4.1 Flowchart of Project Implementation).

1) Activities of Output 1

NRW Unit/MWI will: 1. prepare the contents for the annual NRW Reduction Report; 2. commence the awareness creation activities about the NRW reduction activities to the County governments shortly after the commencement of the Project. It is important that the promotion of NRW reduction become NRW Unit's routine activities of Phase 1. The goals of Phase 1 are indicated below and the activities for achieving these goals.

a) Goals in Phase 1

- NRW Unit/MWI has established the project implementation structure.
- NRW Unit has formulated and implemented the awareness creation on NRW reduction plan for the County governments and for the public.
- NRW Unit has prepared an NRW reduction annual report that include the outcomes of the challenges of the NRW reduction activities.

b) Activities and Timeline

- Verification of the implementation structure of NRW Unit (in October 2016)

The JICA experts had confirmed whether the required number of staff (five) have been assigned to NRW Unit. The experts will identify duties of each staff of the Unit and the roles each play in the implemented of the Project.

- Formulation of a Plan for the Awareness Creation Activities for the County Governments and the Pilot WSPs (by December 2016)

NRW Unit and the JICA experts will jointly formulate a implementation plan for the awareness creation activities for the County governments and the Leading WSPs. The plan will describe the purpose, contents, schedule and budget of activities. The formulation of the plan will be completed by December 2016 so that the budget request can be included for the next fiscal year of MWI.

- Implementation Plan for the Awareness Creation Activities for the County Governments and the Pilot WSPs (Till September 2017)

NRW Unit and the JICA experts will implement the awareness creation activities to enhance the County governments understandings about NRW. This process shall be taken in earlier stage of Project implementation of Phase 1 to increase and encourage the involvement of the County governments.

In addition, the JICA experts will conduct a study to find possibility of conducting an awareness creation campaign for the reduction in water theft targeting the population of service areas of the

Pilot WSPs. The possibility of such a campaign in Phase 2 will be taken into consideration of the progress of the awareness creation for the County governments and other project activities.

- Review of the NRW reduction activities of KEWI and WASREB (till September 2017)
NRW Unit and the JICA experts will review the NRW reduction activities of KEWI and WASREB, and identify the issues to be addressed for further NRW reduction and propose recommended actions for KEWI and WASREB. NRW Unit and the JICA experts will formulate a strategy for the NRW annual reports by March 2017. They will collect required information by June 2017 and compile the results of the review by September 2017.

2) Activities for Output 2

WASREB is scheduled to revise the NRW Reduction Standards in Phase 3. For that purpose, it is important to obtain the baseline information about the usage of the Standards and formulate a strategy for the revision in Phase 1. Draft revisions of Standards may be used for the activities of the Pilot WSPs if possible.

a) Goals in Phase 1

WASREB will understand the usage of NRW Reduction Standards and identify the issues regarding the usage and formulate a strategy for the revision of Standards incorporating the results of issues about usage.

b) Activities and Schedule

- Survey about the usage of NRW Reduction Standards (from January to June 2017)

WASREB will study the usage situation of the current Standards from all of urban WSPs in order to identify a directions for the revision. The information about usage can be collected through: i) the campaigns organized by NRW Unit, ii) the regular meetings organized by NRW Unit and WASREB, iii) when WASREB collects data for the Impact Report, iv) the direct inquiries by phone and e-mail or etc.

Formulation of a strategy for the revision of the NRW Reduction Standards (from June to August 2017)

WASREB will formulate a strategy for the revision of the Standards based on the result of the survey on usages of the Standards. The results of the review will be shared among the Project team by August 2017 so that the revised activities can be reflected for the revision of PDM and PO in the JCC meeting scheduled for September 2017.

3) Activities for Output 3

KEWI will begin the improvement of its training by using the PDCA cycle. It will become an organization capable of providing practical trainings by the end of Phase 2. Therefore, KEWI needs to identify the challenges and issues of trainings and develop training strategy for improving training methods used currently. The goals of Phase 1 are indicated below and the activities for achieving these goals.

a) Goals in Phase 1

- KEWI will identify the challenge and issues of current trainings on NRW reduction and formulate a development plan (draft) for the training course (including textbooks).
- KEWI will formulate a plan (draft) for the revision of the training course and prepare to establish a system for the trainings in Phase 2.

b) Practical Activities and Schedule

- Analysis of the NRW Reduction courses of KEWI (from October to December 2016)
KEWI will analyze the contents and situation of NRW Reduction courses by using the results of the Baseline survey and identify the problems about course contents and the teaching methods.
- Review of the course contents and the teaching methods (from November 2016 to January 2017)
KEWI will review the contents of the training courses, teaching materials and methods by using the outputs of the activities mentioned in 1) and 2) and develop improvement strategy.
- Assessment of equipment to be provided from Japan (March 2017)
Based on the request from KEWI, the JICA experts will conduct a technical assessment on the necessity of providing the materials and equipment for the exercise of leakage detection (leak noise correlator), the construction of workshop to practice of leak detection and its materials and equipment required for the practice of the maintenance of water meters (water meter testing equipment, etc.) The results will be reported to JICA.
- Establishment of a training implementation system (from March to September 2017)
KEWI will establish a training implementation system (and MoU with the Leading WSPs) taking into consideration on how the trainings provided by Leading WSPs to other WSPs (the frequency, contents and cost-sharing) from the results of the Baseline survey. Procedures required for the implementation of the joint training cooperation with the Leading WSPs. The joint training will be for three weeks each course. KEWI will make necessary arrangement i.e. schedule and budget, for lecturers to be able to participate in OJT at the Leading WSPs.

4) Activities for Output 4

The two most important outcome of Output 4 in Phase 1 are: the selection of the Pilot WSPs; and the commencement of the NRW reduction activities for the Leading WSPs. This is because the Leading WSPs are expected to act as trainers for other Pilot WSPs in Phases 2 and 3, and are expected to achieve significant NRW reduction in Phase 2. The strengthening of their technical capacity in Phase 1 is significantly important. In addition, Leading WSPs have the possibility of facility development financed by private financial institutions. From this point, the formulating NRW reduction plans by maximizing the outputs of the technical cooperation project in Phase 1 has its significance. Based on this, the below are the goals and the activities in Phase 1.

a) Goals in Phase 1

- The Pilot WSPs will be selected.
- The First stage Pilot WSPs including the Leading WSPs will formulate the NRW reduction plans.
- The Leading WSPs improve the capacity to reduce NRW including the improvement of technical skills required for providing the other Pilot WSPs guidance for the NRW reduction activities and the capacity to apply them in real life situations.
- Preparation for the implementation of the pilot projects in Phase 2 is completed.

b) Practical Activities and Schedule

- Selection of Pilot WSPs (from October 2016 to January 2017)

JICA experts will select the First stage and Second stage Pilot WSPs based on the results of the Baseline survey and applying selection criteria agreed with CPs as indicated above (page 5).

- Preparation of NRW reduction plans (from January to March 2017)

The First stage Pilot WSPs will analyze the current states of their water services and identify the challenges and issues and propose approaches and methodologies to solve challenges and issues. They will prepared five-year NRW reduction plans and out of the plan, they will prepare an annual NRW reduction plans. Particularly, the Leading WSPs, Embu and Meru WSPs, will include the realistic strategy and timelines for facility upgrade in five-year NRW reduction plans in consideration with the possibility of facility upgrade as the NRW reduction activities progress.

- Implementation of NRW reduction plan (from March to September 2017)

Base on developed annual NRW reduction plans, WSPs will implement the activities; the Leading WSPs in Phase 1, the First stage Pilot WSPs in Phase 2 and the Second stage Pilot WSPs in Phase 3.

- i) Monitoring and management of the NRW reduction in each distribution area or DMA

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Pilot WSP will divide water distribution system into multiple distribution zones and monitor the water distribution amount in each area in order to strategically reduce the NRW ratio in the service areas.

ii) Improving sustainability and promotion of NRW reduction activities by using GIS

If the Pilot WSP is already using ArcGIS (GIS application by ESRI), the application to NRW reduction activities are examined so that the examples can be applied to other WSPs. The introduction of the free GIS software (QGIS) will be considered for the WSPs that require the introduction of GIS software.

iii) Hydraulic analysis for the management of the water pressure in distribution pipelines that fit to the technical capacities of the Pilot WSPs

Technical assistance will be provided to conduct hydraulic analysis that are fit to the situation and capacity of Pilot WSPs through coordination with GIS and IT engineers.

iv) Installation of customer meters and accuracy control

Case study about linking installations of customer meters with increase of revenue will be made for WSPs and the County governments and propose increasing ratio of customer meters by using WSPs own funds or County's budget. For improving/maintaining accuracy of customer meters, regular replacement of meters and procurement of high-quality meters is promoted. In addition, the introduction of electronic smart meters for commercial/organizational clients, and examination methods of measuring accuracy of deteriorated meters is presented. For approaches of water theft (illegal connections), inspections will be focused on the clients whose water service was terminated, clients without payment, and client with abnormal water usage and the type of thefts, examination of water usage and water source, testing opening-clothing of bulbs will be examined.

v.) Measures against underground leakages

Two approaches are used to locate leakages. One to install sensors along water distribution route and detect by leak noise correlator. Another approach is by detecting abnormal noise caused by the leak while walking along the water distribution route.

v) Efforts to maintain the skills for underground leakage detection

Scenes of the use of the equipment including leak noise correlator, portable flow meter and water pressure logger will be filmed with a smartphone and shared among staff or used for trainings.

To increase the capacity to identify the noise generated by leakages, the auditory materials such as recorded noise of leakages will be used in the training.

5) Activities for Output 5

General cooperation from WASPA to the Project has been informally agreed during the Detailed Design Survey but MoU has not been signed yet. Discussions on strategic cooperation with the Project and WASPA will be taken place in Phase 1 so that achievements and lessons learned from Phase 1 may be able to share at forums organized by WASPA in Phases 2 and 3.

a) Goals in Phase 1

- NRW Unit/MWI will lead cooperation agreement with WASPA.
- The first meeting will be held at WASPA

b) Activities and Schedule

- Finalize cooperation agreement between MWI and WASPA (from October 2016 to March 2017)
After the selection of the Pilot WSPs, MWI and WASPA will hold discussion to establish visions for the cooperation and the roles and responsibilities and sign MoU by assisted by the JICA experts.
- Dissemination of knowledge and expertise through WASPA's meetings (till September 2017)
NRW Unit will organize the first meeting in cooperation with WASPA. Thereafter, the Unit will organize the meeting every six months. The intention of meetings are not limited to share the expertise and knowledge on NRW reduction but to present achievements of the Pilot WSPs so the other WSPs may be motivated to implement NRW reductions. The intention of first meeting is to present about framework and purpose of Project and the activities of the Leading WSPs. Sharing practical skills, knowledge and experience at the meetings is planned in Phases 2 and 3. The JICA experts will provide assistance to the Unit for their preparation of meetings including the presentations by them.

(6) Preparation of the Progress Report (Part 1)

The JICA experts will compile the progress of the Project activities in the entire project period into the Progress Report (Part 1).



5. Project Design Matrix (PDM) and Plan of Operation (PO)

5.1 Project Design Matrix (PDM) (Version 9, as of March 7, 2016)

Annex-1

PM Form 1 PDM

Project Design Matrix

Version 0
Dated

Project Title: Project for Strengthening Capacity in Non-Revenue Water Reduction.

Implementing Agency: MWI, WASREB, KEWI

Target Group: Urban WSP's

Period of Project: 5 years from the date when the first JICA Expert is dispatched

Project Site: The entire country of Kenya

Pilot Site: Embu, Meru, and others

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal Under NRW reduction support mechanism, Urban WSP's enhance NRW reduction activities.	1. X of Urban WSP's participate knowledge sharing activities established by the Project. 2. X of pilot Urban WSP's continue achieving target(s) set by the annual NRW reduction plan. 3. NRW annual report is continuously produced and disseminated.	MWI NRW Unit annual reports Pilot WSP's annual NRW reduction plans	NRW reduction remains as priority of MWI and WSP's.		
Project Purpose A NRW reduction support mechanism is established for Urban WSP's to implement NRW reduction activities.	X of pilot Urban WSP's continue achieving targets set by the annual NRW reduction plan for two years.	NRW reduction plans Platform (online) Impact reports Project reports JCC meeting minutes	NRW reduction remains as priority of MWI and WSP's.		
Outputs 1. Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened. 2. Use of NRW reduction standards by Urban WAP's are promoted by WASREB.	1-1 All County representatives participate NRW related seminar(s). 1-2 NRW reduction campaigns are conducted semi annually. 1-3 NRW reduction annual reports are produced. 2-1 NRW reduction standards are revised by year X. 2-2 Revised NRW reduction standards are disseminated to all Urban WSP's through workshop (s).	Materials for County seminar List of seminar participants Campaign materials NRW reduction annual reports Project reports JCC meeting minutes Revised NRW reduction standards Workshop program and list of participants Project reports JCC meeting minutes NRW reduction annual reports	Project budget of the CP's is secured. NRW Unit staff positions are fulfilled. Current WASREB's role and authority remains.		
3. NRW related training capacity of KEWI is strengthened.	3-1 KEWI conducts NRW reduction courses with contents incorporating on-site trainings and revised course materials. 3-2 Evaluations by the NRW course participants is higher than before the revision of course materials. 3-3 0% of NRW course participants formulate the workplans.	Revised course materials Revised course syllabus Course participants' evaluation sheets Project reports JCC meeting minutes NRW reduction annual reports Trace studies	KEWI continues to offer NRW short courses. Project budget of the CP's is secured.		

<p>4. NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.</p>	<p>4-1 More than X of pilot Urban WSPs continuously make the annual NRW reduction plan based on the review of previous year's implementation. 4-2 More than X of pilot Urban WSPs continuously implement the annual NRW reduction plan formulated in 4-1. 4-3 More than X of pilot Urban WSPs are able to implement skills and activities that pilot Urban WSPs were not able to adopt prior to the Project. 4-4 More than X of pilot Urban WSPs are able to implement priority activities indicated in the NRW reduction plan. 4-5 More than X of pilot Urban WSPs train all of NRW personnel.</p>	<p>NRW reduction annual plans NRW reduction plans IMPACT reports Project reports JCC meeting minutes NRW reduction annual reports</p>	<p>Trained personnel do not leave WSPs Drastic climatic changes such as draught will not affect the water resources. Project budget of the CPs is secured.</p>	
<p>5. Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.</p>	<p>5-1 Case study and lessons learnt of Output 4 and other NRW activities are compiled and disseminated. 5-2 Regular meeting(s) of NRW is/are organized three times a year.</p>	<p>Compiled lessons learnt NRW regular meeting minutes and list of participants Project reports JCC meeting minutes NRW reduction annual reports</p>	<p>NRW reduction remains as priority of WSP's.</p>	
<p>Activities</p>				
<p>1.1 MWI NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data. 1.2 MWI NRW Unit plans and implements NRW reduction sensitization activities for the Counties. 1.3 MWI NRW Unit plans and implements NRW reduction campaigns. 1.4 MWI NRW Unit conducts reviews of WASREB's NRW reduction activities. 1.5 MWI NRW Unit conducts reviews of KEWI NRW courses.</p>	<p>2.1 WASREB conducts a survey of the usages of current NRW reduction standards. 2.2 Based on the survey result as well as Outputs 4 and 5, WASREB revises the NRW reduction standards. 2.3 WASREB promotes revised NRW reduction standards through workshop(s). 2.4 WASREB incorporates the review results of NRW reduction activities by MWI NRW Unit in their activities. 2.5 WASREB monitors and evaluates the usages of revised NRW standards.</p>	<p>3.1 KEWI studies current status of NRW reduction courses and its challenges. 3.2 KEWI reviews NRW reduction training strategies and course contents. 3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings. 3.4 KEWI reflects on-site NRW trainings into NRW course contents and materials. 3.5 KEWI incorporates the results of review by MWI NRW Unit into NRW course contents. 3.6 KEWI conducts trace studies of NRW reduction course participants.</p>	<p>The Japanese Side 1. Experts 2. Equipment/Tools/Materials 3. Japan or third country training</p>	<p>The Kenya Side 1. Counterpart personnel 2. Equipment/Tools/Materials 3. Facility/Office Space</p>
<p>4.1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs. 4.2 Each pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges. 4.3 Each pilot WSP identifies measures to solve challenges and formulates the NRW reduction plan. 4.4 Each pilot WSP formulates the annual NRW reduction plan including financial schedule based on the NRW reduction plan. 4.5 Each pilot WSP implements the annual NRW reduction plan. 4.6 Each pilot WSP evaluates and analyzes implementation results and revise plans. 4.7 Each pilot WSP produces the NRW reduction activity report annually. 4.8 Each pilot WSP holds regular NRW reduction meetings attended by relevant counterparts of WSP.</p>	<p>5.1 MWI NRW Unit organizes NRW related regular meetings in cooperation with other relevant organizations. 5.2 WASREB compiles case studies/lessons learnt about NRW reduction activities.</p>			<p>Pre-Conditions Issues and countermeasures</p>

Note: "X" is the indicator that will be decided after the project commencement.

7. Detailed Plan of Operation

Table 7.1 describes the activities of each expert in Phase 1. The detailed activities and schedule will be finalized at the finalization of Work Plan.

Table 7.1 Activities by Expert

Person in charge	Activity
Supervision/ NRW management 1	<ul style="list-style-type: none"> • Supervision of the Project • Preparation of the Work Plans and presentation of Plans • Presentation and consultation during JCC meetings • Coordination with other donors and other water supply projects • Review of implemented NRW reduction measures • Selection of Pilot WSPs • Assistance in the cost-benefit analysis of the NRW reduction measures • Analysis of the impact of NRW reduction on the future operation of the WSPs • Provision and exchange of information and collaboration among JICA Experts • Assistance for training planning in Japan/third country • Verification of the level of achievement of Project Purpose • Management of the overall progress of the Project • Presiding the Project Implementation Committee • Planning for workshops and seminars • Compilation of the Progress Reports
NRW management 2	<ul style="list-style-type: none"> • Management of the procurement of the equipment (in Japan and in Kenya) • Survey of the management of the water distribution networks/identification and analysis of problems in the management • Assistance in the zoning of the water distribution networks • Theoretical training on NRW reduction • Survey and selection of the model districts in which OJT on the NRW management technology is to be conducted • Assistance in the preparation of piping diagrams of the leading WSPs • Formulation of detailed designs of the hydraulic separation of the networks of the Leading WSPs • Selection of the materials and equipment required for the hydraulic separation of the water distribution networks of the Leading WSPs and recommendation for the budget • Guidance in OJT for the leading WSPs (on NRW reduction) • Estimation of leakage/analysis of the amount of NRW • Evaluation of the measures implemented against leaks/verification of their effect • Assistance in the preparation of OJT reports/Manual for Water Pressure Management Technology
Distribution pipe network (mapping, network analysis)	<ul style="list-style-type: none"> • Implementation of a survey for the selection of the Pilot WSPs • Survey of the management of the water distribution networks/identification and analysis of the problems in the management • Formulation of the NRW reduction plans • Formulation of the annual NRW reduction plans • Study on the plan for the procurement of equipment for the pilot WSPs • Assistance in the preparation of the monitoring sheet • Assistance in the preparation of the Progress Reports • Assistance in the zoning of the distribution networks • Assistance in the preparation of piping diagrams • Guidance on the practice of quality control of pipeline installation

Person in charge	Activity
	<ul style="list-style-type: none"> • Guidance on the preparation and use of the pipeline installation management standards • Training on the distribution network management technology • Theoretical training on water pressure management
Flow rate/water pressure/leak management	<ul style="list-style-type: none"> • Survey and selection of the Pilot WSPs for OJT on the water pressure management technologies will be provided • Theoretical training on water pressure management • Study on the options for the optimization of water pressure and formulation of the best measure • Selection of the materials and equipment required for the implementation of the measures for the optimization of water pressure and recommendation on the budgetary allocation to the measures • Evaluation of the measures for the optimization of water pressure/verification of the effect of the measures • Estimation of leakage/analysis of the amount of NRW • Evaluation of the measures implemented against leaks/verification of the effect of the measures • Management of the procured equipment in Japan and in Kenya • Technical training on leak detection/training for the transfer of basic technologies • Survey and selection of the Pilot WSPs for OJT on the NRW reduction technologies will be provided • Formulation of the plans for OJT of the Pilot WSPs • Selection of the materials and equipment required for the hydraulic separation of the networks of the Pilot WSPs • Guidance in OJT of the Pilot WSPs (on management of water pressure/NRW) • Installation of measuring facilities/measurement of water pressure and flow rate/collection of the data on leakage • Evaluation of the measures implemented against leaks/verification of the effect of the measures
Customer management/ fcc charging	<ul style="list-style-type: none"> • Assistance in the establishment of a framework of an information system for business operation • Assistance in the formulation of annual budget plans • Activities to promote payment of water user fees by users / installation of water meters • Monitoring of the water usage and fee collection with the balance of the revenue and expenditure taken into account • Creation of the database of customer information • Assistance in the inspection of water meters
Planning/ management of the training	<ul style="list-style-type: none"> • Review of the training materials and methods and study on the measures to improve them • Study on the materials and equipment required for the practice of leak detection and the practice of the maintenance • Preparation of the program and schedule of the training in Japan/assistance to the training participants in Japan • Preparation of the program and schedule of the training in third country
Information management/ publicity	<ul style="list-style-type: none"> • Information dissemination to the media • Information dissemination to relevant organizations in Kenya, other donor organizations and NGOs • Publicity activities in Japan • Creation and distribution of JICA Project Brief Notes • Taking photos and videos for publicity purpose

8. Equipment Provision

8.1 List of Equipment

The equipment listed is shown in Table 8.1. The list consists of 1) the training equipment for KEWI for Output 3, and 2) the survey equipment for the Pilot WSPs for Output 4. The specifications and quantities of the equipment provided will be determined through the discussion between CPs and the JICA experts within four months of the commencement, based on the analysis of the results of Baseline survey.

Two 4WD vehicles will be procured for the Project implementation.

The list in Table 8.2 which was requested CPs organizations will be determined in the consultation between the JICA experts and JICA on the justification based upon the results of the Baseline survey. When requested equipment were to be provided, they will be procured before the commencement of the Pilot activities.

Table 8.1 Equipment to be provided by Japan

Equipment	Description of items	Quantity	Country origin	Time of decision
1) Equipment for KEWI	Note PC	1	Kenya	Within 4 months after commencement of the Project
	Multi purpose photocopy machine	1		
	Digital Camera	1		
	Overhead projector	1		
2) Survey equipment for Pilot WSPs	Portable ultrasonic flow meters	5	Japan	
	Pressure gauge with data loggers	10		
	GPS	5		
	Potable checker of water meters	2		
	Residual chlorine meters with 1,000 of reagents	9		
	Potable electric resistivity meters	9		

Table 8.2 Equipment to be considered for the procurement

Equipment	Description of item	Quantity	Expected Country produced	Time of delivering
A) Requested by KEWI for trainings	Digital leak noise correlator	X	Japan/third country	Upon justification of appropriateness and before starting Pilot activities
	Equipment for improving a training yard for leakage detecting	X		
	Testing equipment of water meter	X		
B) Requested by KEWI for Pilot WSPs	Measuring Instrument including digital leak noise correlator for field work	X	Japan/third country	
	Detector of ground leakage for field work	X		
	Valves and meters for establishing	X	Kenya	

	DMA			
	Service metres for house connection	X		
	Pipe materials and repairing tools and equipment	X		

Note) "X" will be finalized after the Baseline survey

9. Undertakings and Inputs by the Kenyan Side

Undertakings and inputs by GOK agreed on the Record of Discussion (RD) on March 7, 2016 between MWI and JICA are shown below. During the commencement of the Project, it should be confirmed by both sides.

9.1 Undertakings of GOK

9.1.1 GOK will take necessary measures to:

- (1) ensure that the technologies and knowledge acquired by the Kenya nationals as a result of Japanese technical cooperation contributes to the economic and social development of Kenya, and that the knowledge and experience acquired by the personnel of Kenya from technical training as well as the equipment provided by JICA will be utilized efficiently in the implementation of the Project; and;
- (2) grant privileges, exemptions and benefits to the JICA experts and their families, which are no less favorable than those granted to experts and members of the missions and their families of third countries or international organizations performing similar mission in the Republic of Kenya.

9.1.2 MWI will take necessary measures to conclude MoU with Pilot WSPs (in particular, Embu and Meru, which will start the NRW Reduction activities in Phase 1) and Counties responsible of Pilot WSPs for timely implementation of the Project with following three items;

- a) To involve Counties for smooth implementation of the Project;
- b) To acquire budget for NRW Reduction activities of Pilot WSPs; and
- c) To confirm and agree the inputs and undertakings of Pilot WSPs.

9.1.3 GOK will take necessary measures to:

- (1) provide security-related information as well as measures to ensure the safety of the JICA experts;
- (2) permit the JICA experts to enter, leave and sojourn in the Republic of Kenya for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees.
- (3) exempt the JICA experts from taxes and any other charges on the equipment, machinery and other material necessary for the implementation of the Project;

(4) exempt the JICA experts from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to them and /or remitted to them from abroad for their services in connection with the implementation of the Project; and

(5) meet taxes and any other charges on the equipment, machinery and other material, referred to in II-7 in R/D, necessary for the implementation of the Project.

9.1.4 GOK will bear claims, if any arises, against the JICA experts resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Project, except when such claims arise from gross negligence or willful misconduct on the part of the JICA experts.

9.2 Input by MWI, WASREB, KEWI and Pilot WSPs

MWI, WASREB, KEWI and Pilot WSPs will take necessary measures to provide at its own expense:

- (a) Assignments of counterpart personnel and support staff;
- (b) Payment of per-diem (daily allowance, transportation fee and accommodation fee) to the counterpart personnel;
- (c) Suitable office space with necessary equipment in MWI, KEWI and Pilot WSPs;
- (d) Utilities charges such as electricity, water supply, if any;
- (e) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;
- (f) Costs of activities for sensitization and campaigns by MWI;
- (g) Survey cost on the usage of current NRW reduction standards by WASREB;
- (h) Expense for training of Pilot WSPs at KEWI (short term course);
- (i) Expense for On-site training in Pilot WSPs by KEWI;
- (j) Expense for On-site ToT in Pilot WSPs;
- (k) Expense for NRW activities of Pilot WSPs;
- (l) Information in obtaining medical service;
- (m) Available data (including maps and photographs) and information related to the Project;
- (n) Necessary facilities to the JICA experts for the remittance as well as utilization of the funds introduced into Kenya in connection with the implementation of the Project.

Main undertakings and inputs by the Kenyan side are summarized in the Table 9.1.

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Table 9.1 Undertakings and Inputs by the Kenyan Side

(1) Major Inputs						
Items	JICA	MWI	WASREB	KEWI	Pilot WSPs	Remarks
1 Assignments of counterpart personnel and support staff		*	*	*	*	Including salary of counterpart personnel
2 Assignments of Project's Staff	*					
3 Payment of per-diem (daily allowance, transportation fee and accommodation fee) of the counterpart personnel		*	*	*	*	Overseas travel expenses will be borne by JICA.
4 Suitable office space with necessary equipment		*		*	*	Office space with one telephone line each (including internet connection and office furniture such as desks, chairs) Necessary number of desks and chairs in each organization are shown as below. A) MWI at least four(4) personnel b) KEWI at least two(2) personnel c) Pilot WSPs: workspace for at least four(4) personnel
5 PC, Printer used by JICA experts in office spaces	*					
6 Utilities charges such as electricity, water supply, if any		*	*	*	*	
7 Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA		*	*	*	*	
8 Costs of activities for sensitization and campaign by MWI	*	*				Cost sharing with MWI/JICA
9 Survey cost on the usage of current NRW reduction standards	*		*			
10 Printing cost of the revised NRW standard	*					
11 Expense for Training of Pilot WSPs at KEWI (short term course)					*	
12 Expense for On-site ToT in Pilot WSPs				*		Expense of per-diem (daily allowance, transportation fee and accommodation fee) for KEWI Lecturers
13 Expense for On-site training in Pilot WSPs by KEWI					*	
14 Expense for NRW activities of Pilot WSPs					*	
(2) Major Undertakings						
Items	JICA	MWI	WASREB	KEWI	Pilot WSPs	Remarks
15 Conclusion Memorandum of Understanding (MOU)		*			*	MOU will be signed by MWI, Counties, and Pilot WSPs
16 Information for obtaining medical services		*				
17 Provision of security related information to JICA experts and assets for their safety		*				
18 Tax exemption for JICA experts from taxes and any other charges		*				
19 Exemption for JICA Experts from taxation on their salaries and allowances		*				
20 Insurance of the residence permits to JICA Experts and their exemption from paying consular		*				
21 Responses to the inconveniences encountered by JICA experts in the Project activities		*				
22 Data and information (including maps and photographs) for the implementation of the Project		*				
23 Assistance required for JICA Experts to receive money transferred from Japan in Kenya		*				
24 Utilization of the Project outputs		*				
25 Provision of privileges to JICA Experts		*				

【Annex】

Minute of Meeting (M/M)

PDM (version 0) and PO (version 0).

Annex-2
Couterparts List



NRW PROJECT'S JOINT COORDINATING COMMITTEE (JCC) MEETING**TENTATIVE LIST OF COUNTERPARTS/PARTICIPANTS THAT MIGHT ATTEND(TOTAL 43)**

Ministry of Water and Irrigation (MWI)(7)		
1.	Prof. Fred H.K. Segor	Principal Secretary
2.	Eng. Lawrence N. Simitu	Water Secretary
3.	Eng. SAO Alima	Ag. Director Water, Sewerage and Sanitation Development
4.	Mr. David N. Mabonga	Senior Superintendent, Water Engineering
5.	Ms. Mary W. Mwangi	Superintendent, Water
6.	Mr. Onesmus N. Mwangi	Senior Inspector
7.	Ms. Jacinta Ncooro	Secretary
WASREB(3)		
1.	Eng. Robert Gakubia, Chief	Executive Officer
2.	Eng. Peter Njaggah	Head, Regulatory Services
3.	Eng. Daniel Ngugi	Engineer
KEWI(6)		
1.	Dr. Leunita Sumba	Acting Director
2.	Mr. Tulienge Wekesa Walela	Instructor
3.	Mr. Walter Moseti	Instructor
4.	Mr. William Oduor	Lecturer
5.	Mr. Geoffrey Magondu	Lecturer
6.	Mr. Eric Wamiti	Lecturer
WASPA(1)		
1.	Ms. Eddah Wambui	Chief Executive Officer
Tana WSB		
1.	Eng. Moses Naivasha	Chief Executive Officer
2.	Eng. John Mbogori	Technical Services Manager/Head of NRW Unit
Meru WSP(5)		
1.	Mr. Mathew Nteere	Acting General Manager
2.	Eng. Albert Njeru Gatuta	Technical Services Manager
3.	Eng. Christopher Kaume Muriithi	Planning and Engineering Officer
4.	Mr. Silas Kirimi Ndatho	Technical Assistant - NRW
5.	Ms. Lucy Nkatha Mung'ori	Senior Business Development Assistant
Embu WSP(7)		
1.	Eng. Hamilton Karugendo	General Manager
2.	Gitonga	Operations Engineer
3.	Victor	Distribution Superintendent
4.	Alphaxad	GIS Officer
5.	Maina	Technical Officer
6.	Emily	Accountant i/c Billing, Meter Reading and Debt Collection
7.	Kimani	Accountant

Annex-3
Minutes of Meetings
(signed on 4th December, 2015)

Three handwritten signatures are located at the bottom of the page. The first signature on the left is in black ink and is highly stylized. The middle signature is in blue ink and is also stylized. The third signature on the right is in black ink and is more legible, appearing to be 'JL'.

MINUTES OF MEETING
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
MINISTRY OF WATER AND IRRIGATION
THE REPUBLIC OF KENYA
ON
THE PROJECT FOR
STRENGTHENING CAPACITY IN NON-REVENUE WATER REDUCTION

The Detailed Planning Survey Team (the Team) organized by the Japan International Cooperation Agency (JICA), headed by Mr. Yoshiki OMURA visited Kenya from November 14th to December 4th, 2015 for the purpose of conducting Detailed Planning Survey of the Project for "Strengthening Capacity in Non-Revenue Water Reduction" (the Project).

During its stay in Kenya, the Team exchanged views and had a series of discussions about the project outline with the Ministry of Water and Irrigation (MWI) and organizations concerned.

As a result of the discussions, both sides understood the matters referred to in the document attached hereto.

Nairobi, 4th December, 2015



Mr. Yoshiki OMURA
Leader
Detailed Planning Survey Team
Japan International Cooperation Agency



Professor Fred H. K. SEGOR
Principal Secretary
State Department of National Water Services
Ministry of Water and Irrigation
The Republic of Kenya



THE ATTACHED DOCUMENT

I. Major findings

(1) Current situation in Non-Revenue Water (NRW) reduction activities of Water Service Providers (WSPs)

The Team confirmed strong momentum towards NRW reduction among WSPs. Many WSPs have already established their NRW units and prepared NRW reduction plans in response to recent directions by Water Services Regulatory Board (WASREB). For example, NRW reduction activities of Mavoko WSP have dramatically increased in last year. However, the Team learned that most of the WSPs the Team visited still need external support to strengthen their NRW reduction activities to make their efforts more effective and efficient.

(2) Roles NRW Unit of MWI

The Team confirmed that recently established NRW Unit of MWI has following roles:

- a) Formulation of national policies and strategies for NRW reduction;
- b) Coordination of NRW reduction activities of related organizations; and
- c) Promotion of NRW reduction activities including sensitization of Counties.

(3) Utilization of the NRW Standards at WSPs

The Team found that the NRW standards that were developed have been disseminated to most of the urban WSPs. The case studies included in the standards are especially well received. The NRW reduction guideline, a part of the standards, has been utilized by many WSPs who prepared NRW reduction plans recently. However, the Team evaluated that the contents of the standards can be improved by incorporating practical examples of NRW reduction activities of WSPs.

(4) NRW Training Courses by Kenya Water Institute (KEWI)

The Team found that KEWI's current NRW training courses are largely theoretical based. In order to make the courses more applicable to WSPs' NRW reduction activities, the course contents need to be revised with creativity. The Team confirmed that KEWI is keen to provide more practice-oriented training courses.

(5) Related Activities of other development partners

The Team learned the activities of many development partners, international/national governmental /non-governmental organizations in the water sector of Kenya. The Team

5

initially selected some Water Service Providers (WSPs) as potentials for pilot WSPs of the Project. Meanwhile, the Team confirmed that other development partners have formulated plans or implemented NRW-related projects. Therefore, the selection of Pilot WSPs should be considered carefully. The project activities should also be carefully studied to prevent the overlapping of activities by the other development partners.

II. Formulation of the Project Framework

Regarding the Project framework, both sides agreed the following points:

(1) Aim of the Project

Both sides agreed that the Project is aiming to strengthen NRW reduction support mechanisms by MWI, WASREB, and KEWI so that WSPs can carry out their NRW reduction activities sustainably which will contribute to the reduction of NRW in Kenya.

(2) Summary of cooperation by Japanese side

Both sides agreed that the Japanese side will provide the following assistance to the Kenyan side to strengthen the above mentioned NRW reduction support mechanism.

- a) Providing technical advice to NRW Unit of MWI in coordination and promotion of NRW activities, and review on policy/strategy, if necessary.
- b) Revision of NRW reduction standards, and promotion, and compilation of NRW reduction case studies/lessons learnt by WASREB.
- c) Strengthening KEWI's practical training capacity of NRW short courses by KEWI.
- d) Improve the capacity of WSPs for planning and implementation of NRW reduction activities.
- e) Knowledge sharing of case study/lessons learnt of pilot WSPs to other WSPs.

The Project concept is shown in Annex-1, and the detailed project activities discussed in this survey are indicated in section XI.

III. Draft of Record of Discussion

Both sides agreed about the contents of the draft Record of Discussions ("R/D") shown in Annex-2.

R/D will be signed among MWI, the National Treasury, and JICA Kenya Office after the approval of R/D by JICA Headquarters.

The bottom of the page features several handwritten signatures and initials. On the far left, there is a dark, scribbled mark. In the center, there are three distinct signatures: a blue ink signature, a black ink signature, and a black ink signature. To the right of these, there is a small, handwritten mark that resembles the number '5'.

IV. Change of Project Title

Both sides agreed to change the Project title from “The Project for NRW Rate Reduction” to “The Project for Strengthening Capacity in Non-Revenue Water Reduction”.

V. Project area

Both sides agreed that the Project area is the entire nation of Kenya.

VI. Roles of the Kenyan Organizations of the Project

Both sides confirmed the roles of the Kenyan organizations as summarized in Annex-3, which may be subject to the further changes of laws and regulations.

VII. Operational Structure of the Project

Based on the roles of organizations discussed in Annex-3, both sides agreed the following operational structure of the Project:

(1) Responsible Organization of the Project:

- Ministry of Water and Irrigation (MWI), State Department of National Water Services

(2) Implementation Organizations

- MWI, State Department of National Water Services
- Water Services Regulatory Board (WASREB)
- Kenya Water Institute (KEWI)

(3) Joint Coordination Committee (JCC)

JCC will be held in every six months. The tentative Kenyan members of JCC are MWI, WASREB, KEWI, Leading WSPs (Embu and Meru) and pilot WSPs. The tentative Japanese members of JCC are the Expert team, JICA Kenya office, and the Embassy of Japan.

VIII. Duration of the Project

Both sides agreed that the duration of the Project is 5 years (including the additional survey (within 3 months)).

IX. Monitoring

Both side agreed that the monitoring of the Project will be conducted twice a year.

X. Terminology of WSPs in the Project

For the clarification purpose, both sides agreed with the following terminology of WSPs :

(1) Target WSPs:

All Urban WSPs

(2) Pilot WSPs:

Urban WSPs that the activities of Output 4 are conducted.

(Selection Criteria is described in XII)

(3) Leading WSPs:

Pilot WSPs which have experiences of implementing JICA projects, and capacity and willingness to support other WSPs, namely Embu and Meru WSPs.

XI. Project Framework

Both sides agreed the following tentative framework of the Project as below.

(1) Overall Goal

Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.

(2) Project Purpose

A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.

(3) Outputs

Output 1:

Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened.

Output 2:

Use of NRW reduction standards by Urban WSPs are promoted by WASREB.

Output 3:

NRW related training capacity of KEWI is strengthened.

Output 4:

NRW planning and/or implementation capacity of Pilot Urban WSPs is enhanced.

Output 5:

Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.

Both sides also agreed that the additional survey (within 3 months) will be conducted to review/decide following items after commencement of the Project:

- a) Activities of Output 1. As official roles of NRW Unit is yet to be approved;
- b) Pilot WSPs of Output 4. Other than leading WSPs (Embu and Meru), more detail capacity assessment of WSPs and coordination with other development partners are required;
- c) Necessary equipment for the Project;
- d) Training in Japan or the third country

XII. Selection Criteria of Pilot WSPs

In addition to the two leading WSPs, as indicated in section XI, the additional survey will be conducted at the inception stage of the Project to select seven candidate WSPs, i.e., one WSP each from seven WSBs excluding Tana WSB using the following criteria¹. For project implementation, four Pilot WSPs will be further prioritized as the first group of cooperation to be continued for three years. The remaining three Pilot WSPs are the second group subject to review at the third year for their suitability and progress of the first group. For the selection of Pilot WSPs, factors such as capacity, ownership and geographical distribution will be considered in addition to the criteria below:

Criteria

- Urban WSPs (of Very Large, Large, and Medium, as defined by WASREB's Impact report) ;
- WSPs locations clarified by JICA's security guideline²;
- WSPs that are not receiving other development partners' assistance with overlapping activities of the Project;
- WSPs that have established NRW units;
- O&M Cost Recovery is 80 % or more;
- Metering Ratio is 75% or more;
- Water Coverage Ratio is 30% or more; and
- Water Service Hours is 10 hour or more.

¹ The performance index applied are derived from WASREB Impact Report No.7 (2014). If the index are changed, the selection criteria may be modified.

² Cooperation may be extended to Coast WSB as providing training opportunities in country and/or overseas.

XIII. Tentative Equipment list of the Project

The Tentative Equipment list of the Project is indicated below. Both sides agreed that JICA Headquarters will carefully consider the necessity, appropriateness, and quantity of these equipment, by the time of signing R/D.

Table: Tentative List of Equipment

- Portable ultra-sonic flow meter(s)
- Leak detector(s)
- Water pressure gauge(s)
- Customer meter(s)
- Bulk meter(s)/Zonal meter(s)
- Data logger(s)
- Water pressure gauge(s)
- Meter test bench(s)
- Noise leak correlator
- Leak detection demonstration platform
- GPS (s)
- Laptop computer
- Multi-function machine (Scanner, printer and copy functions. A-3 size)
- Digital camera
- Projector
- Other necessary equipment for monitoring and supporting NRW reduction activities in Pilot WSPs

XIV. Major Inputs

Both sides confirmed that JICA's input will be basically human resources. Detailed contents of input (including some Major Undertakings) are indicated in Annex-4.

XV. Major Undertakings by the Kenyan side

(1) Concluding Memorandum of Understanding (MOU)

Upon the completion of selection of Pilot WSPs, MWI will take necessary measures for the signing of MOU between Water Services Board and Pilot WSPs (initially, Embu and Meru whose activities will commence from the first year of the Project) which will be witness by MWI and Counties responsible for Pilot WSPs for smooth implementation of the Project with the following reasons :

- a) to involve Counties for smooth implementation of the Project;
- b) to acquire budget for NRW reduction activities of Pilot WSPs; and

c) to confirm and agree to the inputs and undertakings of Pilot WSPs.

(2) Other Undertakings by Kenyan Side

Other relevant Undertakings are based on the Agreement on Technical Cooperation between The Government of Japan and The Government of the Republic of Kenya dated April 29, 2004 and as periodically reaffirmed subsequently.

XVI. Other Relevant Issues

(1) Flexible Change of the Project Design, Outputs and Activities

Both sides agreed that the Project design, outputs and activities may be reviewed and changed if roles of each organization were revised by Water sector reform.

(2) NRW Activities in the Pilot WSP

The NRW reduction activities in the pilot WSPs cover both physical and/or commercial losses. The NRW activities of the Project in each WSP will be decided through the prioritization of necessary NRW activities after the assessment of current NRW reduction activities and its challenges. The list of candidate NRW activities is shown in the following table. The number of required materials and equipment which are to be procured by JICA will be decided at the time of planning stage of activities. JICA will not cover the other costs including installation and construction costs.

Preliminary Activities	1) mapping
Activities for Physical Loss	1) isolation through zoning (DMA), 2) installation of master meter chamber, 3) installation of flow meters, 4) measurement of water pressure, 5) water balance analysis, 6) repair of surface leakage, 7) detection and repair of underground leakage 8) water pressure control, etc.
Activities for Commercial Loss	1) survey of customer meters, 2) updating of water meter register, 3) replacement of customer meters, 4) improvement of meter reading, 5) measures against illegal connection, 6) billing, etc.

(3) Per-diem and Other Travel Expenses of Counterparts

MWI mentioned financial constraints in providing counterparts with per diems and other travel expenses, and requested JICA's assistance. JICA replied that JICA expects MWI to make an effort to secure the budget for project activities including per diem; however, some costs such as workshop venue expenses can be shared. JICA added that in view of sustainability of the Project, development of own funding capability was preferable.

(4) Number of Custom Water Meters

MWI requested 300 pieces of customer water meters to be installed in each WSP for the project purpose. The Team replied to convey MWI's message to the Headquarters .

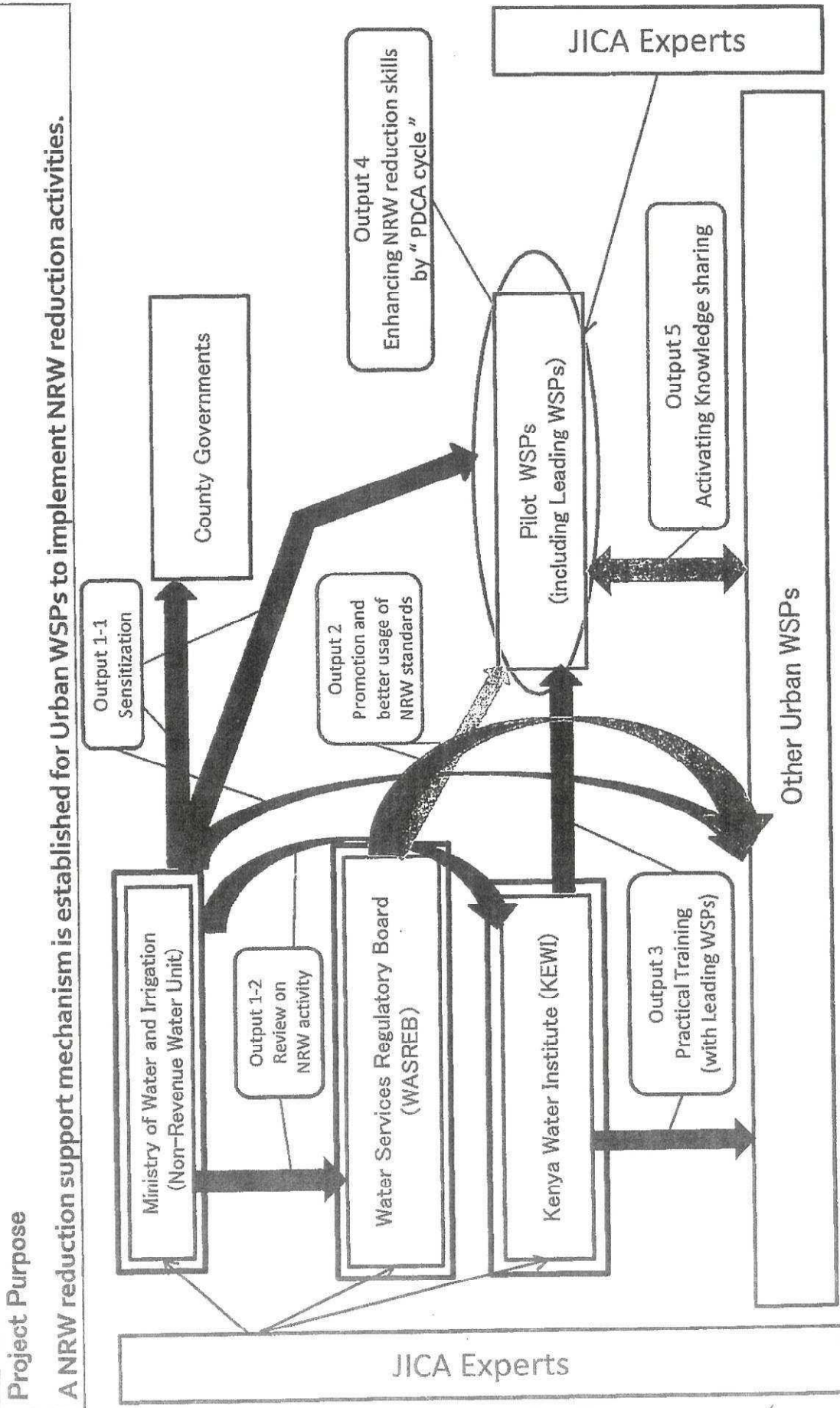
Annex-1: The Project concept

Annex-2: The draft R/D

Annex-3: Organizational Chart

Annex-4: Major Inputs and Undertakings

Project Design of
"Project for Strengthening Capacity in
Non-Revenue Water Reduction"



Black Arrow : Technical Advice from JICA Experts
Red frame : Implementing Organization

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Annex-4

Record of Discussion

(signed on 7th March, 2016)

Mr.  



REPUBLIC OF KENYA
MINISTRY OF WATER AND IRRIGATION
STATE DEPARTMENT OF NATIONAL WATER SERVICES

Telegrams: "MAJI" Nairobi
Telephone: Nairobi +254 20 2716103
Fax: Nairobi +254 20 2728703
E-mail: ps@water.go.ke

DIRECTOR OF WATER SERVICES
MAJI HOUSE
NGONG ROAD
NAIROBI


Ref. No. WD/3/3/1338 Vol. II (19)

Date: 11th April 2016

The Chief Representative
JICA, Kenya Country Office
NAIROBI

**RE: RECORD OF DISCUSSIONS ON PROJECT FOR STRENGTHENING
CAPACITY IN NON-REVENUE WATER REDUCTION PROJECT**

Further to Treasury letter ref. No. MOF/ERD/20/79/78/04/z dated 31st March 2016, addressed to this office and copied to you, please find a duly signed copy of records of discussions for your further necessary action.



Eng. SAO Alima
For: DIRECTOR WATER SERVICES

CC: DWS - to see for information.



REPUBLIC OF KENYA
THE NATIONAL TREASURY

Telegraphic Address: 22921
Finance – Nairobi
FAX NO. 310833
Telephone: 2252299
When Replying Please Quote

THE NATIONAL TREASURY
P O BOX 30007 - 00100
NAIROBI

Ref. No. MOF/ERD/20/79/78/04/Z

31st March , 2016

The Principal Secretary
State Department of National Water Services
Ministry of Water & Irrigation
NAIROBI

**RE: RECORD OF DISCUSSIONS ON PROJECT FOR STRENGTHENING CAPACITY
IN NON-REVENUE WATER REDUCTION PROJECT**

Please refer to your letter Ref. No. WD/3/3/1338/(15) dated 14th March, 2016 on the above subject.

We forward herewith two (2) duly signed copies of Record of Discussion for your necessary action.

We have retained one copy for our records.

Robert Gatonga
FOR: PRINCIPAL SECRETARY/THE NATIONAL TREASURY

C.C. Chief Representative
JICA, Kenya Office
NAIROBI


ISO 9001:2008
Certified.

RECORD OF DISCUSSIONS
ON
PROJECT FOR STRENGTHENING CAPACITY IN
NON-REVENUE WATER REDUCTION
IN
THE REPUBLIC OF KENYA
AGREED UPON BETWEEN
THE GOVERNMENT OF THE REPUBLIC OF KENYA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Nairobi, March 7th, 2016


Ms. Keiko SANO
Chief Representative
JICA Kenya Office


Prof. Fred H.K. SEGOR
Principal Secretary
State Department of National Water
Services
Ministry of Water and Irrigation
The Republic of Kenya


Dr. Kamau THUGGE
Principal Secretary
The National Treasury
The Republic of Kenya

Based on the Minutes of Meetings on the Detailed Planning Survey on the Project for Strengthening Capacity in Non-Revenue Water (hereinafter referred to as "NRW") Reduction (hereinafter referred to as "the Project") signed on 4th December, 2015 between the Ministry of Water and Irrigation (hereinafter referred to as "MWI") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA held a series of discussions with MWI and relevant organizations to develop a detailed plan of the Project.

Both parties agreed the details of the Project and the main points discussed as described in the Appendix 1 and the Appendix 2 respectively.

Both parties also agreed that MWI, Water Services Regulatory Board (hereinafter referred to as "WASREB"), and Kenya Water Institute (hereinafter referred to as "KEWI"), the counterparts of the Project, will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of the Republic of Kenya (hereinafter referred to as "Kenya").

The Project will be implemented within the framework of the Agreement on Technical Cooperation signed on 29th April, 2004 (hereinafter referred to as "the Agreement") and the Note Verbales exchanged on 10th and 16th July 2015 between the Government of Japan (hereinafter referred to as "GOJ") and the Government of Kenya (hereinafter referred to as "GOK").

Appendix 1: Project Description

Appendix 2: Main Points Discussed

Appendix 3: Minutes of Meetings on the Detailed Planning Survey of the Project

PROJECT DESCRIPTION

Both parties confirmed that there is no change in the Project Description agreed on in the Minutes of Meetings on the Detailed Planning Survey on the Project signed on 4th December, 2015 (Appendix 3).

I. BACKGROUND

The National Water Master Plan 2030 recommends that water resources must be properly managed, conserved, developed and more efficiently utilized considering future impact of climate change and rapid increase of population, economic growth, etc. NRW ratio in Kenya is 42% as of 2015. This figure means that half of treated water produced in the entire country is lost which results in the loss of half of the revenue which could have been used for further improvement of water access. In Vision 2030, GOK aims to reduce NRW ratio to 25% by 2020 and 20% by 2030. GOK has therefore implemented "the Project for Non-Revenue Water Management" supported by JICA from 2010 to 2014. Under this Project, WASREB developed the Standards for NRW Reduction, which consists of the NRW Reduction Guideline for use by WSB, the NRW Reduction Manual for use by WSP and Handbooks for use by technical staffs. Furthermore, KEWI has established new training course on NRW reduction, so it is desired to actualize the reduction of NRW ratio by applying materials that have been developed and training courses.

For sustainable NRW reduction, GOK requested the GOJ technical cooperation to strengthen capacity of the responsible organization to enhance the basic knowledge and the technical capacity for tackling NRW issue.

II. OUTLINE OF THE PROJECT

Outline of the Project is described in the Logical Framework (Project Design Matrix: PDM) (Annex 1) and the tentative Plan of Operation (PO, Annex 2). The PDM and PO shall be finalized in the additional survey within 3 months after the Project commencement.

1. Input

(1) Input by JICA

JICA will take, at its own expense, the following measures according to the normal procedure under the Technical Cooperation.

(a) Dispatch of Experts

- Chief adviser/NRW management
- NRW reduction specialist(s)
- Customer Management/Billing collection
- Training management
- Information/Public relation management
- Other experts if necessary

(b) Training

- Training in Japan (and/or in third country)
- (c) Machinery and Equipment
The equipment to be provided to the Kenyan side in the Project are tentatively itemized shown in Annex-3

- (2) Input by MWI, WASREB, KEWI and Pilot WSPs
MWI, WASREB, KEWI and Pilot Water Service Providers ("Pilot WSPs") will take necessary measures to provide at its own expense:
- (a) Assignments of counterpart personnel and support staff;
 - (b) Payment of per-diem (daily allowance, transportation fee and accommodation fee) to the counterpart personnel;
 - (c) Suitable office space with necessary equipment in MWI, KEWI, and Pilot WSPs;
 - (d) Utilities charges such as electricity, water supply, if any;
 - (e) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;
 - (f) Costs of activities for sensitization and campaigns by MWI
 - (g) Survey cost on the usage of current NRW reduction standards by WASREB
 - (h) Expense for Training of Pilot WSPs at KEWI (short term course)
 - (i) Expense for On-site training in Pilot WSPs by KEWI
 - (j) Expense for On-site ToT in Pilot WSPs
 - (k) Expense for NRW activities of Pilot WSPs
 - (l) Information in obtaining medical service;
 - (m) Available data (including maps and photographs) and information related to the Project;
 - (n) Necessary facilities to the JICA experts for the remittance as well as utilization of the funds introduced into Kenya in connection with the implementation of the Project

2. Implementation Structure

Implementation Structure of the Project is given in the Annex 4. The roles and assignments of relevant organizations are as follows:

(1) MWI

(a) Project Director

Director of Department of Water Services, MWI will be responsible for overall administration and implementation of the Project.

(b) Project Manager

Deputy Director of Operation and Maintenance, State Department of National Water Services, MWI will be responsible for daily operation of the Project, and administration and implementation of activities, related to output 1 and 5.

(2) WASREB

Chief Executive Officer, WASREB will be responsible for administration and implementation of activities, related to output 2.

(3) KEWI

Director, KEWI will be responsible for administration and implementation of activities, related to output 3.

(4) Pilot WSPs

Managing Directors, Pilot WSPs will be responsible for administration and implementation of activities, related to output 4.

(5) JICA Experts

The JICA experts will give necessary technical guidance, advice and recommendations to MWI, WASREB, KEWI, and Pilot WSPs on any matters pertaining to the implementation of the Project.

(6) Joint Coordinating Committee (JCC)

Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC will be held at least twice a year and whenever deems it necessary. JCC will approve an annual work plan, review overall progress, conduct evaluation of the Project, and exchange opinions on major issues that arise during the implementation of the Project. A list of JCC members is shown in the Annex 5.

3. Project Site(s) and Beneficiaries

Project Area: Kenya

Beneficiaries: Staffs of MWI, WASREB, KEWI, Urban WSPs

Pilot WSPs would be selected during the additional survey for three (3) months from the commencement of the Project.

4. Duration

Five (5) years (including the additional survey within 3 months)

5. Reports

(1) Monitoring Sheet on bi-annual basis until the project completion (every six (6) months).

(2) Also, Project Completion Report shall be drawn up one (1) month before the termination of the Project.

6. Environmental and Social Considerations

MWI, WASREB, and KEWI agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

III. UNDERTAKINGS OF GOK

1. GOK will take necessary measures to:

(1) ensure that the technologies and knowledge acquired by the Kenya nationals as a result of Japanese technical cooperation contributes to the economic and social development of Kenya, and that the knowledge and

experience acquired by the personnel of Kenya from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and

- (2) grant privileges, exemptions and benefits to the JICA experts above and their families, which are no less favorable than those granted to experts and members of the missions and their families of third countries or international organizations performing similar missions in the Republic of Kenya.
2. MWI will take necessary measures to conclude MOU with Pilot WSPs (in particular, Embu and Meru, which is supposed to start the NRW Reduction activities in the first year of the Project) and Counties responsible of Pilot WSPs for timely implementation of the Project for three purposes as below;
- a) To involve Counties for smooth implementation of the Project;
 - b) To acquire budget for NRW Reduction activities of Pilot WSPs; and
 - c) To confirm and agree the inputs and undertakings of Pilot WSPs.

An example MOU is shown in Annex-6.

3. GOK will take necessary measures to:
- (1) provide security-related information as well as measures to ensure the safety of the JICA experts;
 - (2) permit the JICA experts to enter, leave and sojourn in the Republic of Kenya for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees.
 - (3) exempt the JICA experts from taxes and any other charges on the equipment, machinery and other material necessary for the implementation of the Project;
 - (4) exempt the JICA experts from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to them and/or remitted to them from abroad for their services in connection with the implementation of the Project; and
 - (5) meet taxes and any other charges on the equipment, machinery and other material, referred to in II-7 above, necessary for the implementation of the Project.
4. GOK will bear claims, if any arises, against the JICA experts resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Project, except when such claims arise from gross negligence or willful misconduct on the part of the JICA experts.

IV. MONITORING AND EVALUATION

JICA and MWI, WASREB, KEWI will jointly and regularly monitor the progress of the Project through the Monitoring Sheets based on the PDM and PO. The Monitoring Sheets shall be reviewed every six (6) months.

Also, Project Completion Report shall be drawn up one (1) month before the

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termination of the Project.

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting for the Project, MWI, WASREB and KEWI will take appropriate measures to make the Project widely known to the people of Kenya.

VI. Misconduct

If JICA receives information related to suspected corrupt or fraudulent practices in the implementation of the Project, MWI, WASREB, KEWI and relevant organizations shall provide JICA with such information as JICA may reasonably request, including information related to any concerned official of the government and/or public organizations of Kenya.

MWI, WASREB, KEWI and relevant organizations shall not, unfairly or unfavorably treat the person and/or company which provided the information related to suspected corrupt or fraudulent practices in the implementation of the Project.

VII. MUTUAL CONSULTATION

JICA and MWI, WASREB, KEWI will consult each other whenever any major issues arise in the course of Project implementation.

VIII. AMENDMENTS

The Record of Discussions may be amended by the Minutes of Meetings between JICA, MWI and The National Treasury.

The Minutes of Meetings will be signed by authorized persons of each side who may be different from the signers of the Record of Discussions.

Annex -1 Tentative Logical Framework (Project Design Matrix: PDM)

Annex -2 Tentative Plan of Operation

Annex -3 List of equipment

Annex -4 Implementation Structure of the Project

Annex -5 A List of Proposed Members of Joint Coordinating Committee

Annex -6 An example of MOU

Annex -7 Monitoring Form

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MAIN POINTS DISCUSSED

I. Roles NRW Unit of MWI

NRW Unit of MWI has the following roles:

- a) Formulation of national policies and strategies for NRW reduction;
- b) Coordination of NRW reduction activities of related organizations; and
- c) Promotion of NRW reduction activities including sensitization of Counties.

II. Additional Survey

Both sides also agreed that the additional survey (within 3 months) will be conducted to review/decide on the following items upon commencement of the Project:

- a) Activities of Output 1. As official roles of NRW Unit is yet to be approved;
- b) Pilot WSPs of Output 4. Other than leading WSPs (Embu and Meru), more detail capacity assessment of WSPs and coordination with other development partners are required;
- c) Necessary equipment for the Project;
- d) Training in Japan or the third country

III. Terminology of WSPs in the Project

For the clarification purpose, both sides agreed with the following terminology of WSPs:

- (1) Target WSPs:
All Urban WSPs
- (2) Pilot WSPs:
Urban WSPs that the activities of Output 4 are conducted.
(Selection Criteria is described in XII)
- (3) Leading WSPs:
Pilot WSPs which have experiences of implementing JICA projects, and capacity and willingness to support other WSPs, namely Embu and Meru WSPs.

IV. Selection Criteria of Pilot WSPs

In addition to the two leading WSPs, as indicated above, the additional survey will be conducted at the inception stage of the Project to select seven (7) candidate WSPs, i.e., one (1) WSP each from seven (7) WSBs excluding Tana WSB using the following criteria. For project implementation, four (4) Pilot WSPs will be further prioritized as the first group of cooperation to be continued for three years. The remaining three (3) Pilot WSPs are the second group subject to review at the third year for their suitability and progress of the first group. For the selection of Pilot WSPs, factors such as capacity, ownership

and geographical distribution will be considered in addition to the criteria below:

Criteria

- Urban WSPs (of Very Large, Large, and Medium, as defined by WASREB's Impact report) ;
- WSPs locations clarified by JICA's security guideline;
- WSPs that are not receiving other development partners' assistance with similar activities of the Project;
- WSPs that have established NRW units;
- O&M Cost Recovery is 80 % or more;
- Metering Ratio is 75% or more;
- Water Coverage Ratio is 30% or more; and
- Water Service Hours is 10 hour or more.

V. Related Activities of other development partners

The activities of many development partners, international/national governmental /non-governmental organizations in the water sector of Kenya. Other development partners have formulation plans or implementing NRW-related projects. The selection of Pilot WSPs should be considered carefully. The project activities should also be carefully studied to prevent the overlapping of activities by the other development partners.

VI. Concluding Memorandum of Understanding (MOU)

Upon the completion of selection of Pilot WSPs, MWI will take necessary measures for the signing of MOU between Water Services Board and Pilot WSPs (initially, Embu and Meru whose activities will commence from the first year of the Project) which will be witness by MWI and Counties responsible for Pilot WSPs for smooth implementation of the Project with the following purposes:

- a) to involve Counties for smooth implementation of the Project;
- b) to acquire budget for NRW reduction activities of Pilot WSPs; and
- c) to confirm and agree the inputs and undertakings of Pilot WSPs.

VII. Flexible change of the Project design, output and activities

Both sides agreed that the Project design, output and activities may be reviewed and changed if roles of each organization were changed by Water sector reform result.

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Project Design Matrix

Version 0
Dated

Project Title: Project for Strengthening Capacity in Non-Revenue Water Reduction

Implementing Agency: MWI, WASREB, KEWI

Target Group: Urban WSPs

Period of Project: 5 years from the date when the first JICA Expert is dispatched

Project Site: The entire country of Kenya

Pilot Site: Embu, Meru, and others

	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal Under NRW reduction support mechanism, Urban WSPs enhance NRW reduction activities.	1. X of Urban WSPs participate knowledge sharing activities established by the Project. 2. X of pilot Urban WSPs continue achieving target(s) set by the annual NRW reduction plan. 3. NRW annual report is continuously produced and disseminated.	MWI NRW Unit annual reports Pilot WSPs annual NRW reduction plans	NRW reduction remains as priority of MWI and WSPs.		
Project Purpose A NRW reduction support mechanism is established for Urban WSPs to implement NRW reduction activities.	X of pilot Urban WSPs continue achieving targets set by the annual NRW reduction plan for two years.	NRW reduction plans Platform (online) Impact reports Project reports JCC meeting minutes	NRW reduction remains as priority of MWI and WSPs.		
Outputs 1. Promotion and coordination of NRW reduction activities by MWI NRW Unit are strengthened.	1-1 All County representatives participate NRW related seminar(s). 1-2 NRW reduction campaigns are conducted semi annually. 1-3 NRW reduction annual reports are produced.	Materials for County seminar List of seminar participants Campaign materials NRW Unit staff positions are fulfilled. Project reports JCC meeting minutes	Project budget of the CPs is secured. NRW Unit staff positions are fulfilled.		
2. Use of NRW reduction standards by Urban WAPs are promoted by WASREB.	2-1 NRW reduction standards are revised by year X. 2-2 Revised NRW reduction standards are disseminated to all Urban WSPs through workshop (s).	Revised NRW reduction standards Workshop program and list of participants Project reports JCC meeting minutes NRW reduction annual reports	Current WASREB's role and authority remains.		
3. NRW related training capacity of KEWI is strengthened.	3-1 KEWI conducts NRW reduction courses with contents incorporating on-site trainings and revised course materials. 3-2 Evaluations by the NRW course participants is higher than before the revision of course materials. 3-3 0% of NRW course participants formulate the workplans.	Revised course materials Course participants' evaluation sheets Project reports JCC meeting minutes NRW reduction annual reports Trace studies	KEWI continues to offer NRW short courses. Project budget of the CPs is secured.		

<p>4. NRW planning and/or implementation capacity of pilot Urban WSPs is enhanced.</p> <p>4-1 More than X of pilot Urban WSPs continuously make the annual NRW reduction plan based on the review of previous year's implementation.</p> <p>4-2 More than X of pilot Urban WSPs continuously implement the annual NRW reduction plan formulated in 4-1.</p> <p>4-3 More than X of pilot Urban WSPs are able to implement skills and activities that pilot Urban WSPs were not able to adopt prior to the Project.</p> <p>4-4 More than X of pilot Urban WSPs are able to implement priority activities indicated in the NRW reduction plan.</p> <p>4-5 More than X of pilot Urban WSPs train all of NRW personnel.</p>	<p>NRW reduction annual plans</p> <p>NRW reduction plans</p> <p>IMPACT reports</p> <p>Project reports</p> <p>JCC meeting minutes</p> <p>NRW reduction annual reports</p>	<p>Trained personnel do not leave WSPs</p> <p>Drastic climatic changes such as draught will not affect the water resources.</p> <p>Project budget of the CPs is secured.</p>
<p>5. Experiences and knowledge of NRW reduction activities are shared among Urban WSPs.</p>	<p>Completed lessons learnt</p> <p>NRW regular meeting minutes and list of participants</p> <p>Project reports</p> <p>JCC meeting minutes</p> <p>NRW reduction annual reports</p>	<p>NRW reduction remains as priority of WSPs.</p>
<p>Activities</p>		
<p>1.1 MWI NRW Unit, in cooperation with WASREB, produces NRW annual reports which include NRW reduction data.</p> <p>1.2 MWI NRW Unit plans and implements NRW reduction sensitization activities for the Counties.</p> <p>1.3 MWI NRW Unit plans and implements NRW reduction campaigns.</p> <p>1.4 MWI NRW Unit conducts reviews of KEWI NRW courses.</p> <p>1.5 MWI NRW Unit conducts reviews of WASREB's NRW reduction activities.</p> <p>2.1 WASREB conducts a survey of the usages of current NRW reduction standards.</p> <p>2.2 Based on the survey result as well as Outputs 4 and 5, WASREB revises the NRW reduction standards.</p> <p>2.3 WASREB promotes revised NRW reduction standards through workshop(s).</p> <p>2.4 WASREB incorporates the review results of NRW reduction activities by MWI NRW Unit in their activities.</p> <p>2.5 WASREB monitors and evaluates the usages of revised NRW standards.</p> <p>3.1 KEWI studies current status of NRW reduction courses and its challenges.</p> <p>3.2 KEWI reviews NRW reduction training strategies and course contents.</p> <p>3.3 KEWI, in collaboration with leading WSPs (Embu and Meru, etc.), conducts on-site NRW trainings.</p> <p>3.4 KEWI reflects on-site NRW trainings into NRW course contents and materials.</p> <p>3.5 KEWI incorporates the results of review by MWI NRW Unit into NRW course contents.</p> <p>3.6 KEWI conducts trace studies of NRW reduction course participants.</p> <p>4.1 The Project team conducts a survey of Urban WSPs and selects pilot Urban WSPs.</p> <p>4.2 Each pilot WSP conducts analyses of current NRW reduction activities and identifies its challenges.</p> <p>4.3 Each pilot WSP identifies measures to solve challenges and formulates the NRW reduction plan.</p> <p>4.4 Each pilot WSP formulates the annual NRW reduction plan including financial schedule based on the NRW reduction plan.</p> <p>4.5 Each pilot WSP implements the annual NRW reduction plan.</p> <p>4.6 Each pilot WSP evaluates and analyzes implementation results and revise plans.</p> <p>4.7 Each pilot WSP produces the NRW reduction activity report annually.</p> <p>4.8 Each pilot WSP holds regular NRW reduction meetings attended by relevant departments of WSP.</p> <p>5.1 MWI NRW Unit organizes NRW related regular meetings in cooperation with other relevant organizations.</p> <p>5.2 WASREB compiles case studies/lessons learnt about NRW reduction activities.</p>	<p>The Japanese Side</p> <p>1. Experts</p> <p>2. Equipment/Tools/Materials</p> <p>3. Japan or third country training</p>	<p>The Kenya Side</p> <p>1. Counterpart personnel</p> <p>2. Equipment/Tools/Materials</p> <p>3. Facility/Office Space</p> <p>Pre-Conditions</p> <p><Issues and countermeasures></p>

Note: "X" is the indicator that will be decided after the project commencement.

10/1

Objective: NRW planning and implementation, capacity of pilot Urban WSPs is enhanced.

- 4.1 The project team conducts a survey of Urban WSPs and selects pilot Urban WSPs.
- 4.2 Each pilot WSP conducts analyses of current NRW reduction activities and prepares its baseline.
- 4.3 Each pilot WSP identifies measures to reduce NRW and formulates the NRW reduction plan.
- 4.4 Each pilot WSP compares the initial NRW reduction plan including financial requirements based on the NRW reduction plan.
- 4.5 Each pilot WSP implements the urban NRW reduction plan.
- 4.6 The pilot WSPs measure the initial NRW reduction plan.
- 4.7 2 of 4 pilot WSPs implement the annual NRW reduction plan.
- 4.8 The pilot WSPs implement the annual NRW reduction plan.
- 4.9 Each pilot WSP evaluates and analyzes implementation results and reports plans.
- 4.10 Each pilot WSP produces the annual NRW reduction activity report annually.
- 4.11 Each pilot WSP holds regular NRW reduction meetings attended by relevant stakeholders of WSP.

Objective: Experience and knowledge of NRW reduction activities are shared among Urban WSPs.

- 5.1 WASHREG organizes NRW related regular meetings in cooperation with other relevant organizations.
- 5.2 WASHREG conducts case studies/forums/round tables about NRW reduction activities.

Activity	1st Year		2nd Year		3rd Year		4th Year		5th Year		Remarks	Issue	Solution
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct			
4.1													
4.2													
4.3													
4.4													
4.5													
4.6													
4.7													
4.8													
4.9													
4.10													
4.11													
5.1													
5.2													

Legend: Not planned in budget Planned/confirmed

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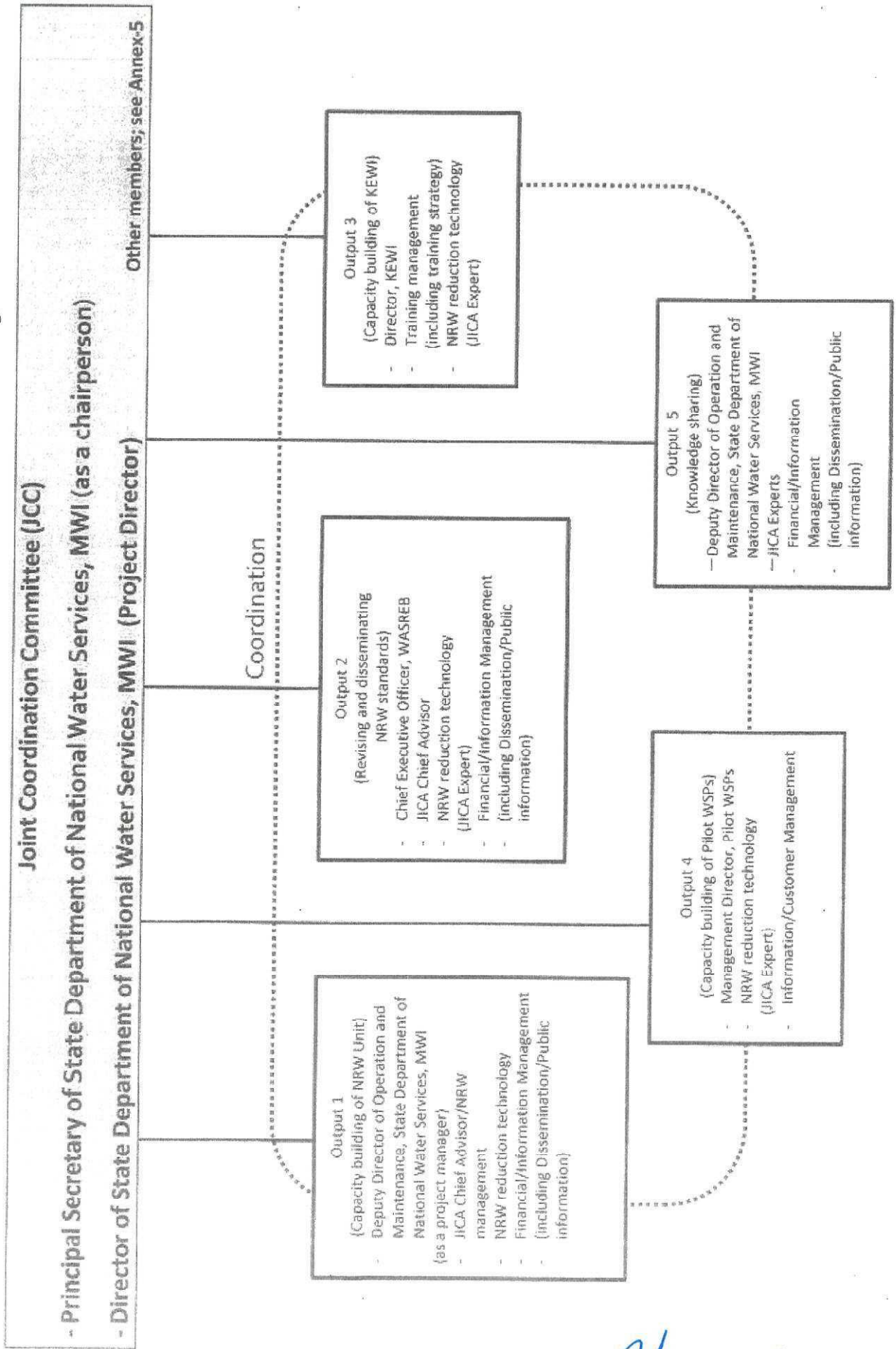
Table: Tentative List of Equipment

Name of Equipment
- Portable ultra-sonic flow meter(s)
- Leak detector(s)
- Water pressure gauge(s)
- Bulk meter(s)
- Data logger(s)
- Water pressure gauge(s)
- Meter test bench(s)
- Noise leak correlator
- Leak detection demonstration platform
- GPS (s)
- Laptop computer
- Multi copy machine (Scanner, printer and copy functions. A-3 size)
- Digital camera
- Projector
- Other necessary equipment for monitoring and supporting NRW reduction activities in Pilot WSPs






Implementation Structure of the Project



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List of Members of Joint Coordinating Committee

Composition

1. Chairperson:
Principal Secretary, State Department of National Water Services, MWI
2. Project Director:
Director of Department of Water Services, MWI
3. Project Manager:
Deputy Director of Operation and Maintenance, State Department of National Water Services, MWI
4. Other Members
 - (1) The Kenya side:
 - 1) Head of Donor Coordination, MWI
 - 2) Chief Executive Officer, WASREB
 - 3) Director, KEWI
 - 4) Management Directors, Pilot WSPs (including, Leading WSPs)
 - 5) Other personnel assigned by Kenyan side
 - (2) The Japanese side:
 - 1) Chief Advisor
 - 2) Other experts
 - 3) Representatives of JICA Kenya Office
 - 4) Other personnel as mutually agreed upon

Note: Officials of the Embassy of Japan in the Republic of Kenya may attend the committee meeting.

(Example)

Memorandum of Understanding for
"PROJECT FOR STRENGTHENING CAPACITY IN
NON-REVENUE WATER REDUCTION"

This Memorandum of Understanding ("MoU") is made and entered by and among the following four parties:

[Name of WSB] as one party, represented by [Name, Position]
("[Abbreviated Name of WSB]");

and

[Name of Water Service Provider] as one party, represented by [Name, Position]
("[Abbreviated Name of WSP]");

witness by

Ministry of Water and Irrigation as one party, represented by [Name, Position]
("MWI");

and

[Name of County Government] as one party, represented by [Name, Position]
("the County");

1. Ground of the MoU

Based on the result of the survey conducted by JICA, [Abbreviated Name of WSP] has been selected as a Pilot Water Service Provider (WSP) of "Project for Strengthening Capacity in Non-Revenue Water Reduction" (the Project). This MoU is an agreement between the four parties specified above in regard to smooth implementation of the Project.



2. Dates of Validation and Completion of the MoU

This MoU shall be valid from the date of MoU signing, [Date, Month, Year] and till the completion of the Project,

3. Amendments of the MoU

Any necessary amendments and additions to the MoU may be negotiated among the four parties. Agreed amendments and additions shall be evidenced by a written document signed by all the parties.



Terms of Reference

1. The County shall support [Abbreviated Name of WSP], as its lawful owner, for the implementation of Non-Revenue Water Reduction activities of the Project.
2. [Abbreviated Name of WSP] shall be responsible for the following particulars during the period of the Project. Some of the particulars are for experts from Japan International Cooperation Agency (JICA). The County shall support [Abbreviated Name of WSP]'s smooth implementation of NRW reduction activities in regard to the particulars.
 - (a) Assignments of counterpart personnel and support staff
 - (b) Payment of per-diem (daily allowance, transportation fee and accommodation fee) to the counterpart personnel
 - (c) Provision of suitable workspace with furniture and equipment for JICA experts (for at least 4 personnel)
 - (d) Utilities charges such as electricity, water supply, if any
 - (e) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA
 - (f) Expense for NRW activities
 - (g) Provision of information on available medical services for JICA experts
 - (h) Provision of available data (including maps and photographs) and information necessary for project activities

[Name]
Chief Executive Officer
[Name of WSB]

[Name]
Managing Director
[Name of WSP]

Witness by

[Name]
[Position]
[Department]
Ministry of Water and Irrigation

[Position]
[Department]
[Name of County Government]

TO CR of JICA Kenya OFFICE

PROJECT MONITORING SHEET

Project Title :Version of the Sheet: Ver.●● (Term: Month, Year - Month, Year)Name:Title: Chief AdvisorSubmission Date:**I. Summary****1 Progress**

1-1 Progress of Inputs

1-2 Progress of Activities

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 Republic of Kenya

1-8 Progress of Environmental and Social Considerations (if applicable)

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

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

2-1 Detail

2-2 Cause

2-3 Action to be taken

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of the Republic of Kenya)

3 Modification of the Project Implementation Plan

3-1 PO

3-2 Other modifications on detailed implementation plan

(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)

4 Preparation of Gov. of the Republic of Kenya toward after completion of the Project

II. PDM&PO as Project Monitoring Sheet I & II