



TRAINING AND DIALOGUE PROGRAMS

GENERAL INFORMATION ON

Water Supply Administration for Better Management of Water Supply Services (A)

集團研修「水道管理行政(A)」

JFY 2012

<Type: Solution Creation / 類型：課題解決促進型>

NO. J12-00796 / ID. 1280915

From June 24nd, 2012 to July 7th, 2012

This information pertains to one of the Training and Dialogue Programs of the Japan International Cooperation Agency (JICA), which shall be implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.

I. Concept

Background

Securing safe drinking water not only constitutes one of the basic human needs essential for improving health and sanitation standards but also contributes to upgrading living standard.

However many countries, mostly developing countries, are in a tough situation as shown in the number of the people without access to safe drinking water reaching above 1.1 billion (in the year 2000). Therefore, in adopting the Millennium Development Goals (MDGs), the countries of the world pledged to reduce by half the proportion of people without access to safe drinking water by 2015. In many large cities in developing countries, it is desired to build and maintain the safe drinking water supply systems along with the expansion of the poor part of the cities and increasing demand for water.

This training program is designed for administrators in the field of water service management and planning/project formulation to acquaint themselves with Japanese experiences on water supply administration and technologies that Japan has accumulated. This will eventually contribute not only to the capacity building of the administrators on administration, management, and operation and maintenance, but also will contribute to the supply of safe drinking water for more and more people in respective countries.

NOTE: During this course, participants will have a session to discuss sound management of waterworks closely and intensively with executive officers in Japanese waterworks bureaus and private companies.

II. Description

1. Title (J-No.):

Water Supply Administration for Better Management of Water Supply Services (A)
(J12-00796)

2. Period of program:

Duration of whole program:	April 2012 to January 2013
Preliminary Phase (in home countries):	April 2012 to June 2012
Core Phase in Japan:	June 24nd, 2012 to July 7th, 2012
Finalization Phase (in home countries):	July 2012 to January 2013

3. Target Countries:

Azerbaijan, Bosnia and Herzegovina, Ethiopia, Former Yugoslav Republic of Macedonia, Guyana, Iraq, Jordan, Lebanon, Morocco, Rwanda, Sudan, Saint Vincent and the Grenadines, Tanzania, Zambia, Zimbabwe

4. Overall Goal:

To secure safe drinking water through improvement of the relevant issues on water supply administration

5. Objective:

To understand water supply administration, management, and operation and maintenance in Japan, in particular, water quality control, measures against non-revenue water and water supply standards, to clarify the future subjects through sharing information and to draft improvement plan on the feasible basis

Expected Outputs Module:

- (1) Sharing information on current situations and key problems in the participating countries through country report presentations, discussions, lectures and field visit, to draft and submit practical improvement plan.
- (2) To be able to understand water supply administration, management and operation and maintenance in Japan, and prioritize the issues to promote better management of water supply services
- (3) To be able to understand water quality management, in particular, Water Safety Plans, and prioritize the issues to promote better management of water supply services
- (4) To be able to understand the countermeasures for reduction of non-revenue water (leakage) and prioritize the issues to promote better management of water supply services
- (5) To be able to understand the water supply service standards including water supply management guidelines and performance indicators, and prioritize the issues to promote better management of water supply services

6. Eligible / Target Organization:

Relevant organizations in charge of water supply administration

7. Total Number of Overseas Participants: 14

8. Language: English

9. Contents: The program consists of the following components:

Preliminary Phase in a participant's home country (April 2012 to June 2012) <i>Participants make required preparation for the Program in the respective countries.</i>	
Modules	Activities
For All applicants	
Country Report Outline	Submission of the presentation file with application form by May 14th, 2012 (See ANNEX 1)
Only for accepted participants	
Country Report	Submission of the document file by June 14th, 2012 (See ANNEX 2)
Problem Analysis Matrix Drafting Improvement Plan	Submission of the document file by June 14th, 2012 (See ANNEX 3, 4)

Core Phase in Japan (June 24th, 2012 to July 7th, 2012)*Participants attend the Program implemented in Japan.*Detail of the contents of Core Phase in Japan (**Tentative**)

Date		AM (9:30-12:00)	PM (13:30-16:00)
24-Jun	Sun	Arrival in Tokyo, Japan	
25-Jun	Mon	Briefing (09:00-12:00)	Programme Orientation (15:00-16:00) Review of Yokohama Forum (16:00-17:00) (Input: Sound Management of Urban Water Service; From vicious cycle to a virtuous cycle)
26-Jun	Tue	10:00- Courtesy Call to the Ministry of Health, Labour and Welfare (MHLW) 10:30- "Water supply Administration in Japan - History of drafting Water Works Law and Drinking-Water Quality Standards" (Prof. Magara, TOKIWAMATSU Educational Foundation)	Water supply Administration in Japan: Current situations (Water Supply Division, Health Service Bureau, MHLW)
27-Jun	Wed	Public Health and Water Supply, Video [Life and Water], (Prof. Kunikane : Univ. of Shizuoka)	11:00- Presentation of Country Report (15 minutes presentation by Participant) (Prof. Kunikane : Univ. of Shizuoka) (13:30 - 17:00)
28-Jun	Thu	Group Work "Sharing Information of Country Report and 1 st Draft Improvement Plan" based on Problem Analysis Matrix	Water quality control: Water Safety Plans: Concept & Procedures (13:30 - 17:00)
29-Jun	Fri	Experiences of Tokyo Waterworks Bureau (ASAKA Water Treatment Plant, Bureau of Waterworks, Tokyo Metropolitan Government)	Visit to Advanced Water Treatment Plant : (ASAKA Water Treatment Plant, Bureau of Waterworks, Tokyo Metropolitan Government)
30-Jun	Sat	FREE	
1-Jul	Sun	FREE	
2-Jul	Mon	Appropriate Management of Water Supply Services: International Water Supply Service Standards and Japan's Guidelines/Management of Water Supply Services & Water Quality by Performance Indicators (PI) (Bureau of Waterworks, Tokyo Metropolitan Government)	Measures for reduction of non-revenue water: Relation to financial management & Water Quality (Oriental Consultants Co., Ltd.)
3-Jul	Tue	Industrial Forum1: Achievements and Contributions through Overseas Activities of Japanese Private Companies (Federation of Japan Water Industries, Inc.)	Industrial Forum2: Exchange of information with Japanese Experts from Private Sector (Federation of Japan Water Industries, Inc.)

4-Jul	Wed	Water Linking1: Sound Management of Urban Water Supply Service: Vicious Cycle to Virtuous Cycle (JWWA)	Water Linking2: Prepare for the next! Crisis Management (Saitama) and Asset Management -Discussion on Sound Management of Urban Water Supply Service with Japanese Experts (JWWA & Saitama) (13:30 - 17:00)
5-Jul	Thu	Measures for Human Resources Development: Study visit to Training & Technical Development Center (Bureau of Waterworks, Tokyo Metropolitan Government) Including Demonstration of Leakage Detection Training ~ 14:00	Preparation for improvement plan (14:00-17:00)
6-Jul	Fri	Improvement Plan Presentation (15 minutes presentation by Participant)	Improvement Plan Presentation (up to 15:00) Evaluation Meeting (15:30-16:30) Closing Ceremony (17:00-)
7-Jul	Sat	Departure	

Finalization Phase in a participant's home country (July 2012 to January 2013)

. Participating organizations produce final outputs by making use of results brought back by participants. This phase marks the end of the Program.

Expected Module Outputs	Activities
To disseminate the knowledge acquired in Japan	<ul style="list-style-type: none"> - Introduction of the idea of the improvement plan in participating organizations (ex. presentation in respective organizations) - Submission of the report on the result / progress of the Improvement Plan by January 2013 (6 months after the training) (Detail will be explained in Japan)

(*1) The outcome of the seminar requested for participants to prepare and make presentation is the improvement plans drafted by each participant respectively. In order to facilitate drafting the improvement plans through the seminar, the participants are required to prepare a first draft of improvement plan and submit to JICA prior to come to Japan. These requirements for participating in the seminar should be noted in the General Information beforehand.

Important Remarks:

1. Participants in this course will make presentations **on Country Report Outline, Country Report and Problem Analysis Matrix** at the beginning of the course. For this purpose, participants are highly recommended to bring visual materials for their presentation, i.e. M/S Power Point files etc. About 20 minutes including Q&A session are allocated to each participant. The Country Report and the Matrix will be the base of an Improvement Plan. Please see ANNEX 1, 2 and 3 for detailed information.

III. Conditions and Procedures for Application

1. Expectations for the Participating Organizations

- (1) This program is designed primarily for organizations that intend to address specific issues or problems identified in their operation. Participating organizations are expected to use the program for those specific purposes.
- (2) This program is enriched with contents and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the program to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.
- (3) As this program is designed to facilitate organizations to come up with concrete solutions for their issues, participating organizations are expected to make due preparation before dispatching their participants to Japan by carrying out the activities of the Preliminary Phase described in section II -9.
- (4) Participating organizations are also expected to make the best use of the results / outputs achieved by their participants.

2. Nominee Qualifications

The Japanese Government expects to accept officers who meet the following qualifications.

- (1) To be executive officers or senior administrative officers in charge of water supply administration or waterworks bureau,
- (2) To be expected to continue their careers in the water supply field,
- (3) To have a sufficient command of both discussion and presentation in English,
- (4) To be in good health, both physically and mentally, to participate in all of the program in Japan

※ Pregnant participants are strictly requested to complete the required procedures before departure in order to minimize the risk for their health. The procedures include ①letter of the participant's consent to bear economic and physical risks ②letter of consent from the participant's supervisor ③letter of consent from your Embassy in Japan, ④medical certificate. Please ask National Staff in JICA office for the details.

3. Required Materials

For application

- (1) Application Form
- (2) Country Report Outline (Annex 1)

Deadline: (1), (2) May 14th, 2012

For ACCEPTED participants

- (3) Country Report Document (Annex 2)
- (4) Problem Analysis Matrix (Annex 3)
- (5) Drafting Improvement Plan (Annex 4)
- (6) Country Report Presentation Material : Information based on Country Report

Outline, Country Report and Problem Analysis Matrix

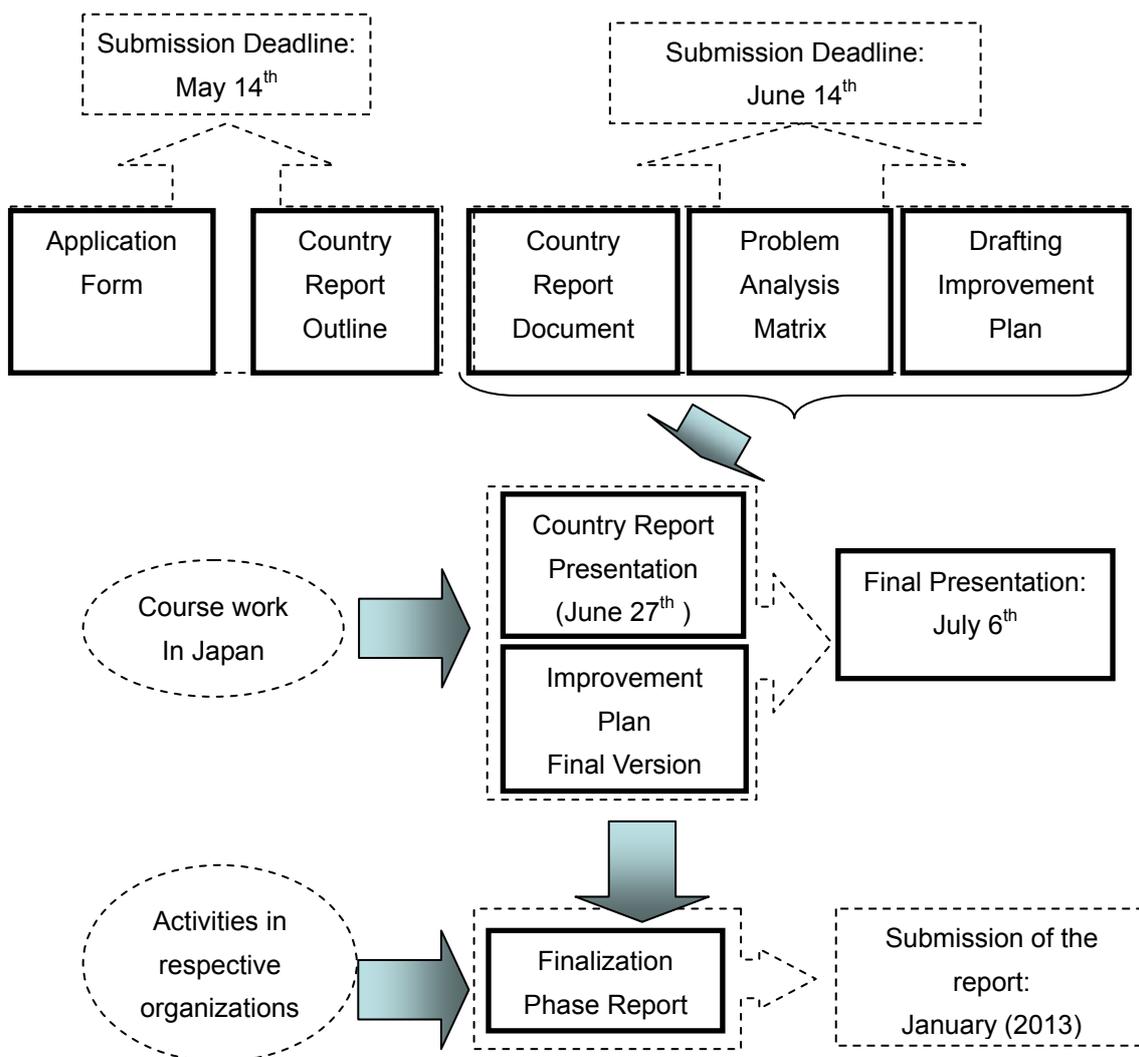
* i.e. M/S Power Point files etc. About 20 minutes including Q&A session are allocated to each participant.

Submission: (3), (4), (5), (6) June 14th, 2012

Please submit to the following e-mail address.

tictee@jica.go.jp

<Materials on the training course>



4. Procedure for Application and Selection

(1) Submitting the Application Documents

Closing date for application to the JICA Tokyo International Center in JAPAN:

May 14th, 2012.

Note: Please confirm the closing date set by the respective countries' JICA offices or Embassies of Japan of your countries to meet the final date in Japan.

(2) Document Check Process

After receiving the document(s) through due administrative procedures in the respective governments, the respective countries' JICA offices or Embassies of Japan shall check the documents submitted, and send them to JICA Tokyo International Center in Japan. Document Checking shall be made by the JICA Center and the organizations concerned such as Ministry of Health Labour and Welfare, Japan.

(3) Notice of Acceptance

Notification of the acceptance shall be made by the respective countries' JICA offices or Embassies of Japan to the respective Governments by **May 28th, 2012**.

5. Conditions for Attendance:

- (1) to follow the schedule of the program,
- (2) not to change the program subjects or extend the period of stay in Japan,
- (3) not to bring any members of their family,
- (4) to return to their home countries at the end of the program in Japan according to the travel schedule designated by JICA,
- (5) to refrain from engaging in political activities, or any form of employment for profit or gain,
- (6) to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances participants may be required to return part or all of the training expenditure depending on the severity of said violation.
- (7) to observe the rules and regulations of their place of accommodation and not to change the accommodation designated by JICA

IV. Administrative Arrangements

1. Organizer: JICA Tokyo International Center (JICA TOKYO)

2. Implementing Partner:

Japan International Corporation of Welfare Services (JICWELS)

URL:<http://www.jicwels.or.jp>

3. Special Cooperation Organization

Ministry of Health, Labour and Welfare

URL: <http://www.mhlw.go.jp/english/index.html>

4. Travel to Japan

(1) Air Ticket

The cost of a round-trip ticket between an international airport designated by JICA and Narita Airport in Japan will be borne by JICA.

(2) Travel Insurance

Term of Insurance: From arrival to departure in Japan. The traveling time outside

Japan shall not be covered.

5. Accommodation in Japan

JICA will arrange the following accommodations for the participants in Japan:

JICA Tokyo International Center (JICA TOKYO)

Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan

TEL: 81-3-3485-7051 FAX: 81-3-3485-7904

(where "81" is the country code for Japan, and "3" is the local area code)

If there is no vacancy at JICA TOKYO, JICA will arrange alternative accommodations. Please refer to facility guide of JICA Tokyo at its URL, <http://www.jica.go.jp/english/contact/domestic/pdf/welcome.pdf>

6. Expenses

The following expenses will be provided for the participants by JICA:

- (1) Allowances for accommodation, living expenses, outfit, and shipping
- (2) Expenses for study tours (basically in the form of train tickets.)
- (3) Free medical care for participants who become ill after arriving in Japan (costs related to pre-existing illness, pregnancy, or dental treatment are not included)
- (4) Expenses for program implementation, including materials

For more details, please see p. 9-16 of the brochure for participants titled "KENSU-IN GUIDE BOOK," which will be given to the selected participants before (or at the time of) the pre-departure orientation.

7. Pre-departure Orientation

A pre-departure orientation will be held at the respective countries' JICA offices or Embassies of Japan to provide participants with details on travel to Japan, conditions of the program, and other matters.

V. Annex

Country Report Outline

Each applicant is kindly requested to submit a M/S Power Point file with less than 15 slides which cover the following 6 topics about the individual water supply company/public water supply authority which the applying officer belongs to.

Please make sure to describe the contents based on the 6 topics.

The Country Report Outline should be submitted together with the Application Form.

*Please follow the attached Power Point Sample.

1. Management of water quality

- 1-1. Current situation and major challenges/problems
- 1-2. Current actions against the problems and any achievement
- 1-3. Monitoring System / Plan of Safety of Supplied Drinking Water by your Organization/Regulatory body/ Independent institution/Any
- 1-4. Implementation of Water Safety (*) Plans or similar efforts

(*) Water Safety Plans: refer to the following URL and review before participating in the Course, the Chapter 4 "Water Safety Plans" of the "Guidelines for drinking-water quality, third edition"

URL: http://www.who.int/water_sanitation_health/dwa/gdwq3_4.pdf

2. Reduction of non-revenue water

- 2-1. Current situation and major challenges/problems
- 2-2. Current actions against the problems
- 2-3. Any achievement

3. Water supply service standards

- 3-1. Current situation and major challenges/problems
- 3-2. Current actions against the problems
- 3-3. Any Monitoring by Performance Indicators (PI)

4. Management of water supply service on a self-supporting basis

- 4-1. Current situation and major challenges/problems
- 4-2. Current actions against the problems

5. Major recent achievement in improvement of water supply services/management

6. Expectation for the Japanese private companies

- 6-1. Presentation, information materials, techniques or technologies Japanese water private companies may hold to tackle effectively the problems/issues mentioned from 1 – 5 above.

NOTE: Participants will make presentations *on Country Report Outline, Country Report and Problem Analysis Matrix* at the beginning of the course. Therefore, Please bring *visual materials* i.e. M/S Power Points, etc. for the presentation session. About 20 minutes including Q&A session are allocated to each participant.

Country Report

This country report will be the base of discussion with Japanese experts and formulation of the Improvement Plan. Through this training course, each participant is kindly requested to elaborate an Improvement Plan and make a presentation on it.

The deadline of the country report: June 14th, 2012

Please submit to the following e-mail address. ticttee@jica.go.jp

1. Please describe **your organizational profile** by mentioning the following topics.
 - 1.1 Official name of your organization
 - 1.2 The work of your organization and the service it provides
 - 1.3 Type of your organization (e.g. National government, Branch office of Central government, Local government, Local public corporation etc.)
 - 1.4 Your official position and your own job
 - 1.5 Please attach your organizational chart

2. Please describe **flow chart** (from intake through all process to tap) of one of representative water supply systems in your country or your organization.

3. Please describe the current situation of **water resources** in your country (in your organization) by mentioning the following topics.
 - 3.1 The geographical background (The proportion of forest, residential land, river, etc.)
 - 3.2 The precipitation per one month and/or one year. Please attach the last 10 years data.
 - 3.3 The type of available water resources and those situations
 - 3.4 The intake water volume per one day, per one year
 - 3.5 The type of water resources for the future

4. Please describe the current situation of **policy and regulations** in your country

5. Please describe the current situation of water rates and bill collection system in your country by mentioning the following topics.
 - 5.1 The water rates system
 - 5.2 The bill collection system

5. Please describe the current situation of water quality management in your country/organization.
 - 5.1 Water Source Management
 - 5.2. Please describe the list of the drinking water quality standards/norms/regulations in your country.

5.3 Please describe the current monitoring system / plan of safety of supplied drinking water by your organization/regulatory body/ independent institution/any.

5.4 Please describe the laboratory situations in terms of qualified staff and facilities of the above institutions described.

5.5 Have you tried /implemented the Water Safety (*) Plans or similar efforts?

(*) Water Safety Plans: refer to the following URL and review before participating in the Course, the Chapter 4 "Water Safety Plans" of the "Guidelines for drinking-water quality, third edition"

URL: http://www.who.int/water_sanitation_health/dwq/gdwq3_4.pdf

6. Please describe the current situation of **water supply services** in your country by mentioning the following topics.

- (1) The population ratio to be served and not to be served drinking water
- (2) Proportion of consumers with 24 hours supply, average number of hours per day of water availability to most people
- (3) Does the distribution water use for the potable water directly?
- (4) Non revenue water (NRW)
- (5) Please fill in the attached form "**Form on Present Situation of the Water Supply and Management**"
- (6) Please fill in the attached Questionnaire "**Questionnaire on Major Constraints in Water Supply Sector**"

7. Please describe the current situation of **Private Sector Participation** in your country by mentioning the following topics.

- (1) The status of Private Sector Investment and its area (e.g. Water resource development, Water treatment, Water distribution, Organization management, Bill collection, leakage repair, etc.)
- (2) The current situation of involvement of national government in water supply services (e.g. Water rates, Personnel employment, O/M budgeting, Capital investment, etc.)

8. Please describe the current situation of **Privatization** in your country by mentioning the following topics.

- (1) The current situation of Privatization
- (2) Type of Privatization (e.g. concession, BOOT, BOT, State Owned Company, etc.)
- (3) Future direction of Privatization

9. Other

- (1) If citizen cannot get sufficient water from public water supply system, how do they get water actually? (From private well, rain?)
- (2) The way of assuring secure water for the largest building, for example, the hotel facility
- (3) Sewage system concerned:
 - 1) Existing situation Coverage ratio (several population), Organization of

- the implementation
- 2) Future plan
- (4) Maintenance situation of solid waste disposal:
 - 1) Existing situation
 - 2) Future plan

10. In view of its situations now in your country (in your organization), please describe what are the biggest problems. Please prioritize 3 of them.

Form on Present Situation of the Water Supply and Management

Instructions for completing the form

1. All information provided should be for the fiscal year 2011 or most recent data if 2011 year's data is unavailable (please indicate the year of the data available).
2. Please ensure that all information is provided for the same period (e.g. financial year).
3. For all financial information, please specify in the local currency with equivalent US dollars.
4. When the answer to a question is unknown, please leave blank. Blank cells will be treated as "not available" data.
5. When a value is zero, please enter '0'.

I. Service Area

- 1 Size of Utility's area of Responsibility: (sq. km)
- 2 Size of Utility's present service area: (sq. km)
- 3 Population of Utility's area of responsibility: ()
- 4 Population of Utility's present service area: ()
- 5 Population served by the Utility with piped water supply: ()
- 6 Number of towns served with piped water: ()

II. Infrastructure Description

- 1 Source of raw water (*please tick relevant boxes*)
 - bulk water from another utility / company
 - storage reservoir / impoundment
 - direct river abstraction
 - groundwater
 - other, please specify _____
- 2 What are the main methods of treatment used? (*please tick relevant boxes*)
 - none
 - disinfection
 - filtration

- flocculation and sedimentation
- aeration
- desalination
- other, please specify _____

3 Capacity of production systems: (_____ m³ / day)

4 Length of water distribution network: (_____ km)

5 Capacity of storage in network (_____ m³)

6 Piped water supply connections: ***please specify how many in each category***

Domestic (Households)	Non Domestic (Industrial, commercial, Institutional, other)	TOTAL

7 Number of connections with operating water meters: (_____ km)

8 Typical length of service connection from water main to water meter:
(_____ meters)

III. Water Consumption & Production

1 Volume of water produced by the Utility: (_____ million m³ / year)

2 Volume of water bought in bulk from other utility / company: (_____ million m³ / year)

3 Volume of water metered: (_____ million m³ / year)

4 Estimated un-metered consumption: (_____ % of metered consumption)

5 Estimate of average meter inaccuracy at typical flows rates: (_____ % of metered consumption)

6 Volume of water billed / sold: ***please specify how much (million m³ / year) in each category***

Domestic (Households)	Non Domestic (Industrial, commercial, Institutional, other)	Bulk water sales	TOTAL

IV. Water Supply System Performance

1 Number of customers who received intermittent supply:
(_____ connections)

2 Typical duration of supply (planned and unplanned supply interruptions):
(_____ hours / day)

3 Typical mains water pressure in your pipe network: (_____ meters)

4 Number of water pipe breaks in the distribution network: (_____ # / year)

5 Required number of tests of treated water for residual chlorine: (_____ # / year)

6 Number of tests of treated water for residual chlorine carried out: (# / year)

7 Number of tests of treated water for residual chlorine passed: (# / year)

V. Staff

1 Who does the work in your company: (please tick relevant boxes)

- permanent staff . salaried Government employees
 - permanent staff . with contract
 - casual / part-time . contract staff
 - casual / part-time . wages
 - contracted out to outside company / agency
 - other, please specify
-

2 Number of FTE* staff in the company: ***please specify how many in each category***

Corporate Services (Management, Admin, Finance, Technical, etc.)	Water Supply (O&M, Customer Services, Support Services, etc)	Other non water supply (e.g. wastewater, drainage, environment services)	TOTAL

* FTE = Full Time Equivalent staff (i.e. convert part-time and casual staff to equivalent full time staff)

3 Number of staff that participated in at least one training event during the year:
(staff)

4 Total number of training days ($\sum(\text{participants} \times \text{training event duration})$) in the year:
(days)

5 Proportion of total operating budget used for Human Resource Development
(HRD): (%)

VI. Customers

1 Number of new customers connected to water supply system during the year:
(# / year)

2 Number of customer complaints recorded during the year: (# / year)

3 Means by which customer can make a recorded complaint (***please tick relevant boxes***)

- in person
 - by telephone
 - by email
 - by letter
 - other method, please specify
-

4 How does the Utility find out the views of its customers? (***please tick relevant boxes***)

- from customer interactions (letters, telephone calls, enquiry counter, etc.)

- by responding to customer complaints
- from customer surveys, questionnaires, etc.
- by market research
- other method

5 Typically* what is the connection charge for new customers? **Please specify how much in each category**

Domestic (Households)	Non Domestic (Industrial, commercial, Institutional, other)	Bulk water sales	AVERAGE of all categories

6 Typically* what is the fixed water supply charge / month? **Please specify how much in each category**

Domestic (Households)	Non Domestic (Industrial, commercial, Institutional, other)	Bulk water sales	AVERAGE of all categories

7 Typically* what is the water tariff for metered consumption? **Please specify how much in each category**

Tariff Block	Domestic			Non Domestic			Bulk water sales		
	From	To	Cost/m ³	From	To	Cost/m ³	From	To	Cost/m ³
1.	0			0			0		
2.									
3.**									

Notes:

* Where the Water Utility supplies multiple towns each with their own water charge schedules, please specify the typical tariff schedule nominally for the principal town supplied by the company

** Where there are more than 3 blocks in the tariff schedule please specify the approximate average tariff rates for consumptions above tariff block 2.

8 What would be the monthly water bill for a household consuming 6 m³ of water / month? ()

VII. Questionnaire on Major Constraints in Water Supply Sector

The constraint factors listed may prevent the participant's sector from accelerated development. Mark the appropriate boxes so that they will show whether these factors represent a very severe, severe or moderate impediment to the overall development of the entire sector. Constraints are usually inter-related. Also, constraints ranking is

subjective and will vary depending on the agency that makes the evaluation. However, it may be possible to determine the relative importance among them.

The purpose of ranking the constraints is to identify what kind of efforts should be made to remove or reduce the most severe ones. If the ranking changes appreciably in 5 or 10 years, it means that a certain degree of success has been achieved in the constraint-reduction endeavor.

If changes occurred between 2001 and 2011, all constraints, including those that have not changed, should be entered in the table to give a full picture of the situation at the end of 2011. Please indicate with the mark (✓) for the situation of major constraints in the table below.

Constraints	Rating of constraints		
	Very Severe	Severe	Moderate
1. Lack of definite government policy for the sector			
2. Funding limitations			
3. Inadequate or Outmoded legal framework			
4. Inappropriate institutional framework			
5. Inadequate water resources			
6. Insufficient knowledge of water resources			
7. Inadequate cost-recovery framework			
8. In sufficiency of trained personnel			
(1) Professional			
(2) Sub-professional			
9. Lack of planning and design criteria			
10. Inappropriate technology			
11. Intermittent water service			
12. Operation and maintenance			
13. Logistics			
14. Import restrictions			
15. Non-involvement of communities			
16. Insufficient health education efforts			
17. Others (specify):			

PROBLEM ANALYSIS MATRIX

—Turning the vicious cycle into the virtuous cycle—

Please analyze your actual situations, future targets and experiences, and please fill in the **Problem Analysis Matrix (Annex 3-1)** to consider the effective ways to turn the vicious cycle into virtuous cycle.

- Causes of the vicious cycle (Please prioritize)
- Challenges, actions, targets, solutions, etc. to turn the cycle.

The deadline of the Problem Analysis Matrix : June 14th, 2012

Please submit to the following e-mail address. ticttee@jica.go.jp

NOTE:

1. Please refer to the slides, especially on “**vicious cycle**” and “**virtuous cycle**” presented in the YOKOHAMA water conference as attached (**Annex3-2**).

2. Please refer to the final report of the YOKOHAMA water conference for detailed information of the turn from the vicious cycle to virtuous cycle as attached (**Annex3-3**).

* “YOKOHAMA water conference” is the executive forum for enhancing sustainability of urban water service in Asian region : sharing and mutual learning of experience based on partnership of water operators in Asia

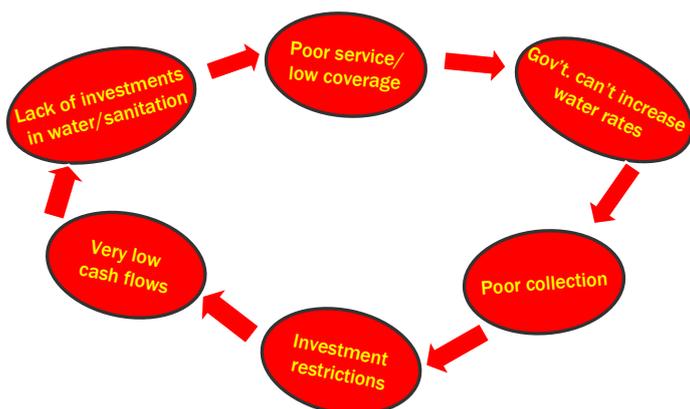
** The final report (**Annex3-3**) can be downloaded from the following URL.

<http://lvzopac.jica.go.jp/external/library?func=function.opacsch.mmindex&view=view.opacsch.toshoshozodsp&shoshisbt=1&shoshino=0000252806&volno=0>

3. **【IMPORTANT】** This matrix must be included in the country report presentation material and will be the base information for the following programs:

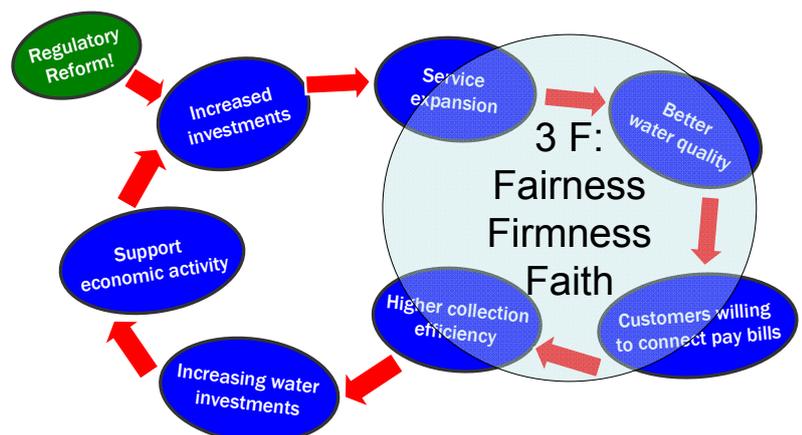
- Discussion with executive officers in Japanese Waterworks
- Discussion with Japanese private companies
- Improvement Plan formulation

From VICIOUS CYCLE...



• From Review and Summary Session by Prof. Magar

... To a VIRTUOUS CYCLE



• From Review and Summary Session by Prof. Magara

PROBLEM ANALYSIS MATRIX (for your Future Activity)

	Management. finance, tariff	Water resources, intake, water transmission	Water purification	Water distribution, water supply, water service	Pipe materials or types, equipment	Water quality control	Human resources	Others
Cause of the vicious cycle Detail of the cause								
Priority - High, Mid to Low								
Challenges, Activities necessary to change into virtuous cycle								
Target (expected outcome) & Due date								
Monitoring method (indicator) of Activity								

PROBLEM ANALYSIS MATRIX (for Sharing Experiences among participants)

	Management. finance, tariff	Water resources, intake, water transmission	Water purification	Water distribution, water supply, water service	Pipe materials or types, equipment	Water quality control	Human resources	Others
Cause of the vicious cycle Detail of the causes								
Measures taken/ Solutions								
Date of actions taken								
Results of the actions taken								
Lessons or good practice								

Based on this format below, please prepare the 1st Draft of Improvement Plan.

Format of the Improvement Plan

Throughout the course, participants are kindly requested to make a newly written small scale plan which is practical, and will be implemented in your organization in next 6month-1year based on your problem analysis matrix.

Please do not extract from existing national plans/on-going plans when you prepare this first draft of improvement plan.

The deadline of the Drafting Improvement Plan : June 14th, 2012

Please submit to the following e-mail address. ticttee@jica.go.jp

*Please see the attached Power Point Sample.

Note: The final version of the Improvement Plan will be elaborated through discussions with other overseas participants and Japanese experts during the program in Japan.

1. Title, subtitles, target group of the plan :

-Title & Subtitle: Include one of the following items; Related to water supply administration, Operation and Maintenance, the management of water quality, Non revenue water

-Target group: Not wide but focused and specific

2. Reasons for your plan (rationale):

2.1 Background and present situation of the problems to which your plan should address.

2.2 Necessity of your plan

2.3 How you can be involved in the plan

3. Details of the plan (Please use attached sheet)

3.1 Overall Goal:

3.2 Purpose of the plan:

3.3 Organization and responsibility

- What agencies are responsible for the plan and which is the leading agency?

- How will the project be managed and who will oversee the project?

- What agencies in the other sectors will the project be linked with?

3.4 Improvement Plan Worksheet

No	Activity to be carried out	Resources required	Person Responsible	Due Date	Estimated costs (USD)	Expected Outcome	Objectively verifiable indicators
	List activities needed for the achievement of project purpose from the viewpoint of domestic level, international level, and regional countries cooperation scheme.	List inputs from your countryside, and Japanese side, e.g. Manpower, Place, Equipment, Training, etc.			Describe estimated cost of the plan with its concrete base (unit) for the estimates.	Describe the expected outcomes of the project and set up appropriate indicators to measure whether these outcomes are being achieved	Set up appropriate indicators to measure whether these outcomes are being achieved



CORRESPONDENCE

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