No.12040/11/2012-FTC(Trg.)
Government of India
Ministry of Personnel, P.G and Pensions
Department of Personnel and Training
Training Division

Block-4, Old JNU Campus
New Mehrauli Road, New Delhi-67
Dated 23-2-2012

TRAINING CIRCULAR

Subject: A Group Training Course in Engineering on Water Supply Systems to be held in Japan from 9th May 2012 to 25rd July, 2012.

The undersigned is directed to state that the Japan International Cooperation Agency (JICA) under the Technical Cooperation of the Government of Japan has invited applications for the above programme to be held from March-October, 2012 out of which the core phase would be held in Japan from 9th May to 25th July, 2012.

2. The programme aims to draw basic plan drawings for a purification facility and pipeline network, and to formulate an action plan to solve problems that respective organizations have encountered

3. The candidate should be presently in a management position or a senior engineer who is currently or expected to be engaged in the formulation of waterworks plan; be a engineer with more than 5 years of experience in water supply system(experiences in the Electrical and Mechanical fields are not considered as experience); be university graduates from the faculty of engineering such as civil, sanitary, environmental, or have equivalent academic background; not be serving in the military; be between the ages of 30 and 45 years at the beginning of training course; be proficient in written and spoken English; be in good health to undergo the above training.

4. The course covers the cost of a round- trip air ticket between an international airport designated by JICA; travel insurance from the time of arrival in Japan to departure from Japan; allowances for (accommodation, living expenses, outfit and shipping); expenses for JICA study tours and free medical care for participants who may fall ill after reaching Japan (costs relating to pre-existing illness, pregnancy, or dental treatment is not included).

5. It is requested that the nomination of the suitable candidates may please be forwarded to this Department in accordance with the eligibility criteria.

6. The nomination details should be submitted in the JICA's prescribed proformas duly authenticated by the Department concerned along with the country report.

7. The applications should reach this Department through the Administrative Ministry/State Government not later than 19th March, 2012. Nominations received after the prescribed date will not be considered. The details of the programme and the application form may be drawn from Ministry of Personnel, Public Grievances and Pensions website (persmin.nic.in).

(N.K. Wadhwa)
Under Secretary to the Government of India

Copy to:

1. The Secretary, Ministry of Urban Development, Nirman Bhavan, New Delhi.
2. The Secretary, Ministry of Water Resources, Shram Shakti Bhawan, New Delhi.
3. All State Governments/Union Territories.
   (with the request to circulate it amongst the related organizations)
4. NIC with the request to post the circular along with the JICA's circular and the enclosed application Proforma on the Department's website.

(2)

TRAINING AND DIALOGUE PROGRAMS

GENERAL INFORMATION ON

ENGINEERING ON WATER SUPPLY SYSTEMS
集団研修「上水道施設技術」
JFY 2012

<Type: Solution Creation / 課題解決促進型>
NO. J12-00773 / Project ID: 1280944
Phase in Japan : From May 9, 2012 to July 25, 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

The water supply is one of the most important basic human needs. However the needs are not satisfied in the most part of developing countries due to lack of water supply facilities and systems, which need to be improved in accordance with the natural and social environment in each country. Many developing countries have faced the challenge with lack of the human resources for management, operation and designing the water supply systems. In this context, this training program is designed to foster the practical engineers in water supply, mainly on designing.

For what?

To draw basic plan drawings for a purification facility and pipeline network, and to formulate an action plan to solve problems that respective organizations have encountered

For whom?

Departments responsible for water supply planning or designing in a water supply utility, national or local government

II. Description

1. **Title (J12-00773):** Engineering on Water Supply Systems

2. **Period of program**

Duration of whole program:	March 2012 to October 2012
Preliminary Phase in each country	March 2012 to May 2012
Core Phase in Japan:	May 9th 2012 to July 25th 2012
Finalization Phase in each country	August 2012 to October 2012

3. **Target Regions or Countries:**
Democratic Republic of the Congo, Egypt, Eritrea, Ethiopia, India, Laos, Malawi, Mongolia, Montenegro, Morocco, Myanmar, Nepal, Philippines, Sudan

4. **Eligible / Target Organization:**
Departments responsible for water supply planning or designing in a water supply utility, national or local government

5. **Total Number of Participants** : 13

6. **Language to be used in this program:** English

7. **Program Objective:**
To draw basic plan drawings for a purification facility and pipeline network, and to formulate an action plan to solve problems that respective organizations have encountered

8. **Expected Module Output and Contents:**
This program consists of the following components.

(1) Preliminary Phase in a participant's home country
(March 2012 to May 2012)
Participating organizations make required preparation for the Program in the respective countries.

Module	Activity
For All applicants	
Country Report	Formulation and submission of the Country Report with Application Form by **April 2nd , 2012** (See ANNEX I)
Only for accepted participants	
Country Report Presentation Action Plan (1st draft)	Formulation and submission of the electric file by **May 7th, 2012** (See **ANNEX II**)

(2) Core Phase in Japan
(9th May 2012 to 25th July 2012)
Participants dispatched by the organizations attend the Program in Japan.

Expected Module Outputs	Activity	Method
1. To sort out the necessary technology for improvement of their water supply systems.	➢ Conservation of Water Quality of Water Resources and Monitoring of Water Quality ➢ Water Pollution in Water Resources ➢ Water Quality Control in Japan ➢ Automatic Water Quality Monitoring System ➢ Observation of Dam site ➢ Water Quality Control for Developing Countries ➢ Requirements for Water Intake Facilities of Surface Water ➢ Planning and Design of Water Intake Facilities ➢ Small River Intake Facility ➢ Utilization Measures of Groundwater Resources ➢ Groundwater Technology ➢ Groundwater Exploration Method ➢ Well Drilling Machine and Tool Manufacturing Factory ➢ Utilization Measures of Rain Water ➢ Rainwater Treatment / Reuse Facilities ➢ Water Purification Technology and Water Quality Control of Tap Water ➢ Water Purification Process ➢ Operation and Maintenance of WTP ➢ Coagulation and Flocculation process ➢ Practice of Jar Test ➢ Removal of Pollutants by Chemical Coagulation ➢ Small Scale Water Treatment Plant for Groundwater ➢ Advanced Water Purification Technology and Membrane Process Technology ➢ Design, Operation and Maintenance of Membrane Filtration Plant ➢ Construction and Operation of Advanced Water Treatment and Desalination ➢ Types and Layout of Water Distribution Facilities ➢ Operation and Maintenance of Water Construction of Water Supply and Water Distribution Facilities ➢ Pipe Laying Method ➢ Mapping System and Water Distribution Management ➢ Pipeline Mapping System ➢ Countermeasures and Practice of Water Leakage Prevention ➢ Water Leak Detection and Prevention ➢ Water Leak Detection Demonstration / Practice ➢ Water Leakage Reduction Countermeasures ➢ Anti-seismic Method of Water Supply Facilities	Lecture / Exercise / Field visit

2. To sort out the necessary functions and roles of related entities for improvement of their water supply management.	➢ Waterworks Management and Tariff System in Japan ➢ Water Supply in Japan / Water Works Law ➢ Water Resources Development ➢ Observation of Manufacturing Factory ➢ Sanitation Research Organization ➢ Small-scale Hydraulic Power Generation Plant	Lecture / Field Visit
3. To master the skill of basic planning and design for pipeline network and water purification systems.	➢ Pipeline Network Analysis ➢ Water Demand Forecasting ➢ Hydraulics on Pipelines ➢ Basic Planning and Design for Pipeline Network ➢ Basic Planning and Design for Water Supply Systems ➢ Basic Planning and Design for Water Supply Facilities ➢ Waterworks Management and Tariff System in Japan ➢ Water Supply in Japan / Water Works Law ➢ Water Resources Development ➢ Observation of Manufacturing Factory ➢ Sanitation Research Organization ➢ Small-scale Hydraulic Power Generation Plant	Lecture / Field Visit
4. Through information and skill from this training, to formulate an "action plan draft" that solves problems their organizations have encountered, and to share the plan in respective organizations.	➢ Country Report Presentation (See Annex I) ➢ Action Plan Presentation (See Annex II)	Presentation / Discussion

(3)Finalization Phase in a participant's home country
(August 2012 to October 2012)
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	Activity	Method
Through information and skill from this training, to formulate an "action plan draft" that solves problems their organizations have encountered, and to share the plan in respective organizations.	➢ **Sharing Information in respective organizations and reporting of the result to the JICA Tokyo 3 months after the training**	Presentation / Discussion etc.

Remarks

1.The schedule is subject to change.

2. Usual Lecture Time: Morning Session 9:30-12:00, Luncheon 12:00-13:30, Afternoon Session 13:30-16:00

3. References: (L)…Lecture (F)…Field Study (D)…Discussion (P)…Practice (Z)…Presentation

Date		Time	Contents
9-May	Wed		Visit to Japan
10-May	Thu	9:30-12:00	JICA Tokyo Briefing
		14:00-	Course Orientation
11-May	Fri		General Orientation
12-May	sat		Day Off
13-May	sun		Day Off
14-May	Mon	11:00-13:30	Opening Ceremony
		13:30-16:00	(L) Role of JWWA / Waterworks Management and Tariff System in Japan
15-May	Tue	9:30-16:30	(DZ) Country Report & Action Plan (1st ver.) Presentation
16-May	Wed		Transfer (Tokyo→Matsue)
		13:00-16:25	JWWA Annual Conference and Symposium
17-May	Thu	9:00-12:00	JWWA Annual Conference and Symposium
			Transfer (Matsue→Tokyo)
18-May	Fri	9:30-16:00	(L) Water Intake, Storage, Conveyance, Distribution Facilities and Supply Equipment
19-May	Sat		Day Off
20-May	Sun		Day Off
21-May	Mon	10:00-12:00	(L) Water Resources Development
		13:30-16:00	(L) Water Supply in Japan / Waterworks Law
22-May	Tue	10:00-12:00	(L) Water Purification Process
		13:30-16:00	(P) Basic Planning and Design for Pipeline Network -Introduction-
23-May	Wed	9:30-12:00	(L) Groundwater Technology
		13:30-16:00	(L) Groundwater Exploration Method
24-May	Thu	9:30-12:00	(L) Administrative Improvement by Performance Indicators
		13:30-16:00	(L) Purification Process in Developing Country
25-May	Fri	9:30-12:00	(L) Water Pollution in Water Resources
		13:30-16:00	(L) Water Quality Control in Japan
26-May	Sat		Day Off
27-May	Sun		Transfer (Tokyo→Sapporo)
28-May	Mon	10:00-12:00	(L)Waterworks of Sapporo City
		14:00-16:00	(F)Visit to Water Source
29-May	Tue	10:00-12:00	(L)Water Quality Control on WTP
		13:30-14:00	(F) Dam and Automatic Water Quality Monitoring System
		15:00-16:00	(F)Sapporo Waterworks Museum
30-May	Wed	10:00-12:00	(L) Coagulation and Flocculation Process

(8)

		13:00-16:30	(P) Practice of Jar Test (Optimization of Coagulation / Flocculation Process)
31-May	Thu	9:30-10:00	(L) Operation and Maintenance of WTP
		10:00-10:40	(F) Nishino WTP
		10:50-12:00	(P) Operation and Maintenance of WTP
		13:00-13:40	(F) Nishino Water Intake Site
1-Jun	Fri	9:30-16:00	(L) Planning and Design of Water Intake Facility
2-Jun	Sat	12:00-13:30	Transfer (Sapporo→Tokyo)
3-Jun	Sun		Day Off
4-Jun	Mon	9:30-12:00	(L) Water Leak Detection and Prevention in Tokyo
		13:00-15:00	(FP) Water Leak Detection Demonstration / Practice
5-Jun	Tue	9:30-12:00	(L) Pipe Laying Method
		13:00-15:00	(F) Open Cut Method Pipe Laying Construction
6-Jun	Wed	9:30-16:00	(L) Operation and Maintenance of Water Distribution Facilities
7-Jun	Thu	9:30-11:00	(PD)Action Plan Making (2nd ver.)
		13:00-15:00	(F) Ductile Cast Iron Pipe Manufacturing Factory
8-Jun	Fri	9:30-12:00	(L) Water Leakage Reduction Countermeasures
		13:30-16:00	(P) Water Leakage Reduction Countermeasures
9-Jun	Sat		Day Off
10-Jun	Sun		Transfer (Tokyo→Kobe)
11-Jun	Mon	10:00-18:00	(LF)Intake technology of underground water・river-bed water/Water treatment
12-Jun	Tue	9:30-11:30	(F)Disaster Reduction and Human Renovation Institution
		13:30-16:30	(LF) Provision for Earthquake Disaster and Anti-Seismic Construction Method / Amagasaki WTP (Advanced Water Treatment)
13-Jun	Wed	9:30-14:00	(F) Joint Manufacturing Factory
14-Jun	Thu	9:30-13:00	(L) Ozone System
		14:30-16:00	(F) Honshu-Shikoku Bridge water pipe
15-Jun	Fri	9:30-15:00	(LF) Small Scale Water Treatment Plant for Groundwater
			Transfer (Kyoto→Tokyo)
16-Jun	Sat		Day Off
17-Jun	Sun		Day Off
18-Jun	Mon	9:30-16:00	(PD) Action Plan (2nd ver.) Presentation
19-Jun	Tue		Transfer (Tokyo→Takasaki)
		13:00-15:30	(F)Slow sand filtration WTP
20-Jun	Wed	10:00-14:00	(F) Valve Manufacturing Factory
21-Jun	Thu	9:30-16:30	(F) Waterworks related Facilities in Ohta City
22-Jun	Fri	10:30-15:00	(LF) Basic Theory of Pumping Equipment
23-Jun	Sat		Day Off
24-Jun	Sun		Day Off
25-Jun	Mon	9:30-12:00	(L) Design, Operation and Maintenance of Membrane Filtration Plant
		14:30-16:00	(F) Membrane Filtration Plant
26-Jun	Tue	10:00-17:00	(LF) Rainwater Treatment / Reuse Facility

27-Jun	Wed	9:30-12:00	(L) Pipeline Network Analysis
		13:30-16:00	(P) Pipeline Network Analysis
28-Jun	Thu	10:00-16:00	(L) Water Demand Forecasting / Hydraulics on Pipelines
29-Jun	Fri	9:30-16:00	(L) Basic Planning for Water Supply Facilities
30-Jun	Sat		Day Off
1-Jul	Sun		Day Off
2-Jul	Mon	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
3-Jul	Tue	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
4-Jul	Wed	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
5-Jul	Thu	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
6-Jul	Fri	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
7-Jul	Sat		Day Off
8-Jul	Sun		Day Off
9-Jul	Mon	9:30-16:00	(P) Basic Planning and Design for Water Supply Systems
10-Jul	Tue		Transfer (Tokyo→Kitakyushu)
		15:00-17:00	(L) Waterworks of Kitakyushu City / Pipeline Mapping System
11-Jul	Wed	9:30-14:00	(F) Dam, River Estuary Barrage, Anou WTP etc.
			Transfer (Fukuoka→Naha)
12-Jul	Thu		(L) Waterworks of Okinawa Islands
			(LF) Chatani WTP (Advanced Water Treatment, Desalination)
13-Jul	Fri		(F) Dam and River Intake Facilities
14-Jul	Sat		Transfer (Naha→Tokyo)
15-Jul	Sun		Day Off
16-Jul	Mon		Day Off
17-Jul	Tue		(LFP) Sanitation Research Organization
18-Jul	Wed	9:30-16:00	(P) Basic Planning and Design for Water Supply Facility - Mainly Hydraulic calculation
19-Jul	Thu	9:30-16:00	(PD) Preparation for Action Plan Report
20-Jul	Fri	9:30-16:00	(PD) Preparation for Action Plan Report
21-Jul	Sat		Day Off
22-Jul	Sun		Day Off
23-Jul	Mon	9:30-16:00	(DZ) Action Plan Report Presentation
24-Jul	Tue	15:00-16:30	Evaluation on the Training Course / Closing Ceremony
25-Jul	Wed		Departure from Japan

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 operations. Applying organizations are expected to use the program for those specific purposes.
   (2)In this connection, applying organizations are expected to nominate the most qualified candidates to address the said issues or problems, carefully referring to the qualifications described in section Ⅲ-2 below.
   (3)Applying organizations are also expected to be prepared to make use of knowledge acquired by the nominees for the said purpose.

2. **Nominee Qualifications:**

Essential Qualifications

(1) To be nominated by their government in accordance with the official procedures,
(2) To be presently in a management position or a senior engineer who is currently or expected to be engaged in the formulation of waterworks plan,
(3) To be engineers with more than 5 years of experience* in water supply systems,
(* Experiences in the Electrical and Mechanical fields are not considered as experience.)
(4) To be university graduates from the faculty of engineering such as civil, sanitary, environmental, or have equivalent academic background,
(5) To be fully capable of discussing, reading and writing in **English**,
(6) To be between 30 and 45 years of age
(7) NOT to be serving in the military and
(8) To be in good health, both physically and mentally, to undergo the training**

** 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 ② letter 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 Documents for Application**
   (1) Application Form: The Application Form is available at the respective countries' JICA offices or the Embassies of Japan.
   (2) "Country Report": to be submitted in accordance with ANNEX I.

4. **Procedure for Application and Selection:**

(1) Submitting the Application Documents:

Closing date for application to the JICA Tokyo: **April 2nd, 2012**

Note: Please confirm the closing date set by the respective country's JICA office or Embassy of Japan of your country to meet the final date in Japan.

(2) Selection:

After receiving the document(s) through due administrative procedures in the respective governments, the respective countries' JICA offices (or the Embassies of Japan) shall conduct screenings, and send the documents to the JICA Tokyo, which organizes this project. Selection shall be made by the JICA Tokyo in consultation with the organizations concerned in Japan based on submitted documents according to qualifications.

The organization with intention to utilize the opportunity of this program will be highly valued in the selection.

(3) Notice of Acceptance

Notification of results shall be made by the respective countries' JICA offices (or the Embassies of Japan) to the respective Governments by **no later than April 13th, 2012.**

5. **Conditions for Attendance:**

(1) to observe 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, and

(8) to participate the whole program including a preliminary phase prior to the program in Japan. Applying organizations, after receiving notice of acceptance for their nominees, are expected to make use of knowledge acquired by the nominees for certain purposes.

IV. Administrative Arrangements

1. **Organizer:**
   (1) Name: JICA Tokyo International Center (JICA Tokyo)

2. **Implementing Partner:**
   (1) **Name:** **Japan Water Works Association (JWWA)**
   (2) URL: http://www.jwwa.or.jp/
   (3) Remark: The JWWA is a nonprofit integrated organization consisting of memberships such as public water supply utilities, private companies, consultants, researchers and individuals related to this field in order to contribute to stable water supply as well as to promote sound waterworks development. Founded in 1932, JWWA is one of the largest organizations of water supply professionals in the world.

3. **Travel to Japan:**
   (1) Air Ticket: The cost of a round-trip ticket between an international airport designated by JICA and 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.
   (3) 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 for the participants. Please refer to facility guide of JICA Tokyo: **http://www.jica.go.jp/english/contact/domestic/pdf/welcome.pdf**

4. **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 "KENSHU-IN GUIDE BOOK," which will be given to the selected

participants before (or at the time of) the pre-departure orientation.

5. **Pre-departure Orientation:**
   A pre-departure orientation will be held at the respective countries' JICA offices (or the Embassies of Japan), to provide participants with details on travel to Japan, conditions of the workshop, and other matters.

(14)

VI. ANNEX:

ANNEX I

Engineering on Water Supply Systems
Country Report

All applicants are required to prepare the Country Report providing the information on the following subjects with accurate data. This report will be used for the selection of applicants.

The Report should be typewritten in English and submitted together with the Application Form by **April 2nd, 2012**. Please use additional sheets of paper (A4 size) if necessary.

Important Notice

- The accepted participants will need to prepare presentation material based on the Country Report and send it to **tictee@jica.go.jp (JICA Tokyo)** by **May 7th**
- Each participant will have a chance to present their report in the first week of this course. (Length of presentation per participant; 20 minutes of presentation and 10 minutes of Q & A session)
- In the presentation, please briefly explain the background information on your country, your organization and your job. Please put your emphasis on the problems your organization is facing, and possible solutions for that. **Also include the contents of Action Plan 1st draft (see the Annex Ⅱ).**
- The important part of the presentation is to share your experiences in an actual project in your countries with Japanese experts and participants from other countries.

I. Introduction

1. Name of applicant:
2. Name of country:
3. E-mail Address:

II. Country Information

1. Geographic location
2. Population
3. Economy (Main Industries, GDP, etc.)
4. Climate (Annual Rainfall, Seasons, etc.)
5. Total Number of Cities
6. The three (3) largest Waterworks in the country (Please fill in the **Table1**)

Table 1

Name of City	Name of Organization	Capital (Public/ Private/ Public-Private-Partnership)	Total Population	Supplied Population

III. Organizational Framework and Job Description

1. Name of Applicant's Organization
2. The established year of the organization
3. Applicant's occupation (Please choose among the followings.)
   (a) Staff in charge of the formulation of waterworks plan in a water supply utility
   (b) Staff in charge of the formulation of waterworks plan in the national government or a local government
   (c) Staff who is expected to be in charge of the formulation of waterworks plan
   (d) Civil engineer
   (e) Sanitary engineer
   (f) Environmental engineer
   (g) Other (specify your background:

4. Type of the applicant's organization (Please choose one option among the followings.)
   (a) Part of Government Department
   (b) Government Corporations
   (c) Independent Authority
   (d) Others (Please describe.)

5. Capital formation (Financial Resource) of the applicant's organization
   - National Government (%)
   - Local Government (%)

- Investor (Private) (%)
- Others(Please describe:) (%)

6. Governmental Control: (Please select all options which are subject to governmental instruction.)
   (a) Staff Number
   (b) Staff salaries
   (c) Tariff
   (d) Appointment of top management
   (e) Budget for O&M
   (f) Budget for development
   (g) Disconnection for non-payment

7. Cost (Budget) for operation/management of the applicant's organization
   (1) Personnel: (USD)
   (2) Power/Fuel: (USD)
   (3) Chemicals: (USD)
   (4) Other materials: (USD)
   (5) Transport: (USD)
   (6) Others (describe): (USD)
   (7) Total O&M cost: (USD)

8. The number of cities/towns which an applicant's organization has responsibility for

9. Service area of the applicant's organization (km^2)

10. Total population of the applicant's city (service area?)

11. Total population served by the applicant's organization

12. Number of staff members
    (1) Clerical Staff:
    (2) Engineer:
    (3) Technical Staff:
    (4) Laborer:
    (5) Total:

13. Organization chart(Please attach the chart of applicant's organization)

14. Organization chart (Please attach the typical organization chart of every waterworks in the applicant's country, local level to the national level in the applicant's country.)

IV. Water Supply

1. Name of waterworks in which applicant is engaged

2. Proportion of water resources(%)
   - Surface water : (%)
   - Groundwater: (%)
   - Others: (%)
3. Total amount of annual water supply (m^3)
4. Maximum daily water supply demand (m^3/day)
5. Average water supply demand (m^3/day)
6. Estimated total production volume (m^3/day)
7. Number of treatment plants
8. Total capacity of treatment plants (m^3/day)
9. Water Quality

Table 2

	Raw water	Tap water (Treated water)
Turbidity (degree)		
Color (degree)		
pH		
Hardness (ppm)		
Iron (ppm)		
Manganese (ppm)		
Nitrate Nitrogen (ppm)		
Others(Please describe:) (ppm)		

10. Main treatment process (Please choose one option from among the followings.)
    (a) Conventional
    (b) Slow Sand Filter
    (c) Others (Please describe:)

11. Chlorination method (Please choose one option from the followings.)

(a) Gas injection
(b) Powder injection
(c)Other disinfection method
(Please describe:)

12. Frequency of bacteriological tests
(Please choose one option from the followings and describe the number.)
(a) daily (times/day)
(b) weekly(times/week)
(c) monthly(times/month)
(d) annually(times/year)

13. Distribution pipes
(1) Length (km)
(2) Pipe size (mm)
(3) Materials
(4) Inventory of pipe size?
14. Storage capacity (m^3)
15. Water leakage ratio (%)
16. Leakage control

17. Annual number of repaired leakage points

18. Typical Problems
Please fill in the **Table 3** describing three typical problems, classified into 3 categories (i.e. big, middle and small) of unaccounted-for water conditions and their countermeasures.

Table 3

	Name of City	Unaccounted-for Water Conditions	Countermeasure
Big (Serious problem)			

Middle			
Small (Minor problem)			

V. Customer Service

Please describe the followings concerning the largest water utility in applicant's jurisdiction.

1. Number of house connections
2. Number of public taps (PT) / Standpipes (SP)
3. Number of people per PT / SP
4. Custom of water usage for drinking (Please choose one option from the followings.)
   (a) Directly from tap
   (b) After boiling
   (c) After filtering

5. Coverage of 24-hour water supply (%)
6. Average hours of water availability to most people (hrs/day)
7. Number of industrial connections
8. Number of commercial connections
9. Number of other connections
10. Annual number of customer complaints
11. Annual public relations expenditure

VI. Water Billing

1. Estimated unaccounted-for water (m^3/day)
2. Percentage of metered water (%)
3. Annual number of meters replaced or repaired
4. Name of authority which determined the water rate
5. Year of the implementation of the current water rate
6. Name of the system used for the calculation of water rate
7. Water rate against the amount of consumption (Please choose one option from the followings.)
   (a) Progressive
   (b) Digressive

8. Frequency of reading of water meter (every days)
9. Billing period (months)
10. Collection method of water bill
(Please describe:)
11. Average amount of water consumption by domestic (residential) customers
    (1) Volume (m^3/month)
    (2) Water rate (USD/month)
12. Percentage of water charges against the total living expenses for the average domestic customers (%)
13. Please attach the table of the present water tariff
14. Relevance between sewerage bill and water bill (Percentage of sewerage bill surcharge on water bill) (% of water bill)

VII. Relevant Laws and Regulations, Master Plan

1. Laws and Regulations (Please describe the outline of the relevant laws and regulations regarding water supply in **Table.4**.

Table 4

Name of Law or Regulation	Year of Legislation	Purpose/Description

2. National development plan and its sector plan in waterworks

Please describe the outline of plan(s) in the **Table 5** and attach a copy of Sector Plan in English.

Table 5

Name of Plan	Target Period	Outline of Content

VIII. Foreign Assistance

Please describe the outline of foreign assisted programs in the last 10 years in **Table 6**.

Table 6

Name of Donor	Year	Grant/Loan	Amount of Fund	Outline of Program/Project

IX. Priority Need

1. Major constraints

The constraint factors listed may prevent the applicant's sector from accelerated development. Mark the appropriate boxes so that they will show whether these factors represent very severe, severe or moderate impediments 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 constraints-reduction endeavors.

If changes occurred between 2005 and 2010, all constraints including those that have not changed, should be entered in the table to give a full picture of the situation in the end of 2010.

Please indicate with the mark x for the situation of major constraints in **Table 7**.

Table 7

Constraints	Ranking 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. Insufficiency 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):			

2. Technical/Management problems (Please explain technical or management problems your department/organization currently experiencing in **Table 8**.)

Table 8

Outline of Problem	Applied Countermeasure

3. Problems to be solved at present and in the future (Please describe concretely as many items as possible including even minutia because this is utilized for the decision of strategies of action plan.)

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Table 9

Outline of Problem	Background to Efforts	,Present Status, etc

Please add sheets of paper for the description if necessary.

ANNEX II

Engineering On Water Supply Systems

Action Plan

1. Description of Action Plan

Each participant is requested to formulate an action plan at the final stage of the training course, making best use of the knowledge and experience you have acquired through the course. The objectives of the program are to make sure what he/she have obtained through the training course and to learn how to propose his/her ideas in his/her organization in the future. Attention has to be drawn to the region regarding water supply in your country.

2. Process

Each participant is requested to formulate an action plan in accordance with the following process:

Describe concrete problems in Table 7 of the Country Report IX "Priority Need" (See ANNEX I). (Major problems to be solved at present and in the future) (by April 2nd)

⇩

Prepare an Action Plan (1st version) based on the problems informed before the arrival in Japan and submit it to **tictee@jica.go.jp** by May 7th.

⇩

Make presentation of the Country Report and the Action Plan (1st version) and obtain comments from Japanese advisors. (on May 15th)

⇩

Modify the content of the Action Plan (1st version) based on the comments given by the Japanese advisors.

⇩

Make interim presentation of the Action Plan (2nd version) and obtain comments from the Japanese advisors. (on June 18th)

⇩

Modify the content of the Action Plan (2nd version) based on the comments during the training program.

⇩

Make presentation of the Action Plan (final version) (on July 23th)

The schedule is subject to change.

3. Preparation of an Action Plan (1st version)

Prepare an Action Plan in English about 2 pages of A4, following the "4. Items to be described in the Action Plan (1st version)." Also please include it in the first presentation.

(1) Collect the latest data, charts, maps, documents, etc. for the preparation of the action plan. (Collect them as electronic data.)

(2) Make a **feasible plan** of the section which the applicant belongs to in the applicant's organization.

(3) Set a target of the plan and deliberate how to achieve it.

(4) Evaluate the resources (the number of persons, budget, equipment, etc.) to make the plan feasible to run.

(5) Estimate how long it will take to complete the plan.

(6) Investigate problems or obstacles in implementing the action plan and clarify the feasibility of the plan.

4. Items to be described in the Action Plan (1st version).

(1) Name of the Plan

(2) Participant's Name

(3) Present Status

(4) Concrete Problems

(5) Method of Problem Solution

(6) Contents of Concrete Actions and Objectives to be attained

(7) Period of the Action

(8) Necessary Facilities and Equipment

(9) Budget to be estimated

(10) Significance of the Plan

5. Attentions to be made for the modification of the Action Plan until the last version

(1) The theme of the Action Plan could be changed from the initial theme during the modification process.

(2) Each participant is required to utilize more detailed data in the final version than the initial version by collecting data, plans, maps, documents, etc. for the modification of his/ her Action Plan. For that purpose, he/she has to assure the acquisition route of information from the division which he/she belongs to by means of e-mail. (The participants will be able to use e-mail at almost all accommodations during the stay in Japan.)

(3) Each participant is required to submit the "new information list*" regularly during the course, and utilize the list as reference to formulate the Action Plan.

* On the new information list, each participant should describe new information obtained during the course.

6. Action Plan Presentation

Each participant may be able to use audio visual equipments such as computer, overhead projector, VHS video player

For Your Reference

JICA and Capacity Development

The key concept underpinning JICA operations since its establishment in 1974 has been the conviction that "capacity development" is central to the socioeconomic development of any country, regardless of the specific operational scheme one may be undertaking, i.e. expert assignments, development projects, development study projects, training programs, JOCV programs, etc.

Within this wide range of programs, Training Programs have long occupied an important place in JICA operations. Conducted in Japan, they provide partner countries with opportunities to acquire practical knowledge accumulated in Japanese society. Participants dispatched by partner countries might find useful knowledge and re-create their own knowledge for enhancement of their own capacity or that of the organization and society to which they belong.

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs and are being customized to address the specific needs of different target organizations, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

Japanese Development Experience

Japan was the first non-Western country to successfully modernize its society and industrialize its economy. At the core of this process, which started more than 140 years ago, was the *"adopt and adapt"* concept by which a wide range of appropriate skills and knowledge have been imported from developed countries; these skills and knowledge have been adapted and/or improved using local skills, knowledge and initiatives. They finally became internalized in Japanese society to suit its local needs and conditions.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from this "*adoption and adaptation*" process, which, of course, has been accompanied by countless failures and errors behind the success stories. We presume that such experiences, both successful and unsuccessful, will be useful to our partners who are trying to address the challenges currently faced by developing countries.

However, it is rather challenging to share with our partners this whole body of Japan's developmental experience. This difficulty has to do, in part, with the challenge of explaining a body of "tacit knowledge," a type of knowledge that cannot fully be expressed in words or numbers. Adding to this difficulty are the social and cultural systems of Japan that vastly differ from those of other Western industrialized countries, and hence still remain unfamiliar to many partner countries. Simply stated, coming to Japan might be one way of overcoming such a cultural gap.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.

CORRESPONDENCE

For enquiries and further information, please contact the JICA office or the Embassy of Japan. Further, address correspondence to:

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

II. Description

1. **Title (J-No.): Maternal and Child Health (A) (J-12-00878)**

2. **Period of program**

Duration of whole program:	April 2012 to December 2012
Preliminary Phase:	April 2012 to May 2012
(in a participant's home country)	
Core Phase in Japan:	May 8 to June 23, 2012
Finalization Phase:	July 2012 to December 2012
(in a participant's home country)	

3. **Target Regions or Countries**
Bolivia, Bangladesh, Cambodia, India, Kosovo, Laos, Mongolia, Nepal, Pakistan, Papua New Guinea, Venezuela

4. **Eligible / Target Organization**
This program is designed for department of **maternal and child health** in university or hospital.

5. **Total Number of Participants**
Twelve (12) participants are selected from Bolivia, Bangladesh (2), Cambodia, India, Kosovo, Laos, Mongolia, Nepal, Pakistan, Papua New Guinea , Venezuela

6. **Language to be used in this program**: English

7. **Program Objective:**
This program aims that participants will propose an appropriate action plan to resolve the challenges in maternal and child health care in local area as nurses and midwives being commanding positions.

I. To achieve this program objective, participants are expected in Japan;
- **(1)** To learn policy and history of maternal and child health in Japan, and consider how to enhance maternal and child health system in participant's area / country through referring to Japanese case.
- **(2)** To understand the process of human resource development of nurses and midwives in Japan.
- **(3)** To understand the roles and functions of institutions which relate to maternal and child health in Japan (birth centers, health care centers, hospitals and universities).
- **(4)** To consider how to improve the provision of local health care in the home country by learning health care and referral systems in remote and isolated areas in Hokkaido.
- **(5)** To design concrete and feasible action plans through analyzing maternal and child health problems in participant's area/country, based on problem solving process by applying nursing process.