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North Block, New Delhi-1
Dated the 21st February, 2011.

TRAINING CIRCULAR

Subject : A Group Training Course in Engineering on Water Supply Systems to be held in Japan from 11th May, 2011 to 27th July, 2011 (core phase).

The Japan International Cooperation Agency (JICA), under the Technical Cooperation Programme of the Government of Japan has invited applications for the above programme to be held in Japan from 11th May, 2011 to 27th July, 2011 (core phase). Total duration of the programme is from March, 2011 to October, 2011. The details of the programme and the application form may be drawn from this Ministry's website persmin.nic.in.

2. The programme is designed for engineers/senior managers responsible for water supply planning or designing in a water supply utility, national or local government. The aim of the programme is 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. This training programme is further designed to foster the practical engineers in water supply, mainly on designing and to improve the water supply systems in accordance with the natural and social environment of the country.

3. The applicant should be a university graduates in civil, sanitary or environmental engineering, or have equivalent academic background; should be a senior engineer or in a management position engaged in the formulation of waterworks plan; having more than 5 years experience in water supply system; be between 30 and 45 years of age; be proficient in written and spoken English; be in good health both physically and mentally to undergo the training and not be serving in the military.

4. The fellowship award covers a Round-trip ticket between an international airport designated by the JICA and Japan; travel insurance from arrival in Japan to departure from Japan; and includes allowances for accommodation, living expenses, outfit and shipping; expenses for study tours; free medical care for participants who may fall ill after arriving in Japan (costs related to pre-existing illness, pregnancy, or dental treatment are not included). The participants are not allowed to take any family member during the training course.

5. It is requested that the nomination of the suitable candidates may please be forwarded to this Department in accordance with the eligibility criteria and the terms and conditions of the JICA's Circular dated 17th February, 2011. The Ministry/State Governments may sponsor the names of only Government/Public Sector Undertaking functionaries.

6. The nomination details should be submitted in the JICA's prescribed proformas (A2A3 Forms) duly authenticated by the Department concerned alongwith the country report.

7. Application should reach this Department through the Administrative Ministry/State Governments **not later than 31st March, 2011**. Nominations received after the prescribed date will not be considered.



(Raakesh Mishra)
Desk Officer
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1. The Secretary, Ministry of Water Resources, Shram Shakti Bhavan, New Delhi.
2. All State Governments/ Union Territories.
[With the request to circulate it amongst the related organizations]
3. Director (Technical), NIC with the request to post the circular along with the JICA's circular dated 17th February and the enclosed application Proformas on the Department's website



(Raakesh Mishra)
Desk Officer



TRAINING AND DIALOGUE PROGRAMS

GENERAL INFORMATION ON

**ENGINEERING ON WATER SUPPLY
SYSTEMS**

集團研修「上水道施設技術」

JFY 2011

<Type: Solution Creation / 課題解決促進型>

NO. J11-00669 / Project ID: 1180944

Phases in Japan : From May 11, 2011 to July 27, 2011

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 (J11-00669):** Engineering on Water Supply Systems
2. **Period of program**

Duration of whole program:	March 2011 to October 2011
Preliminary Phase in each country	March 2011 to May 2011
Core Phase in Japan:	May 11 th 2011 to July 27 th 2011
Finalization Phase in each country	August 2011 to October 2011
3. **Target Regions or Countries:**
Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, India, Laos, Malawi, Mongolia, Montenegro, Morocco, Nepal, Panama, Philippines
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 to May 2011) <i>Participating organizations make required preparation for the Program in the respective countries.</i>	
Module	Activity
For All applicants	
Country Report	Formulation and submission of the Country Report with Application Form by April 4th, 2011 (See ANNEX I)
Only for accepted participants	
Country Report Presentation Action Plan (1 st draft)	Formulation and submission of the electric file by May 6th, 2011 (See ANNEX II)

(2) Core Phase in Japan(11th May 2011 to 27th July 2011)*Participants dispatched by the organizations attend the Program in Japan.*

Expected Module Outputs	Program	Method
<p>1. To sort out the necessary technology for improvement of their water supply systems.</p>	<ul style="list-style-type: none"> ➤ 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 	<p>Lecture / Exercise / Field visit</p>

<p>2. To sort out the necessary functions and roles of related entities for improvement of their water supply management.</p>	<ul style="list-style-type: none"> ➤ 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 	<p>Lecture / Field Visit</p>
<p>3. To master the skill of basic planning and design for pipeline network and water purification systems.</p>	<ul style="list-style-type: none"> ➤ 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 	<p>Lecture / Field Visit</p>
<p>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.</p>	<ul style="list-style-type: none"> ➤ Country Report Presentation (See Annex I) ➤ Action Plan Presentation (See Annex II) 	<p>Presenta tion / Discussi on</p>

(3)Finalization Phase in a participant's home country

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	Program	Method
<p>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.</p>	<ul style="list-style-type: none"> ➤ Information Sharing in respective organizations and Reporting of the result to the JICA Tokyo 3 months after the training 	<p>Presentation / Discussion etc.</p>

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
11-May	Wed		Visit to Japan
12-May	Thu	14:00-	Course Orientation
13-May	Fri		General Orientation
14-May	sat		Day Off
15-May	sun		Day Off
16-May	Mon	11:00-13:00	Opening Ceremony / Welcome Party
		13:30-16:00	(L) Role of JWWA / Waterworks Management and Tariff System in Japan
17-May	Tue	9:30-16:00	(L) Water Intake, Storage, Conveyance, Distribution Facilities and Supply Equipments
18-May	Wed		Transfer (Tokyo→Osaka)
			JWWA Annual Conference and Symposium
19-May	Thu		JWWA Annual Conference and Symposium
			Transfer (Osaka→Tokyo)
20-May	Fri	10:00-12:00	(L) Water Resources Development
		13:30-16:00	(L) Water Supply in Japan / Waterworks Law
21-May	Sat		Day Off
22-May	Sun		Day Off
23-May	Mon	9:30-16:30	(DZ) Country Report & Action Plan (1st ver.) Presentation
24-May	Tue	9:30-12:00	(L) Water Pollution in Water Resouces
		13:30-16:00	(L) Water Quality Control in Japan
25-May	Wed	10:00-17:00	(LF) Rainwater Treatment / Reuse Facility
26-May	Thu	10:00-12:00	(L) Water Purification Process
		13:30-16:00	(P) Basic Planning and Design for Pipeline Network -Introduction-
27-May	Fri	9:30-12:00	(L) Administrative Improvement by Performance Indicators
		13:30-16:00	(L) Purification Process in Developing Country
28-May	Sat		Day Off
29-May	Sun		Transfer (Tokyo→Sapporo)
30-May	Mon	10:00-12:00	(L)Waterworks of Sapporo City
		14:00-16:00	(F)Visit to Water Source
31-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
1-Jun	Wed	10:00-12:00	(L) Coagulation and Flocculation Process
		13:00-16:30	(P) Practice of Jar Test (Optimization of Coagulation / Flocculation Process)
2-Jun	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
3-Jun	Fri	9:30-16:00	(L) Planning and Design of Water Intake Facility
4-Jun	Sat	Transfer (Sapporo→Tokyo)	
5-Jun	Sun	Day Off	
6-Jun	Mon	9:30-16:00	(L) Removal of Pollutants by Chemical Coagulation / Water Quality Control
7-Jun	Tue	9:30-16:00	(L) Operation and Maintenance of Water Distribution Facilities
8-Jun	Wed	9:30-12:00	(L) Pipe Laying Method
		13:00-15:00	(F) Open Cut Method Pipe Laying Construction
9-Jun	Thu	9:30-12:00	(L) Water Leak Detection and Prevention in Tokyo
		13:00-15:00	(FP) Water Leak Detection Demonstration / Practice
10-Jun	Fri	9:30-12:00	(L) Water Leakage Reduction Countermeasures
		13:00-16:00	(P) Water Leakage Reduction Countermeasures
11-Jun	Sat	Day Off	
12-Jun	Sun	Transfer (Tokyo→Kyoto)	
13-Jun	Mon	9:30-12:00	(PD)Action Plan Making (2nd ver.)
		14:00-16:00	(F) Ductile Cast Iron Pipe Manufacturing Factory
14-Jun	Tue	9:30-11:30	(F)Disaster Reducation and Human Renovation Institution
		13:30-16:30	(LF) Provision for Earthquake Disaster and Anti-Seismic Construction Method / Amagasaki WTP (Advanced Water Treatment)
15-Jun	Wed	9:30-14:00	(F) Joint Manufacturing Factory
16-Jun	Thu	9:30-13:00	(L) Ozonation System
		14:00-15:30	(F) Honshu-Shikoku Bridge water pipe
17-Jun	Fri	9:30-15:00	(LF) Small Scale Water Treatment Plant for Groundwater
			Transfer (Kyoto→Tokyo)
18-Jun	Sat	Day Off	
19-Jun	Sun	Day Off	
20-Jun	Mon	9:30-16:00	(PD) Action Plan Presentation (2nd ver.)
21-Jun	Tue	9:30-12:00	(L) Design, Operation and Maintenance of Membrane Filtration Plant
		14:30-16:00	(F) Membrane Filtration Plant
22-Jun	Wed	10:30-15:00	(LF) Basic Theory of Pumping Equipment
23-Jun	Thu	9:30-12:00	(L) Groundwater Technology
		13:30-16:00	(L) Groundwater Exploration Method
24-Jun	Fri	10:00-16:00	(L) Water Demand Forecasting / Hydraulics on Pipelines
25-Jun	Sat	Day Off	
26-Jun	Sun	Transfer (Tokyo→Ohta)	
27-Jun	Mon	9:30-16:30	(F) Waterworks related Facilities in Ohta City
28-Jun	Tue	10:00-14:00	(F) Valve Manufacturing Factory
29-Jun	Wed	9:00-12:00	(F)Slow sand filtration WTP
			Transfer (Takasaki→Tokyo)

30-Jun	Thu	9:30-12:00	(L) Pipeline Network Analysis
		13:30-16:00	(P) Pipeline Network Analysis
1-Jul	Fri	9:30-16:30	(L) Basic Planning for Water Supply Facilities
2-Jul	Sat	Day Off	
3-Jul	Sun	Day Off	
4-Jul	Mon	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
5-Jul	Tue	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
6-Jul	Wed	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
7-Jul	Thu	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
8-Jul	Fri	9:30-16:00	(P) Basic Planning and Design for Pipeline Network
9-Jul	Sat	Day Off	
10-Jul	Sun	Day Off	
11-Jul	Mon	9:30-16:00	(P) Basic Planning and Design for Water Supply Systems
12-Jul	Tue		Transfer (Tokyo→Kitakyushu)
		15:00-17:00	(L) Waterworks of Kitakyushu City / Pipeline Mapping System
13-Jul	Wed	9:30-14:00	(F) Dam, River Estuary Barrage, Anou WTP etc.
			Transfer (Fukuoka→Naha)
14-Jul	Thu		(L) Waterworks of Okinawa Islands
			(LF) Chatan WTP (Advanced Water Treatment, Desalination)
15-Jul	Fri		(F) Dam and River Intake Facilities
16-Jul	Sat	Transfer (Naha→Tokyo)	
17-Jul	Sun	Day Off	
18-Jul	Mon	Day Off	
19-Jul	Tue	9:30-16:00	(P) Basic Planning and Design for Water Supply Facility - Mainly Hydraulic calculation
20-Jul	Wed		(LFP) Sanitation Research Organization
21-Jul	Thu	9:30-16:00	(PD) Preparation for Action Plan Report
22-Jul	Fri	9:30-16:00	(PD) Preparation for Action Plan Report
23-Jul	Sat	Day Off	
24-Jul	Sun	Day Off	
25-Jul	Mon	9:30-16:00	(DZ) Action Plan Report Presentation
26-Jul	Tue	15:00-16:30	Evaluation on the Training Course / Closing Ceremony
27-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 ① letter of the participant's consent to bear economic and physical risks ② letter of consent from the participant's supervisor ③ letter of consent from your Embassy in Japan, ④ medical 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 4th, 2011**

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 18th, 2011.**

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](http://www.jica.go.jp/english/contact/domestic/pdf/welcome.pdf), 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 "KENSU-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.

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 4th, 2011**. 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 ticttee@jica.go.jp (**JICA Tokyo**) by **May 6th**
- 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 (km²)
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 (m³)
4. Maximum daily water supply demand (m³/day)
5. Average water supply demand (m³/day)
6. Estimated total production volume (m³/day)
7. Number of treatment plants
8. Total capacity of treatment plants (m³/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 _____ (m³)

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 (m³/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

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 2004 and 2009, 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 2009.

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.)

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

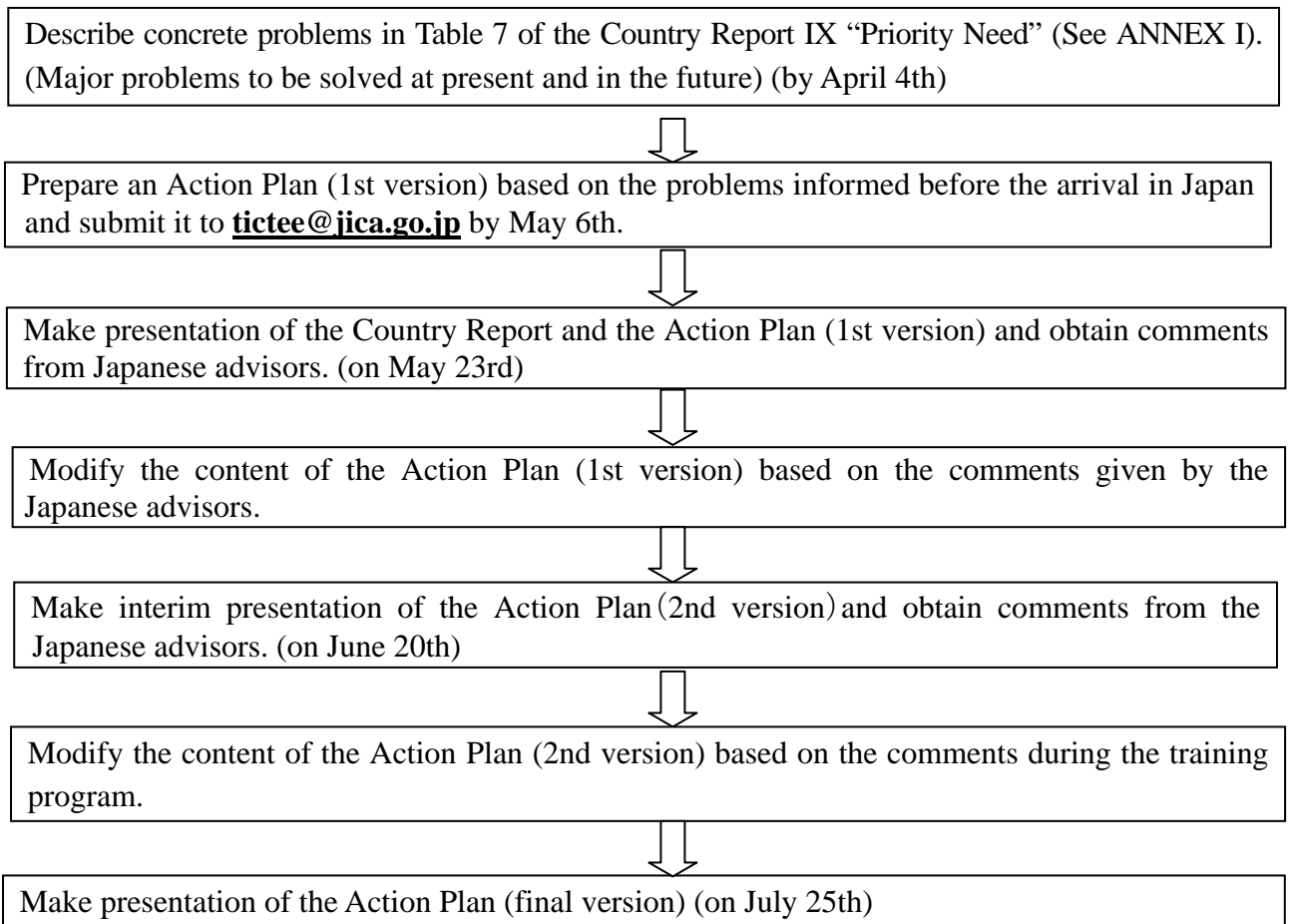
Action Plan

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:



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 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

Guidelines of Application Form for the JICA Training and Dialogue Program

The attached form is to be used to apply for the training and dialogue programs of the Japan International Cooperation Agency (JICA), which are implemented as part of the Official Development Assistance Program of the Government of Japan. Please complete the application form while referring to the following and consult with the respective country's JICA Office - or the Embassy of Japan if the former is not available - in your country for further information.

1. Parts of Application Form to be completed

1) Which part of the form should be submitted?

It depends on the type of training and dialogue program you are applying for.

>Application for Group and Region Focused Training Program

Official application and Parts A and B including Medical History and Examination must be submitted.

>>Application for Country Focused Training Program including Counterpart Training Program

Part B including Medical History and Examination will be submitted. Official application and Part A need not to be submitted

2) How many parts does the Application Form consist of?

The Application Form consists of three parts as follows;

Official Application

This part is to be confirmed and signed by the head of the relevant department/division of the organization which is applying.

Part A. Information on the Applying Organization

This part is to be confirmed by the head of the relevant department/division of the organization which is applying.

Part B. Information About the Nominee including Medical History and Examination

This part is to be completed by the person who is nominated by the organization applying. The applicants for Group and Region Focused Training Program are required to fill in every item. As for the applications for Country Focused Training Program including Counterpart Training Program and some specified International Dialogue Programs, it is required to fill in the designated "required" items as is shown on the Form.

Please refer to the General Information to find out which type the training and dialogue program that your organization applies for belongs to.

2. How to complete the Application Form

In completing the application form, please be advised to:

- (a) carefully read the General Information (GI) for which you intend to apply, and confirm if the objectives and contents are relevant to yours,
- (b) be sure to write in the title name of the course/seminar/workshop/project accurately



according to the GI, which you intend to apply,

- (c) use a typewriter/personal computer in completing the form or write in **block letters**,
- (d) fill in the form in **English**,
- (e) use or "x" to fill in the () check boxes,
- (f) attach a picture of the Nominee,
- (g) attach additional page(s) if there is insufficient space on the form,
- (h) prepare the necessary document(s) described in the General Information (GI), and attach it (them) to the form,
- (i) confirm the application procedure stipulated by your government, and
- (j) submit the original application form with the necessary document(s) to the responsible organization of your government according to the application procedure.

Any information that is acquired through the activities of the Japan International Cooperation Agency (JICA), such as the nominee's name, educational record, and medical history, shall be properly handled in view of the importance of safeguarding personal information.

3. Privacy Policy

1) Scope of Use

Any information used for identifying individuals that is acquired by JICA will be stored, used, or analyzed only within the scope of JICA activities. JICA reserves the right to use such identifying information and other materials in accordance with the provisions of this privacy policy.

2) Limitations on Use and Provision

JICA shall never intentionally provide information that can be used to identify individuals to any third party, with the following three exceptions:

- (a) In cases of legally mandated disclosure requests;
- (b) In cases in which the provider of information grants permission for its disclosure to a third party;
- (c) In cases in which JICA commissions a party to process the information collected; the information provided will be within the scope of the commissioned tasks.

3) Security Notice

JICA takes measures required to prevent leakage, loss, or destruction of acquired information, and to otherwise properly manage such information.

4. Copyright policy

Participants of the JICA Training and Dialogue program are requested to comply with the following copyright policy;

Article 1. Compliance matters with participants' drafting of documents (various reports, action plans, etc.) and presentations (report meetings, lectures, speeches, etc.)

1. Any contents of the documents and presentations shall be created by themselves in principle.



2. Comply with the following matters, if you, over the limit of quotation, have to use a third person's work (reproduction, photograph, illustration, map, figure, etc.) that is protected under laws or regulations in your country or copyright-related multinational agreements or the like:

- (1) Obtain license to use the work on your own responsibility. In this case, the scope of the license shall meet the provisions of Article 2.
- (2) Secure evidential material that proves the grants of the license and specifies the scope of the license.
- (3) Consult with the third party and perform the payment procedure on your own responsibility regarding negotiations with a third person about the consideration for granting the license and the procedure for paying the consideration,.

Article 2. Details of use of works used for training

- (1) The copyright on a work that a participant prepares for a training course shall belong to the trainee. The copyright on the parts where a third party's work is used shall belong to the third party.
- (2) When using texts, supplementary educational materials and other materials distributed for the JICA training courses, participants shall comply with the purposes and scopes approved by each copyright holder.



Training Programs under Technical Cooperation with the Government of Japan

Application Form for the JICA Training and Dialogue Program

OFFICIAL APPLICATION

(to be confirmed and signed by the head of the relevant department / division of the applying organization)

1. Title: (Please write down as shown in the General Information)

--

2. Number: (Please write down as shown in the General information)

J	0		-						
---	---	--	---	--	--	--	--	--	--

3. Country Name:

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4. Name of Applying Organization:

--

5. Name of the Nominee(s):

1)	3)
2)	4)

Our organization hereby applies for the training and dialogue program of the Japan International Cooperation Agency and proposes to dispatch qualified nominees to participate in the programs.

Date:		Signature:	
Name:			
Designation / Position		Official Stamp	
Department / Division			
Office Address and Contact Information			
Address:			
Telephone:		Fax:	
		E-mail:	

Confirmation by the organization in charge (if necessary)

I have examined the documents in this form and found them true. Accordingly I agree to nominate this person(s) on behalf of our government.

Date:		Signature:	
Name:			
Designation / Position		Official Stamp	
Department / Division			



Part A: Information on the Applying Organization

(to be confirmed by the head of the department / division)

1. Profile of Organization

1) Name of Organization:

2) The mission of the Organization and the Department / Division:

2. Purpose of Application

1) Current Issues: Describe the reasons for your organization claiming the need to participate in the training and dialogue program, with reference to issues or problems to be addressed.

2) Objective: Describe what your organization intends to achieve by participating in the training and dialogue program.



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3) Future Plan of Actions: Describe how your organization shall make use of the expected achievements, in addressing the said issues or problems.

4) Selection of the Nominee: Describe the reason(s) the nominee has been selected for the said purpose, referring to the following view points; 1) Course requirement, 2) Capacity /Position, 3) Plans for the candidate after the training and dialogue program, 4) Plan of organization and 5) Others.



9) Contact Information

Office	Address:	
	TEL:	Mobile (Cell Phone):
	FAX:	E-mail:
Home	Address:	
	TEL:	Mobile (Cell Phone):
	FAX:	E-mail:
Contact person in emergency	Name:	
	Relationship to you:	
	Address:	
	TEL:	Mobile (Cell Phone):
	FAX:	E-mail:

10) Others (if necessary)

--

4. Career Record

1) Job Record (After graduation)

Organization	City/ Country	Period		Position or Title	Brief Job Description
		From Month/Year	To Month/Year		

2) Educational Record (Higher Education)(required)

Institution	City/ Country	Period		Degree obtained	Major
		From Month/Year	To Month/Year		



3) Training or Study in Foreign Countries; please write your past visits to Japan specifically as much as possible, if any.

Institution	City/ Country	Period		Field of Study / Program Title
		From Month/Year	To Month/Year	

5. Language Proficiency (required)

1) Language to be used in the program (as in GI)				
Listening	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Speaking	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Reading	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Writing	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Certificate (Examples: TOEFL, TOEIC)				
2) Mother Tongue				
3) Other languages ()	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor

¹ Excellent: Refined fluency skills and topic-controlled discussions, debates & presentations. Formulates strategies to deal with various essay types, including narrative, comparison, cause-effect & argumentative essays.

¹ Good: Conversational accuracy & fluency in a wide range of situations: discussions, short presentations & interviews. Compound complex sentences. Extended essay formation.

¹ Fair: Broader range of language related to expressing opinions, giving advice, making suggestions. Limited compound and complex sentences & expanded paragraph formation.

¹ Poor: Simple conversation level, such as self-introduction, brief question & answer using the present and past tenses.



6. Expectation on the applied training and dialogue program

1) Personal Goal: Describe what you intend to achieve in the applied training and dialogue program in relation to the organizational purpose described in Part A-2.

2) Relevant Experience: Describe your previous vocational experiences which are highly relevant in the themes of the applied training and dialogue program. (required)

3) Area of Interest: Describe your subject of particular interest with reference to the contents of the applied training and dialogue program. (required)

***7. Declaration (to be signed by the Nominee) (required)**

I certify that the statements I made in this form are true and correct to the best of my knowledge.

If accepted for the program, I agree:

- (a) not to bring or invite any member of my family (except for the program whose period is one year or more),
- (b) to carry out such instructions and abide by such conditions as may be stipulated by both the nominating government and the Japanese Government regarding the program,
- (c) to follow the program, and abide by the rules of the institution or establishment that implements the program,
- (d) to refrain from engaging in political activity or any form of employment for profit or gain,
- (e) to return to my home country at the end of the activities in Japan on the designated flight schedule arranged by JICA,
- (f) to discontinue the program if JICA and the applying organization agree on any reason for such discontinuation and not to claim any cost or damage due to the said discontinuation.
- (g) to consent to waive exercise of my copyright holder's rights for documents or products that are produced during the course of the project, against duplication and/or translation by JICA, as long as they are used for the purposes of the program.
- (h) to approve the privacy policy and the copyright policy mentioned in the Guidelines of Application.

JICA's Information Security Policy in relation to Personal Information Protection

- JICA will properly and safely manage personal information collected through this application form in accordance with JICA's privacy policy and the relevant laws of Japan concerning protection of personal information and take protection measures to prevent divulgence, loss or damages of such personal information.

- Unless otherwise obtained approval from an applicant itself or there are valid reasons such as disclosure under laws and ordinances, etc., and except for the following 1.-3., JICA will neither



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provide nor disclose personal information to any third party. JICA will use personal information provided only for the purposes in the following 1.-3 and will not use for any purpose other than the following 1.-3 without prior approval of an applicant itself.

1. To provide technical training to technical training participants from developing countries.
2. To provide technical training to technical training trainees from developing countries under the Citizens' Cooperation Activities..
3. In addition to 1. and 2. above, if the government of Japan or JICA determines necessary in the course of technical cooperation.

Date:	Signature:
	Print Name:



MEDICAL HISTORY AND EXAMINATION

1. Present Status

(a) Do you currently use any drugs for the treatment of a medical condition? (Give name & dosage.)

No | Yes >> Name of Medication (_____), Quantity (_____)

(b) Are you pregnant?

No | Yes (_____ months)

(c) Are you allergic to any medication or food?

No | Yes >>> Medication | Food | Other: _____

(d) Please indicate any needs arising from disabilities that might necessitate additional support or facilities.

(_____)
Note: Disability does not lead to exclusion of persons with disability from the program. However, upon the situation, you may be directly inquired by the JICA official in charge for a more detailed account of your condition.

2. Medical History

(a) Have you had any significant or serious illness? (If hospitalized, give place & dates.)

Past: No | Yes >> Name of illness (_____), Place & dates (_____)
Present: No | Yes >> Present Condition (_____)

(b) Have you ever been a patient in a mental hospital or been treated by a psychiatrist?

Past: No | Yes >> Name of illness (_____), Place & dates (_____)
Present: No | Yes >> Present Condition (_____)

(c) High blood pressure

Past: No | Yes
Present: No | Yes >> Present Condition (_____) mm/Hg to (_____) mm/Hg

(d) Diabetes (sugar in the urine)

Past: No | Yes
Present: No | Yes >> Present Condition (_____)
Are you taking any medicine or insulin? No | Yes

(e) Past History: What illness(es) have you had previously?

<input type="checkbox"/> Stomach and Intestinal Disorder	<input type="checkbox"/> Liver Disease	<input type="checkbox"/> Heart Disease	<input type="checkbox"/> Kidney Disease
<input type="checkbox"/> Tuberculosis	<input type="checkbox"/> Asthma	<input type="checkbox"/> Thyroid Problem	
<input type="checkbox"/> Infectious Disease >>> Specify name of illness (_____)			
<input type="checkbox"/> Other >>> Specify (_____)			

(e') Has this disease been cured?

Yes | No (Specify name of illness _____)
Present Condition: (_____)

3. Other: Any restrictions on food and behavior due to health or religious reasons?

I certify that I have read the above instructions and answered all questions truthfully and completely to the best of my knowledge.

I understand and accept that medical conditions resulting from an undisclosed pre-existing condition may not be financially compensated by JICA and may result in termination of the program.

Date:	Signature:
	Print Name: