

S no - 2011

No.12040/38/2013-FTC (Trg.)  
Government of India  
Ministry of Personnel, Personnel Grievances and Pensions  
Department of Personnel and Training  
[Training Division]

Block-4, Old JNU Campus  
New Mehrauli Road, New Delhi-67  
Dated 20<sup>th</sup> June, 2013

**TRAINING CIRCULAR**

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Subject: Group Training Course in 'Water Environment Monitoring to be held in Japan from September 01 to October 19, 2013 under the Technical Cooperation Programme of the Government of Japan.

The undersigned is directed to state that the Japan International Cooperation Agency (JICA) has invited applications for the above mentioned training programme to be held in Japan September 01 to October 19, 2013 under the Technical Cooperation of the Government of Japan.

2. The programme aims to strengthen the basic skills of water quality analysis of hazardous organic compounds, microorganism, heavy metals etc and to acquire knowledge of water environmental policy and the way of its implementation.

3. The program is offered to laboratory staffs and technical officers working for water quality monitoring in Central or Local Government and Public Institution. The nominees for this course should be a Technical Officer in Charge of water quality monitoring in Central/Local Government or Public Institutions (this programme includes 8-days laboratory analysis); be a University Graduate (with Science or Engineering) or have the equivalent academic background, and have enough knowledge on water environment; be between the ages of twenty five (25) and thirty five (35) years; be fluent in spoken and written English; be in good health (both physically and mentally), not be a part of military service.

4. In addition, the following information in respect of the nominated officers may please be mentioned while furnishing the nomination:-

- a) Whether attended any foreign training programme in the past? If so, the duration/detail thereof;
- b) Whether cleared from vigilance angle;
- c) Age;
- d) Whether working in North East State/J&K;
- e) A brief in 50-100 words justifying the nomination.

5. The course covers the cost of a round-trip air ticket between international airport designated by JICA and Japan; 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 are not included).

6. It is therefore requested that the nomination of suitable candidates may please be forwarded (**in duplicate**) in JICA's prescribed form (available in [persmin.nic.in](http://persmin.nic.in)→DOPT→Training Wing→Circular→JICA) to this Department duly authenticated by the HOD of the concerned department in accordance with the eligibility criteria.

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7. The applications should reach this Department through the Administrative Ministry/State Government not later than **July 08, 2013**. Nominations received after the prescribed date will not be considered. The details of the programme may be drawn from Ministry of Personnel, Public Grievances and Pensions' website ([persmin.nic.in](http://persmin.nic.in)).

  
(N.K. Wadhwa)

Under Secretary to the Government of India  
Tele.No.011-26165682

**Copy to:**

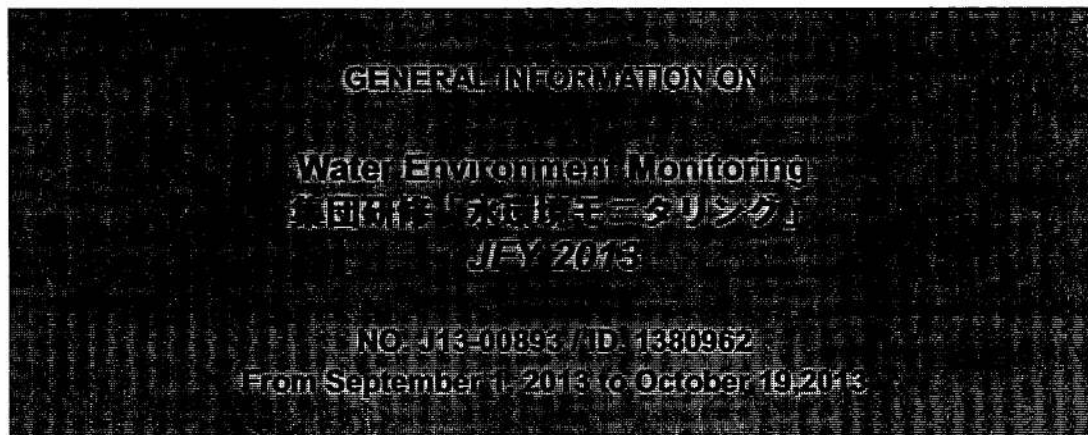
- a) The Secretary, M/o Water Resources, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001,
- b) The Secretary, M/o Environment & Forest, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003
- c) All State Governments/Union Territories(with request to circulate the same amongst their related Departments/Organizations),
- d) NIC with request to post the circular along with the JICA's circular on this Department's website.

O/C

  
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# TRAINING AND DIALOGUE PROGRAMS



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**

Water pollution is an issue directly connected to people's healthy life, natural environment conservation and maintenance of ecosystems.

However, with urbanization and industrialization in developing countries, environmental deterioration such as water quality degradation is becoming a huge problem. To take some measures against water pollution issues, water quality monitoring and water quality analysis are important.

Japan has overcome serious pollution problems including water quality degradation during 1960's-1970's and thus this training provides opportunities to learn the Japanese experiences on water pollution control. Also technical trainings are one of the main features of this course conducting river water sampling and water quality analysis in a laboratory.

### **For what?**

This program is designed for laboratory staffs and technical officers in charge of water quality monitoring to acquire basic skills of water quality analysis of hazardous organic compounds, microorganisms, heavy metals, and etc. and to acquire knowledge of water environmental policy and the way of its implementation.

### **For whom?**

This curriculum is designed for laboratory staffs and technical officers working for water quality monitoring in central or local government and public institutions.

## II. Description

**1. Title (J-No.):** Water Environment Monitoring (J13-00893)

**2. Period of program:**

**Duration of whole program:** August 2013 to January 2014

**Preliminary Phase:** August 2013 to September 2013

**Core Phase in Japan:** September 1, 2013 to October 19, 2013

**Finalization Phase:** October 2013 to January 2014

(in a participant's home country)

**3. Target Countries:**

Cambodia, China, India, Indonesia, Laos, Myanmar, Viet Nam, Sri Lanka, Mexico, Egypt, Ethiopia, Kenya

**4. Eligible / Target Organization**

This course is designed for central / local government and public institutions responsible for water quality monitoring to enable basic water analysis, including an 8-day laboratory analysis, and to acquire knowledge of water environmental policy and the way of its implementation.

**5. Overall Goal**

Appropriate water quality monitoring is conducted in respective countries for water environmental conservation.

**6. Objective**

This program is designed for laboratory staffs and technical officers in charge of water quality monitoring to enhance their skills and knowledge for water quality management and to develop a plan to overcome issues faced by each participant.

**7. Total Number of Participants:** 12

**8. Language to be used in this Program:** English

**9. Expected Module Output and Contents:**

This program consists of the following components. Details on each component are given below.

<b>Preliminary Phase in a participant's home country</b> (August 2013 to September 2013) <i>Participants make required preparation for the Program in the respective countries.</i>	
<b>Expected Module Output</b>	<b>Activities</b>
To analyze own skills and knowledge on laboratory works	Filling out and submission of Questionnaire. (See ANNEX I)
To grasp the current situation of water pollution and management	Formulation and submission of Country Report (See ANNEX II) * If Participant's colleague has been joined in the same titled course in previous years, please check his/her Action Plan and its current situation.

<b>Core Phase in Japan</b> (September 1, 2013 to October 19, 2013) See ANNEX IV (the schedule in 2012 as reference) <i>Participants attend the Program implemented in Japan.</i>		
<b>Expected Module Output</b>	<b>Program</b>	<b>Method</b>
1) To be able to explain mechanisms of water pollutions and their effects	History of water pollution problem in Japan	Lecture
	Mechanism of water pollution	Lecture
	Water pollution and its effects	Lecture/Visit
2) To be able to explain the water quality management in Japan and in other countries	Difference of environmental standards, water quality standards, and effluent standards in Japan	Lecture / Site Visit
	Work of Japanese central and local government for water quality management	Lecture/ Site Visit
	Water supply and sewage system in Japan	Lecture/Site visit
	Roles of private entities for conservation of water environment	Lecture/Site visit
	Implementation method and case study of water quality management in JICA cooperation	Lecture/ Site Visit
3) To acquire basic skills and methods of water quality monitoring	Method of sampling, measurement of flow rate and velocity	Lecture/Exercise
	Method of water quality monitoring (effluent, ground water, environmental water, tap water)	Lecture/ Site Visit
	Analysis of toxic organic compound / agrichemicals (GC)	Laboratory work
	Analysis of organic compound (COD/TOC)	Laboratory work
	Measurement of microorganism	Laboratory work
	Analysis of heavy metal (AAS)	Laboratory work
	Method of monitoring data processing	Laboratory work
4) To analyze the challenges on water quality monitoring	Country Report presentation <sup>*1</sup> (See Annex II)	Presentation

in respective countries and to develop an Action Plan	Action Plan elaboration and presentation <sup>*2</sup> (See Annex III)	Discussion, Individual/ Group work & Presentation
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※1 Participants in this course will make presentation of their Country Reports **at the beginning of the training course**. For this purpose, participants are highly recommended to bring visual materials for their presentation, i.e. Power Points etc. About 20 minutes including Q&A session are allocated to each participant.

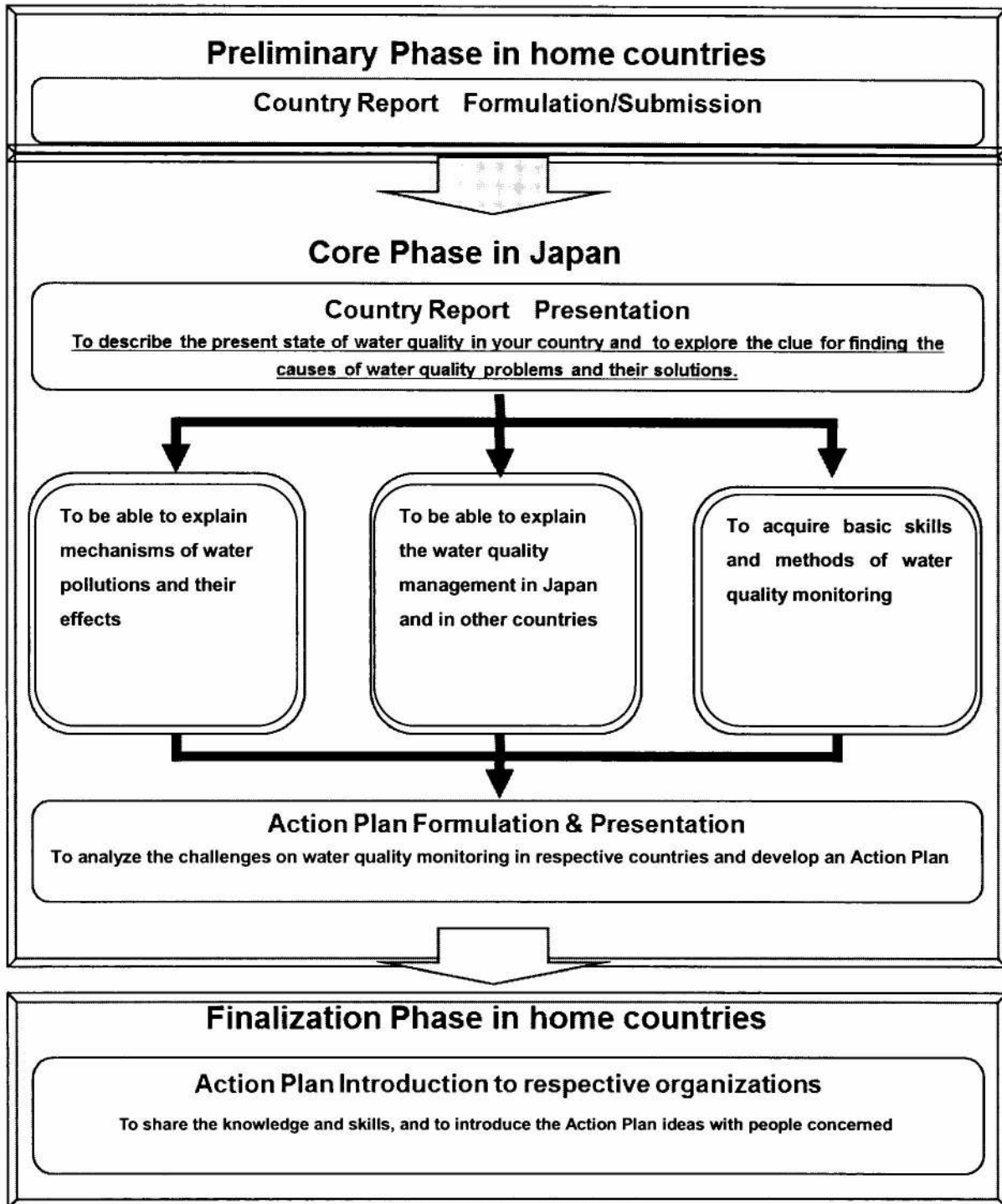
For further information of the Country Report, please see Annex II. The Country Report will be the basis of Action Plan elaboration.

※2 Participants are expected to work on personal computers intensively for various assignments during the course including elaboration of Action Plans. Desk top computers are available in the training center but it is suggested to bring personal computers if possible for the convenience.

<b>Finalization Phase in a participant's home country</b> (October 2013 to January 2014) <i>Participating organizations produce final outputs by utilizing the results brought back by participants. This phase marks the end of the Program.</i>		
<b>Expected Module Output</b>	<b>Program</b>	<b>Method</b>
5) To share the knowledge and skills, and to introduce the Action Plan ideas with people concerned	Sharing all contents, including lectures, discussions and exercises	Discussion, Presentation, Report <sup>*3</sup>

※3 All participants are required to submit the report (questionnaire) on the result of the discussion and implementation (in participants' organizations or countries) based on the Action Plan **within three (3) months after the end of the phase** in Japan. (Detail will be explained after the arrival in Japan)

## 〈Structure of the program〉





### **III. Conditions and Procedures for Application**

#### **1. Expectations for the Participating Organizations**

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

#### **2. Nominee Qualifications**

**Applying Organizations are expected to select nominees who meet the following qualifications. Applicants should;**

- (1) be laboratory staffs or technical officers in charge of water quality monitoring in central/local government or public institutions (This program includes 8-day laboratory analysis),
- (2) be university graduates (science or engineering) or have the equivalent academic background, and have enough knowledge on water environment,
- (3) not be less than twenty five(25) and not be more than thirty five (35) years of age in principle,
- (4) have a sufficient skills of English for discussions and presentations,
- (5) be nominated by their government in accordance with the procedures mentioned in III-4.,
- (6) not be serving in any form of military services, and
- (7) be in good health, both physically and mentally, to participate in the Program in Japan. (This course includes many field works (trips).)

#### **3. Required Documents for Application**

- (1) **Application Form:** The Application Form is available at the respective country's JICA office or the Embassy of Japan.

\*Pregnancy

Pregnant participants are strictly requested to attach the following documents in order to minimize the risk for their health.

- (a) letter of the participant's consent to bear economic and physical risks
- (b) letter of consent from the participant's supervisor
- (c) doctor's letter with agreement of her training participation.

Please ask National Staffs in JICA office for the details.

**(2) Questionnaire (Annex I)**

**(3) Country Report (Annex II)**

**4. Procedure for Application and Selection**

**(1) Application**

**Closing date for Application Form, Questionnaire and Country Report to JICA Tokyo International Center in JAPAN: July 18, 2013**

**Note: Please confirm the closing date set by the respective countries' JICA offices or Embassies of Japan 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 Embassies of Japan shall conduct screenings, and send the documents to the above-mentioned JICA Center in Japan. Selection shall be made by the JICA Center in consultation with the organizations concerned 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 the result of the selection shall be made by the respective countries' JICA offices or Embassies of Japan to the respective governments by **no later than August 1, 2013.**

**5. Conditions for Attendance:**

- (1) to follow the schedule of the program,
- (2) not to change the program subjects or extend the period of stay in Japan,
- (3) not to bring any members of their family,
- (4) to return to their home countries at the end of the program in Japan according to the travel

schedule designated by JICA,

- (5) to refrain from engaging in political activities, or any form of employment for profit or gain,
- (6) to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances participants may be required to return part or all of the training expenditure depending on the severity of said violation.
- (7) to observe the rules and regulations of their place of accommodation and not to change the accommodation designated by JICA, and
- (8) to participate in the whole program including the preliminary phase prior to the core phase in Japan. The beneficiary organizations are expected to support implementation of the action plans by the course participants and to utilize the knowledge/skills which participants have gained in Japan.

## IV. Administrative Arrangements

### 1. Organizer:

Name: Economic Infrastructure Development and Environment Division, JICA TOKYO,  
Contact: Ms. Ruri Hidano [ticttee@jica.go.jp](mailto:ticttee@jica.go.jp)

### 2. Implementing Partner:

### 3. National Environmental Research & Training Institute, Ministry of the Environment (NETI)

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

#### (1) Japan Environmental Sanitation Center (JESC)

URL: <http://www.jesc.or.jp/en/index.html>

#### (2) Japan Society on Water Environment

URL: <http://www.jswe.or.jp/index-e.html>

### 4. 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.)

### 5. Accommodation in Japan

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

JICA Tokyo International Center (JICA TOKYO)

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

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

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

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

### 6. Expenses

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

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

For more details, please see p.8-16 of the brochure for participants titled "KENSU-IN GUIDE BOOK," which will be given to the selected participants before (or at the time of) the

pre-departure orientation.

**7. Pre-departure Orientation**

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



## &lt; Method Flame AAS&gt;

Do you have experience of the method?

- have long and enough experience
- have some experience
- have no experience but know the outline of the method
- no experience and no knowledge on the method

Subject in which you are interested

[ ]

## &lt; Method GC &gt;

Do you have experience of the method?

- have long and enough experience
- have some experience
- have no experience but know the outline of the method
- no experience and no knowledge on the method

Subject in which you are interested (If you face any problems relating to pesticides, please brief them. For example, a water body has polluted with some sorts of pesticides)

[ ]

## &lt; Measurement of total coliform or fecal coliform bacteria&gt;

Do you have experience of the measurement?

- have long and enough experience     have some experience
- have no experience but know the outline of the method
- experience and no knowledge on the method

Subject in which you are interested

[ ]

## COUNTRY REPORT

The aim of making Country Report is not only to grasp the present state of water quality issues in your county. The final goal is to help you find countermeasures to improve the water environment in your country through discussions with other participants and lecturers. Therefore, please describe in detail following the questions below to make other people understand your country, the current water environmental situation, the role of your organization, your own role and etc. This document will also be used as a screening material.

**Name:**

**Country:**

### 1. General Information on the Country

Specify briefly the geographical status, population, economic conditions, weather and so on.

- (1) Geographic location including main rivers
- (2) Population
- (3) GDP and main industries
- (4) Climate (Annual Rainfall, Seasons, etc.)

### 2. Organizational Framework

Please attach the organizational chart and describe the following items.

- (1) Name of Applicant's Organization
- (2) Organization chart (Please attach the chart of your organization)
- (3) Type of the organization (Please choose one option among the followings.)
  - Part of Government Department
  - Government Corporations
  - Independent Authority
  - Others (Please describe.)
- (4) Role/Activities of the organization



## (5) Financial Resource of the organization, if applicable

- National Government %
- Local Government %
- Investor (Private) %
- Others (Please describe: ) %

## (6) Annual budget of the organization

- Personnel: (USD)
- Machinery: (USD)
- Chemical: (USD)
- Others (describe: ): (USD)
- Others (describe: ): (USD)
- Others (describe: ): (USD)

## (7) The number of staff members in the organization

- Sampling staff:
- Analytical staff:
- Inspector:
- Administrative staff:
- Others:
- Total:

## (8) Coverage area of the applicant's organization, if applicable

## (9) Total population of the coverage area, if applicable

## (10) Total population which the organization dealing with, if applicable

## (11) Water Quality monitoring system (if you are from non-laboratory institution or department, please describe where your organization gets water monitoring data and how you utilize them)

- a) The number of analytical staff
- b) List of analytical equipment (attach in separate sheet if needed)
- c) Table of parameters for water quality monitoring and those methods
- d) Sampling points (ex. XX river, effluent of companies) attach a map of sampling points if

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possible

e) Frequency of the above water sampling

f) Data Processing System

- Are the sampling and analysis done by the same person or different?
- How do you gather the monitoring data?
- How do you interpret the data?
- Do you use the data for reviewing environmental standards?
- Do you use the data for making historical trends?
- Do you use the data for inspections?
- Do you have any other purpose to acquire and analyze the data? What do you want to do with that data?

g) Obstacles to execute the water quality monitoring

h) Strategies for expansion of the water monitoring activities

(12) Your position and tasks in the organization

### 3. Situation and problems of water pollution

Specify the condition and the causes of water pollution in your country/region. Please refer to the following items and explain by using tables and figures to facilitate the comparison among the participant's countries.

(1) Law/Regulations relating to water pollution control

(Name of law/regulation, Year of its legislation, Purpose/ of the law)

(2) Table of Environmental Quality Standard (EQS) and their values for groundwater

(Parameter item, Range/Maximum permitted values, Year of Establishment)

(3) Table of Environmental EQS and their values for surface water

(Parameter item, Range/Maximum permitted values, Year of Establishment)

(4) Table of Environmental EQS and their values for effluents

(Parameter item, Range/Maximum permitted values, Year of Establishment)

(5) Table of Environmental EQS and their values for portable water

(Parameter item, Range/Maximum permitted values, Year of Establishment)

(6) Compliance rate to EQS (present and historical trend)

(7) Historical trend of water pollution (attach a graph)

(8) Spatial distribution of pollutants (attach a map)

(9) Coverage of sewage in the country or in the capital city (Name ) (%)

(10) Source of drinking water

#### 4. Specific area of interest and others

(1) Points of your interests in water quality monitoring

(2) Problems you are facing in conducting laboratory analysis

(3) Current idea about the topic you would like to choose in your Action Plan (see the Annex III)

(4) Others (\*If Participant's colleague has been joined in the same titled course in previous years, please check his/her Action Plan and explain about its current situation.)

**Note:**

\*For effective training, please bring the data you mentioned in the Country Report.

\*All participants are requested to make a presentation on your Country Report.

Please prepare for your presentation materials such as making a power point file before coming to Japan.

**Action Plan**

**What is an Action Plan?**

By the end of the training course, all participants are required to develop an Action Plan. The purpose is to plan how to solve a challenge and to focus on one specific goal. The plan should focus on something you may carry out upon return to your country and be referred to the knowledge/skill which you gain during this course. Therefore, it should be both concrete and practical. Try to make the plan by using the existing human and financial resources in your organization in the most efficient and effective way possible.

**Why each participant is required to formulate an Action Plan?**

The exercise is to encourage you to apply the gained knowledge from the course to your own actual situation upon return to your country. The preparing process itself will help you turn your ideas into feasible actions to improve the current situation of your organization.

**<Contents of Action Plan (Recommended)>**

- a. Title
- b. Background (challenges to be solved, national policy, etc.)
- c. Objectives (Goals)
- d. Outcomes
- e. Direct and Indirect beneficiaries
- f. Related knowledge/skill acquired during the training in Japan
- g. Action Component
- h. Implementation schedule
- i. Responsible agencies and their roles
- j. Monitoring and evaluation
- k. Budget and other necessary resources (amount of budget and how to raise fund)

**Note:**  
You are expected to typewrite on the A4 sized paper and also prepare a presentation material. You will have more detailed guidance after arrival in Japan.

## ANNEX IV

**Course Schedule 2012 (As Reference)**

Note: Detailed schedule in 2013 will be announced after arrival.

3	Mon	9:30	—	12:30	Briefing	
		14:00	—	17:00	Program Orientation	Ms. Yoshida, JICA Program Officer Mr. Miyagawa, Ms Nakamura, JESC
4	Tue	9:30	—	17:00	General Orientation (Japanese Society and People/ Japanese Economy/ "Human Security")	
5	Wed	10:00	—	12:30	Country Report Presentation (1)	Dr. Watanabe, NETI Dr. Fujimori, NETI
		14:00	—	17:00	Country Report Presentation (2)	Dr. Nittami, Yokohama Nat. University Mr. Yamada, JICA Senior Advisor
6	Thu	9:30	—	12:00	Water Quality Control Administration of Japan	Mr. Furuta, Ministry of the Environment
		13:30	—	16:30	Environmental Administration of Local Government	Dr. Kato, Mie University
7	Fri	10:00	—	17:00	Action Plan Workshop	Mr. Yamada, JICA Senior Advisor
10	Mon	9:30	—	12:30	History of Water Pollution Problems and its Countermeasures in Japan	Dr. Okada, Hiroshima University
		14:00	—	15:30	Sewage Treatment Plant	Mikawajima Water Reclamation Center
11	Tue	9:30	—	12:30	Environmental Contamination Risk Assessment	Dr. Makino, National Institute of Advanced Industrial Science and Technology
		14:00	—	17:00	Current Situation and Mechanism of Water Pollution <Heavy Metals>	Dr. Itoh, Iwate University

12	Wed	9:30	—	12:30	Processing Technology/Monitoring Method of Water Quality(3) <Tap Water>	Dr. Takizawa, Tokyo University
		14:00	—	16:00	Capacities Improvement on Water Environmental Monitoring - Experience as JICA Technical Cooperation	Dr. Yoshida , JICA Senior Advisor
13	Thu	9:30	—	12:30	Current Situation and Mechanism of Water Pollution <Bio-indicator:Microcystis and Benthos>	Dr. Murakami, Chiba Institute of Technology
		14:00	—	16:00	Treatment of Industrial Effluent	Chuo Electroplating Industry Assoc.
14	Fri	9:30	—	12:30	Current Situation and Mechanism of Water Pollution <Pollution Mechanism and Effects on Ecosystem of Hazardous Chemical Substance>	Dr. Watanabe, NETI
		14:00	—	17:00	Water Quality Degrading /Polluting Load Effluent Volume and Pollution Loading Volume & Quality of Environmental Water	Dr. Tsuzuki, Shimane University
18	Tue	9:30	—	11:30	Sewage Treatment Plant	Kisshoin Water Environment Conservation Center
		13:00	—	15:30	Water Purification Plant	Osaka City Water Examination Laboratory/Kunishima Water Purification Plant
19	Wed	9:30	—	12:30	Operation and Management of Water Quality Monitoring	Lake Biwa Environmental Research Institute (Lake Water Monitoring)
					Public Awareness on Water Quality Monitoring	Lake Biwa Museum
		14:00	—	17:00	<i>(Transfer) Kyoto → TIC</i>	
20	Thu	9:30	—	12:30	Water Pollution Prevention and Environmental Education	Ms. Kazama, Tokyo Metropolitan Government
		14:00	—	17:00	Current Situation and Mechanism of Water Pollution <Organic Pollution & Nutrient Salt>	Dr. Saito, Nihon University

21	Fri	9:30	—	15:30	Action Plan -Work Draft Check-	Dr. Watanabe, NETI Dr. Katayama, Tokyo University
24	Mon	9:30	—	17:00	Practice 1: Measurement of Hazardous Metals (AAS)	Practice 1: Dr. Fujimori Practice 2: Dr. Shinomiya Practice 3: Dr. Watanabe Practice 4: Dr. Honda Practice 5: Dr. Iwakiri
25	Tue	9:30	—	17:00	Practice 2: Micro Organism Screening Method for Hazardous	
26	Wed	9:30	—	17:00	Practice 3: Measurement of Hazardous	
27	Thu	9:30	—	17:00	Organic Chemical Compounds (GC) Practice 4: Measurement of Hazardous	
28	Fri	9:30	—	17:00	Contaminants (COD / TOC) Practice 5: ELSA / HPLC (*Pr1-Pr5 given in 3 divided groups)	
Oct.1	Mon	9:30	—	17:00	Practice 1: Measurement of Hazardous Metals (AAS)	Practice 1: Dr. Fujimori Practice 2: Dr. Shinomiya Practice 3: Dr. Watanabe Practice 4: Dr. Honda Practice 5: Dr. Iwakiri
2	Tue	9:30	—	17:00	Practice 2: Micro Organism Screening Method for Hazardous	
3	Wed	9:30	—	17:00	Practice 3: Measurement of Hazardous	
4	Thu	9:30	—	17:00	Organic Chemical Compounds (GC) Practice 4: Measurement of Hazardous	
5	Fri	9:30	—	17:00	Contaminants (COD / TOC) Practice 5: ELSA / HPLC (*Pr1-Pr5 given in 3 divided groups)	
9	Tue	9:30	—	17:00	Status Report Preparation Method - Data Processing Method with EXCEL	Dr. Kasuga, Tokyo University
10	Wed		—		<i>(Transfer) TIC → Minamata</i>	
		15:00	—	17:00	Study on Organic Mercury and Minamata Disease	National Institute for Minamata Disease
11	Thu	9:00	—	11:00	Study on Organic Mercury and Minamata Disease	Minamata Disease Municipal Museum
		11:00	—	12:00	Study on Organic Mercury and Minamata Disease	Minamata Disease Archives
			—		<i>(Transfer) Minamata → TIC</i>	

12	Fri	9:30	—	12:30	Ecological Sanitation	Dr. Morita, JESC
		14:30	—	16:00	Night Soil Sludge Treatment Plant	Omiya Nambu Purification Center
15	Mon	9:30	—	12:30	Processing Technology/Monitoring Method of Water Quality <Effluent>	Dr. Nittami, Yokohama National University
		14:00	—	17:00	Processing Technology/Monitoring Method of Water Quality (1) <Ground Water>	Dr. Fujiwara, Kochi University
16	Tue	9:30	—	12:30	Water Sampling, Labeling and Storing Method	Mr. Yokosea /Mr. Obara /Mr. Okuda /Mr. Nakamura, SAITAMA-KEN ENVIRONMENTAL ANALYSIS & RESEARCH ASSOCIATION
		14:00	—	17:00	Methods of Measuring Current Velocity and Flow Rate of Rivers/Waterway (Field Study)	
17	Wed	9:30	—	12:30	Current Situation and Mechanism of Water Pollution <Pathogenic Microbes>	Dr. Katayama, Tokyo University
		14:00	—	17:00	Action Plan Preparation	
18	Thu	9:30	—	17:00	Action Plan Preparation for Presentation	Mr. Yamada , JICA Senior Advisor
19	Fri	9:30	—	16:00	Action Plan -Presentation-	Dr. Murakami, Chiba Institute of Technology Dr. Katayama, Tokyo University Dr. Watanabe, NETI Dr. Fujimori, NETI Mr. Yamada, JICA Senior Advisor Course Staff
		16:15	—	17:15	Evaluation Meeting	Ms. Yoshida, JICA Program Officer
		17:15	—	17:45	Closing Ceremony	Ms. Yoshida, JICA Program Officer



## ***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.

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***CORRESPONDENCE***

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