



TRAINING AND DIALOGUE PROGRAMS

GENERAL INFORMATION ON

INDUSTRIAL WASTEWATER TREATMENT TECHNIQUES (A)

集団研修「産業廃水処理技術（A）」

JFY 2012

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

NO. J1200792 / ID. 1280815

From June 2012 to February 2013

Phases in Japan: From July 29, 2012 to November 23, 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

Developing countries, which are becoming increasingly industrialized, now face the deterioration of their living and natural environments due to water pollution caused by industrial and domestic wastewater. It is critical that these countries work to prevent such environmental pollution from occurring and promote effective water quality improvement measures.

This is the background against which this program has been set up: to provide engineers involved in the management of industrial wastewater in various industries with the opportunity to learn measures and technologies related to water pollution prevention and environmental improvement through looking at concrete example in Japan that are based on experiences accumulated in the Kitakyushu region, one of Japan's leading industrial areas.

For what?

This program aims to formulate adequate plans of industrial wastewater treatment in participant's countries.

For whom?

This program is offered to engineers in charge of wastewater treatment in government/municipal offices or manufacturing industries with more than 5 years of occupational experience.

How?

Participants shall have opportunities in Japan to identify approaches to water pollution control and wastewater treatment through lectures, practice and field study. Participants will also formulate an action plan describing what the participants will do after they go back to home country putting the knowledge and ideas acquired and discussed in Japan.

II. Description

1. Title (J-No.):

Industrial Wastewater Treatment Techniques (A) (J1200792)

2. Period of Program

Duration of whole program: June 2012 to February 2013

Preliminary Phase: June 2012 to July 2012

Core Phase in Japan: July 29, 2012 to November 23, 2012

Finalization Phase: November 2012 to February 2013

3. Target Regions or Countries:

Bosnia and Herzegovina, China, Colombia, Egypt, Philippines, Saudi Arabia, and Sri Lanka

4. Eligible / Target Organization

This program is designed for departments related to wastewater treatment in the central/local government or manufacturing enterprise.

5. Total Number of Participants

8 participants

6. Language to be used in this Program

English

7. Program Objective

This training program aims to provide relevant knowledge and skill to participants so that they will be able to formulate appropriate industrial wastewater treatment measures.

8. Overall Goal

Appropriate industrial wastewater treatment measures are implemented in the participating countries.

9. Expected Module Output and Contents:

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

(1) Preliminary Phase in a participant's home country (June to July 2012) Applying organizations are required to submit the Job Report and the Issue Analysis Sheet together with the application form for selection in Japan.		
Objectives	Activities	
Job Report & IAS	Formulation and submission of the job report and the issue analysis sheet (IAS)	
(2) Core Phase in Japan (From July 29, 2012 to November 23, 2012) Participants dispatched by the organization to attend the Program implemented in Japan		
Objectives	Subjects	Methodology

<p>I. Basic of Water Pollution Control: With regard to basic policies and measures of the government for water pollution control, challenges in your home countries are identified.</p>	<ol style="list-style-type: none"> 1) History of water pollution and measures for cleaning 2) Global environment and environmental assessment 3) Prospects of environmental problem 4) Administration for waste disposal 5) Wastewater treatment by use of private sewerage tank 	<p>Lecture and Field Study</p>
<p>II. Basic Theory of Wastewater Treatment: With regard to the basic theory of wastewater treatment and functions of the treatment equipment, challenges faced in your workplaces are reviewed.</p>	<ol style="list-style-type: none"> 1) Pollution control processes 2) Outline of wastewater treatment technique 3) Development of wastewater treatment technique 	<p>Lecture</p>
<p>III. Basic Plan of Wastewater Treatment: Basic technologies of planned treatment facilities, such as treatment and testing methods of various kinds of wastewaters, and the method for selecting treatment methods are reviewed.</p>	<ol style="list-style-type: none"> 1) Investigation of wastewater and data analysis 2) Selection of treatment method and mass balance 3) Details of wastewater treatment and model test 	<p>Lecture, Practice and Field Study</p>
<p>IV. Design and Construction of Wastewater Treatment Facilities: Design proposals for the treatment equipment that have matched the basic conditions for wastewater treatment facilities in the practical exercise are prepared.</p>	<ol style="list-style-type: none"> 1) Detail design of equipment and structures and layout 2) Construction plan and schedule management 3) Planning of wastewater treatment facilities (case studies) 4) Automatic control (sequence control) practice 5) Application of CAD practice 	<p>Lecture, Practice and Field Study</p>
<p>V. Operation and Maintenance of Wastewater Treatment Facilities: Challenges in the aspect of field Management technologies related to operation and maintenance for the promotion of safe operation and maintenance for the promotion of safe operation of wastewater treatment facilities are reviewed.</p>	<ol style="list-style-type: none"> 1) Wastewater analysis practice 2) Iron making equipment and measures against water pollution (include water supply and discharge) 3) Work improvement technique 4) Maintenance of wastewater treatment facilities 5) An introduction to maintenance management 6) Cleaner production 	<p>Lecture, Practice and Field Study</p>
<p>VI. Formulation of Action Plans: By applying the technologies and knowledge acquired by the participants, countermeasures (action plans) for the challenges facing your organizations are made. After returning to their home countries, the participants will</p>	<ol style="list-style-type: none"> 1) Elaboration and presentation of the job report 2) Elaboration of the action plan 3) PCM(Project Cycle Management) 4) Presentation of the action plan 	<p>Lecture and Practice</p>

share the action plans they made with other concerned people in their organizations, so that each organization can consider the implementation of the plans.		
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(3) Finalization Phase in a participant's home country (November 2012 to February 2013) Participating organizations produce final outputs by making use of results brought back by participants. This phase marks the end of the Program.	
Modules	Activities
Examination of the action plan	Application and implementation of the action plan is discussed in the participant's organization and its result will be submitted by February 2013 based on the follow-up questionnaire to be provided during the phase in Japan.

Please refer to the attached schedule (Annex III). The schedule is subject to minor changes.

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 project 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 project 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 submitting applications to Japan by carrying out the activities of the Preliminary Phase described in Section II.
- (4) Participating organizations are also expected to make the best use of the results achieved by their participants in Japan by carrying out the activities of the Finalization Phase described in Section II.

2. Nominee Qualifications

Applying Organizations are expected to select nominees who meet the following qualifications.

Essential Qualifications

- (1) Current Duties: be engineers in charge of wastewater treatment in government/ municipal offices or manufacturing industries
- (2) Experience in the relevant field: have more than 5 years of occupational experience in the field of wastewater treatment
- (3) Educational Background: be a university graduate, majoring in chemical, mechanical, electrical or civil engineering, or the equivalent
- (4) Language: be competent in spoken and written English which is equal to TOEFL 500 (PBT) or above, or the Cambridge First Certificate (This training program includes active participation in discussions and action plan development, thus requires high competence of English ability. Please attach an official certificate for English ability such as TOEFL, TOEIC etc., if possible.)

- (5) Health: must be in good health, both physically and mentally, to participate in the Program in Japan. As the training includes much field work (trips), that may give risks to pregnant body, pregnancy is regarded as a disqualifying condition for participation in this training program.

Recommended Qualifications

Age: forty-five (45) years or younger

3. Required Documents for Application

- (1) **Application Form:** The application form is attached to this General Information.
- (2) **Job Report:** to be submitted with the application form. Job Report is used for screening of participants. It is a report to understand an outline of an organization that a nominee belongs to as well as his/her work experience in relevant fields. The report should be completed in accordance with descriptions of Annex I.
- (3) **Issue Analysis Sheet (IAS):** to be submitted with the application form. IAS is used for screening of participants. The purpose of IAS is to logically organize relationships between problems which a nominee's organization facing with and contents of fields to be taken in the training program in Japan. The sheet should be completed in accordance with descriptions of Annex II. The nominees should submit his/her IAS with approval of his/her superior. The IAS without approval of a nominee's superior is not accepted.

4. Procedure for Application and Selection:

(1) Submitting the Application Documents:

Closing date for application to the JICA Center in JAPAN: **June 8, 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 documents through due administrative procedures in the respective government, the respective country's JICA office (or Japanese Embassy) shall conduct screenings, and send the documents to the JICA Center in charge in Japan, which organizes this project. Selection shall be made by the JICA Center 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 country's JICA office (or Embassy of Japan) to the respective Government by not later than June 29, 2012.

5. Conditions for Attendance:

- (1) to follow the schedule of the program,
- (2) not to change the program subjects or extend the period of stay in Japan,
- (3) not to bring any members of their family,
- (4) to return to their home countries at the end of the program in accordance with 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.
- (8) to participate in the whole program including a preparatory phase prior to arrival in Japan. Applying organizations, after receiving notice of acceptance for their nominees, are expected to carry out the actions described in the previous sections.

IV. Administrative Arrangements

1. Organizer:

- (1) Name: JICA Kyushu
- (2) Contact: Ms. Hiroko Sannomaru (Sannomaru.Hiroko@jica.go.jp)

2. Implementing Partner:

- (1) Name: Kitakyushu International Techno-cooperative Association (KITA)
- (2) URL: http://www.kita.or.jp/english/e_index.html
- (3) Remark: KITA has carried out JICA training projects since 1980, and over the period from 1980 to 2011 has accepted a total of 6,207 participants. The courses cover environmental policies, promotion of a recycling-oriented society, production techniques and facility maintenance as well as projects related to the improvement of work training management ability, and in 2011 it offers a total of 39 courses.

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.

4. Accommodation in Japan:

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

JICA Kyushu International Center (JICA KYUSHU)
Address: 2-1, Hirano 2-chome, Yahata Higashi-ku, Kitakyushu City,
Fukuoka Prefecture 805-8505, Japan
TEL: +81-93-671-6311 FAX: +81-93-671-0979
(where "81" is the country code for Japan, and "93" is the local area code)

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

5. 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 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.

6. Pre-departure Orientation:

A pre-departure orientation will be held at the respective country’s JICA office (or Japanese Embassy), to provide participants with details on travel to Japan, conditions of the workshop, and other matters.

V. Other Information

1. Reports and Presentation:

(1) Job Report & Issue Analysis Sheet (IAS)

As written in the previous page, each nominee is required to submit his/her own Job Report following the instruction in *Section III*. Participants will have a presentation of his/her Job Report & IAS up to 10 minutes at the earlier stage of the training in order to share knowledge and background with other participants as well as instructors. Visual materials such as Power Point and pictures may be helpful for your presentation if you bring them with you. When you use Power Point, it is preferable to use letters more than 24 points and not to use pictures on the background.

(2) Action Plan Report

Participants are required to formulate an action plan at the end of the training program to express your idea and plan, which you carry out after your return, reflecting the knowledge and method you acquire from the training. Each participant will have 10 minutes for presentation. The report would be sent to the respective country’s JICA office.

2. International Exchange Program with local communities:

JICA encourages international exchange between JICA participants and local communities. Participants will have a chance to visit elementary schools or junior high schools. Therefore, participants are recommended to bring their national costumes or crafts and materials such as CDs and photographs that will make the exchange program more fruitful.

3. Remarks:

JICA training is implemented for the purpose of development of human resources who will promote the advancement of the countries, but not for the enrichment of individuals or private companies. Matters of a trade secret and patent techniques will remain confidential and inaccessible during the training.

Industrial Wastewater Treatment Technique (A)
(JFY 2012)
Job Report

Name: _____
Country: _____
Organization and present post: _____
E-mail: _____
FAX: _____

Remarks 1: The Report should be typewritten in English (12-point font, A4 size paper), and total pages of the report should be limited to 3 pages (not including organization chart).

Remarks 2: Each participant is required to have presentation in 10 minutes based on this Job Report at the early stage of the training for the purpose of making the training more effective and fruitful by comprehending the situations and challenges of the participants each other.

Remarks 3: Please itemize your answer and make them specific.

1. Organization and main tasks (up to 1 page)

(1) Main tasks of the organization

(Please include annual turnover or product amount, name of products and number of employees.)

(2) Organization chart

Please draw a chart of your organization including the department (section) names with the number of staffs in it and mark where you are positioned (The chart should be attached and not be counted in this page limit).

Please describe a duty of each department (section) briefly. If you have the department for manufacturing of machine parts, please describe details.

(3) Brief description of your assignments

2. Expectations for the training course (up to 1 page)

(1) Most interesting subjects or topics in the training course

(2) How do you expect to apply skills and knowledge for your problem solving according to listed items in curriculum (in section II, page 2) after you return to your home country?

(3) Other matters you are expecting for this course

3. Your working experience

Have you ever learned the following subjects in your work? We would like to know your work experience. Please check either "Yes" or "No".

If your answer is "Yes", please fill in "Years" column the length of your application on the respective items.

	Yes	No	Years
1. Environmental control of wastewater quality	()	()	()
2. Planning and designing of wastewater treatment facilities	()	()	()
3. Operation and maintenance of wastewater treatment facilities	()	()	()
4. Operation and maintenance of waste treatment facilities	()	()	()
5. Analysis of wastewater	()	()	()
6. Information processing (computer programming)	()	()	()
7. Environmental engineering	()	()	()
8. Chemical engineering	()	()	()
9. Hygiene engineering	()	()	()
10. Electrical engineering	()	()	()
11. Mechanical engineering	()	()	()
12. Civil engineering	()	()	()
13. Other ()			()

*Under "13. Other", please specify subject not covered by any of the items "1" to "12".

Issue Analysis Sheet (IAS) Guidelines

1. What is IAS?

- (1) IAS is a tool to logically organize relationships between issues and contents of the training program in Japan.
- (2) IAS will help the nominee to clarify his/her challenges to be covered in each expected module output and to formulate solutions to them.
- (3) The sheet is to be utilized as a logical process control sheet to draw up improvement plans for the issues by filling out the sheet in phases from prior to the nominee's arrival in Japan through to the end of the training.
- (4) In addition, it is used for the course leader and lecturers to understand the issues that each participant is facing, and provide him/her with technical advice, useful references and solutions through the training program in Japan.

2. How to fill out IAS?

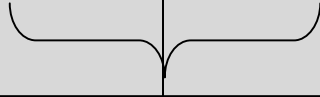
- (1) Please refer to Item 2 "Purpose of Application" of Part A in the Application Form, and describe the issues or problems which your department facing in the column "A" and "B" in each "Expected Module Output" of IAS. You will formulate practical solutions to those issues/problems through the training program in Japan.
- (2) Please leave the column C and D blank. These columns are filled out during the training program in Japan.
- (3) If your organization has many issues/problems to be solved, you can submit two or more sheets.

3. Remarks

- (1) IAS without approval of a nominee's superior is not accepted.
- (2) IAS is a key material for the screening of the nominees. The Japan side puts emphasize on its contents and then proceeds with the screening.
- (3) Accepted participants will make a presentation on the IAS and the job report at the beginning of the training program in Japan
- (4) Accepted participants are requested to bring this IAS in electronic file when coming to Japan.

Industrial Wastewater Treatment Techniques (A) JFY2012

Country Name: _____ Participant's Name: _____ Organization/Department: _____

Expected Module Outputs	Relevant Subjects	A: Problems you are facing at work or in the community	B: Suspected Causes (of the Problems)	C: Measures Taken in Japan	D: Proposal to Your Own Country
<p>I. Basic of Water Pollution Control: With regard to basic policies and measures of the government for water pollution control, challenges in your home countries are identified.</p>	<p>1) History of water pollution and measures for cleaning 2) Global environment and environmental assessment 3) Prospects of environmental problem 4) Administration for waste disposal 5) Wastewater treatment by use of private sewerage tank</p>	<p>1. Laws and regulations are in place but compliance is not achieved. 2. Low environmental awareness among citizens and enterprises.</p>	<p>1-1 Lack of monitoring systems 1-2 Lack of penal code 1-3 Poor inspection and checking techniques 2-1 Lack of environmental education system 2-2 Companies' priority on profits</p>		<p>*There is no need to fill this part. Participants are to complete during training here in Japan and is to be presented as part of your action plan.</p>
<p>II. Basic Theory of Wastewater Treatment: With regard to the basic theory of wastewater treatment and functions of the treatment equipment, challenges faced in your workplaces are reviewed.</p>	<p>1) Pollution control processes 2) Outline of wastewater treatment technique 3) Development of wastewater treatment technique</p>	<p>1. Multiple facility or operational difficulties, however, we are unable to respond properly to fix them. 2. -----</p>	<p>1-1 Lack of technical training systems 1-2 Lack of manuals for facility operation and maintenance</p>		
<p>III. Basic Plan of Wastewater Treatment: Basic technologies of planned treatment facilities, such as treatment and testing methods of various kinds of wastewaters, and the method for selecting treatment methods are reviewed.</p>	<p>1) Investigation of wastewater and data analysis 2) Selection of treatment method and mass balance 3) Details of wastewater treatment and model test</p>	<p>For objective and subject, please write about both; A (problems) and, B (causes).</p>	<p>*For these columns, please explain with simple sentences rather than by making notes. *Please write multiple answers if there is more than one answer.</p>		

Name of Supervisor _____

Designation/Position of Supervisor _____

Signature _____

Annex II

Industrial Wastewater Treatment Techniques (A) JFY2012

Country Name: _____ Participant's Name: _____ Organization/Department: _____

Expected Module Outputs	Relevant Subjects	A: Problems you are facing at work or in the community	B: Suspected Causes (of the Problems)	C: Measures Taken in Japan	D: Proposal to Your Own Country
<p>I. Basic of Water Pollution Control: With regard to basic policies and measures of the government for water pollution control, challenges in your home countries are identified.</p>	<p>1) History of water pollution and measures for cleaning 2) Global environment and environmental assessment 3) Prospects of environmental problem 4) Administration for waste disposal 5) Wastewater treatment by use of private sewerage tank</p>				
<p>II. Basic Theory of Wastewater Treatment: With regard to the basic theory of wastewater treatment and functions of the treatment equipment, challenges faced in your workplaces are reviewed.</p>	<p>1) Pollution control processes 2) Outline of wastewater treatment technique 3) Development of wastewater treatment technique</p>				
<p>III. Basic Plan of Wastewater Treatment: Basic technologies of planned treatment facilities, such as treatment and testing methods of various kinds of wastewaters, and the method for selecting treatment methods are reviewed.</p>	<p>1) Investigation of wastewater and data analysis 2) Selection of treatment method and mass balance 3) Details of wastewater treatment and model test</p>				

Annex II

<p>IV. Design and Construction of Wastewater Treatment Facilities: Design proposals for the treatment equipment that have matched the basic conditions for wastewater treatment facilities in the practical exercise are prepared</p>	<p>1) Detail design of equipment and structures and layout 2) Construction plan and schedule management 3) Planning of wastewater treatment facilities (case studies) 4) Automatic control (sequence control) practice 5) Application of CAD practice</p>				
<p>V. Operation and Maintenance of Wastewater Treatment Facilities: Challenges in the aspect of field Management technologies related to operation and maintenance for the promotion of safe operation and maintenance for the promotion of safe operation of wastewater treatment facilities are reviewed.</p>	<p>1) Wastewater analysis practice 2) Iron making equipment and measures against water pollution (include water supply and discharge) 3) Work improvement technique 4) Maintenance of wastewater treatment facilities 5) An introduction to maintenance management 6) Cleaner production</p>				

Name of Supervisor: _____

Designation/Position of supervisor: _____

Signature: _____

Annex III

Tentative Schedule

Date		Subject
Jul	29 (Sun)	Arriving Japan
	30 (Mon)	Briefing
	31 (Tue)	Program Orientation, General Orientation, Medical Check
Aug	1 (Wed)	Preparation for Job Report Presentation, Practice of Project Cycle Management
	2 (Thu)	Practice of Project Cycle Management
	3 (Fri)	Practice of Project Cycle Management
	4 (Sat)	Practice of Project Cycle Management
	5 (Sun)	Day-off
	6 (Mon)	Explanation on Curriculum, Presentation of Job Report
	7 (Tue)	Regulation by wastewater Pollution Control Law, Environmental Impact Assessment
	8 (Wed)	Kitakyushu Environment Museum, Field Study (Dokai Bay)
	9 (Thu)	Field Study (Hiagari Sewage Treatment Plant), Field Study (Eco Town)
	10 (Fri)	Outline of Industrial Waste Management, Field Study (Waste Reclamation Site)
	11 (Sat)	Day-off
	12 (Sun)	Day-off
	13 (Mon)	History of Water Pollution & Environmental Education, Instruction on Action Plan
	14 (Tue)	Field Study (Kogasaki Inceneration Facility), Cultural Exchange Program
	15 (Wed)	Outline of Wastewater Treatment Technology, (Pollution Control Processes)
	16 (Thu)	Outline of Wastewater Treatment Technology, (Pollution Control Processes)
	17 (Fri)	Outline of Wastewater Treatment Technology, (Pollution Control Processes)
	18 (Sat)	Day-off
	19 (Sun)	Day-off
	20 (Mon)	Field Study (Kitakyushu Science and Research Park), Biological Indicators in Water
	21 (Tue)	Wastewater Analysis V, Wastewater Analysis VI
	22 (Wed)	Study trip: Oita
	23 (Thu)	Study trip: Kujyu (Geothermal Power Plant), Aso and Kumamoto
	24 (Fri)	Study trip: Minamata
	25 (Sat)	Day-off
	26 (Sun)	Day-off
	27 (Mon)	Work Improvement Technique
	28 (Tue)	Iron & Steel-making Process Pollution Measurement in NSC
	29 (Wed)	Environmental Control system in NSC
	30 (Thu)	Water Pollution Preventive measures in NSC
	31 (Fri)	Outline of Wastewater treatment in Septic Tank, Field Study (Hankyu Ferry Co.)
Sep.	1 (Sat)	Day-off
	2 (Sun)	Day-off
	3 (Mon)	Sequence Control (Relay Sequece)
	4 (Tue)	Sequence Control (Relay Sequece)
	5 (Wed)	Sequence Control (Relay Sequece)
	6 (Thu)	Development of Wastewater Treatment Technology
	7 (Fri)	Development of Wastewater Treatment Technology
	8 (Sat)	Day-off
	9 (Sun)	Day-off
	10 (Mon)	Wastewater Survey & Data Analysis
	11 (Tue)	Field Study: Wastewater Treatment facilities
	12 (Wed)	Wastewater Treatment Examination, Model tests
	13 (Thu)	Wastewater Treatment Examination, Model tests
	14 (Fri)	Study trip: Fukuyama (Kaihora Co.)
	15 (Sat)	Study trip: Hiroshima
	16 (Sun)	Day-off
	17 (Mon)	Day-off (Japanese National Holiday)
	18 (Tue)	Wastewater Treatment Examination, Model tests
	19 (Wed)	Wastewater Treatment Examination, Model tests

Annex III

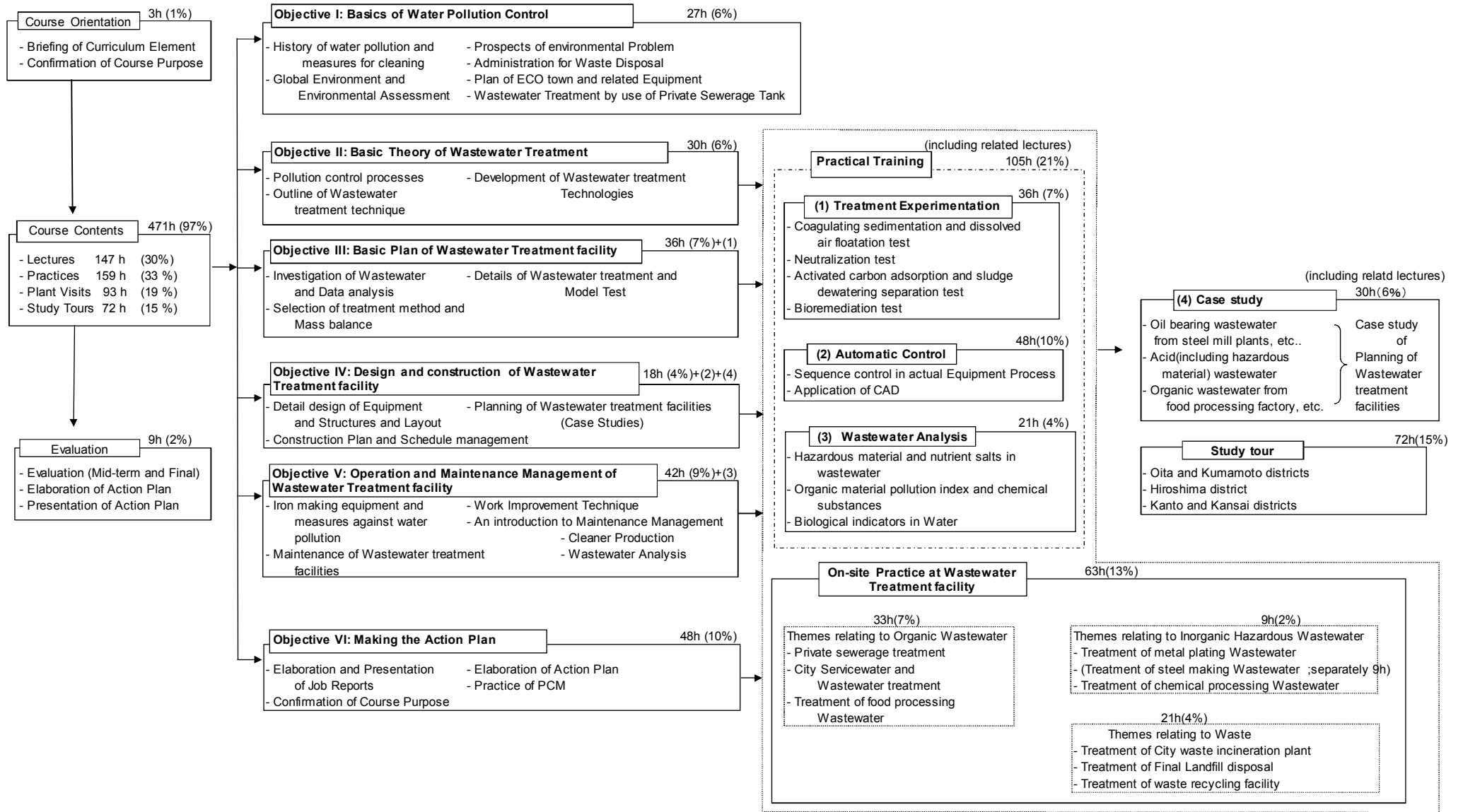
	20	(Thu)	Wastewater Treatment Examination, Model tests
	21	(Fri)	Model tests
	22	(Sat)	Day-off
	23	(Sun)	Day-off
	24	(Mon)	Interview (Mid-term Evaluation), Study of Action Plan
	25	(Tue)	Basic designs for Wastewater Treatment facilities, (Principle and Application)
	26	(Wed)	Basic designs for Wastewater Treatment facilities, (Principle and Application)
	27	(Thu)	Basic designs for Wastewater Treatment facilities (Principle and Application)
	28	(Fri)	Basic designs for Wastewater Treatment facilities (Principle and Application)
	29	(Sat)	Day-off
	30	(Sun)	Day-off
Oct.	1	(Mon)	Detailed design for Wastewater Treatment Facilities
	2	(Tue)	Detailed design for Wastewater Treatment Facilities
	3	(Wed)	Case Studies: Plannig of Wastewater Treatment Facilities
	4	(Thu)	Case Studies: Plannig of Wastewater Treatment Facilities
	5	(Fri)	Case Studies: Plannig of Wastewater Treatment Facilities
	6	(Sat)	Day-off
	7	(Sun)	Day-off
	8	(Mon)	Day-off (Japanese National Holiday)
	9	(Tue)	Case Studies: Plannig of Wastewater Treatment Facilities
	10	(Wed)	Case Studies: Plannig of Wastewater Treatment Facilities
	11	(Thu)	Execution Scheme and Scheduling W.T.F., Field Study (Construction Site)
	12	(Fri)	Field Study (Daiseki Co.Ltd), Study of Action Plan
	13	(Sat)	Day-off
	14	(Sun)	Day-off
	15	(Mon)	Designing by CAD
	16	(Tue)	Designing by CAD
	17	(Wed)	Designing by CAD
	18	(Thu)	Designing by CAD
	19	(Fri)	Designing by CAD
	20	(Sat)	Day-off
	21	(Sun)	Day-off
	22	(Mon)	An introduction to Maintenance Management & TPM
	23	(Tue)	Field Study (Hakozaki Utility Co.), Field Study (Desalination of Seawater)
	24	(Wed)	Field Study (Sapporo Breweries Ltd.)
	25	(Thu)	Study of Action Plan, Field Study (Butchery of Kitakyushu City)
	26	(Fri)	Outline of Cleaner Production
	27	(Sat)	Detailed design for Wastewater Treatment Facilities
	28	(Sun)	Detailed design for Wastewater Treatment Facilities
	29	(Mon)	Case Studies: Plannig of Wastewater Treatment Facilities
	30	(Tue)	Case Studies: Plannig of Wastewater Treatment Facilities
	31	(Wed)	Case Studies: Plannig of Wastewater Treatment Facilities
Nov.	1	(Thu)	Field Study (Mikasagawa Sewage Treatment Plant), Field Study (Fukuoka Method Landfill)
	2	(Fri)	Field Study (Nissan Motor Co.), Study of Action Plan
	3	(Sat)	Day-off
	4	(Sun)	Day-off
	5	(Mon)	Study of Action Plan, Field Study (Yamamoto Industries Ltd. Co.)
	6	(Tue)	Field Study (Kowa Seiko Co. Ltd.), Field Study (Ishikawa Kinzoku Co. Ltd.)
	7	(Wed)	Field Study (Mitubishi Chemical Corp.), Field Study (Mitubishi Material Co. Ltd.)
	8	(Thu)	Field Study (Anoh Water Purification Plant), Study trip : Yawata -> Kisaradsu
	9	(Fri)	Study trip: EBARA Corp.
	10	(Sat)	Study trip: Tokyo City Rainbow Water Museum
	11	(Sun)	Study trip: Tokyo (Holiday)
	12	(Mon)	Study trip: Emerging Science and Reserch Park

Annex III

13	(Tue)	Study trip: Tokyo City Office
14	(Wed)	Study trip: Lake Biwa Museum
15	(Thu)	Study trip: Morning Tour, Study trip: Horiba Co. Ltd.
16	(Fri)	Study trip: Kyocera Corp, Study trip: Kyoto -> Yawata
17	(Sat)	Day-off
18	(Sun)	Day-off
19	(Mon)	Study of Action Plan, Field Study (Eco Town)
20	(Tue)	Preparation for the Presentation of Action Plan
21	(Wed)	Preparation for the Presentation of Action Plan
22	(Thu)	Presentation of Action Plan, Closing Ceremony
23	(Fri)	Leave Japan (Japanese Holiday)

Annex IV

Curriculum Structure of the Core Phase in Japan (2012)



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

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