



Knowledge Co-Creation Program (Group & Region Focus)

GENERAL INFORMATION ON

ON-SITE WASTEWATER TREATMENT SYSTEM
課題別研修「分散型污水处理システム導入・普及」
JFY 2018

NO. J1804375 / ID. 1884915

Course Period in Japan: From August 20, 2018 to September 14, 2018

This information pertains to one of the JICA Knowledge Co-Creation Program (Group & Region Focus) 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.

'JICA Knowledge Co-Creation Program (KCCP)' as a New Start

In the Development Cooperation Charter which was released from the Japanese Cabinet on February 2015, it is clearly pointed out that *"In its development cooperation, Japan has maintained the spirit of jointly creating things that suit partner countries while respecting ownership, intentions and intrinsic characteristics of the country concerned based on a field-oriented approach through dialogue and collaboration. It has also maintained the approach of building reciprocal relationships with developing countries in which both sides learn from each other and grow and develop together."* We believe that this 'Knowledge Co-Creation Program' will serve as a center of mutual learning process.

I. Concept

Background

Due to rapid population growth and expansion of residential area, untreated night soil and wastewater discharge caused serious social problems: pollution to river, groundwater, or closed water area. Construction of sewerage system requires time and huge amount of money. The sanitary treatment of night soil and wastewater on-site (Johkasou) is cost effective and possible countermeasures against various kinds of water pollution due to domestic wastewater; and will contribute to improve safe water environment.

This program offers comprehensive wastewater treatment systems: laws and regulation to control water pollution, methodology of night soil and wastewater treatment, and operation and maintenance of Johkasou.

For what?

This program is designed to improve on-site wastewater treatment (measure for domestic wastewater, biological treatment, operation and maintenance system) in participating countries and regions.

For whom?

This program is offered to administrative, engineering officers in charge of wastewater treatment with occupational experience of more than three (3) years in relevant field.

How?

Participants will learn techniques and know-how in the field through lectures, observations, practices, and discussions. At the end of the program, participants will be requested present an action plan, utilizing contents of the program.

II. Description

1. Title (J-No.): On-Site Wastewater Treatment System (J1804375)

2. Course Period in JAPAN

August 20, 2018 to September 14, 2018

3. Target Regions or Countries

Brazil, Ethiopia, Fiji, Indonesia, Laos, Lebanon and Viet Nam

4. Eligible / Target Organization

This program is designed for governmental organization engaged in waste management.

5. Course Capacity (Upper limit of Participants)

10 participants

6. Language to be used in this program

English

7. Course Objective

After successfully completed the course, participants will be able to formulate and propose action plans improve on-site wastewater treatment (measure for domestic wastewater, biological treatment, operation and maintenance system).

8. Overall Goal

The formulated action plan is actually implemented in the organizations.

9. Expected Module Outputs 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 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 Participants dispatched by the organization to attend the Program implemented in Japan		
Expected Module Output	Subjects/Agendas	Methodology
Be able to explain the outline of policy and implementation system about municipal wastewater countermeasure in the national government and local government in Japan	<ol style="list-style-type: none"> 1. System of municipal wastewater treatment 2. Concept plan of municipal wastewater treatment 3. National government tackling to protect river water quality as upper water source 4. About the Johkasou policy in Japan 5. Formulation of municipal wastewater plan 	Lecture Field visit and Exercise
Be able to explain the outline of Johkasou, manufacturing, installation, maintenance and water quality management	<ol style="list-style-type: none"> 6. Overview of Johkasou 7. Maintenance of Johkasou 8. Overview of waste water treatment technology 9. Observation of Johkasou manufacturing 10. Techniques of waste water treatment (Gappei Johkasou, sprinkling filtration) 11. Techniques of waste water treatment (oxidation ditch) 12. Treatment and effective use of Johkasou sludge 13. About structural standards of Johkasou 14. About qualification system of Johkasou management vendor et al. 15. Theory of sludge treatment 16. Observation of night soil treatment center 17. Observation of sewerage treatment plant 	Lecture Field visit and Exercise

Be able to explain diffusion and expanding of Johkasou	18. Situation and problem of decentralized treatment system in developing country 19. Role and efforts of all Japan private sewerage treatment association 20. Problem of promoting overseas of Johkasou 21. Citizen activity to protect nearby river	Lecture Field visit and Exercise
Be able to formulate municipal wastewater treatment plan utilizing Johkasou	22. Job report presentation 23. Action plan lecture 24. Extraction of tasks based on IAS 25. Discussion (look back curriculum) 26. Action plan rehearsal 27. Solution of problem 28. Action plan presentation	Lecture Field visit and Exercise
Be able to examine and identify possible ideas to be applied for technical improvement.	29. Task Extraction Work from Submitted IAS 30. Instruction I for Action Plan I, II, III 31. Action Plan Presentation	Lecture Field visit and Exercise

(3) Finalization Phase in a participant's home country
Participants will apply knowledge and skills acquired in the training in their respective countries. This phase marks the end of the program.

Expected Module Output	Activities
Implementation of the action plan	Proposals (Action plans) formulated by participants are shared within their organizations, and discussed towards implementation.

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

III. Conditions and Procedures for Application

1. Expectations from 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.

2. Nominee Qualifications

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

(1) Essential Qualifications

- 1) Current Duties: Engineering officers in charge of wastewater treatment.
- 2) Experience in the relevant field: have more than three (3) years of experience in the field mentioned above.
- 3) Educational Background: be a graduate of university or equivalent level.
- 4) Language: have a competent command of spoken and written English which is equal to TOEFL iBT 100 or more (This workshop includes active participation in discussions, which 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. Pregnant applicants are not recommended to apply due to the potential risk of health and life issues of mother and fetus.

(2) Recommendable Qualifications

- 1) Be in relation with past or on-going JICA projects focusing on waste management.
- 2) Be familiar with engineering background.
- 3) Be familiar with PC operation, as there will be many chances for report writing and presentations.
- 4) Occupational experience of more than three (3) years in relevant field.
- 5) Age: between the ages of twenty-five (25) and forty-five (45) years

3. Required Documents for Application

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

(2) Photocopy of passport: to be submitted with the application form, if you possess your passport which you will carry when entering Japan for this program. If not, you are requested to submit its photocopy as soon as you obtain it.

*The photocopy should include the followings:

Name, Date of birth, Nationality, Sex, Passport number and Expire date.

(3) Nominee's English Score Sheet: to be submitted with the application form, if you have any official documentation of English ability. (e.g., TOEFL, TOEIC, IELTS)

(4) Job Report, Questionnaire and Issue Analysis Sheet (IAS): to be submitted with the application form. Fill in Annex I, II and III of this General Information, and submit it along with the Nomination Form. Job Report, Questionnaire and IAS are necessary documents for screening of an applicant. Each participant will be required to present his/her Job Report and IAS in approx. 10 minutes in an early stage of the course. Visual materials such as PowerPoint and pictures may be helpful for your presentation if you bring them. When you use PowerPoint, it is preferable to use letters more than 24-point and not to use pictures on the background. An applicant should submit his/her IAS with approval of his/her superior and an IAS without approval of an applicant's superior is not accepted. The purpose of an IAS is to logically organize relationships between issues participants are facing and contents covered in the training course. The sheet is to be utilized as a logical process control sheet to draw on improvement plans for challenges by filling out the sheet in phases from prior to a participant's arrival in Japan through the end of training. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

4. Procedures for Application and Selection

(1) Submission of the Application Documents

Closing date for applications: **Please inquire to the JICA office (or the Embassy of Japan).**

After receiving applications, the JICA office (or the Embassy of Japan) will send them to **the JICA Center in JAPAN** by **June 15, 2018.**

(2) Selection

After receiving the documents through proper channels from your government, the JICA office (or the embassy of Japan) will conduct screenings, and then forward the documents to the JICA Center in Japan. Selection will be made by the JICA Center in consultation with concerned organizations in Japan. *The applying organization with the best intention to utilize the opportunity of this program will be highly valued in the selection.* Qualifications of applicants who belong to the military or other military-related organizations and/or who are

enlisted in the military will be examined by the Government of Japan on a case-by-case basis, consistent with the Development Cooperation Charter of Japan, taking into consideration their duties, positions in the organization, and other relevant information in a comprehensive manner.

(3) Notice of Acceptance

Notification of results will be made by the JICA office (or the Embassy of Japan) **not later than July 13, 2018.**

5. Conditions for Attendance

- (1) to strictly adhere to the program schedule.
- (2) not to change the program topics.
- (3) not to extend the period of stay in Japan.
- (4) not to be accompanied by family members during the program.
- (5) to return to home countries at the end of the program in accordance with the travel schedule designated by JICA.
- (6) to refrain from engaging in any political activities, or any form of employment for profit or gain.
- (7) 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.
- (8) to observe the rules and regulations of the accommodation and not to change the accommodation designated by JICA.

IV. Administrative Arrangements

1. Organizer

(1) **Name:** JICA KYUSHU

(2) **Contact:** Training Program Division (kictp@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. 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:** Coverage is from time of arrival up to departure in Japan. Thus traveling time outside Japan will 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: <https://www.jica.go.jp/kyushu/english/office/c8h0vm0000a0cdx5-att/kyushu01.pdf>

5. Expenses

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

(1) Allowances for accommodation, meals, 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 “III. ALLOWANCES” of the brochure for participants titled “KENSU-IN GUIDE BOOK,” which will be given before departure for Japan.

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)

Each applicant is required to submit his/her own Job Report & Issue Analysis Sheet following the instruction. Participants will have a presentation of his/her Job Report & Issue Analysis Sheet 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.

(2) Action Plan Report

Participants are required to make an Action Plan at the end of the training to express your idea and plan which you carry out after your return, reflecting the knowledge and method you acquire in the training. Each person will have 10 minutes for presentation. Also, participants are required to complete IAS by the end of the training and present it at the Action Plan Presentation.

2. International Exchange Program with local communities

Participants will have opportunities to visit elementary schools or junior high schools. Therefore, it is 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.

Annex I

**On-Site Wastewater Treatment System
(JFY 2018)
Job Report**

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

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

Remarks 2: Please don't forget checking the analysis sheet.

Remarks 3: Each participant is requested to give presentation up to around 10 minutes based on this Job Report and Issue Analysis Sheet (IAS). With regard to IAS kindly make a presentation in detail so that all training staff will understand how you are facing challenges and why you attend this training course.

Remarks 4: It is also requested to prepare a POWERPOINT for the presentation. When you use PowerPoint, it is preferable to use letters more than 24 points and not to use pictures on the background.

Remarks 5: Please itemize your answer and make them specific.

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

(1) Description of the organization

Name of organization:

Number of staff:

Main task of the organization:

Your task in the organization:

(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.)

(3) Description of your assignments to the training

2. Existing challenges in your section (up to 1 page)

(1) Challenges you are facing in your section (Please describe concrete details)

(2) Countermeasures for these challenges

(3) Obstacles in the process of solving those challenges

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

(1) Most interesting subjects or topics in this training course and reasons why you pick up the subjects

(2) How do you expect to apply skills and knowledge according the listed items in Curriculum after you return to your home country?

(3) Other matters you are expecting for this course, if any
(Basically this training program is fixed and cannot be changed upon your request.)

Annex II

**On-Site Wastewater Treatment System
(JFY 2018)
Questionnaire**

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

Remarks 1: The Questionnaire should be typewritten in English (12-point font, appropriately spaced, A4 size paper), and total pages of the report should be limited to 2 pages.

Remarks 2: Please itemize your answers and make them specific.

1. How has wastewater (night soil and gray water) been treated?
 - Treated by sewage plant
 - Night soil has been treated by septic tank while gray water left untreated
 - Night soil has dipped out from latrine while gray water left untreated
 - Both night soil and gray water have left untreated
 - Others (_____)

2. Has sewage been installed?
 - Yes No
 - If "yes," what is the diffusion rate of sewage?

3. Has sewage treatment plant been installed?
 - Yes No
 - If "yes," what is the method of treatment? (e.g., activated sludge process)

4. Is there any problem of getting safe water from river or groundwater because of pollution by night soil or gray water?
 - Yes No

5. Are there septic tanks in use?

Yes No

If "yes," what types are they?

()

How are the septic tanks maintained; and what are the methods of sludge withdrawal?

()

6. Have you ever heard of Johkasou which is capable of treating both night soil and gray water at the sometimes?

Yes No

Thank you for cooperation!

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 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 confronting, 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 describe the issues you (your organization) confront(s) in column "**A: Issues that you (your organization) confront(s)**".
Prepare the separate rows for each problem; if necessary, please add new rows.
- (2) In column "**B: Actions that you (your organization) are (is) taking**", please describe actions that you (your organization) are taking to solve the issues shown in "**Column A**".
This information is very important to carry out the training course and also to make Action Plan as a fruit of the training.
- (3) It's not necessary to fill in column "**I : Task or the information that I need**", column "**II : Useful information that I obtained/found**" and column "**III: Lecturer**". These columns shall be filled out during the training.
- (4) "**Column I**" shall be clarified and filled out in the subject "**Task extraction using IAS**" implemented at the earlier time in the training.
- (5) "**Column II**" and "**Column III**" shall be filled out during the training and you are required to present completed IAS in the subject "**Action Plan Presentation**".

Issue Analysis Sheet (IAS)

Country _____

Name _____

*No.	[A] Issues (Your Challenges) that you (your organization) confront(s).	*No.	[B] Actions that you (your organization) are (is) taking.
1			
	[I] Task or The information that I need.		[II] Useful information that I obtained /found. [III] Lecturer

*No.	[A] Issues (Your Challenges) that you (your organization) confront(s).	*No.	[B] Actions that you (your organization) are (is) taking.
2			
	[I] Task or The information that I need.		[II] Useful information that I obtained /found. [III] Lecturer

*No.	[A] Issues (Your Challenges) that you (your organization) confront(s).	*No.	[B] Actions that you (your organization) are (is) taking.
3			
	[I] Task or The information that I need.		[II] Useful information that I obtained /found. [III] Lecturer

*Please write the subject "No" you most expect to get the information you need. For the subject "No," please refer the "Number of Subject/Agenda" shown in the tables of this General information (Page 3- 4)

[Superior Name, Signature] _____

Annex IV
Tentative Schedule

*The schedule is subject to minor changes.

Day		Contents	
1	Mon	Arrival to Japan	
2	Tue	JICA Briefing	Program orientation
3	Wed	International exchange program	Course orientation /Japanese Language Class
4	Thu	System of municipal wastewater treatment	Concept plan of municipal wastewater treatment
5	Fri	Overview of Johkasou	Job report presentation
6	Sat	Holiday	
7	Sun	Holiday	
8	Mon	Maintenance of Johkasou	Maintenance of Johkasou
9	Tue	Action plan lecture	Observation of Johkasou manufacturing
10	Wed	Extraction of tasks based on IAS	National government tackling to protect river water quality as upper water source
11	Thu	Techniques of waste water treatment(gappei johkasou, sprinkling filtration)	Techniques of waste water treatment(oxidation ditch)
12	Fri	Treatment and effective use of Johkasou sludge	Treatment and effective use of Johkasou sludge
13	Sat	(Departure for study trip)	
14	Sun	Holiday	
15	Mon	Situation and problem of decentralized treatment system in developing country	About qualification system of Johkasou management vendor et al.
16	Tue	Formulation of municipal wastewater plan	Role and efforts of all japan private sewerage treatment association
17	Wed	(Move to Kitakyushu)	
18	Thu	Small-scale waste water treatment facility design	Small-scale waste water treatment facility design
19	Fri	Discussion(look back curriculum)	Theory of sludge treatment
20	Sat	Holiday	
21	Sun	Holiday	
22	Mon	Observation of night soil treatment center	Observation of sewerage treatment plant
23	Tue	Problem of promoting overseas of Johkasou	Citizen activity to protect nearby river
24	Wed	Action plan rehearsal	Solution of problem
25	Thu	Action plan presentation	Evaluation meeting
26	Fri	Leave from Japan	

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 Kyushu International Center (JICA Kyushu)
Address: 2-2-1 Hirano, Yahatahigashi-ku, Kitakyushu-shi,
Fukuoka 805-8505 Japan**

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