



# 【Online & In Japan】 Knowledge Co-Creation Program (Group & Region Focus)

## GENERAL INFORMATION ON

### TECHNOLOGY FOR SOLID WASTE MANAGEMENT WITH RECYCLING PROMOTION FOR SOUND MATERIAL-CYCLE SOCIETY

課題別研修「リサイクル推進による循環型社会構築に向けた  
廃棄物の適正処理技術」

**JFY 2020**

NO. 201902212J001/ ID. 201902212

#### Course Period:

From January 12, 2021 to March 12, 2021 (Online Training)

From October 31, 2021 to December 11, 2021 (in Japan) -tentative

JICA YouTube URL: <https://www.youtube.com/channel/UC8J23Sb9QqfdVirxz5kbERQ>

**Due to the spread of COVID-19, please note there is a possibility that the course schedule of visiting Japan will be changed, shortened, or cancelled.**

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.

## **Background**

Due to rapid population growth and economic development in urban areas, developing countries have confronted with various issues in Solid Waste Management (SWM). Recently SWM is not only focused on the treatment of generated waste like collection, transportation and landfilling, but also other activities from view point of so called "A Sound Material Cycle Society (SMCS)".

Under the condition, this training course aims at comprehensive way for SWM, particularly technology for recycling toward SMCS. Recently marine contamination by waste plastics is warning us to take proper action. Further after China has banned importation of waste plastic and some recyclables in 2018, it becomes more serious to handle those than before in developing countries. This means we must endeavor further toward SMCS in own countries and region. In Japan, we have been executing SMCS since 2000, the concept of 3R and its priority order for each action has widely spread. While reviewing each action, either Reduce or Reuse is rather action guideline for citizen, in other words it belongs to matter of management on SWM. On the other hand, Recycle needs some facilities and technologies to realize its technical process.

The reason why we set up this course is here in Kitakyushu is its history of overcoming environmental issues through many activities. Consequently, Kitakyushu has become one of pioneering region for SMCS as representing of recycling industries complex called Eco-town. Thus reflecting the regional characteristics, focusing on recycling activity, this course sets up aiming at comprehensive SWM with SMCS toward future a decade year in developing countries.

## **For what?**

This program is designed to improve Solid Waste Management (SWM) processes comprehensively under the concept of Sound Material Cycle Society (SMCS) for participating countries and regions. It includes not only simple work of SWM, such as collection, transportation, intermediate treatment and landfilling but also recycle based technology and practical example of SMCS carried out in Japan. Cleaner Production, one of specific items among SMCS, is contained in this course. The idea for reducing environmental burden and cost reduction through efficiency enhancement can be achieved simultaneously. Cleaner Production is widely introduced for factory rationalization as well as for waste handling work optimization.

## **For whom?**

This program is offered to engineering officers and managers in charge of waste management processes on collection, transportation, intermediate treatment and final disposal with occupational experience of more than three (3) years in relevant field and fundamental knowledge of recycling technology.

**How?**

Participants will learn techniques and know-how in the field through lectures, observations, practices, and discussions. Mutual Discussion is regarded as very important lesson so that participants can deepen what you have learned in this course. At the end of the program, participants are requested to make presentation of Action Plan as the final achievement.

## II. Description

### 1. Title (Course No.)

**Technology for Solid Waste Management with Recycling Promotion for Sound Material-Cycle Society (201902212J001)**

### 2. Course Period

From January 12, 2021 to March 12, 2021 (Online training)

\* From October 31, 2021 to December 11, 2021 Tentative (Training In Japan)

\* Due to the spread of COVID-19, please note we divide the course into 2 stages, that is training carried out at 1<sup>st</sup> stage by Online, thereafter training in Japan at 2<sup>nd</sup> stage.

\* Please note there is a possibility that the course schedule of visiting Japan will be changed, shortened, or cancelled.

\* After the Online training, selection will be made for the participants of the training in Japan.

### 3. Target Regions or Countries

Armenia, Indonesia, Jamaica, Kosovo, Lebanon, Montenegro, Myanmar, Palestinian Authority, Saint Vincent, Uruguay and Vietnam

### 4. Eligible / Target Organization

This program is designed for governmental organization and Non Profitable Organization (NPO) engaged in waste management.

### 5. Course Capacity (Upper limit of Participants)

1<sup>st</sup> stage (Online training) : No limit (open to target organization)

2nd stage (Training in Japan) :11 participants

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

All participants are requested to communicate and discuss in English without any problem so that we can share each idea and deepen understanding of the lesson. **English proficiency is indispensable for all participants.**

### 7. Course Objective

After successfully completed the course of both Online and in Japan, participants shall be able to formulate and propose action plan to improve waste management processes toward Sound Material Cycle Society (SMCS).

### 8. Overall Goal

The formulated action plan is actually implemented in the organizations, then capacity of comprehensive waste management will be enhanced in the country or region.

### 9. Course Structure

#### **1<sup>st</sup> Stage (Online Training)**

Lecture basis training program with Video form is distributed to each country .

Participants shall receive the lesson through video tool on demand basis of time. Unit of each lesson (lecture) is 2 hours.

During the training period, we will hold “Question and Answer Session” live with remote TV conference by Zoom in order to deepen the understanding of the participants.

This Session will be made a couple of times, some of lecturers will join to advise each time.

### **2<sup>nd</sup> Stage (Training in Japan)**

After 1<sup>st</sup> stage is over, we will select the final candidates to participate the training in Japan among the participants of above 1<sup>st</sup> stage (Online training).

Training in Japan is basically carried out by Observation (field visit), Practice and Discussion basis.

Each participant is obliged to make Action Plan presentation at final day in the course as final achievement of this training program.

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

## 10. Expected Module Outputs and Contents:

This program consists of the following components. The training course is composed of 5 expected Module Outputs. Participants are requested to study every Module so as to understand comprehensive SWM in Japan. Details on each component are given below: (Subjects/Agendas written in red color and underlined will be conducted basically by Online training with Video tool):

Expected Module Output	Subjects/Agendas	Methodology
<p><b>Module 1</b></p> <p>Be able to explain an outline of Solid Waste Management (SWM) and social system toward Sound Material Cycle Society (SMCS) in Japan.</p>	<ol style="list-style-type: none"> <li>1. <u>Japan Political System and Waste Management Law</u></li> <li>2. <u>Sound Material Cycle Society (Overall views and Laws &amp; regulation)</u></li> <li>3. <u>General Waste Management in Kitakyushu City</u></li> <li>4. <u>Industrial Waste Management in Kitakyushu City</u></li> <li>5. <u>Effective Waste Collection and Transport (Time &amp; Motion Study)</u></li> <li>6. International Cooperation for Environmental matters by Kitakyushu City</li> <li>7. JICA Cooperation Project for developing countries.</li> <li>8. <u>Cleaner Production and Effective Management</u></li> <li>9. Waste Management in Minamata City</li> </ol>	<p>Lecture (Mainly)</p> <p>Field visit and Exercise</p>
<p><b>Module 2</b></p> <p>Be able to explain actual mechanism of source separation and work such as collection, transportation, incineration and landfilling for SWM in Japan.</p>	<ol style="list-style-type: none"> <li>10. Experience of Garbage Collection Work (Tracing of Garbage Vehicle)</li> <li>11. Incineration Plant</li> <li>12. Sanitary Landfill Site in Kitakyushu (Sea Reclamation)</li> <li>13. Large Scale Landfill site in Tokyo Bay Area</li> <li>14. Sanitary Landfill Technology of Semi-aerobic System I (Fukuoka method)</li> <li>15. Eco-Town policy of Kitakyushu, Tokyo &amp; Kawasaki</li> <li>16. Analysis of Waste Composition</li> </ol>	<p>Lecture</p> <p>Field visit and Exercise (Mainly)</p>

<p><b>Module 3</b></p> <p>Be able to explain recycling process including composting from organic waste and detoxifying technology and the process done in Japan.</p>	<p>17. Plastics, Paper, PET, Glass bottles and Tins Recycling Plant in Kitakyushu (Pretreatment of Recyclables)</p> <p>18. Home Composting from Kitchen Waste (Takakura Method and Cardboard Method)</p> <p>19. Factory Basis Composting</p> <p>20. Sewage Sludge Composting</p> <p>21. <u>Quality Control of Compost from Different Waste</u></p> <p>22. Overall Recycling System of Organic Waste in Local Town (Ohki town &amp; Tosu city)</p> <p>23. RDF (Refuse Derived Fuel) Manufacturing Plant and Power Plant using RDF</p> <p>24. Medical Waste treatment in Hospital and its processing plant in Kitakyushu</p> <p>25. Various Recycling Technologies of Rubber Tire, Waste Oil, Chemical Waste, etc.</p>	<p>Lecture</p> <p>Field visit (Mainly) and Exercise</p>
<p><b>Module 4</b></p> <p>Be able to explain community level environmental awareness activity and environmental education done in Japan.</p>	<p>26. Environmental Education in Kitakyushu</p> <p>27. What is the function of local community center</p> <p>28. Environmental NPO Activity</p>	<p>Lecture</p> <p>Field visit and Exercise</p>
<p><b>Module 5</b></p> <p>Positive participation in discussion and opinion exchange, and improve skills in reporting and presentation.</p>	<p>29. Task Extraction Work from Submitted IAS</p> <p>30. Job report presentation</p> <p>31. Weekly review discussion</p> <p>32. Instruction and workshop for Action Plan Preparation</p> <p>33. Action Plan presentation</p>	<p>Discussion, Reporting and presentation</p>

### ***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: Engineers or Managers direct in charge of Solid Waste Management (SWM) process such as collection, transportation, intermediate treatment and landfilling or indirect but relevant work in charge.
- 2) Experience in the relevant field: have more than 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 course contains workshop where needs 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.

\*Participant who came to Japan making any false declaration for Medical History of Application form will terminate the training program and return home

##### **(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
- 6) Has a clear plan or be engaged in project for recycle based industries, that is,



what kinds of waste to be recycled taking into account of its feasibility for Sound Material Cycle Society (SMCS).

7) Has experience of working at site and understand the condition of the site.

Gender Consideration:

JICA is promoting Gender equality. Women are encouraged to apply for the program.

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

#### **(1) For 1<sup>st</sup> stage**

**1) Attendants list:** This list should include the followings: Name, department, position and age of each attendant. The list should be made by the responsible person in participating organization.

**2) Issue Analysis Sheet (IAS):** to be submitted to JICA office with above list. Fill in Annex I of this General Information. Each attendant registered on the list must submit this sheet. The purpose of an IAS is to logically organize relationships between issues attendants 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.

#### **(2) For 2<sup>nd</sup> stage**

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

\* If you have any difficulties/disabilities, which require assistance, please specify necessary assistances in the Medical History (1-(d)) of the application forms. It may allow us (people concerned in this course) to prepare better logistics or alternatives.

**2) \*Job Report**

**3) \*Questionnaire**

\* To be submitted with the application form and submit it along with the Nomination Form. Detailed information on how to submit the Job Report and Questionnaire will be announced at the later stage of the Online training.

**3) 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

**4) 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. Procedures of 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**

**For 1<sup>st</sup> stage:** by November 18, 2020

**For 2<sup>nd</sup> stage:** by April 30, 2021

##### **(2) Selection**

###### **For 1<sup>st</sup> stage (Online training)**

This training is open to anybody of target organization who has interest in the subject, taking into consideration their duties, positions in the organization, and other relevant information in a comprehensive manner.

###### **For 2<sup>nd</sup> stage (training in Japan)**

After receiving the documents through proper channels from your government, the JICA office (or the embassy of Japan) will conduct screenings, *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.

After 1<sup>st</sup> stage (Online training) is over, we select the candidates to participate the training in Japan among the participants of above 1<sup>st</sup> stage.

Candidate is requested to submit "Job Report" and "Questionnaire" arranged and announced later by JICA by due date.

Final participants for training in Japan will be duly qualified through the attitude at 1<sup>st</sup> stage and submitted document etc.

##### **(3) Notice of Acceptance**

###### **For 1<sup>st</sup> stage (Online training)**

Notification will be made by the JICA office (or the Embassy of Japan) **not later than December 18, 2020.**

###### **For 2<sup>nd</sup> stage (Training in Japan)**

Notification of selection results will be made by the JICA office (or the Embassy of Japan) **not later than June 30, 2021.**

## **5. Conditions for Attendance (For 2nd stage (Training in Japan)):**

- (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.

## **6. Online Program**

- (1) We will send the teaching material (textbook and video media) via JICA office in each country by the day the class starts.
- (2) The length of the lecture basis video program is set for the number of lessons to be referred to Annex III. As each lesson (one unit) consists of 2 hours, supposed to take one lesson per day, it takes around 3 to 4 weeks for completion. Please watch the lecture video and submit your assignment based on the instructions of JICA by the specified date.
- (3) After all video lessons are over, JICA will announce to open “Question and Answer Session” to deepen the understanding lessons afore going. This is not on demand basis, but remote on line basis (live) through discussion with lecturers in Japan. Participant for this Session should be nominated and informed by the resposnsible person of target organization to JICA Office by Feb.12, 2021. Upper limit of participants is 2 per each country. In this Session, we will also confirm participant’s sense of purpose for training program in Japan. and it will be held a couple of times during the period from Feb.22 to Mar.12, 2021. Therefore the participant shall follow the instruction of JICA guidance.
- (4) The platform for “Question and Answer Session” of online program will be conducted by “Zoom”. The URL to attend the class will be announced separately. Please contact the JICA office in each country for consultation regarding the terminals used and the Internet environment.
- (5) Please note that participant who does not take lectures or submit the assignment will not be able to apply and participate in the program in Japan.

## IV. Administrative Arrangements

### 1. Organizer

(1) **Name:** JICA KYUSHU (Training Program Division)

(2) **Contact:** kictp@jica.go.jp

### 2. Implementing Partner

(1) **Name:** Kitakyushu International Techno-cooperative Association (KITA)

(2) **URL:** <http://www.kita.or.jp/english/index.html>

**Following information is separate arrangements for 2<sup>nd</sup> stage (Training in Japan)**

### 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 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/index.html>

<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. Important document to be submitted for 1<sup>st</sup> stage attendant**

Issue Analysis Sheet (IAS):

As written in the previous page, each attendant for 1<sup>st</sup> stage (Online training) is required to submit his/her own IAS following the instruction in Section III.

The form of IAS is written in Annex I sheet hereinafter.

**\*The necessary procedures of submitting the Job Report and Questionnaire for 2<sup>nd</sup> stage (Training in Japan) will be announced later before the Online training is over.**

### **2. Presentation and Reporting for 2<sup>nd</sup> stage (Training in Japan)**

As written in the previous page, final participants passing the screening for the Training in Japan have an opportunity of presentation of his/her Job Report & IAS up to 10 minutes at the earlier stage of the training in Japan in order to share knowledge and background with other participants as well as instructors.

Guidance for Job Report preparation will be informed at later stage.

### **3. International Exchange Program with local communities in Japan**

Participants will have a chance to visit elementary schools or junior high schools at initial stage of Training in Japan. 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.

### **4. 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.

## **VI. ANNEX**

- I. Issue Analysis Sheet
- II. Issue Analysis Sheet (IAS) Guideline
- III. Sample Training Schedule (for reference)

## Annex I

### Issue Analysis Sheet (IAS)

Country: \_\_\_\_\_

Name: \_\_\_\_\_

No	【A】 Issues that you confront.	【B】 Actions that you are taking.	
1	1)	1)	
	2)	2)	
	3)	3)	
	【 I 】 Task or The information that I need.	【 II 】 Useful information that I obtained /found.	【 III 】 Lecturer

**【A】，【B】** These columns (yellow colored columns) shall be filled and submit to JICA office in the country by the due date.

**【 I 】，【 II 】，【 III 】** These columns will be filled during the training in Japan.

**\*You shall describe issues you are facing in your section and actions actually you are taking, or even try to take afterward. Among them, in column A, please describe only those issues you expect to solve utilizing information and knowledge being delivered in this training course.**

## Annex II

### 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.
- (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 prior to starting of the online 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.

#### 2. How to fill out IAS?

- (1) Please describe the issues you confront in column **“A: Issues that you confront”**. You shall describe challenges you are facing in your section. Among them, in column A, please describe only those issues you expect to solve utilizing information and knowledge being delivered in this training course. Prepare the separate rows 1).2).3) for each problem; if necessary, please add new rows.
- (2) In column **“B: Actions that you are taking”**, please describe actions that you are taking to solve the issues shown in **“Column A”**. This information is very important to judge the seriousness of each issue and your attitude to tackle with issue.
- (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 in Japan.
- (4) **“Column I ”** shall be clarified and filled out in the subject **“Task extraction using IAS”** implemented at the earlier time of the Training in Japan.
- (5) **“Column II ”** and **“Column III”** shall be filled out during the Training in Japan and you are required to present completed IAS in the subject of **“Action Plan Presentation”**.

## Annex III

### Sample Schedule of Training Program (for your reference)

- \* The schedule is subject to change, particularly the schedule for Training in Japan is tentative.
- \*\* Each lesson (unit) has 2 hours content for Online training, while 3 hours for Training in Japan.
- \*\*\* Sunday, Saturday and National holiday of Japan are basically day off for the Training in Japan.

### Online training (1<sup>st</sup> Stage)

1. Training with Video mode excuting on demand vasis (Contents: Unit of Lectures). Each unit is around 2 hours, 15 minutes break inbetween.
2. After above training by Video tool, "Question and Answer Session" will be held. As written in the Section III, those who attend all the lectures and nominated by his/her supervisor is able to attend this Session. Actual schedule will be announced later. (Date and lectures to attend etc,)

Unit	Program Contents
Unit 1	Genaral explanation and orientation of the training
Unit 2	Explanation of IAS, how to extract issues and its countermeasures
Unit 3	Fundamental political and administrative sysyetm in Japan System and Law of Solid waste management in Japan
Unit 4	A Sound Material Cycle Society (Histrory and Background)
Unit 5	A Sound Material Cycle Society (Laws and Regulations volum 1)
Unit 6	A Sound Material Cycle Society (Laws and Regulations volum 2)
Unit 7	Genral solid waste management in Kitakyushu city
Unit 8	Industrial waste management in Japan
Unit 9	Time and Motion study volum 1 (Effective garbage collection system)
Unit 10	Time and Motion study volum 2 (Effective garbage collection system)
Unit 11	Cleaner production and effective management
Unit 12	Basic theory of landfill technology
Unit 13	Composting of oraganic waste, volume 1 (Takakura Method)
Unit 14	Composting of oraganic waste, volume 2 (Takakura Method)
Unit 15	Composting from livestock manure and Quality control of compost
Unit 16	City planning along with nature preservation



### Training in Japan (2<sup>nd</sup> Stage) tentative

Date		Program (Subject) AM/PM
1 <sup>st</sup> week	Mon.	Briefing / Program Orientation
	Tue.	General Orientation (Japanese Politics, Administration Structure and Economy)
	Wed.	Cultural Exchange Program / Course Orientation
	Thu.	IAS Task Extraction Work I / Task Extraction Work II
	Fri.	Job Report & IAS presentation rehearsal / Job Report & IAS Presentation
2 <sup>nd</sup> week	Mon.	Review of lectures of Online program 1 / Review of lectures of Online program 2
	Tue.	Visit Eco-town in Kitakyushu / Visit intermediate processing plant of PET, Glass bottle and Cans
	Wed.	Sanitary Landfill technology I (Fukuoka method) Sanitary Landfill technology II (Fukuoka method)
	Thu.	Sanitary Landfill technology III (Fukuoka method) Sanitary Landfill technology IV (Fukuoka method)
	Fri.	Weekly review / Visit recycling plant I (waste oil recycling and detoxifying)
3 <sup>rd</sup> week	Mon.	Study tour for Kobe and Tokyo
	Tue.	Visit recycling plant IV (farming and composting plant in Kobe, typical business model of Food stuff circulation)
	Wed.	NPO activity for recycle promotion / Introduction of JICA overseas project
	Thu.	Visit large scale landfill site in Tokyo Visit Eco-town in Tokyo
	Fri.	Visit Eco-town in Kawasaki city Return back to Kitakyushu
4 <sup>th</sup> week	Mon.	Time and Motion Study I&II on practice basis training (Effective management for waste collection & transportation)
	Tue.	Composting technology I&II on Job training (Takakura method)
	Wed.	Visit waste tire recycling plant in Hakata city / Visit overall organic waste recycling plant in Ohki town
	Thu.	Visit hospital to learn about Medical waste separation / Visit recycling plant III (detoxifying plant of Medical waste)

	<b>Fri.</b>	Weekly review / Intermediate Discussion for better understanding
<b>5<sup>th</sup> week</b>	<b>Mon.</b>	Work experience of Waste collection and transportation in Kitakyushu / Visit incineration plant in Kitakyushu
	<b>Tue.</b>	Visit composing plant (private company) in Kitakyushu / Instruction of Action Plan Preparation (1 <sup>st</sup> time)
	<b>Wed.</b>	Study tour for Minamata and Kumamoto / Visit RDF manufacturing plant / Visit power plant using RDF
	<b>Thu.</b>	Visit Minamata clean center to learn about SWM in Minamata / Visit Minamata Disease History Museum and Kumamoto Env. Center
	<b>Fri.</b>	Return back to Kitakyushu / Visit sewage treatment plant and composting from sewage sludge)
<b>6<sup>th</sup> week</b>	<b>Mon.</b>	Instruction of Action Plan Preparation (2 <sup>nd</sup> time) / Environmental education (how to carry out effectively)
	<b>Tue.</b>	Visit NPO in Fukuoka city activity of composting and firming for citizen I&II
	<b>Wed.</b>	Weekly review / Visit community center (Role of community center for various citizen activity)
	<b>Thu.</b>	Visit environmental museum in Kitakyushu / Instruction of Action Plan Preparation and rehearsal (3 <sup>rd</sup> time)
	<b>Fri.</b>	Evaluation meeting / Action Plan Presentation / Closing Ceremony

## ***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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