



# TRAINING AND DIALOGUE PROGRAMS

GENERAL INFORMATION ON

TECHNICAL SUPPORT FOR SME PROMOTION  
(ORGANIC MATERIALS/INORGANIC MATERIALS and METALS)

集團研修「中小企業振興のための技術支援  
(有機化学工業分野/無機化学工業・金属産業分野)」  
*JFY 2010*

<Type: Trainers Training Programs / 類型: 人材育成普及型>  
NO. J10-00659/ ID. 1080905

From July 2010 to May 2011

Phase in Japan: From 16 August 2010 to 27 November 2010

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**

It is important to enhance technology of small and medium enterprises (SME) and to produce value added commodities for poverty alleviation and sustainable development which are priorities of the Official Development Assistance of the Government of Japan. Many developing countries are rich in organic resources which become raw materials of fiber, coloring, soap, detergent, medical and agricultural chemicals, and rich in mineral resources which become raw materials of electric devices, vehicles, appliances and mechanical parts. Therefore, it is required not only to export those natural resources as primary products, but also to make those products as value added commodities.

In addition, environment problems clearly exist today due to global warming, thus it is indispensable to spread environmentally friendly production technology for coexistence between development and environment and sustainable development. For that reason, it is vital to enhance development ability and environmentally friendly technology of SME in the field of organic chemical industry/inorganic chemical and metal industries. However, due to the lack of skilled engineers and experienced workers, it is not easy to accept advanced technology given by the enterprises from developed countries. Under these circumstances, in terms of improving the balance of trade and sophisticating the structure of domestic industries, training for domestic SME is regarded as an important policy. Nevertheless, there are many limits in various aspects such as human resources, techniques and finances. Thus, the results of those policies are not yet sufficient.

Therefore, it is required to set up more advanced educational institutions and vocational training centers, as well as urgent capacity development for researchers and engineers at public technical research centers which engage technical support for local SME.

By implementing this training program, the level of technical ability for researchers and engineers at public technical support institutions in developing countries will be enhanced in their specialized field. By doing this, it is expected to establish the system which will be able to conduct efficient technical trainings based on the needs from enterprises and technical development in cooperation with SME.

## **For what?**

This program aims to disseminate the knowledge and technology supporting small and medium enterprises (SME) in organic chemical industry/inorganic chemical and metal industries among researchers and engineers in the participating organization.

## **For whom?**

This program is offered to engineers and researchers of public SME supporting

organizations such as national or local government bodies in the field of organic materials/inorganic materials and metals.

### **How?**

Participants shall have opportunities in Japan to learn the technical support system for SME promotion in Japan, especially in Osaka City, and a broad range of knowledge and techniques in the field of organic materials/inorganic materials and metals for effective SME support. Participants are supposed to select one group from organic materials group or inorganic materials & metals group. Participants in one group cannot take subjects in another group. Participants will also formulate an action plan describing what they will do after they go back to their home countries incorporating the knowledge and ideas acquired and discussed in Japan into their on-going activities.

## ***II. Description***

### **1. Title (J-No.): Technical Support For SME Promotion (Organic Materials/Inorganic Materials and Metals) (J10-00659)**

#### **2. Period of program**

<b>Duration of whole program:</b>	July 2010 to May 2011
<b>Preliminary Phase:</b> (in a participant's home country)	July 2010 to August 2010
<b>Core Phase in Japan:</b>	August 16, 2010 to November 27, 2010
Briefing/General Orientation	17 August to 20 August, 2010
Japanese Language	23 August to 27 August, 2010
<b>Finalization Phase:</b> (in a participant's home country)	November 2010 to May 2011

#### **3. Target Countries**

India, Mexico, Botswana, Argentina

#### **4. Eligible / Target Organization**

This program is designed for national/local government bodies dealing with technical support for SME.

#### **5. Total Number of Participants**

5 participants

#### **6. Language to be used in this program:** English/Japanese with English interpretation

#### **7. Program Objective:**

The knowledge and technology for supporting small and medium enterprises in organic chemical, inorganic chemical and metal industries are disseminated for researchers and engineers in the participating organization.

#### **8. Overall Goal:**

Manufacturing industry is promoted through the production of value added commodities

by SME, utilizing the relevant technology transferred from technical/ research organization which is the partner of this program.

**Expected Module Output and Contents:**

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

<b>(1) Preliminary Phase in a participant's home country</b> (July 2010 to August 2010) <i>Participating organizations make required preparation for the Program in the respective country.</i>	
Expected Module Output	Activities
Country report is formulated	Formulation and submission of Country Report

<b>(2) Core Phase in Japan</b> (August 16, 2010 to November 27, 2010) <i>Participants dispatched by the organizations attend the Program implemented in Japan.</i>		
Expected Module Output	Subjects/Agendas	Methodology
<b>Output 1</b> (common) -to explain the technical support system of public organizations in Japan -to identify problems and tasks in technical support for SME in participant own countries.	- technical support for SME in Japan, especially by Osaka Municipal Technical Research Institute (OMTRI).	Lectures and Visits
<b>Output2</b> (for organic chemical group) -to explain basic knowledge and technology to support SME in organic chemical industries	- chemical materials, manufacturing technology, analysis & evaluation, environment technology in organic chemical industry (lecture, practice) - case study of technical support for SME including factory visit to gain the firsthand knowledge and know-how on production site.	Lectures, Practices, Visits, Study Trips and Advanced Training
<b>Output3</b> (for inorganic chemical and metal group) -to explain basic knowledge and technology to support SME in inorganic chemical and metal industries	- production process, analysis & evaluation, and characterization of inorganic and metal materials (practice) - case study of SME support including factory visit to gain practical knowledge	Lectures, Practices, Visits, Study Trips and Advanced Training

<b>Output4</b> (common) -to make and present an action plan	-production & presentation of Action Plan to disseminate the gained knowledge and technology after return to own countries (discussion, exchange of opinions)	Practices and others
<b>Output5</b> (common) -after return to own country, hold seminar to researchers/engineers for the dissemination of gained knowledge and technology	- after return to own country, hold seminar to researchers/engineers for the dissemination of gained knowledge and technology - follow up by OMTRI through e-mail and other means	

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

(November 2010 to May 2011)

*Participating organizations produce final outputs by making use of results brought back by participants. This phase marks the end of the Program.*

Expected Module Output	Activities
To implement an action plan	After return to own country, hold seminar to researchers and engineers for the dissemination of gained knowledge and technology. Submission of a report from the partner organization to JICA to confirm the proper dissemination should be by May, 2011.

<Structure of the program> Previous Program FY2009 (For your reference)

\* The schedule is subject to change for FY2010.

**Organic Materials**

Training period : Aug. 17 - Nov. 28, 2009

Date	Time	Cat.	Subject	Place to visit
8/17	MON		Arrival in Japan	
17	TUE	9:45-15:30	Briefing	JICA OSAKA
19	WED	9:40-17:15	L General Orientation	
			L Japanese People & Society	
			L Characteristics of the Japanese Language	
20	THU	PM	L Japanese History & Culture	
			L Health Checkup	
			L Japanese Education	
21	FRI	9:45-17:00	L Japanese Economy	
			L Japanese Politics & Administration System	
			L	
21	SAT		N	
22	SUN		N	
24 ~ 28	MON-FRI	10:00-16:00	L Intensive Japanese Language Class	
28	SAT		N	
29	SUN		N	
30	MON	10:00-16:00	L Intensive Japanese Language Class	
9/1	TUE	11:45-	Opening Ceremony	OMTRI
		12:15-	Reception	
		PM	L Orientation	
		O	Observation Tour of OMTRI	
1	WED	10:00-12:00	L SME Support Policies of OMTRI	
		13:00-16:30	D Country Report Presentation	
9/3	THU	10:00-12:00	L SME Support Policies of Japan	
		13:00-16:30	O Creation Core Higashiosaka	Higashi Osaka City
3	FRI	10:00-16:30	L Process of Technical Support (Laboratory Introduction)	OMTRI
4	SAT		N	
5	SUN		N	
6	MON	10:00-16:30	L Process of Technical Support (Laboratory Introduction)	
7	TUE	10:00-12:00	L Nanotechnology	
		13:00-16:30	L Process of Technical Support (Laboratory Introduction)	
8	WED	10:00-16:30	LP Organic Unit Process (Nitration)	
9	THU	10:00-16:30	LP Instrumental Analysis 1 (MS)	
10	FRI	10:00-16:30	LP Organic Unit Process (Reduction)	
11	SAT		N	
12	SUN		N	
13	MON	10:00-16:30	LP Instrumental Analysis 1 (FTIR)	OMTRI
14	TUE		O YMC/Shimadzu Corporation	Kyoto City
15	WED	10:00-16:30	LP Instrumental Analysis 1 (LC)	OMTRI
16	THU	10:00-16:30	LP Instrumental Analysis 1 (UV)	
17	FRI	10:00-16:30	LP Instrumental Analysis 1 (NMR)	
18	SAT		N	
19	SUN		N	
9/21	MON		N National Holiday (Respect for the Aged Day)	
21	TUE		N National Holiday	
22	WED		N National Holiday (Autumnal Equinox Day)	
23	THU	10:00-16:30	LP Instrumental Analysis 1 (GC)	
24	FRI	10:00-16:30	LP Instrumental Analysis 1 (EA)	
25	SAT		N	
26	SUN		N	
27	MON	10:00-16:30	L Dystuff Chemistry	

9	SAT		N		
10	SUN		N		
11	MON		N	National Holiday (Sports Day)	
12	TUE	10:00-16:30	LP	Stereochemistry	
13	WED		O	Cow Brand Soap Kyoshinsha Co.,LTD, Fuji Oil Co., Ltd.	Osaka City/Sennan City
14	THU	10:00-16:30	LP	Instrumental Analysis 2 (DSC)	OMTRI
15	FRI	10:00-16:30	LP	Surface-Active Agent & Detergent	
16	SAT		N		
17	SUN		N		
18	MON	10:00-16:30	LP	Surface-Active Agent & Detergent	
19	TUE	10:00-16:30	LP	Instrumental Analysis 2 (LC-MS, Solid NMR)	
20	WED		O	TOYO BEAUTY CO., LTD. , Milbon Co., Ltd.	Iga City Mie Pref.
21	THU	10:00-16:30	LP	Instrumental Analysis 1 (ECA)	OMTRI
22	FRI		O	Sping 8	Hyogo Pref.
23	SAT		N		
24	SUN		N		
10/26	MON	10:00-16:30	LP	Micellar Reaction	OMTRI
27	TUE	10:00-12:00	LP	Instrumental Analysis 2 (DLS)	
		13:00-16:30	LP	Instrumental Analysis 2 (ELS)	
27	WED	10:00-16:30	LP	Dyeing Technique (Dyeing)	
28	THU	10:00-16:30	LP	Dyeing Technique (Surface Treatment)	
29	FRI	10:00-16:30	LP	Dyeing Technique (Colorimetry)	
30	SAT		N		
11/1	SUN		N		
1	MON	10:00-16:30	O	Japan Chemical Fiber Inspection Association, Kawashima Selcon Co., Ltd.	Kyoto City
2	TUE		N	National Holiday (Culture Day)	
3	WED	10:00-16:30	L	Synthesis of Intermediate Products of Pharmaceutical Drugs & Pesticides	OMTRI
4	THU	10:00-16:30	L	Synthesis of Intermediate Products of Pharmaceutical Drugs & Pesticides (Indole)	
5	FRI	10:00-16:30	LP	Synthesis of Intermediate Products of Pharmaceutical Drugs & Pesticides (Nifedipine)	
6	SAT		N		
7	SUN		N		
8	MON	10:00-16:30	L	Environmental Pollution Control Technology (Introduction) (Activated Carbon)	
9	TUE	10:00-16:30	LP	Environmental Pollution Control Technology (Introduction)	
11/11	WED	10:00-16:30	LP	Environmental Pollution Control Technology (Manufacture of Activated Carbon)	
11	THU		P	Final Report Preparation	JICA OSAKA/OMTRI
12	FRI	10:00-12:00	L	Environmental Pollution Control Technology (Water Treatment Technology)	OMTRI
		13:00-16:30	L	Environmental Pollution Control Technology (Application of Activated Carbon)	
13	SAT		N		
14	SUN		N		
15	MON	10:00-16:30	P	Environmental Pollution Control Technology (Waste Water Treatment Technology)	
16	TUE	10:00-16:30	LP	Environmental Pollution Control Technology (Performance Test of Activated Carbon)	
17	WED		O	Nakahama Sewage Treatment Plant, Carbo. Tec. Co. Ltd.	Osaka City, Kyoto City
18	THU	10:00-16:30	P	Individual Study	OMTRI
19	FRI	10:00-16:30	P	Individual Study	OMTRI
20	SAT		N		
21	SUN		N		
22	MON		N	National Holiday (Labor Thanksgiving Day)	
23	TUE		P	Final Report Preparation	JICA OSAKA
24	WED	10:00-15:00	P	Final Report Presentation	OMTRI
25	THU	13:00-15:00	D	Technical Evaluation Meeting (OMTRI)	OMTRI
26	FRI			Closing Ceremony (JICA OSAKA)	JICA OSAKA
27	SAT			Departure from Japan	

NOTE: L: Lecture O: Visit & Observation P: Practice D: Discussion & Presentation T: Study Trip N: No Official Program  
JICA OSAKA: OSAKA INTERNATIONAL CENTRE, JICA

## Inorganic Materials & Metals

Training period :August 17 - November 28, 2009

Date	Time	Type	Module	Subject
8/17	MON			Arrival in Japan
8/18	TUE			Briefing /JICA Program Orientation
8/19	WED	General Orientation		
		9:40~12:00	L	Japanese People & Society
		13:30~15:00	L	Characteristics of Japanese Language
		15:15~17:15	L	Japanese History & Culture
8/20	THU	9:00-16:30		Medical Check
8/21	FRI	General Orientation		
		9:45~11:45	L	Japanese Education
		13:15~15:15	L	Japanese Economy
		15:30~17:00	L	Japanese Politics & Administration System
8/22	SAT		N	
8/23	SUN		N	
8/24-28	MON-FRI	10:00~16:00	L	Japanese Language Intensive Class
8/29	SAT		N	
8/30	SUN		N	
8/31	MON	10:00~16:00	L	Japanese Language Intensive Class
9/1	TUE	11:45~12:25		Opening Ceremony
				Reception
		13:00~14:30	All	Orientation
		15:00~16:30	Support & Promotion	OMTRI Tour
9/2	WED	10:00~12:00	L	Support & Promotion
		13:00~16:30		Country Report Presentation
9/3	THU	10:00~12:00	L	Support & Promotion
		13:00~16:30	Support & Promotion	SME Support Policies (National Government)
				Creation Core Higashi-Osaka
9/4	FRI	10:00~16:30	L	All
				Case Study for Technical Support (Metals)
9/5	SAT		N	
9/6	SUN		N	
9/7	MON	10:00~16:30	L	All
				Case Study for Technical Support (Inorganic Materials)
9/8	TUE	10:00~12:45	L	Processing
		13:45~16:30	L	Processing
				Inorganic Materials Processing
				Metallic Materials Processing
9/9	WED	10:00~16:30	LP	Processing
				Practice in Inorganic Materials Processing (Sol-Gel Method)
9/10	THU	10:00~12:00	O	All
		14:00~16:00	O	All
				Sumitomo Electric Hardmetal
				Yoshikiyo Kokyu Imono
9/11		10:00~16:30	LP	Processing
				Practice in Metallic Materials Processing (High Frequency Induction / Levitation Melting)
9/12	SAT		N	
9/13	SUN		N	
9/14	MON	10:00~16:30	LP	Processing
				Practice in Inorganic Materials Processing (Plating)
9/15	TUE	10:00~16:30	LP	Processing
				Practice in Inorganic Materials Processing (Electrolytic Method)
9/16	WED	10:00~16:30	LP	Processing
9/17	THU	10:00~16:30	LP	Processing
				Practice in Inorganic Materials Processing (Electrolytic Method)
9/18	FRI	10:00~12:00	O	All
		14:00~16:00	O	All
				Taiyo Manufacturing Co., Ltd
				C. Uyemura & Co., Ltd.
9/19	SAT		N	
9/20	SUN		N	
9/21	MON		N	
9/22	TUE		N	
9/23	WED		N	
National Holiday				
9/24	THU	10:00~16:30	LP	Processing
				Practice in Inorganic Materials Processing (Dry Process)
9/25	FRI	10:00~16:30	LP	Processing
				Practice in Inorganic Materials Processing (Solid State Reaction)
9/26	SAT		N	
9/27	SUN		N	
9/28	MON	10:00~16:30	LP	Processing
				Practice in Inorganic Materials Processing (Paste Method)
9/29	TUE	10:00~16:30	LP	Processing
				Practice in Inorganic Materials Processing (Paste Method)
9/30	WED	10:00~12:45	L	Material Analysis
		13:45~16:30	L	Material Analysis
				Introduction to Method of Inorganic Material Analysis I
				Introduction to Method of Inorganic Material Analysis II
10/1	THU	10:00~16:30	LP	Material Analysis
				Practice in Material Analysis (ESCA)
10/2	FRI	10:00~12:00	O	All
		14:00~16:00	O	All
				Murata Manufacturing Co., Ltd.
				Kyoto Elex Co., Ltd.
10/3	SAT		N	
10/4	SUN		N	
10/5	MON	10:00~16:30	LP	Material Analysis
				Practice in Material Analysis (ICP-AES)
10/6	TUE	10:00~16:30	LP	Material Analysis
				Practice in Material Analysis (X-ray Diffraction)
10/7	WED	10:00~16:30	LP	Material Analysis
				Practice in Material Analysis (X-ray Diffraction)
10/8	THU	10:00~12:00	O	All
		14:00~16:00	O	All
				Komei MFG. Co., Ltd.
				Osaka Cyuo Die Casting Co., Ltd.
10/9	FRI	10:00~16:30	LP	Material Analysis
				Practice in Material Analysis (SEM)

10/10	SAT		N		
10/11	SUN		N		
10/12	MON		N	National Holiday	
10/13	TUE	10:00~16:30	LP	Material Analysis	Practice in Material Analysis (TEM)
10/14	WED	AM	T		Move to Aichi
		13:30~15:30	O	All	Denso Co.,Ltd.
		Evening			
10/15	THU	10:00~12:00	O	All	NHK Spring Ltd.
		14:30~16:30	O	All	Precision & Intelligence Lab., Tokyo Inst. of Technology
10/16	FRI	AM	O	All	JFE Steel Corporation
		PM			Move to Osaka
10/17	SAT		N		
10/18	SUN		N		
10/19	MON	10:00~16:30	LP	Material Analysis	Practice in Material Analysis (Fluorescent X-ray)
10/20	TUE	10:00~16:30	LP	Material Analysis	Practice in Material Analysis (X-ray Diffraction)
10/21	WED	10:00~16:30	LP	Evaluation	Practice in Measurement of Mechanical Properties I
10/22	THU	10:00~16:30	LP	Evaluation	Practice in Measurement of Mechanical Properties II
10/23	FRI	11:00~16:30	O	All	Spring 8
10/24	SAT		N		
10/25	SUN		N		
10/26	MON	10:00~16:30	LP	Evaluation	Product Design by Computer Aided Engineering (Stress & Deformation Analysis)
10/27	TUE	10:00~16:30	LP	Evaluation	Product Design by Computer Aided Engineering (Shape Inspection)
10/28	WED	10:00~16:30	LP	Evaluation	Practice in Material Analysis (Image Analysis)
10/29	THU	10:00~16:30	LP	Material Analysis	Practice in Material Analysis (Thermal Analysis)
10/30	FRI	10:00~12:00	O	All	Okumura Rutubo
		14:00~16:00		All	Figaro Engineering Inc.
10/31	SAT		N		
11/1	SUN		N		
11/2	MON	10:00~16:30	LP	Material Analysis	Practice in Material Analysis (SIMS)
11/3	TUE		N	(National Holiday)	
11/4	WED	10:00~16:30	LP	Evaluation	Practice in Optical Property of Inorganic Materials
11/5	THU	Morning	T		Move to Okayama
		10:45~15:00	O	All	Shinagawa Refractories Co., Ltd.
11/6	FRI	10:00~12:00	O	All	Toyo Advanced Technologies Co., Ltd.
		PM			Hiroshima Peace Memorial Museum Move to Osaka
11/7	SAT		N		
11/8	SUN		N		
11/9	MON	10:00~16:30	L	Evaluation	Fundamentals of Electromagnetic Properties and its Application
11/10	TUE	10:00~16:30	LP	Evaluation	Practice in Measurement of Electromagnetic Properties
11/11	WED	10:00~16:30	LP	Evaluation	Practice in Measurement of Electromagnetic Properties
11/12	THU	10:00~16:30		All	Self-study
11/13	FRI	10:00~12:00	O	All	Metek Kitamura Co., Ltd.
		14:00~16:00		All	Awakura Lab., Kyoto University
11/14	SAT		N		
11/15	SUN		N		
11/16	MON	10:00~16:30	LP	Evaluation	Powder Properties (Measurement of Particle Size Distribution)
11/17	TUE	10:00~16:30			
11/18	WED	10:00~16:30	LP	All	Advanced Training (Textbook Preparation)
11/19	THU	10:00~16:30	LP	All	
11/20	FRI	10:00~16:30	LP	All	
11/21	SAT		N		
11/22	SUN		N		
11/23	MON		N	National Holiday	
11/24	TUE	10:00~16:30	LP	All	Advanced Training (Textbook Preparation)
11/25	WED	10:30~16:30	LP	Action Plan	Action Plan Presentation
11/26	THU	10:30~12:00			Technical / General Evaluation Meeting
11/27	FRI	10:30~12:00			Closing Ceremony/ Farewell Party
11/28	SAT				Departure

Note L: Lecture

T: Study Trip

P: Practice

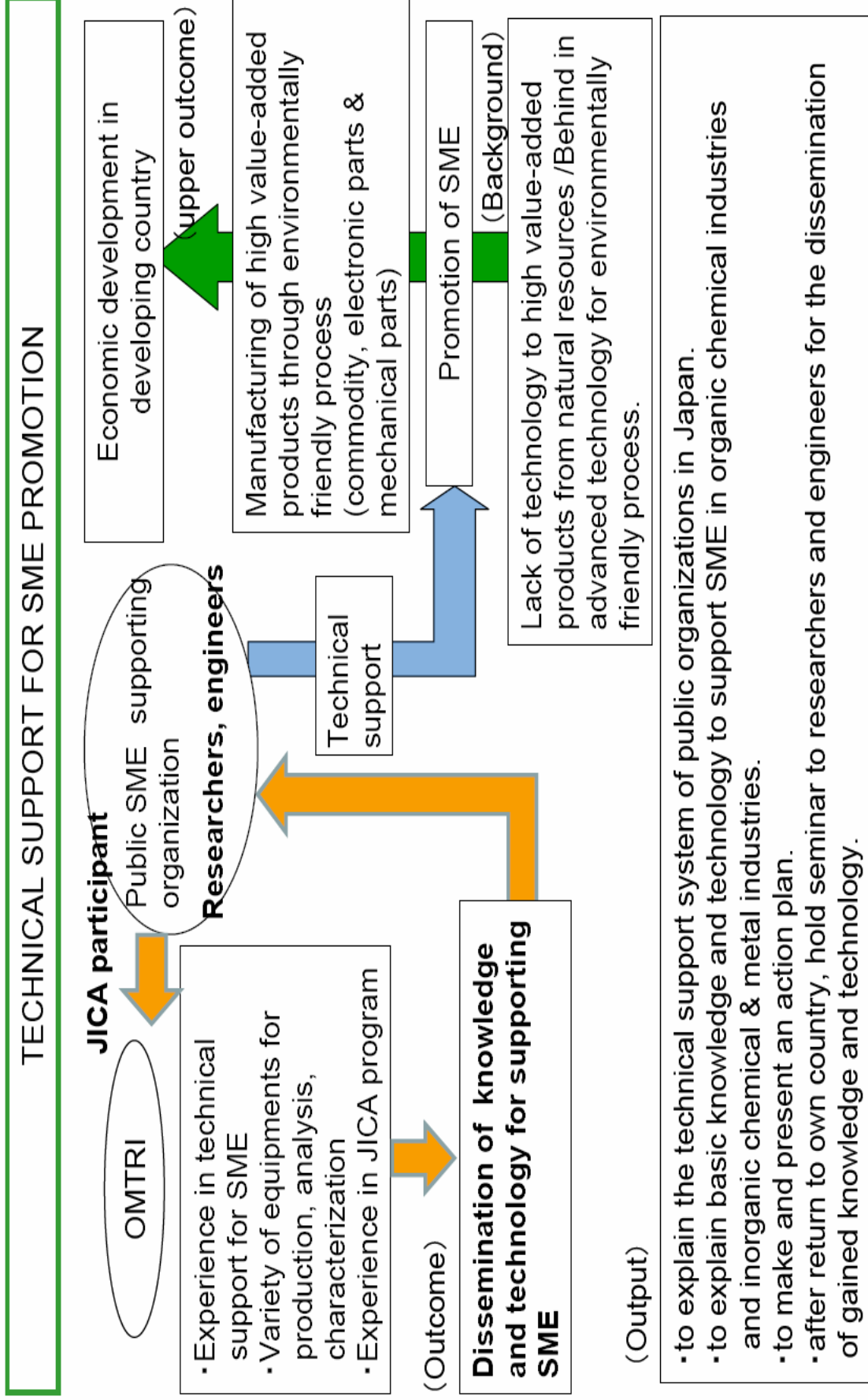
N: No Official Programme

O: Observation/Visit

Module: Corresponding to 3 Objectives designated in GI (General Information)

Objective 2 is divided into 3; Processing, Material Analysis and Evaluation

(Cooperation scheme-1)



## TECHNICAL SUPPORT FOR SME PROMOTION

### Lecture & Observation:

Introduction to technical support system for SME promotion in Japan, Osaka City & OMTRI

Presentation: status and problems in supporting SME promotion in participant's countries

#### <Organic Materials Technology>

##### Case study

##### Lecture/Practice/plant visit:

Specialty chemicals/ Organic synthesis/  
Surfactants, odorants and cosmetics/ Textile/  
Instrumental analysis/  
Pollution control technology  
Study Trips  
Advanced Training

#### <Inorganic Materials and Metals Technology>

##### Case study

##### Lecture/Practice/plant visit:

Inorganic materials and metals/  
Processing/ Material analysis/  
Characterization  
Study Trips  
Advanced Training

Gathering information, knowledge & technology/ Deepening understanding via practice/ On-site learning of manufacturing plant in the field & public research centers supporting SME  
Confirm the achievement by reports and test

Presentation , Discussion, Submission of Report

Dissemination of gained knowledge and technology for researcher and engineers in own organizations through a seminar. (followed up by OMTRI through e-mail and other means)

Submission of a report from the partner organization to JICA to confirm the proper dissemination

### **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 dispatching their participants to Japan by carrying out the activities of the Preliminary Phase described in section II -9 .
- (4) Participating organizations are also expected to make the best use of the results achieved by their participants in Japan by carrying out the activities of the Finalization Phase described in section II -9.

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

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

##### **(1) Essential Qualifications**

- 1) Current Duties: be engaged in work or research related to SME Promotion in the field of organic materials/ inorganic materials & metals
- 2) Experience in the relevant field: have more than 3 years' experience
- 3) Educational Background: be a graduate of university and have majored in organic chemistry/ inorganic chemistry and metal or the equivalent
- 4) Language: have a competent command of spoken and written English
- 5) Health: must be in good health, both physically and mentally, to undergo the Program in Japan

※There is higher risk for pregnant women and people with chronic diseases to cause serious medical consequences when infected with the new Influenza A (H1N1) virus according to the past cases. Under the pandemic situations of the new Influenza, pregnant applicants shall not be accepted for the time being. And applicants who suffer from chronic diseases, such as respiratory illness, cardiac disease, metabolic disease (diabetes, etc), renal dysfunction and immune insufficiency (systemic steroid administration, etc), shall not be accepted in principle. However, for those applicants with the chronic diseases, if they and their organizations express strong interest in participating in training programs, JICA shall accept them as an exceptional case after receiving a letter of consent

from themselves and their organizations. Please ask national staffs in JICA office for the details.

6) Must not be serving any form of military service.

7) Age: be between the ages of twenty-five (25) and forty (45) years

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

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

**(2) 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), please attach it (or a copy) to the application form.

**(3) Country Report & Questionnaire:** Applicants should complete a Country Report and a Questionnaire in accordance with the format indicated in ANNEX of this General Information, and submit it along with the Application Form. Applications not accompanied by a completed Country Report and a Questionnaire cannot be duly considered for selection. The country report should be typewritten and double-spaced in English (approximately 4–5 pages, A4-size). At the beginning of the technical training course, each participant will give a report presentation for 15 to 20 minutes based on the reports submitted with the Application Form. Participants are therefore requested to prepare material for an effective presentation before coming to Japan.

### **4. Procedure for Application and Selection :**

#### **(1) Submitting the Application Documents:**

Closing date for application to the JICA Center in JAPAN: **15 June 2010**

**Note: Please confirm the closing date set by the respective country's JICA office or Embassy of Japan of your country to meet the final date in Japan.**

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

After receiving the document(s) through due administrative procedures in the respective 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 15 July 2010**

**5. Conditions for Attendance:**

- (1) to observe the schedule of the program,
- (2) not to change the program subjects or extend the period of stay in Japan,
- (3) not to bring any members of their family,
- (4) to return to their home countries at the end of the program in Japan according to the travel schedule designated by JICA,
- (5) to refrain from engaging in political activities, or any form of employment for profit or gain,
- (6) to observe the rules and regulations of their place of accommodation and not to change the accommodation designated by JICA, and
- (7) to participate the whole program including a preparatory phase prior to the program in Japan. Applying organizations, after receiving notice of acceptance for their nominees, are expected to carry out the actions described in section II -9.

## IV. Administrative Arrangements

### 1. Organizer:

(1) **Name:** JICA Osaka

(2) **Contact:** Training Program Division I (osictt1@jica.go.jp)

### 2. Implementing Partner:

(1) **Name:** Osaka Municipal Technical Research Institute (OMTRI)

(2) **URL:** [http://www.omtri.city.osaka.jp/gaiyou\\_e/indexe.html](http://www.omtri.city.osaka.jp/gaiyou_e/indexe.html)

(3) **Remark:** Osaka Municipal Technical Research Institute (OMTRI) was founded by the City of Osaka in 1916 with the principal objective of promoting and advancing the manufacturing industries of Osaka. Since then, it has performed comprehensive technological services through its success in developing much innovative technology based on fundamental studies and their application. The institute also promotes international friendship through technical cooperation with many developing countries around the world.

### 3. Travel to Japan:

(1) **Air Ticket:** The cost of a round-trip ticket between an international airport designated by JICA and Japan will be borne by JICA.

(2) **Travel Insurance:** Term of Insurance: From arrival to departure in Japan. The traveling time outside Japan shall not be covered.

### 4. Accommodation in Japan:

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

JICA Osaka International Center (JICA OSAKA)

Address: 25-1 Nishi-Toyokawa-cho, Ibaraki-shi, Osaka 567-0058, Japan

TEL: 81-72-641-6900 FAX: 81-72-641-6910

(where "81" is the country code for Japan, and "72" is the local area code)

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

### 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 p. 9-16 of the brochure for participants titled "KENSU-IN GUIDE BOOK," which will be given to the selected participants before (or at the time of) the pre-departure orientation.

## **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.

## **7. General Orientation for Introduction to Japan**

Participants are scheduled to participate in a 2-day orientation program offered by JICA Osaka for the purpose of providing participants with general information on key points regarding Japan and with the tools needed for adapting to life and training in Japan. Basic information on Japanese values, behavior and customs as well as economic and social institutions will be provided.

## **8. Japanese Language Course**

An intensive Japanese language course will be conducted prior to the technical training for one week following the General Orientation. A general Japanese language course is organized in the evening for participants who are interested in learning the language.

## **9. Development Education Program**

The purposes of the International Cooperation Program of JICA are not only to share Japanese knowledge, experience and ideas with participating countries, but also to promote mutual understanding between participating countries and Japan. The Japanese government recognizes the importance of citizen participation in its International Cooperation Program and has thus recently placed a greater emphasis on this aspect of the Program. With this objective, JICA collaborates with schools and local governments as well as various kinds of community-based organizations to expose the members to the rich heritages of foreign cultures represented by participants, as a precious first step to promote international exchange and cooperation. To provide a stronger foundation for these activities, JICA has been conducting a Development Education Program for Japanese citizens in all training courses and seminars it offers. Participants are encouraged to bring any materials necessary to introduce the cultural heritages and/or natural histories of their own countries, such as national costumes, musical instruments, works of art, photographs, and so on. This program may not be conducted if there is no offer from any schools.

## **VI. ANNEX:**

### **ANNEX I**

# **Technical Support for SME Promotion (Organic Materials /Inorganic Materials & Metals) (JFY 2010)**

## *Country Report*

**Participants are requested to prepare a country report, following the format below.**

Country:

Name of applicant:

Name of organization:

**Group of Application:**

**Organic Materials**     **Inorganic Materials & Metals**

(Select one (1) of the above two groups)

- (1) Draw a detailed chart of your organization and indicate your position in it as well as the number of persons in each department, division, section, work team, etc.
- (2) Give detailed descriptions as to the following:
  - a) Your present position and the kind of work you are engaged in
  - b) Your career since completing your education
  - c) The kind of work you will be engaged in after returning to your country from Japan
  - d) Subjects of special personal interest in this training course
- (3) Is there any cooperative in relation to your work / industry? If yes, what kind of cooperatives are they?

## ANNEX II

### Questionnaire for ORGANIC MATERIALS Group

Check the letter (A, B, C) to indicate your knowledge/experience on the following techniques/ devices in the diagram, and your interest on each subject as well.

This questionnaire is used to adjust the level and contents of lectures/practices of this year.

(1) Your Knowledge/Experience

- A. You know well and have used this technique/device.
- B. You know this technique/device but have not used it.
- C. You don't know this technique/device at all.

(2) Your Interest: Check the technique/device which you are particularly interested in.

Subject	Your knowledge /experience	Your interest
Process of Technical Support	A B C	
Organic Unit Process (Nitration)	A B C	
Organic Unit Process (Reduction)	A B C	
Instrumental Analysis 1 (UV)	A B C	
Instrumental Analysis 1 (FTIR)	A B C	
Instrumental Analysis 1 (LC)	A B C	
Instrumental Analysis 1 (GC)	A B C	
Instrumental Analysis 1 (NMR)	A B C	
Instrumental Analysis 1 (ECA)	A B C	
Instrumental Analysis 1 (ECA)	A B C	
Instrumental Analysis 1 (MS)	A B C	
Instrumental Analysis 1 (EA)	A B C	
Exercise of Organic Structural Chemistry	A B C	
Dyestuff Chemistry	A B C	
Synthesis of Color Materials and Related Compounds (Indigo)	A B C	
Synthesis of Color Materials and Related Compounds (Azo-Dyes)	A B C	
Synthesis of Color Materials and Related Compounds (Triphenylmethane)	A B C	
Surface-Active Agent & Detergent	A B C	
Instrumental Analysis 2 (IC)	A B C	
Qualitative & Quantitative Analysis of Cosmetics	A B C	
Instrumental Analysis 2 (Capillary Electrophoresis)	A B C	
Instrumental Analysis 2 (DLS)	A B C	
Instrumental Analysis 2 (ELS)	A B C	
Micellar Reaction	A B C	
Stereochemistry	A B C	
Instrumental Analysis 2 (DSC)	A B C	
Instrumental Analysis 2 (LC-MS, Solid NMR)	A B C	
Synthesis of Intermediate Products of Pharmaceutical Drugs & Pesticides (Indole)	A B C	

Synthesis of Intermediate Products of Pharmaceutical Drugs & Pesticides	A	B	C	
Synthesis of Intermediate Products of Pharmaceutical Drugs & Pesticides (Nifedipine)	A	B	C	
Dyeing Technique(Dyeing)	A	B	C	
Dyeing Technique(Surface Treatment)	A	B	C	
Dyeing Technique(Colorimetry)	A	B	C	
Environmental Pollution Control Technology	A	B	C	
Environmental Pollution Control Technology (Activated Carbon)	A	B	C	
Environmental Pollution Control Technology (Manufacture of Activated Carbon)	A	B	C	
Environmental Pollution Control Technology (Water Treatment Technology)	A	B	C	
Environmental Pollution Control Technology (Waste Water Treatment Technology)	A	B	C	
Environmental Pollution Control Technology (Performance Test of Activated Carbon)	A	B	C	

## ANNEX III

### Questionnaire for INORGANIC MATERIALS & METALS Group

Check the letter (A, B, C) to indicate your knowledge/experience on the following techniques/ devices in the diagram, and your interest on each subject as well.

This questionnaire is used to adjust the level and contents of lectures/practices of this year.

(1) Your Knowledge/Experience

- A. You know well and have used this technique/device.
- B. You know this technique/device but have not used it.
- C. You don't know this technique/device at all.

(2) Your Interest: Check the technique/device which you are particularly interested in.

Subject	Your knowledge /experience	Your interest
Inorganic Materials Processing	A B C	
Metallic Materials Processing	A B C	
Practice in Metallic Materials Processing (Rapid Solidification)	A B C	
Practice in Metallic Materials Processing(High Frequency Induction / Levitation Melting)	A B C	
Practice in Inorganic Materials Processing (Dry Process)	A B C	
Practice in Inorganic Materials Processing (Sol-Gel Method)	A B C	
Practice in Inorganic Materials Processing (Electro less Plating)	A B C	
Practice in Inorganic Materials Processing (Solid State Reaction)	A B C	
Practice in Inorganic Materials Processing (Paste Method)	A B C	
Practice in Inorganic Materials Processing (Electrolytic Method)	A B C	
Introduction to Method of Inorganic Material Analysis	A B C	
Practice in Optical Property of Inorganic Materials	A B C	
Practice in Material Analysis (ESCA)	A B C	
Practice in Material Analysis (X-ray Diffraction)	A B C	
Practice in Material Analysis (Fluorescent X-ray)	A B C	
Practice in Material Analysis (SEM)	A B C	
Practice in Material Analysis (TEM)	A B C	
Practice in Material Analysis (SIMS)	A B C	
Practice in Material Analysis (Thermal Analysis)	A B C	
Practice in Material Analysis (ICP-AES)	A B C	
Practice in Material Analysis (Image Analysis)	A B C	
Fundamentals of Electromagnetic Properties and its Application	A B C	
Practice in Measurement of Electromagnetic Properties	A B C	
Powder Properties (Measurement of Particle Size Distribution)	A B C	
Practice in Measurement of Mechanical Properties	A B C	
Product Design by Computer Aided Engineering (Stress & Deformation Analysis)	A B C	
Product Design by Computer Aided Engineering (Shape Inspection Analysis)	A B C	

## ***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 and 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.

# Welcome to JICA Osaka

Osaka International Centre of Japan International Cooperation Agency (JICA Osaka) extends a hearty welcome to all JICA participants.

## 1. Location of the centre in the Kansai region

JICA Osaka is located in Ibaraki City, Osaka prefecture, in the heart of the Kansai region. Ibaraki lies close to the ancient cultural centers of Kyoto and Nara, and to the commercial, industrial and economic center of Osaka, and the city of Kobe.

## 2. Orientation Programme & Japanese Language Course

(1) The four days after arrival at JICA Osaka are dedicated to an orientation programme, during which participants are introduced to JICA Osaka and its facilities, attend lectures on Japan's economy, society and culture, and participate in an international exchange programme with local communities.

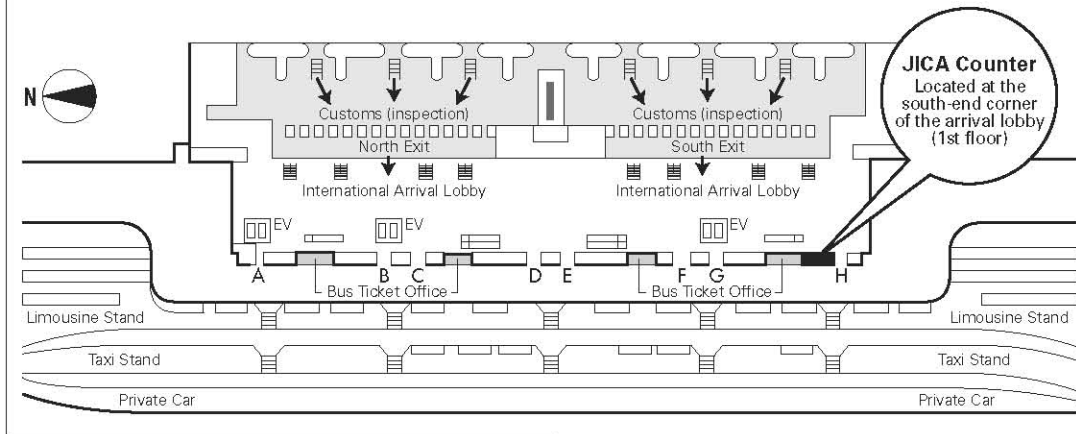
(2) It is desirable that participants acquire basic Japanese daily conversation for use in communication with training institution personnel and in other situations outside the scope of their technical training. JICA Osaka therefore offers:

- 1 an intensive Japanese language course as an integral part of the training programme in designated courses
- 2 an optional Japanese language course held in the evenings

## 3. Weekend Recreational Programme

Occasionally, at the weekends, JICA Osaka, in concert with community groups, organizes a programme of recreational activities and exchange events, including introductions to flower arrangement, tea ceremony, kimono wearing, handicrafts, and folk dancing, and visits to Japanese homes.

## Map of JICA Counter in Kansai International Airport (KIX)



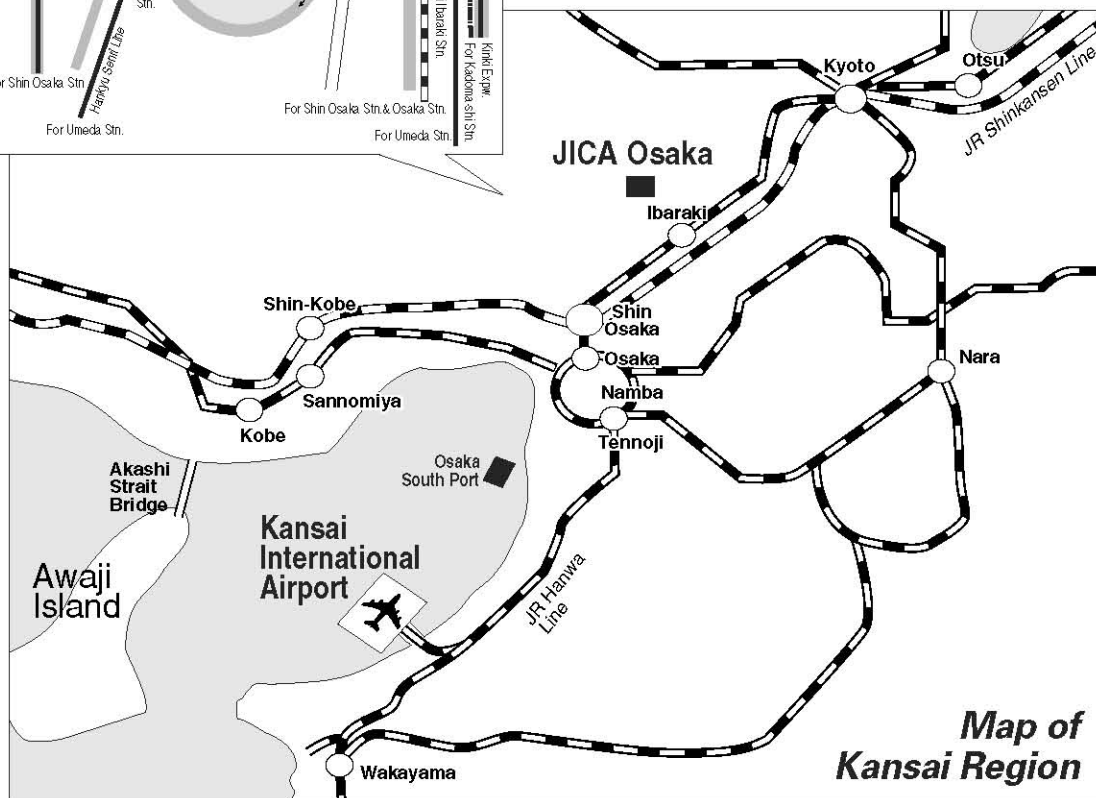
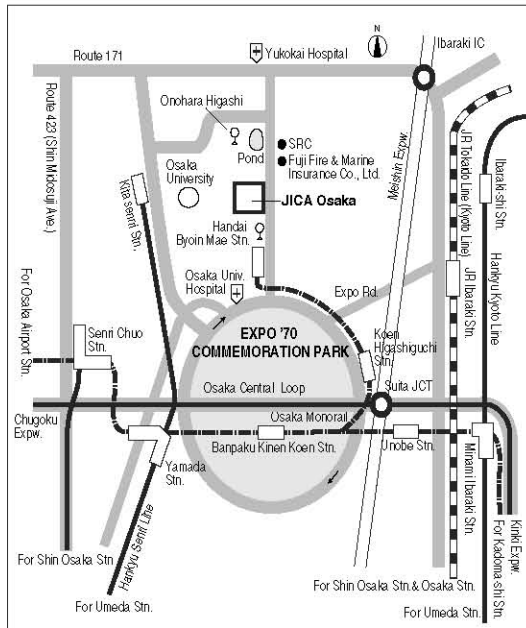
**Upon arrival, participants should follow the procedure below:**

1. Ride on Wing Shuttle (red elevated tram).
2. Pass through Immigration.
3. Collect baggage and pass through Customs Inspection.
4. Go to the JICA Counter located at the south-end corner of the arrival lobby (1st floor).

The staff at the JICA Counter will provide participants with a limousine bus ticket to Osaka Station (alight at Hotel New Hankyu).

At Osaka Station, a representative of the travel agency designated by JICA will meet the participant. The participant will be taken to JICA Osaka by taxi (with a taxi ticket), which takes approximately 30 minutes.

## Map of the JICA Osaka Vicinity



**Map of Kansai Region**



***CORRESPONDENCE***

For enquiries and further information, please contact the JICA office or the Embassy of Japan. Further, address correspondence to:

JICA Osaka International Center (JICA OSAKA)  
Address: 25-1 Nishi-Toyokawa-cho, Ibaraki-shi, Osaka 567-0058, Japan  
TEL: 81-72-641-6900 FAX: 81-72-641-6910