



# TRAINING AND DIALOGUE PROGRAMS

## GENERAL INFORMATION ON AIR POLLUTION CONTROL

集團研修「大気汚染対策」

*JFY 2008*

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

NO. J08-00875

From September, 2008 to March, 2009

Phase in Japan: From September 15 to December 13, 2008

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**

Taking as its focus one of the most critical aspects of environmental issues in recent years, this course was established in 1989 with the purpose of contributing to the creation of comprehensive and systematic solutions to the problem of air pollution.

In practical terms, the goals of this training are to contribute to control of environmental pollution on a global scale by fostering leading administrative engineers possessing the technical capabilities necessary to implement systematic and comprehensive air pollution control measures. To this end, higher-level instruction—covering control, measurement, forecasting, management engineering and other technical skills both in the classroom and in the field—is made available to government officials serving in a technical capacity as key players in air pollution control measures.

## **For what?**

This course is designed to strengthen the participants' capacity to formulate an action plan applying experience and knowledge gained through this training and dialogue programs in order to solve the problems/challenges which participants' organization are facing.

## **For whom?**

Administrative engineers for air pollution control/prevention

## **How?**

In this program, participants will learn about history, legislation, countermeasure techniques of air pollution management especially in case of Osaka city through lectures, observations and practices.

## ***II. Description***

**1. Title (J-No.) : Air Pollution Control (J08-00875)**

**2. Period of program**

**Duration of whole program:**

September to March, 2009

**Phase in Japan:**

September 15 to December 13, 2008

**3. Target Regions or Countries:** China, India, Pakistan, Botswana and Morocco

**4. Overall Goal:**

Activities for solving the problems related to air pollution are continuously implemented based on the action plans.

**5. Objective:**

**(1) Program objectives**

Participants' capacity to formulate an action plan to solve the problems/challenges which participants' organization are facing is improved.

**(2) Expected Module Output:**

(Core Phase in Japan)

1. Participants are able to explain about the legislative systems and the relation between industrial development and pollution with reference to Japanese cases
2. Participants are able to measure gaseous substances and particle substances related to air pollution appropriately, using the techniques learned during the program.
3. Participants are able to explain about emission source control techniques for polluting substances
4. Participants are able to explain about applicable techniques for dispersion models required to prepare air pollution prevention plans
5. Draft Action Plans to solve the problems/challenges are formulated, applying experience and knowledge gained through this training and dialogue programs.

(Finalization Phase in Participants' Home Countries)

6. Draft Action Plans are shared and Finalized by the participating organization

**6. Eligible / Target Organization :**

Division in National/Local government which in charge of air pollution control

**7. Total Number of Participants :**

5 participants in total from 5 countries which are China, India, Pakistan, Botswana and Morocco

**8. Language to be used in this project:** English (including English translated from Japanese through interpreters)

**9. Contents:**

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

**(1) Preliminary Phase in participant's home country (~September 14, 2008)**

Participating organization make required preparation for the Program in the respective country.

Modules	Activities
Country report	<ul style="list-style-type: none"> <li>♣ Formulation of Country Report               <ul style="list-style-type: none"> <li>◆ Participants are requested to prepare a country report on their organization, activities, interests, and their country's environmental situation, etc., according to the instructions in V. ANNEX1.</li> <li>◆ Participants will be required to give a presentation in class based on the report at the beginning of the program after arriving in Japan.</li> <li>◆ The country report should be typewritten in English double-spaced (about 5 pages, A4 size) and submitted in both CD-ROM/floppy (Windows) and hard copy versions to JICA (or the embassy of Japan) together with the Application Form. Participants are recommended to bring supplementary materials, such as slides, OHP transparencies or photos. (The submitted reports are referred to in the process of screening applicants and are used during training for comparative study.)</li> </ul> </li> </ul>



**(2) Core Phase in Japan (September 15 to December 13, 2008)**

Participants dispatched by the organizations attend the Program implemented in Japan.

【Introduction】		Type		
Modules	Subjects/Agendas/Methodology	L	P	O
Introduction	Course Orientation	○		
	<ul style="list-style-type: none"> <li>♣ Country Report Presentation               <ul style="list-style-type: none"> <li>◆ Each participant will make presentation about air pollution status and issues in their respective countries</li> <li>◆ Sharing the difficulties or challenges which participants' organizations are facing and confirming what should be learned during the course.</li> </ul> </li> </ul>	○		
<b>【Output 1】 Participants are able to explain about the legislative systems and the relation between industrial development and pollution with reference to Japanese cases</b>				
Modules	Subjects/Agendas/ Methodology	L	P	O
Overview of Air Pollution	General Review of Air Pollution Mechanism	○		
	Impact of Air Pollution	○		
Overview of Environmental Conservation Measures	History of Air Pollution Control in Japan and Osaka	○		
	Economic Development and Environmental Problem	○		
	Case Study on Air Pollution Control of Osaka City	○		
	Outline of Environmental Management System	○		
Laws and Regulations	Ordinances Regarding the Environment	○		
	Environmental Standards in Japan	○		
	Application of Laws and Regulations	○		
	Practical Training on Application of Laws and Regulations		○	
	Handling Complain	○		
Environmental	Roles of Environmental Consultant Company	○		

Conservation Efforts	Osaka city's Measures and Transfer of Technology/Environmental Pollution Control Assistance System	<input type="radio"/>		
	Environmental Conservation Efforts by NGO			<input type="radio"/>
	Strategies to Implement the Urban Environmental Accords	<input type="radio"/>		
Planning of Air Pollution Control	Planning for Air Pollution Prevention(I) (II)	<input type="radio"/>		
	Investigation on Emission from Stationary Sources	<input type="radio"/>		
	Investigation on Emission from Mobile Sources	<input type="radio"/>		
Environmental Impact Assessment	Environmental Impact Assessment in Osaka City	<input type="radio"/>		
	Environmental Impact Assessment Case Study			<input type="radio"/>
<b>Output2 ] Participants are able to measure gaseous substances and particle substances related to air pollution appropriately, using the techniques learned during the program.</b>				
<b>Modules</b>	<b>Subjects/Agendas/ Methodology</b>	<b>L</b>	<b>P</b>	<b>O</b>
Continuous Monitoring System	Air Pollution Continuous Monitoring System and its Utilization	<input type="radio"/>	<input type="radio"/>	
	Observation of Monitoring Station			<input type="radio"/>
	Principle and Structure of Continuous Monitoring Instruments	<input type="radio"/>		<input type="radio"/>
Nox&Sox Measurement, Measures Against Acid Rain	Simplified Methods for SOx, NOx Measuring		<input type="radio"/>	
	SOx Measuring Techniques		<input type="radio"/>	
	NOx Measuring Techniques	<input type="radio"/>		
	Measures Against Acid Rain	<input type="radio"/>		
Dustfall Measuring Techniques	Dustfall Measuring Techniques	<input type="radio"/>		
	Practical Training of Dustfall Measuring Techniques		<input type="radio"/>	
Stack Gas Measurement	Orientation for Practice on Stack Gas Measuring Techniques	<input type="radio"/>		
	Observation of Steel Company			<input type="radio"/>
	Practical Training on Operation of Stack Gas Treating Facilities		<input type="radio"/>	
	Practical Training of Stack Gas Sampling		<input type="radio"/>	
	Analysis of Samples (NOx)		<input type="radio"/>	
	Analysis of Samples (SOx)		<input type="radio"/>	
<b>[Output3]Participants are able to explain about emission source control techniques for polluting substances.</b>				
<b>Modules</b>	<b>Subjects/Agendas/ Methodology</b>			
Fuel and Combustion	Air Pollution Control by Combustion Methods	<input type="radio"/>	<input type="radio"/>	
	Coal Fire Plant			<input type="radio"/>
Desulfurization, Denitrification Dust Collection Techniques	Techniques of Dust Removal and Dust Collection	<input type="radio"/>		
	Maintenance and Control of Dust Collecting Facilities			<input type="radio"/>
	Techniques of Desulfurization and Denitrification	<input type="radio"/>		<input type="radio"/>
	Flue Gas Desulfurization and Waste Facilities			<input type="radio"/>
Automobile Pollution Control	Measures to Control Air Pollution Caused by Exhaust Gas	<input type="radio"/>		
	Measures for Automobile Traffic	<input type="radio"/>		
	Exhaust Gas Treatment Facility by Soil	<input type="radio"/>		
	Exhaust Gas Monitoring on Street			<input type="radio"/>
	Diesel Particulate Filters Production Facility			<input type="radio"/>
	Exhaust Gas Measuring Experimentation			<input type="radio"/>
	Measures to Control Gas Exhaust in Osaka	<input type="radio"/>		<input type="radio"/>
Odor Pollution Control	Methods of Measuring Odor	<input type="radio"/>		
	Methods of Offensive Odor Control	<input type="radio"/>		
	Triangle Order Bag Method		<input type="radio"/>	
	Deodorization of Sewage Treatment Facility			<input type="radio"/>
Hazardous Substance	Hazardous Substance (Dioxin/Asbestos)	<input type="radio"/>		
	Volatile Organic Compounds	<input type="radio"/>		

<b>【Output4】Participants are able to explain about applicable techniques for dispersion models required to prepare air pollution prevention plans</b>				
Modules	Subjects/Agendas/ Methodology			
Atmospheric Diffusion & Data Processing	Theory on Atmospheric Diffusion	○		
	Meteorological Analysis	○		
	Method of Data Processing for Air Pollution Control	○		
	Outline of Simulation Models for Air Pollution Control	○		
	Management of Data on Air Pollution	○		
<b>【Output5】Draft Action Plans to solve the problems/challenges are formulated, applying experience and knowledge gained through this training and dialogue programs.</b>				
Modules	Subjects/Agendas/ Methodology			
Action Plan	Discussion		○	
	Discussion for Action Plan		○	
	GEC Evaluation Meeting/Action Report Presentation		○	

※L=Lecture, P=Practice, O=Observation



### **(3) Finalization Phase in participant's home country (December, 2008 to March, 2009)**

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

<b>【Output6】 Draft Action Plans are shared and Finalized by the participating organization</b>	
Discussion and Finalization of Action Plan	<ul style="list-style-type: none"> <li>♣ Sharing and discussing of draft action plan in the participating organization</li> <li>♣ Finalization of draft Action Plan (if, possible)</li> </ul>
Submission of final report to JICA regional Office	♣ Submitting Final report including description of progress of Action Plan to respective JICA Regional Offices (Deadline: March 13 <sup>th</sup> )



**【Program Objective】 Participants' capacity to formulate an action plan to solve the problems/challenges which participants' organization are facing is improved.**

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

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

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

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

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

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

- 1) **Current Duties:** be administrative engineers of the division in National/Local government which is in charge of air pollution control
- 2) **Experience in the relevant field:** at least five (5) years' experience in the administration of air pollution prevention
- 3) **Age:** be between twenty-five (25) and forty-five (45) years of age
- 4) **Language:** have a competent command of spoken and written English (This training course includes active participation in discussions, action plan development, thus requires high competence of English ability. Please attach 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 (Pregnancy is regarded as a disqualifying condition for participation over a long period may pose risks to pregnant women and unborn children.)
- 6) Must not be serving any form of military service.

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

**(1) Application Form:** The Application Form is attached to this General Information.

- (2) **Country Report:** Please see **V. ANNEX1**  
(3) **Questionnaire:** Please see **VI. ANNEX2**

**Applications not accompanied by questionnaire cannot be duly considered.**

**Attention! : All documents should be in English and typewritten by PC or filled in BLOCK LETTERS, NOT in *Running Hand*.**

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

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

Closing date for application to the JICA Center in JAPAN: **July 25, 2008**

**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 Osaka in Japan, which organizes this program. Selection shall be made by the JICA Osaka 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 August 8<sup>th</sup>, 2008.**

**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.



## IV. Administrative Arrangements

### 1. Organizer:

**(1) Name:** JICA Osaka (Japan International Cooperation Agency, Osaka International Center: JICA/OSIC)

**(2) Contact:** Ms. KAMEI NAOKO ([jicaosic@jica.go.jp](mailto:jicaosic@jica.go.jp))

### 2. Implementing Partners:

**2-1) Name:** Global Environment Centre Foundation (GEC)

**(1) Contact:** Ms. Keiko TSUDA

**(2) URL:** <http://gec.jp/>

**(3) Remark:** GEC was established in 1992, with the purpose of supporting to UNEP DTIE IETC's activities and promoting partnership between developing countries and Japan for global environmental conservation.

**(4)** Participants will be able to become a member of JICA-GEC Network and share and exchange information.

**2-2) Name:** Environment Bureau, Osaka City

**(1) URL:** <http://www.city.osaka.jp/kankyojigyo/english/index.html>

**(2) Remark:** Bureau in charge of conservation of environment and waste disposal (air pollution, automobile pollution, noise and vibration, toxic chemical, ground environment, water quality in river and ground water and waste treatment)

### 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:

**(1) 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 JICA Osaka at its URL, [http://www.jica.go.jp/english/contact/pdf/life\\_in\\_osic.pdf](http://www.jica.go.jp/english/contact/pdf/life_in_osic.pdf)

## **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.

# V. ANNEX1

## Country Report

1. Name / Country / Organization
2. Individual Course Objective (Air Pollution Control)
  - 1) What specific interests do you have within the technical and theoretical features of the Air Pollution Control course?
  - 2) What specifically are your expectations for applying knowledge and skills from this training course back home? And why?
  - 3) Your experience operating analytical instruments, if any.
3. The main body of the report may be composed of the following items:
  - 1) Your comments on the present situation as regards air pollution in your country.
  - 2) Provide an outline and organization chart of the organizations and institutions governing environmental issues.
  - 3) Itemize your government's policies for the prevention of air pollution.
  - 4) Itemize major government projects in your country, completed or planned, related to air pollution prevention.
  - 5) Comment on the present situation of international cooperation in the field of air pollution prevention in your country and on future plans in this field, if any.
4. Describe any environmental issues in Japan (past or present) that are either known or of interest to you. (Be sure to touch on air pollution.)
5. Recent Conditions  
(Note: be as specific as possible in your answers)
  - 1) If air pollution has caused environmental problems in your country, please describe them. (Some photos should be provided.)
  - 2) If your country has any projects to prevent or control air pollution, please describe them. (Some photos should be provided.)

Note: Participants are requested to bring with their environment-related white papers, national reports and/or pamphlets prepared by their governments and/or their organizations, as well as materials such as slides, videotapes and/or photographs which will add a visual dimension to an understanding their country's environmental situation.

## VI. ANNEX2

### Questionnaire

As we would like to know the present situation as regards air pollution control in your country, you are kindly requested to answer the following questions.

Name \_\_\_\_\_ Country \_\_\_\_\_

#### 1. Outline

(1) Fill out the following table.

	Population	Area	Number of factories	Number of automobiles
Nationwide ( )				
The most polluted (air) city (City name: _____)				

(2) Outline of fuel and energy consumption

Source	Fuel types and proportion of total fuel consumption		
Factory	<input type="checkbox"/> Coal ( %)	<input type="checkbox"/> Petroleum ( %)	<input type="checkbox"/> Others ( %)
Automobile	<input type="checkbox"/> Gasoline ( %)	<input type="checkbox"/> Light oil ( %)	<input type="checkbox"/> Others ( %)

#### 2. Outline of air pollution

(1) List the three severe pollution problems most in need of attention in your country.

- ① \_\_\_\_\_
- ② \_\_\_\_\_
- ③ \_\_\_\_\_

(2) Fill in the following chart with reference at each item to the city with the highest ambient levels of the relevant substance.

Substance	Unit	City	2000	2005	Latest (Specify year)	Main pollution source
SO <sub>2</sub> (annual average)						
NO <sub>2</sub> (annual average)						
SPM (annual average)						
CO (annual average)						
O <sub>3</sub> (max an hour)						

(3) Use the following table to list critical pollutants of today which are not included in the above table.

Substance	Unit	City	2000	2005	Latest (Specify year)	Main pollution source

### 3. Air pollution control measures

#### (1) Environmental quality standards for air

##### ① Ambient air quality standards

Please tick the standard which you refer to:

National standard

Local standard

Substance	Standard values	Measuring methods
SO <sub>2</sub>		
CO		
SPM		
NO <sub>2</sub>		
Photochemical oxidants		

##### ② Emission standards

Please tick the standard which you refer to:

National standard

Local standard

Fill out the following table.

	Substance	Measuring methods
Stationary source (e.g. Factory)	SO <sub>x</sub>	
	Dust	
	NO <sub>x</sub>	
Automobile exhaust	CO	
	Hydrocarbon	
	NO <sub>x</sub>	
	Particulate matter	
	Lead compound	

#### (2) Laws and regulations on air pollution control

Give the names of the laws and regulations.

Please tick the following items.

Law applies to:		<input type="checkbox"/> Factory <input type="checkbox"/> Large scale building <input type="checkbox"/> Automobile <input type="checkbox"/> Others
System of control	Procedures required in advance	<input type="checkbox"/> Notification <input type="checkbox"/> Permission <input type="checkbox"/> Both of above
	Authority in charge	<input type="checkbox"/> Central government <input type="checkbox"/> Local branch of central government <input type="checkbox"/> Local government
	Method of emission monitoring	<input type="checkbox"/> On-the-spot inspection by administration such as central or local government <input type="checkbox"/> Report by undertaking concerned <input type="checkbox"/> Other
	Compulsory measurement	<input type="checkbox"/> No <input type="checkbox"/> Yes (Frequency: _____)

(3) Utilization of air pollution control equipment

Please mark the following table, 3 for commonly used equipment, 33 for most commonly used equipment.

Equipment	
Dust collecting equipment	<input type="checkbox"/> Bag filter <input type="checkbox"/> Scrubber <input type="checkbox"/> Electric dust collector <input type="checkbox"/> Cyclone
Desulfurizing equipment	<input type="checkbox"/> Lime-gypsum method <input type="checkbox"/> Magnesium hydroxide <input type="checkbox"/> Others <input type="checkbox"/> Caustic soda adsorption <input type="checkbox"/> Activated charcoal adsorption method
NO <sub>x</sub> reducing equipment	<input type="checkbox"/> Two-stage combustion method <input type="checkbox"/> NO <sub>x</sub> reducing equipment <input type="checkbox"/> Flue gas recirculation system

(4) Air pollution monitoring system

① How many monitoring stations are there in your country?

Show their locations.

Who administers the monitoring stations? (Please tick.)

Government

Local public organization

② Items and methods of measurement

Item	Measuring methods	Type
Sulfur dioxide		<input type="checkbox"/> Auto <input type="checkbox"/> Manual
Nitrogen dioxide		<input type="checkbox"/> Auto <input type="checkbox"/> Manual
Nitrogen monoxide		<input type="checkbox"/> Auto <input type="checkbox"/> Manual
SPM		<input type="checkbox"/> Auto <input type="checkbox"/> Manual
Photochemical oxidants		<input type="checkbox"/> Auto <input type="checkbox"/> Manual
Hydrocarbon		<input type="checkbox"/> Auto <input type="checkbox"/> Manual
Carbon monoxide		<input type="checkbox"/> Auto <input type="checkbox"/> Manual
Wind direction and velocity		<input type="checkbox"/> Auto <input type="checkbox"/> Manual

③ Is there a central monitoring station?

- Yes  No

If any, tick the method of collecting data.

- By telemeter  By person

Are there any data processing computers?

- Yes  No

④ Measures during times of high concentrations (emergencies)

What limitations, if any, are in place as measures against atmospheric pollution levels when concentrations are so high as to pose short-term health risks?

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(5) Are there any environmental impact assessment systems in your country?

- Yes  No (Please tick.)

If "Yes," describe the assessment system of your country according to the example below.

(Example)

Project subject to assessment	Scale of project subject to assessment
1) Construction or reconstruction of national expressways, national roads and other roads	National roads with 4 lanes, 10km or more national expressway (all)

How often is the above assessment applied? ( times/year)

3. Topics for the training

Itemize the subjects and technical skills you are particularly interested in acquiring during the training.

## *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 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**