

# GROUP AND REGION-FOCUSED TRAINING

# **GENERAL INFORMATION ON**

CAPACITY DEVELOPMENT FOR FLOOD RISK MANAGEMENT WITH IFAS

課題別研修「統合洪水解析システム(IFAS)を活用した 洪水対応能力向上」

JFY 2015

No. J15-04099 / ID. 1584479

Course Period in Japan: From July 6<sup>th</sup>, 2015 to August 2<sup>nd</sup>, 2015

This information pertains to one of the Group and Region-Focused Training 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

The intensity and frequency of flood disasters have been increasing worldwide in recent years, and the impacts are particularly big on developing countries. The severe damage on the society and economy sometimes washes away their development gains and puts them into downward spiral.

To mitigate the damage of floods, strengthening of a sequence of coping capacities is essential, which are ranging from prompt and precise flood forecast to effective evacuation measures. Especially, it is important to enhance capacity of officials and organizations that are responsible for flood fighting activities such as meteorological observation, river management and evacuation measures. Proper flood disaster management cannot be achieved by effort of a single organization. Collaboration and smooth communication among the related organizations are critical for realizing efficient and effective flood control.

In this context, this three-year training program is formulated to assist flood-prone developing countries. This course provides Japanese knowledge for flood disaster management which Japan has developed through the experience of repeated flood disasters. Participants are to be selected in a combination of government officials responsible for above mentioned disaster management activities from each participating country.

This program places a high value on actual activities of participants and their organizations after the training phase in Japan. Therefore, participants are required not only to understand the training contents but also to prepare feasible action plans in Japan, share the knowledge they gained in Japan with their organizations and implement the plans in on-going or future projects in their countries.

# For what?

This program aims to mitigate flood damage by strengthening coping capacities of developing countries for flood risk management. The goal is to enhance knowledge of responsible organizations on flood forecast system including Integrated Flood Analysis System (IFAS), flood runoff analysis system, flood prevention and evacuation activities and measures for efficient collaboration among responsible organizations.

#### For whom?

This program is designed for a combination of government officials in charge of meteorological observation, river management, and flood prevention / evacuation of the same river basin in each participating country. The program is implemented for 3 years (3 times) for the same participating countries. Participants for 3 years are expected to have mutual relationship in their roles for flood disaster management.

# How?

In the training phase in Japan, participants will learn knowledge on flood disaster management including IFAS in lectures, workshops and field trips. Participants will also prepare action plans with fellow participants from the same country by utilizing knowledge they gained in Japan.

# II. Description

# 1. Title (J-No.):

Capacity Development for Flood Risk Management with Integrated Flood Analysis System (IFAS) (J15-04099)

## 2. Course Period in JAPAN:

July 6 to August 2, 2015

# 3. Target Regions or Countries:

Kingdom of Bhutan, Bosnia and Herzegovina, Republic of Djibouti, Republic of India, Republic of Kenya, Republic of the Union of Myanmar, Republic of Nicaragua, Federal Republic of Nigeria, Republic of the Philippines, Democratic Socialist Republic of Sri Lanka, Kingdom of Thailand

# 4. Eligible / Target Organization:

Combination of national / local governmental organizations responsible for flood forecasting, early warning system, flood risk management and flood prevention / evacuation of residents

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

Eighteen (18)

# 6. Language to be used in this program:

English

## 7. Course Objective:

Coping capacity for flood damage mitigation including appropriate flood forecasting and early evacuation of residents is strengthened in each participating country.

#### 8. Overall Goal:

Flood damage is mitigated by the strengthened coping capacity of local level organizations for disaster management in each participating country.

# 9. Expected Module Output and Contents:

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

# (1) Preliminary Phase in participant's home countries;

Participating organizations and participants make required preparation for the Program in the respective countries.

Output	Activities
Understand the	1) The accepted participants attend TV conference with the organizer and
problems and possible	the implementing partner of this training course at the respective
solutions for flood	countries' JICA office (the date will be notified after the acceptance
damage mitigation	notice). Ex-participants of the last year will be also invited in this TV
based on the analysis of	conference.
flood risk management	2) The accepted participants from each country jointly prepare an Inception
concept, system or	Report (Power Point Presentation) with the cooperation of the
structures in the	participating organizations and submit it to the respective countries' JICA

respective countries.	office. The participants also bring their electric files to Japan.
	* Please follow the Guidance for the preparation of Inception Report in the
	Annex I. Also, the detail explanation will be done at the TV conference.

(2) Phase in Japan;	.1	· · · · · · · · · · · · · · · · · · ·	
	y the	organizations attend the Program implemented in Japan.	37.1.11
Outputs		Subjects/Agendas	Methodology
Understand the problems			
and possible solutions		Individual Interview by country on Inception Reports	
for flood damage		Outline of Project Cycle Management	Lecture,
mitigation based on the		Stakeholder analysis	Discussion,
analysis of flood risk		Problem analysis	Exercise
management concept,	$\triangleright$	Presentation of Inception Report	Exercise
system or structures in			
the respective countries.			
Understand concept and	>	Principle of flood disaster management	Lecture,
actual calculation of	$\triangleright$	Outline of disaster management and disaster prevention	Field Trip,
run-off and flood		countermeasures in Japan	Exercise,
analyses and flood risk	$\triangleright$	Role of relevant organizations for flood disaster	Discussion
management by learning		management and communication system during floods	
the operation of IFAS	$\triangleright$	Flood prevention activities	
and outline of disaster	>	Meteorological and Hydrological observation in Japan	
management/ evacuation	>	River management in urban area	
plan.	>	Integrated Flood Analysis System (IFAS)	
	>	Example of local emergency evacuation drill in a	
		developing country	
	>	Town watching and Evacuation planning	
	>	Field Trip (case study from recent flood event)	
Develop draft local flood	>	Objective analysis	Exercise,
management plan for a	>	Project Design Matrix and Plan of Operation	Discussion,
flood vulnerable area.	>	Preparation (Upgrade) of Action Plan Report	Presentation
	>	Presentation and discussion of Action Plan	
	* Please refer to the Annex II with regard to the information of the		
	Actio	on Plan Reports.	

# (3) Finalization Phase in participant's home countries;

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

	Activities
	1) The participants from each country jointly hold debriefing sessions,
Develop draft local flood management plan for a flood vulnerable area.	and then the participating organizations finalize the Action Plan with necessary modification.  The participants and their organizations start implementation of the finalized Action Plan and submit Progress Report to the respective countries' JICA office.

# 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 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.

## 2. Nominee Qualifications:

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

- (1) Current Duties: (i) Meteorological officer, (ii) Officer in charge of river management, or (iii) Administrative officer in charge of evacuation of residents
- (2) Experience in the relevant field: more than 2 years in practice
- (3) Educational Background: be university graduates or have an equivalent academic background for meteorology, civil engineering (especially in hydraulics and hydrology) or evacuation planning.
- (4) Language: have a competent command of English which is equivalent to TOEIC 700 (This training program includes active participation in discussions and preparation of Action Plan, thus requires certain level of English ability both in conversation and reading/ writing. Attachment of an official certificate for English ability test is welcomed.)
- (5) Computer skill: be proficient in MS Word, Excel and Power Point.
- (6) Health: must be in good health, both physically and mentally to participate in the Program.
- (7) Must not be serving any form of military service.

# <Remarks>

Since this program is designed to develop capacity for a sequence of flood disaster management and facilitate the efficient collaboration among responsible organizations, the application must be a combination of government officials in charge of above mentioned current duties in the same river basin. Otherwise, it may be disqualified.

# 3. Required Documents for Application:

# (1) Application Form:

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

\*Pregnancy

Pregnant participants are strictly requested to attach the following documents in order to minimize the risk for their health.

- 1. letter of the participant 's consent to bear economic and physical risks
- 2. letter of consent from the participant 's supervisor
- 3. doctor 's letter with permission of her training participation.

Please ask JICA Staff for the details.

# (2) Photocopy of passport:

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

\*Photocopy should include the followings:

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

# (3) Nominee's English Score Sheet:

To be submitted with the Application Form. If you have any official documentation of English ability (e.g., TOEFL, TOEIC, IELTS)

# 4. Procedure for Application and Selection:

# (1) Submission of the Application Documents:

Closing date for applications: **Please inquire to the JICA office (or the Embassy of Japan)**. (After receiving applications, the JICA office (or the Embassy of Japan) will send them **to the JICA Center in JAPAN by May 8, 2015**)

# (2) Selection:

After receiving the documents through proper channels from your government, the JICA office (or the embassy of Japan) will conduct screenings, and then forward the documents to the JICA Center in Japan. Selection will be made by the JICA Center in consultation with concerned organizations in Japan.

The applying organization with the best intention to utilize the opportunity of this program will be highly valued in the selection.

#### (3) Notice of Acceptance:

Notification of results will be made by the JICA office (or the Embassy of Japan) <u>not later</u> than May 20, 2015.

#### 5. Document(s) to be submitted by accepted candidates:

Before coming to Japan, only accepted candidates are required to jointly prepare an <u>Inception</u> <u>Report</u> (detailed information is provided in the ANNEX "Inception Report"). The Inception Report should be brought to Japan in the forms of electric files.

The accepted candidates will also be invited to attend a <u>TV conference</u> at the respective countries' JICA office. Detail explanation on preparation will be provided in the TV meeting.

## 6. Conditions for Attendance:

- (1) to strictly adhere to the program schedule.
- (2) not to change the program topics.
- (3) not to extend the period of stay in Japan.
- (4) not to be accompanied by family members during the program.

- (5) to return to home countries at the end of the program in accordance with the travel schedule designated by JICA.
- (6) to refrain from engaging in any political activities, or any form of employment for profit or gain.
- (7) to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances, participants may be required to return part or all of the training expenditure depending on the severity of said violation.
- (8) to observe the rules and regulations of the accommodation and not to change the accommodation designated by JICA.

# IV. Administrative Arrangements

# 1. Organizer:

(1) Name: JICATSUKUBA

(2) Contact: Mr. SUZUKI Toshiyasu (tbictpp@jica.go.jp)

#### 2. Implementing Partner:

(1) Name: International Centre for Water Hazard and Risk Management (ICHARM), Public Works Research Institute (PWRI)

- (2) URL: http://www.icharm.pwri.go.jp/
- (3) Remarks:

ICHARM was established in March 2006 based on the agreement between the Japanese Government and UNESCO hosted by the PWRI. ICHARM mission is to be the Centre of Excellence to provide and assist implementation of the best practicable strategies to localities and nations for water-related disasters.

# 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 Tsukuba International Center (JICA TSUKUBA)

Address: 3-6 Koyadai, Tsukuba, Ibaraki 305-0074, Japan

TEL: +81-29-838-1111, FAX: +81-29-838-1776

(where "81" is the country code for Japan, and "29" is the local area code)

If there is no vacancy at <u>JICA TSUKUBA</u>, JICA will arrange alternative accommodations for the participants. Please refer to facility guide of TBIC at its URL,

http://www.jica.go.jp/english/about/organization/domestic/pdf/tsukuba\_facility.

## 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 <u>not</u> included)
- (4) Expenses for program implementation, including materials

For more details, please see "III. ALLOWANCES" of the brochure for participants titled "KENSHU-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. Computer:

The participants are recommended to bring own laptop/ notebook computers to have practice of IFAS, to prepare an Action Plan Report, presentation slides and to communicate by e-mail. The required specifications are as follows. JICA will prepare computers for the participants who can't bring those computers, so as instructed as "Required Documents for Application" (page 6 of this G.I.), all nominees are requested to mention whether they can bring their own computers in the Explanation Note which must be submitted at the time of application.

# <Recommended specifications>

• Operating System: Windows 2000, XP, Vista, 7 (32-Bit or 64-Bit)

Processor: more than 2.0 GHz
Hard Disc: more than 50GB
Memory RAM: more than 2GB
LCD Size: more than 1024\*768

# 2. Related Data for Inception Report:

The participants are recommended to bring the detail data such as statistics or related documents which is referred for the preparation of the Inception Report in their laptop/ notebook computers; These data will be utilized when they prepare an Action Plan Report.

**END** 

ANNEX-I: Guidance for the preparation of Inception Report
II: Guidance for the preparation of Action Plan Report
III: Training Schedule (Tentative)

# ANNEX- I:

# **Guidance for the preparation of Inception Report**

#### Note:

- (1) The report must be jointly prepared by the accepted participants from each country with the cooperation of the participating organizations.
- (2) As the three-year training course, the accepted participants are required to collect information from the past years' participants on the contents of training in Japan and the Action Plan & Progress Reports as well as the updated progress on activities related to the Action Plan.
- (3) The report must include all following contents. Approximate volume is 15 slides, but not limited to, in Power Point Presentation. For the better understandings, it is recommended to use figures, tables or maps.

# Contents

# Cover Page.

Country, Participants' name, Organizations, Positions, E-mail Addresses

# 1. About organizations and duties

- (1) Mission, Objective, and main activities of organizations
- (2) Organization charts
- (3) Duties of participants

# 2. Natural conditions of the country

- (1) Climate
- (2) Precipitation
- (3) Topography
- (4) River systems

# 3. Activities for flood damage mitigation of the country

- (1) Legal system, Governmental system, Relevant organizations
- (2) Relationship and role sharing among the relevant organizations
- (3) Past, on-going, or planned projects (including the ones supported by JICA or other development partners) in the field of flood disaster management

## 4. Flood-related disasters and countermeasures situation in the target area

- (1) Describe the outline of the target area (population, precipitation, topography, etc.)
- (2) Investigate the major past flood event in the target area in the last 10 years and describe the following items;
- (2)-1 Outline of the damage (Casualties, inundated area, damage cost, etc.)
- (2)-2 (If possible) "Flood hydro-hyeto graph" of the major past flood in a particular point as shown in Figure 1

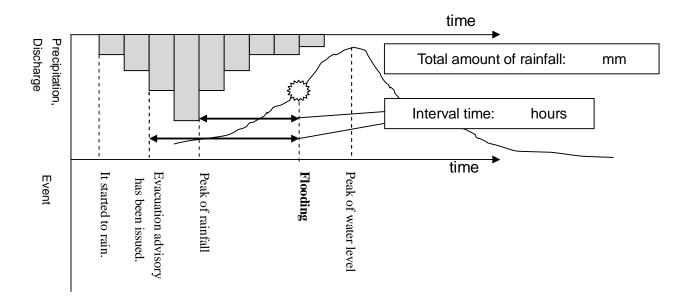


Figure 1 Flood hydro-hyeto graph

# 5. Progress of the Activities based on the Action Plan made by the ex-participants

- (1) Describe the progress of each planned activity
- (2) Analyze the contributing and hindering factors on the progress
- (3) Necessary contents to learn in Japan to accelerate the progress

# ANNEX- II:

# **Guidance for the preparation of Action Plan Report**

# 1. Definition of an "Action Plan":

- A plan of action how the participants will utilize skills and knowledge they acquired through the training course after coming back to their countries.
- A reasonable plan that basically utilizes available resources and implemented by existing organizations.

# 2. Important points the participants should consider:

#### (1) Joint Plan:

Participants from each country are requested to prepare one Action Plan Report jointly. Effective flood disaster management can be done by combining the actions of related organizations.

# (2) Application of Japanese experiences:

Think about how the participants will apply the skills and knowledge acquired from this training program.

## (3) Feasibility:

The participants will be expected to implement their Action Plans with the help of their colleagues, their organization and related organizations. Do not make a plan too ideally; make it as <u>realistic</u> as possible.

# **(4) Input:**

To make Action Plans feasible and realistic, utilization of appropriate and available financial and human resources in the participants' organizations and related organizations is important. The participants should avoid relying on uncertain external financial resources.

# (5) Time span:

Time span of the Action Plan should be <u>around 2 - 3 years</u>. The detail planning of concrete activities is required especially for the first year.

## 3. Evaluation:

Action Plans will be evaluated from the three points of view as below:

#### Relevance)

- -Are the expected results of the action plan relevant to the needs of the beneficiaries, or appropriate as the solution for the problems/ challenges?
- -Are the strategy and approach of the action plan adequate?

Keywords: (1) Necessity (2) Priority (3) Adequacy as a method.

#### **Effectiveness**)

- -To what extent is the objective likely to be achieved?
- -What are the major factors influencing the achievement or non-achievement of the objective?

# **Efficiency**)

-Does the Action Plan adopt the most efficient process (in terms of cost and time) compared to alternatives to achieve the desired results?

# **Contents of Action Plan Report**

<Basic Composition of Action Plan Report>

# Cover Page

Table of Contents

- 1. Introduction
- 1-1. Flood disaster related situation in (Participants' country name)
- 1-2. Contents and Findings from the Training Course
- 2. Action Plan
- 2-1. Target area
- 2-2. Stakeholders Analysis
- 2-3. Problems Analysis
- 2-4. Objectives Analysis and Target Selection for Action Plan
- 2-5. Master Plan
- 2-6. Project Design Matrix (PDM)
- 2-7. Plan of Operations (PO)

Annex: 1. Schedule of the Training Course

- 2. Photos
- 3, 4---X, Documents or materials collected

#### <Points to consider at each section>

#### **Cover Page**

Title, Country, Participants' Names, Organizations, Positions, E-mail addresses

## **Table of Contents**

# 1. Introduction

# 1-1. Flood disaster related situation in (Participant's country)

Since this agenda is the same with the one given for Inception Report, the participants can use the contents they've already written. However, it is expected for the participants to add some idea which they may have developed through the training in Japan.

The following items in the participants' country should be included in general;

- <Past flood events>
- <Policy and efforts for the flood disaster management>
- <Basic data on the required time>
- Time to collect hydrological data (precipitation, water level, etc.)
- Time to calculate/ simulate the water level by using collected data
- Time to complete evacuation by residents
- <Progress of Flood Hazard Mapping or other measures to mitigate the damage>
- <Role of stakeholders>
- <Major difficulties for Flood Disaster Management>

# 1-2. Contents and Findings from the Training Course

For each lecture, exercise and field trip, describe the contents and findings in detail and an easy-to-understand manner as much as possible. This section will be useful for the participants when they transmit what they obtained in Japan to their colleagues.

# <Image of Format>

【(1)Title: Principle of Flood Disaster Management】

Lecturer: Dr. Takeuchi Kuniyoshi Date & Time: July 11th, 10:15 – 12:15

#### Contents:

Summarize the key contents to be reported or shared to participants' organizations

#### Delivered Documents/ Materials:

# Findings:

What is the difference with the participants' country? Is there anything can be applied for participants' country?

## 2. Action Plan

#### 2-1. Target area

Describe about the target area of the Action Plan. The contents already written in the Inception Report as follows can be used again but other contents can be included if needed. .

- The flood damage and the current situation of the area.
- Explanation of the flood situation chronologically by making the "flood hydro-hyeto graph".

## 2-2. Stakeholders Analysis

List up all the organizations and other stakeholders related to flood disaster management and analyze their roles, mutual relationship, interest, or strength/ weakness.

Some of the Activities (Sub-activities) in Action Plan may be the ones to be done by the organizations the participant doesn't belong to which will be written in Plan of Operation.

## 2-3. Problems Analysis

Describe the current technical and non-technical problems and issues to prevent or mitigate disaster at the target area by using problems analysis tree diagram of PCM method.

## 2-4. Objectives Analysis and Target Selection for Action Plan

After the Problems Analysis, make Objectives Analysis tree diagram. Then, the target selection for Action Plan should be shown by drawing a circle (frame) on the Tree. Supplemental explanation such as the selection reason should be described.

#### 2-5. Master Plan

Overall Goal, Specific Objective, Outputs, Activities and Inputs will be clearly shown in PDM in the next section. However, the sentences in PDM are (should be) short. So, supplemental explanations should be described in this section. For example, if one of the outputs is "to make a Flood Hazard Map", the explanation on what are the contents of FHM the participant intend should be made in detail. It is preferable if the participant could explain their desired outputs by showing the images by utilizing materials they collected in Japan.

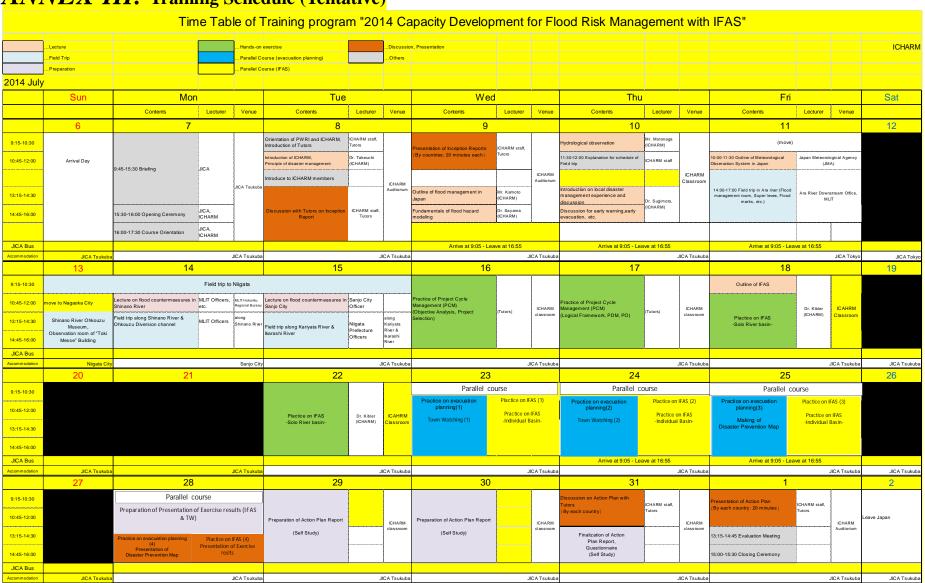
# 2-6. Project Design Matrix (PDM)

Complete PDM by referring the PCM textbook.

# 2-7. Plan of Operations (PO)

Break down Activities in PDM into Sub-Activities and prepare PO by referring the PCM textbook. Clear description on the responsible organization for each sub-activity is very important.

# ANNEX-III: Training Schedule (Tentative)



## 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.



# **CORRESPONDENCE**

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

JICA Tsukuba International Center (JICA TSUKUBA) Address: 3-6 Koyadai, Tsukuba, Ibaraki 305-0074, Japan

TEL: +81-29-838-1111 FAX: +81-29-838-1790