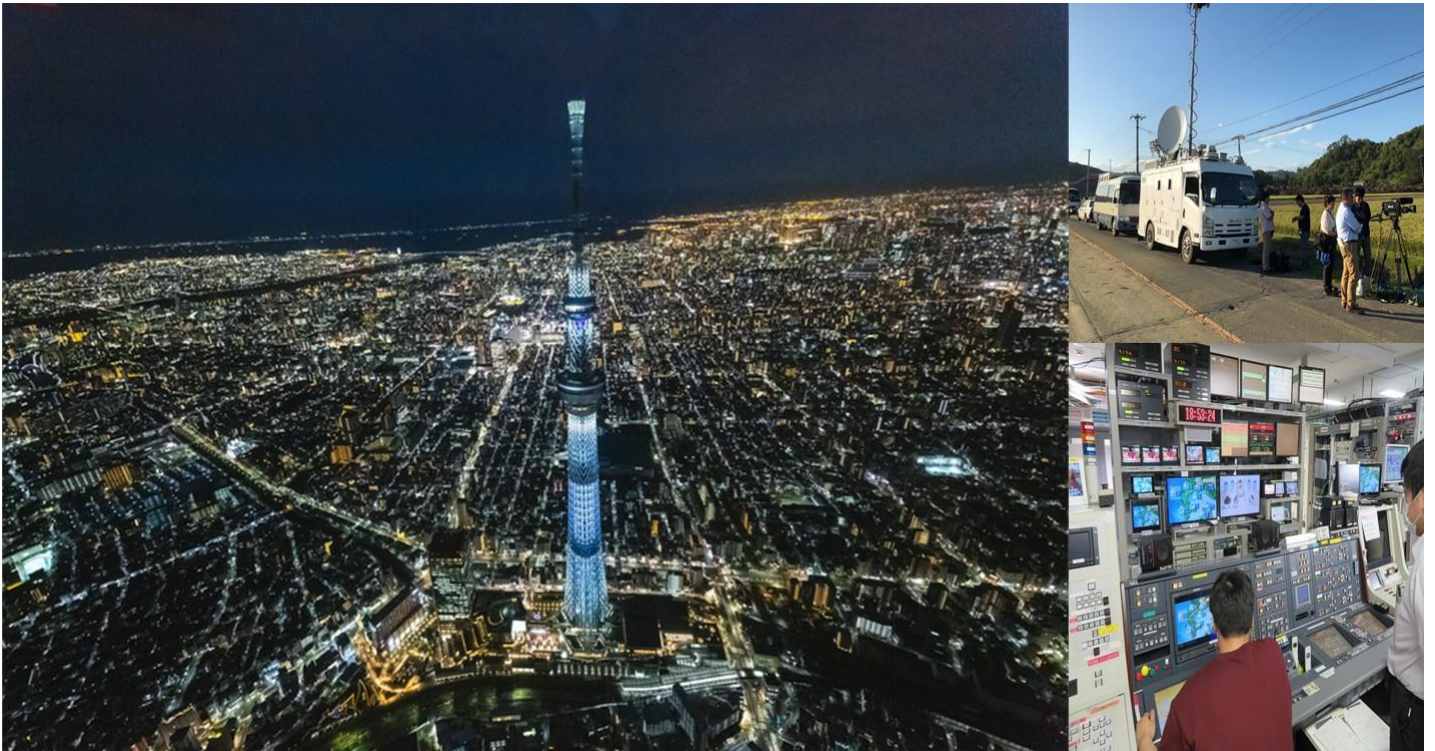




Knowledge Co-Creation Program

Digital Terrestrial TV Broadcasting (DTTB) Policy and Engineering



Course Period:

September 6 - September 24, 2021

In the context of the COVID-19 pandemic, please note that there is still a possibility the course period will be changed, shortened, or the course itself will be cancelled.





How does DTTB positively affect and change our daily life?

Gain insight to the development of DTTB system, policy, technology and various uses from experiences of Japan.



Outline

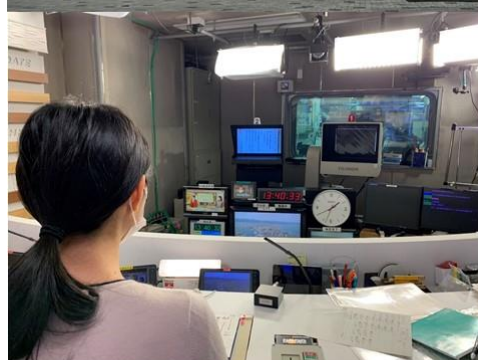
This program is offered to officers working at broadcasting organizations and its related governmental organizations to learn about Japanese practices in digital terrestrial broadcasting policy and engineering.

The sessions will be held online and will include self-study and discussion with web conference.

All sessions are carried out in English.

The period of the program is from September 6 to September 24, 2021.

Course Capacity:
12 participants



JICA Knowledge Co-Creation Program (KCCP)

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

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For What?

Background

TV broadcasting is one of the most efficient methods of communication, as people can get useful knowledge and raise public awareness in the field of education, health services, environment, peace-building and consolidation of democracy. In this sense it contributes to the improvement of quality of life.

Objectives

To provide useful knowledge, techniques and clues for effective digitalization of TV broadcasting by learning digital broadcasting technology and theories.

To Whom?

Job Areas and Organizations

This program is offered to officers working at broadcasting organizations and its related governmental organizations of the countries which have adopted or are considering ISDB-T (Integrated Services Digital Broadcasting-Terrestrial) as their digital terrestrial TV broadcasting system.

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

Targeted Countries

Angola, Botswana, Brazil, El Salvador, Guatemala, Peru, Philippines, Sri Lanka, Timor-Leste

Participants who have successfully completed the program will be awarded a certificate by JICA.

When?

Online Program Period



From September 6 to September 24,
2021

Program Time and Duration

September 6 to September 24

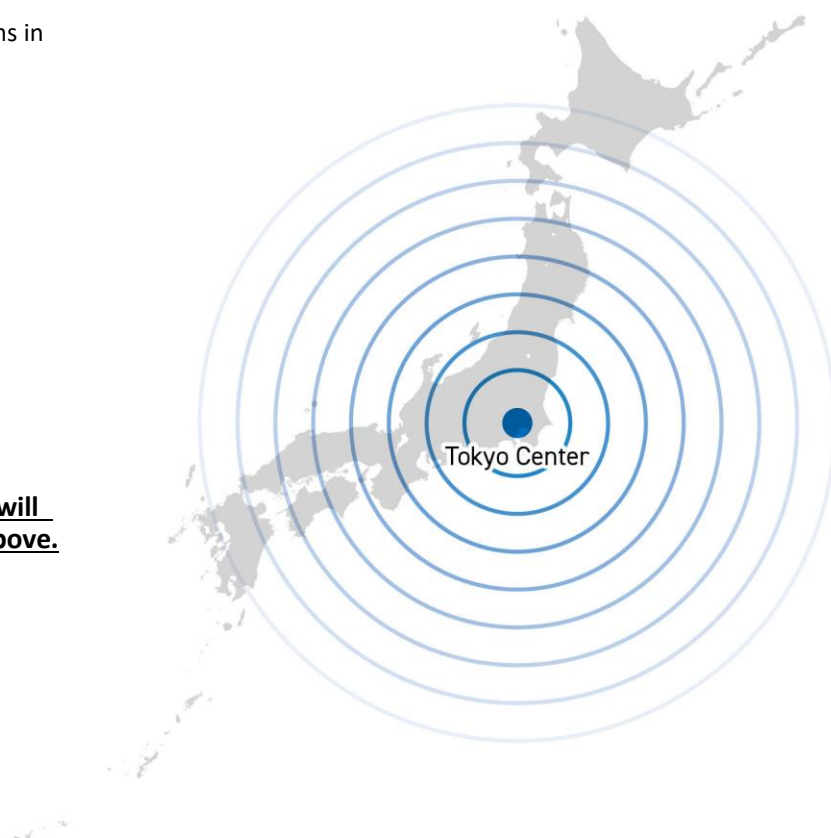
All participants will be connected via Teams in following time zones. Please note that scheduled time may change slightly.

- Japan: 3:00 PM to 5:00 PM
- Angola: 7:00 AM to 9:00 AM
- Botswana: 8:00 AM - 10:00 AM
- Brazil: 3:00 AM - 5:00 AM
- Timor-Leste: 3:00 PM - 5:00 PM
- El Salvador: Midnight - 2:00 AM
- Guatemala: Midnight - 2:00 AM
- Philippines: 2:00 PM - 4:00 PM
- Peru: 1: 00 AM - 3:00 AM
- Sri Lanka: 11:30 AM - 1:30PM

The first and last day of the program will be an hour longer than stated time above.

Where?

This program is organized by JICA Tokyo Center and is carried out online entirely. You will receive essential reading and pre-recorded lecture videos for your self-study at your office or home. As the online homeroom and Q&A sessions are held to assist your learning process, you are required to have a certain IT environment. For detail, see page 14.



How?

How to Learn

- Online Self-Study
- Online Interactive and Q&A Session
- Online Lectures
- Online Field Visits
- Online Workshops
- Online Discussions
- Online Presentations



Language

English

Commitment to the SDGs



Program Structure

This program is designed to introduce Japanese experience of DTTB and basic technology for the introduction and expansion of terrestrial digital broadcasting in your country.

Day 1

Program orientation

- Inception Report presentation

Day 2

Online Lecture (On-Demand), discussion and Q&A Session

- Current Status of Broadcasting and Trends in Broadcasting Policy in Japan
- Full Transition to Terrestrial DTV in Japan

Day 3

Online Lecture (On-Demand), discussion and Q&A Session

- Overview: Introduction to DTTB
- Efforts and Solutions in migration to DTTB

Day 4

Online Lecture (On-Demand), discussion and Q&A Session

- Master Control system
- Overview of set-top box

Day 5

Observation (Recorded or Live): Hitachi Kokusai Corp., discussion and Q&A Session

Day 6

Online Lecture (On-Demand), discussion and Q&A Session

- Digital Modulation
- Signal transmission

Day 7

Online Lecture (On-Demand), discussion and Q&A Session

- Digital Transmitter
- Single Frequency Network (SFN)

Day 8

Online Lecture (On-Demand), discussion and Q&A Session

- Data Broadcasting
- Emergency Warning Broadcast System (EWBS) Technical Explanation

Day 9

Online Lecture (On-Demand), discussion and Q&A Session

- Measurement of Digital Transmitter
- Electric Field Intensity

Day 10

Online Lecture (On-Demand), discussion and Q&A Session
- Measurement of DTTB reception signal

Day 11

Preparation Day for Report Presentation

Day 12

Online Lecture (On-Demand), discussion and Q&A Session
- Channel Planning part 1 (Overview)

Day 13

Online Lecture (Live), discussion and Q&A Session
- Channel Planning part 2 (Practice)

Day 14

Live Observation: NHK Hakodate Regional Local Station

Day 15

Action Plan presentation
- Q&A, General Discussion
Evaluation
Closing Ceremony

Implementing Partner

Mr. IGARASHI Toshiya

Senior Associate Director at NHK Communications Training Institute

Mr. Igarashi worked for NHK for more than 30 years and was in charge of outside broadcasting engineering, network engineering, program control system and other engineering fields. He also worked in the United States for three years at a communication satellite firms and as an engineering attache of NHK General Bureau for America.



Message: Even though we can't meet in Japan due to the pandemic, we are preparing lessons and exercises to introduce smooth transition, expansion and other various aspects of DTTB across country. I hope this program enables further promotion and development of DTTB in your country.

Mr. NAKAMURA Kunio

Senior Director at NHK Communications Training Institute

Message: I have worked for NHK Communications Training Institute since 2018. Before 2018, I worked for NHK and was in charge of transmission and reception of TV signal.

In the process of digitalization of broadcasting, I was involved in the diffusion of BS digital broadcasting, DTTB reception consultation and other engineering departments.

I will organize lectures to the best of my ability in a clarifying way. Looking forward to meeting you soon.

**Ms. TAMURA Satomi**

Senior Director at NHK Communications Training Institute

Message: I am in charge of this KCCP program, “Digital Terrestrial TV Broadcasting Policy and Engineering”. The program will be held online for this year, but we are pondering and preparing the best method and delivery of lectures and exercises.

Through this program, I am hoping participants to build connections and network among engineers that will last for the next coming centuries.



Program Officer
Mr. ITO Ryuichi

Deputy Director

Economic Infrastructure Development and Environment Division,
Tokyo Center, Japan International Cooperation Agency (JICA)

Message: Hi everyone. DTTB not only enables us to watch high quality TV shows, but also receive information regarding natural disaster, health services and much more. The amount of information received from TV is much more and quicker compared to previous years. Let's gain a new perspective on your work through discussions with the lecturer and other participants. I am looking forward to meeting you online!

**Mr. MIYAMOTO Ryo**

Officer

Economic Infrastructure Development and Environment Division,
Tokyo Center, Japan International Cooperation Agency (JICA)

Message: Hello there. Have you ever imagined a world where information is clearly, quickly and widely distributed across country? DTTB is the system that can make it happen. You will learn a lot from this program and vice versa!

Can't wait to meeting you online.



Voice

Past Program Alumni and Implementing Partner Comments

Participant from El Salvador

I want to start giving thanks to Japan Government and JICA's KCCP, specifically for the Digital Terrestrial TV Broadcasting (DTTB) Policy and Engineering in 2019. As a part of the group, in my case I had the opportunity to share many experience with the other participants from other countries and JICA staff members. With all the information acquired from the program and all the experiences shared from other participants, I prepared my Action Plan as the outcome of the learning to share with all my colleagues. Currently in my country, we already launch the Early Warning Broadcast System, thanks to the cooperation from Japan and the information that JICA shared with us. We are still working with the broadcaster to launch DTTB in many more channels in El Salvador and I can say that all that I learned in JICA program will be fully utilized in this switch over



NHK-Communication Training Institute Implementing Partner

We are sure that the participation of this KCCP (Knowledge Co-Creation Program) will be a good experience for you and your organization for realizing smooth switchover and implementation of digitalization in your country. You will learn many topics, like a digital broadcasting technology, planning and implementation of digitalization and so on, through this program and the experience of the analog switch off in Japan. We also expect you, the participants, to learn from one another by sharing their country's experience and expertise. We hope that this program will be very helpful in your organization.

Eligibility and Procedures

1. Expectations to the Applying Organizations

This course is designed primarily for organizations that intend to address specific issues or problems identified in their operation. Applying organizations are expected to use the program for those specific purposes.

This course is enriched with contents and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the course 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.

Please note that nominees would not necessarily be employed by the applying organizations, as long as they are selected officially by the organizations for their specific purposes. However, the nominees must be either persons who are engaged in the said field or directly related to program subject

Essential Qualifications

1) Current Duties:

- be an official who is in charge of the planning of DTTB,
- (acting) team leader of TV broadcasting organization in charge of DTTB, or
- an engineer who has practical experience in TV transmission

- 2) Experience in the Relevant Field: have more than 3 years' experience in the field of DTTB policy or engineering
- 3) Educational Background: be a graduate of university, or its equivalent
- 4) Language Proficiency: have a competent command of spoken and written English proficiency (This workshop includes active participation in discussions, which requires high competence in English.)
- 5) Health: must be in good health to participate in the program.

Technical Requirements (desirable):

1) Technology Proficiency

- Basic computer skills such as, sending/receiving email with attachments, and using a web browser.
- Online course is delivered using the following services, Web Conferences (Teams) and Cornerstone (JICA-VAN). Online tutorial and support by JICA will be limited. The ability to be self-directed in learning new technology skills are required.

2) Internet Connection

- High Speed Broadband Connection (at least 2Mbps).

* Internet access charge incurred for this course shall be borne by your organization.

3) Hardware (Minimum Requirement)

- Regular access to a computer, either from your home or from your office.
- Operating System: Windows or Mac OS (Updated version is preferred).
- Processor: Intel Core 2 Duo or higher; 2GHz or higher
- Memory: 4GB of RAM or higher
- Hard Drive Space: 5GB free disk space
- Browser: Google Chrome is preferred browser. (Edge, Firefox, Safari can be used)
- Others: Webcam Microphone, and Audio output Device (Speaker or Headset)

4) Software (which may be required)

- Microsoft Teams will be used for this program.

* In case you are using your office computer and use of Teams is not authorized by your IT administrator, please notify JICA at the time of application.

Recommended Qualifications

Expectations for the Participants

Age: under the ages of forty (40)

Gender Consideration: JICA promotes gender equality. Women are encouraged to apply for the program.

3. Required Documents for Application

- (1) **Application Form:** The Application Form is available at **the JICA overseas office (or the Embassy of Japan)**
- (2) **Photocopy of Passport or an official ID:** or photocopy of other official ID to be submitted to clarify your name notation.
- (3) **English Score Sheet:** to be submitted with the application form, if the nominees have any official English examination scores. (e.g., TOEFL, TOEIC, IELTS)

4. Procedures for Application and Selection

(1) Submission of the Application Documents

Closing date for applications: **Please confirm the local deadline with the JICA overseas office (or the Embassy of Japan).**

Each nominee is required to prepare the Job Report on the subjects indicated in the Annex 1. The Job Report, which will be used for screening the nominees, should be attached in the Application Form.

All required material must arrive at JICA Tokyo by **July 23, 2021.**

(2) Selection

Primary screening is conducted at the JICA overseas office (or the embassy of Japan) after receiving official documents from your government. JICA Center will consult with concerned organizations in Japan in the process of final selection. Applying organizations with the best intentions to utilize the opportunity will be highly valued.

The Government of Japan will examine applicants who belong to the military or other military-related organizations and/or who are enlisted in the military, taking into consideration of their duties, positions in the organization and other relevant

information in a comprehensive manner to be consistent with the Development Cooperation Charter of Japan.

(3) Notice of Acceptance

The JICA overseas office (or the Embassy of Japan) will notify the results **not later than August 6, 2021.**

5. Additional Document(s) to Be Submitted by Accepted Candidates

Inception Report -- to be submitted by **August 30, 2021**

Accepted candidates are required to prepare an Inception Report (Please read Annex II "Inception Report" for detailed information.). The Inception Report should be sent to JICA **by August 30, 2021**, preferably by e-mail to ticttee@jica.go.jp

6. Conditions for Participation

The participants of KCCP are required

- (1) to strictly observe the course schedule,
- (2) to carry out such instructions and abide by such conditions as may be stipulated by both the nominating Government and the Japanese Government in respect of the course,
- (3) to observe the rules and regulations of the program implementing partners to provide the program or establishments,
- (4) not to record or shoot the online programs and materials without JICA's permission,
- (5) not to engage in political activities, or any form of employment for profit,
- (6) to discontinue the program, should the participants violate the Japanese laws or JICA's regulations, or the participants commit illegal or immoral conduct, or get critical illness or serious injury and be considered unable to continue the course,
- (7) to return the total amount or a part of the expenditure for the KCCP depending on the severity of such violation, should the participants violate the laws and ordinances,
- (8) to refund allowances or other benefits paid by JICA in the case of a change in schedule.

Administrative Arrangements

1. Organizer (JICA Center in Japan)

- (1) **Center:** JICA Tokyo Center (JICA TOKYO)
- (2) **Program Officer:** Mr. ITO Ryuichi (Ito.Ryuichi@jica.go.jp)
Mr. MIYAMOTO Ryo (Miyamoto.Ryo@jica.go.jp)

2. Implementing Partner

- (1) **Name:** NHK Communications Training Institute (NHK-CTI)

3. Expenses

The Following expenses will be provided by JICA:

- (1) Daily allowances and transport expenses
- (2) Expenses for program implementation, including materials.

4. Reference Information

YouTube of “Knowledge Co-Creation Program and Life in Japan” and “Introduction of JICA Center” are viewable from the link below.

Image videos of 'Introduction of JICA Center (YouTube)' show the following information of JICA Centers: Location, Building, Entrance, Reception(Front desk), Lobby, Office, Accommodation(Room), Amenities(Hand dryer), Bathroom(Shower and Toilet), Toiletries, Restaurant, Laundry Room(Washing machine, Iron), ICT Room(Computer for participants), Clinic, Cash dispenser, Gym, Neighborhood

Part I: Knowledge Co-Creation Program and Life in Japan	
English ver.	https://www.youtube.com/watch?v=SLurfKugrEw
Spanish ver.	https://www.youtube.com/watch?v=m7L-WlQSDjl
Part II: Introduction of JICA Centers in Japan	
JICA Tokyo	https://www.jica.go.jp/tokyo/english/office/index.html

Annex I

For All Applicants

Job Report

Name: /Country:

E-mail address:

Notice: This report contains very important information and will be used in the selection of applicants for this program. Therefore, this Job Report must be submitted with the Application Form.

A. Applicant's Scope of Engineering Work

A-1. Please explain your present job in detail, especially describing your daily work, your position and years you are engaged in the position.

What particular engineering field are you currently engaged in?

B. Applicant's Scope of Managerial Work

B-1. Are you in charge of planning/designing engineering facilities in your organization? or Are you joining a group with such functions?

(Yes / No)

How long have you served in such a role?

Please describe your role in detail (ex., selection of facility, designing network, budget management and so on).

B-2. Do you have the responsibility of educating/training your junior staff members?

(Yes / No)

How long and how often do you serve in such a role as a trainer?

Please describe how your education program is carried out (ex. on the job training, seminars and so on).

B-3. Is there any project/working group for planning Digital Terrestrial Television Broadcast (DTTB), or Analog Switch Off (ASO) in your organization?

(Yes / No)

Are you a member of the group?

(Yes / No)

Please describe how actively the group is working in your organization and what your role is in the group?

Annex II

For Accepted Participants Only

Inception Report

Accepted participants are requested to prepare an Inception Report, referring to the following format (Microsoft Power Point) as an example.

- > Detailed explanation for each slide should be written on the NOTE of PPT.
- > The Report should be uploaded to dedicated GIGAPOD of JICA Tokyo Center by August 30, 2020. The URL of the GIGAPOD will be notified with acceptance notice.

1. Presentation:

Participant will deliver a presentation at the beginning of the program. Each participant has about 10 minutes for the presentation.

Please note that you may include the contents below in your materials **(Power Point, maximum 10 slides)**.

- (1) Structure of your organization
- (2) Current status of DTTB in your country.
- (3) What are the 'challenges' to launch DTTB in your country or at your organization? ex. Frequency management, human resources, technical knowledge, finance, public awareness, business priority, etc
- (4) Policies on DTTB
- (5) How could life and society be changed with DTTP and more of your choice

For Your Reference

JICA and Capacity Development

Technical cooperation is people-to-people cooperation that supports partner countries in enhancing their comprehensive capacities to address development challenges by their own efforts. Instead of applying Japanese technology per se to partner countries, JICA's technical cooperation provides solutions that best fit their needs by working with people living there. In the process, consideration is given to factors such as their regional characteristics, historical background, and languages. JICA does not limit its technical cooperation to human resources development; it offers multi-tiered assistance that also involves organizational strengthening, policy formulation, and institution building.

Implementation methods of JICA's technical cooperation can be divided into two approaches. One is overseas cooperation by dispatching experts and volunteers in various development sectors to partner countries; the other is domestic cooperation by inviting participants from developing countries to Japan. The latter method is the Knowledge Co-Creation Program, formerly called Training Program, and it is one of the core programs carried out in Japan. By inviting officials from partner countries and with cooperation from domestic partners, the Knowledge Co-Creation Program provides technical knowledge and practical solutions for development issues in participating countries.

The Knowledge Co-Creation Program (Group & Region Focus) has long occupied an important place in JICA operations. About 400 pre-organized courses 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 is being customized by the different target organizations to address the specific needs, 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, as the first non-Western nation to become a developed country, built itself into a country that is free, peaceful, prosperous and democratic while preserving its tradition. Japan will serve as one of the best examples for our partner countries to follow in their own development.

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 a process of adoption and adaptation, of course, has been accompanied by countless failures and errors behind the success stories.

Through Japan's progressive adaptation and application of systems, methods and technologies from the West in a way that is suited to its own circumstances, Japan has developed a storehouse of knowledge not found elsewhere from unique systems of organization, administration and personnel management to such social systems as the livelihood improvement approach and governmental organization. It is not easy to apply such experiences to other countries where the circumstances differ, but the experiences can provide ideas and clues useful when devising measures to solve problems.

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.



This information pertains to one of the JICA Knowledge Co-Creation Programs (Group & Region Focus) of the Japan International Cooperation Agency (JICA) implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.



Correspondence

For enquiries and further information, please contact the JICA office or Embassy of Japan.

Further, address correspondence to:

JICA Tokyo Center (JICA Tokyo)

Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan

TEL: +81-3-3485-7051 FAX: +81-3-3485-7904

("81" is the country code for Japan, and "78" is the local area code)