



Knowledge Co-Creation Program (Group & Region Focus)

General information on

Flood Disaster Risk Reduction

課題別研修「洪水防災」

JFY 2024

Course NO. 202311702J001

Course Period in Japan: From September 26, 2024 to September 13, 2025

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

JICA Knowledge Co-Creation Program (KCCP)

The Japanese Cabinet released the Development Cooperation Charter in June 2023, which stated, “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.” JICA believes that this ‘Knowledge Co-Creation Program’ will serve as a foundation of mutual learning process.

I. Concept

Background

A natural hazard becomes a disaster when the affected country or region lacks the coping capacity. In recent years, flood disasters have been increasing in numbers as well as in scale. This is particularly so in developing countries due to lack of leadership with vision, political will, coping capacity and resources. The resulting social and economic damages in such cases are likely to worsen with climate change.

In order to address this problem, and to plan sustainable development in developing countries, there is an urgent need to nurture leaders and experts on flood disaster mitigation, who can plan and implement management measures such as preparedness, response, recovery and rehabilitation.

Japan has a wealth of experience in coping with and managing many kinds of natural disasters including floods, and therefore is in a position to assist and transfer knowledge and expertise which can contribute to the development process of needy countries.

This program aims to train experts with the hope that they in turn will transfer the knowledge gained to the next level of professionals thereby upgrading the human resources capacities of developing countries.

For what?

This program aims to develop the participant's capacity to practically manage and mitigate damages of flood disasters and to contribute for socio-economic and environmental improvements at regional and national level in developing countries which suffer from them consistently.

For whom?

This program is provided to technical officials, engineers or researchers who are expected to be core human resources in the organization. Participants are expected to become independent investigators in the areas of integrated flood disaster management, who are equipped with the most advanced technical and legal know-how to enhance the basic understanding of the challenges of flood risks and to translate this knowledge back to practical flood disaster reduction strategies including poverty reduction and the promotion of sustainable development at local, national and regional level.

How?

Participants shall have opportunities in Japan to acquire knowledge and techniques of Flood Disaster Risk Reduction through lectures, discussions, exercises, on-site-visit, etc.

Participants will also formulate a Master Thesis and a course report describing what the participant learned and what the participant will do after they go back to their home countries by putting the knowledge and ideas acquired and discussed in Japan into their on-going activities.

Remark:

The curriculum of this program is approved as a master's degree program by the National Graduate Institute for Policy Studies (GRIPS) and the Public Works Research Institute (PWRI). (GRIPS program: Disaster Management Policy Program (Water-related Disaster Management Course))

Completing all graduation requirements during the training, the participants will be awarded a Master's degree, "Master of Disaster Management" by GRIPS and PWRI.

Accordingly this program is very demanding. Applicants, with an excellent demonstrable educational and professional background, should be highly motivated and confident enough to pursue and attain the requirement of the program so that they can obtain the degree.

II. Description

1. Title (Course No.)

Flood Disaster Risk Reduction (202311702J001)

2. Course Duration in Japan

September 26, 2024 to September 13, 2025

3. Target Regions or Countries

Bangladesh, Brazil, Fiji, Indonesia, Mexico, Nepal, Pakistan, Peru

Philippines, Sri Lanka, Timor-Leste

4. Eligible / Target Organization:

This program is designed for governmental organizations concerning river management or flood disasters.

5. Course Capacity (Upper limit of Participants)

12 participants

6. Language

English

7. Objective(s)

The participant's capacity to practically manage and mitigate damages of flood disasters in developing countries which suffer from them consistently is enhanced.

8. Overall Goal:

The damage of flood disasters is reduced by planning and implementing the countermeasures of flood disasters in their countries.

9. Output and Contents

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

(1) Preliminary Phase in a participant's home country; <i>Participants make required preparation for the Program in the respective countries.</i>	
	Activities
	Submission of Assignments
	Formulation and submission of Inception Report Presentation Material

(2) Phase in Japan; <i>Participants attend the Program implemented in Japan.</i>		
Outputs	Subjects/Agendas (Tentative)	Methodology
To be able to explain basic concept and theory on generation process of flood disasters, hazard risk evaluation, disaster risk management policy and technologies	Basic Concepts of Integrated Flood Risk Management (IFRM): - Outline of integrated flood risk management - Disaster management cycle - Basic concepts of IFRM	Lecture
	Urban Flood Management and Flood Hazard Mapping: - Outline of disaster prevention countermeasures - Local disaster emergency plan - Non- structural countermeasures in Japan (Early warning system, Flood Hazard Map)	Lecture, Exercise
	Disaster Management Policies A: from Regional and Infrastructure Aspect: - Social system against disasters - Education on basic knowledge for disasters - Policy for infrastructure - Policy making process for disasters	Lecture, Presentation, Discussion
	Disaster Management Policies B: from Urban and Community Aspect: - Basic issues of disaster management policies - Urban disaster management policies in Japan - Lessons from past large disasters in the world - Policies and regulations to secure building safety	Lecture, Presentation, Discussion
	Site Visit of Water-related Disaster Management Practice in Japan	Field trip
To be able to	Hydrology:	Lecture

explain basic concept and theory on flood countermeasures including landslide and debris flow	<ul style="list-style-type: none"> - Climate System and Water Cycle - Hydrological Processes, In-situ Observation and Modeling - Remote Sensing of Hydrology - Water Resources Planning and Management 	
	Hydraulics: <ul style="list-style-type: none"> - Fundamentals - Advection and Diffusion - General transport equations 	Lecture, Exercise
	Flood Hydraulics and River Channel Design: <ul style="list-style-type: none"> - Outline of rivers in Japan - Fundamental mechanics of flood flows - Steady quasi-two dimensional analysis of Flood flow 	Lecture
	Mechanics of Sediment Transportation and Channel Changes: <ul style="list-style-type: none"> - Mechanics of sediment transportation - River morphology 	Lecture
	Control Measures for Landslide & Debris Flow: <ul style="list-style-type: none"> - Introduction to Sabo projects - Countermeasures for sediment-related disasters - Hazard mapping for sediment-related disasters 	Lecture, Exercise
	Computer Programming: <ul style="list-style-type: none"> - Programming Language - Numerical Computation 	Lecture, Exercise
	Practice on GIS and Remote Sensing Technique: <ul style="list-style-type: none"> - Geographic Information System (GIS) - Advanced Remote Sensing 	Lecture, Exercise
	Practice on Integrated Flood Analysis System (IFAS): <ul style="list-style-type: none"> - Rainfall-Runoff-Inundation modeling - Runoff Analysis with IFAS - Advanced Sediment Runoff modeling - Advanced Hydrological Model 	Lecture, Exercise
	Socio-economic and Environmental Aspects of Sustainability-oriented Flood Management: <ul style="list-style-type: none"> - Outline of Socio-economic and environmental aspects - Methodology of risk assessment - Socio-economic impacts of disasters 	Lecture

	Practice on Open Channel Hydraulics: <ul style="list-style-type: none"> - Hydraulic phenomena - Usage of the experimental instrumentation - The methodology of flow discharge measurement 	Lecture, Exercise
To formulate the countermeasures to solve the problems and issues concerning flood disasters in their countries for applying techniques and knowledge acquired through the program	Individual Study: <ul style="list-style-type: none"> - Formulation of the Master thesis <ul style="list-style-type: none"> ➢ Participants will make a Master thesis based on the knowledge and techniques acquired through Lectures, Discussions, Exercises and Field Trips in the program. 	Discussion, Presentation

<Structure of the Course>

Topic outline (subject to minor changes)

(1) Preliminary Phase:

After receiving the “Notice of Acceptance”, each participant has to make and submit an “Inception Report Presentation Material” and assignment materials to review fundamental subjects (e.g., math, hydrology) necessary for the master’s level course work.

(2) Core Phase in Japan:

This program consists of “Lecture”, “Exercise”, “Discussion”, “Presentation”, “Field trip” and “Individual study”. This course schedule is shown in Fig. 1.

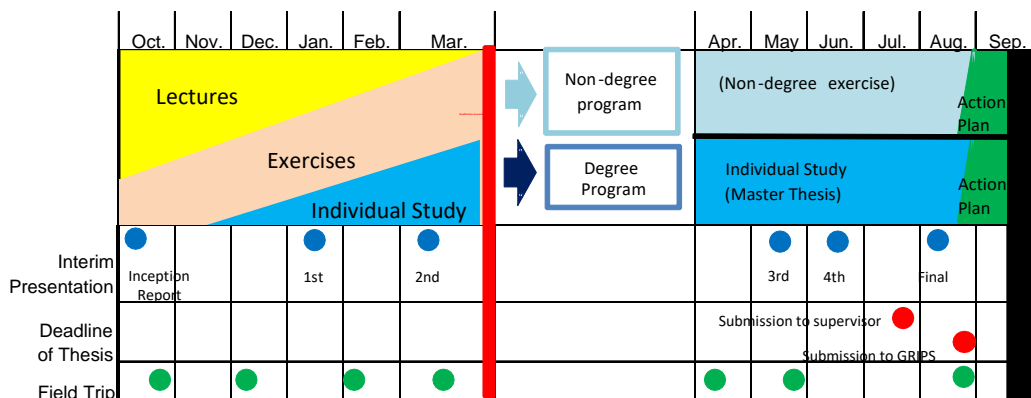


Fig. 1: Course schedule in Japan

III. Eligibility and Procedures

1. Expectations to the Applying Organizations

- (1) 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.
- (2) 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.

- (1) be nominated by their governments in accordance with the procedures described in III-4.
- (2) be technical officials, engineers or researchers who have three (3) or more years of experience in the field of river management or flood disasters in governmental organizations.
- (3) be university graduates, preferably in civil engineering, water resource management, or disaster mitigation, or related department.
- (4) be proficient in basic computer skills.
- (5) have a competent command of spoken and written English. Admission priority will be given to applicants who have a TOEFL iBT score of 79 or higher, or an IELTS Academic score of 6.0 or higher. (This program includes active participation in discussions and development of the action plan and Master thesis, thus requires high competence of English ability both in conversation and composition. Please attach an official certificate of English ability such as TOEFL or IETLS.) (See ANNEX I checklist 5.)
- (6) Health : must be in good health to participate in the program in Japan.
To reduce the risk of worsening symptoms associated with respiratory tract infection, please be honest to declare in the Medical History (QUESTIONNAIRE ON MEDICAL STATUS RESTRICTION of the application form) if you have been a patient of following illnesses; Hypertension / Diabetes / Cardiovascular illness / Heart failure / Chronic respiratory illness.
- (7) Between 25 and 42 years of age as of October 1, 2024
- (8) Gender Equality and Women's Empowerment: Women are encouraged to apply for the program. JICA is committed to promoting gender equality and women's empowerment and provides equal opportunities for all applicants regardless of their sexual orientation or gender identity.

3. Required Documents for Application:

(1) Application Form:

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

* If you have any difficulties/disabilities which require assistance, please specify necessary assistances in the QUESTIONNAIRE ON MEDICAL STATUS RESTRICTION (1-(c)) of the application form. Information will be reviewed and used for reasonable accommodation.

(2) Application Materials for GRIPS/PWRI Master's Program:

The entire curriculum of this program is approved as a master's degree program by GRIPS and PWRI. Therefore, each applicant is required to prepare and submit all of the following materials for admission to GRIPS/PWRI Master's Program as written in **ANNEX I**.

- Application for admission to GRIPS/PWRI Master's Program
- 1 clear photograph of your face (30 x 40 mm)
- 2 letters of recommendation
- Certificate of employment
- Official transcripts of academic record and graduation/degree certificates
- Official evidence of English ability
- Statement of purpose

Please note that an applicant will NOT be registered as an applicant until we have received all of the above materials. Please carefully review the information in ANNEX I.

(3) Inception Report:

Each applicant must prepare an "Inception Report" on the present situation of his/her organizations and problems related to his/her own job. It must be typewritten in English, no more than 6 pages (12-point font, double-spaced, A4 size paper) and in the required format (see **ANNEX II**). The Inception Report will be used only for screening purpose and as training materials, only if applicant is selected.

(4) 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

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).**

(All required material must arrive at **JICA Center in Japan by April 5th, 2024**)

(2) Selection:

- 1) After receiving the document(s) through due administrative procedures in the respective government, the respective country's JICA office (or Embassy of Japan) will conduct screenings, and send the documents to JICA TSUKUBA, which organizes this program.
- 2) JICA TSUKUBA will carry out the screening jointly with PWRI and decide the passed applicants out of those who fulfill the set qualifications described above in **III-2**.
- 3) Some of the applicants may be requested to take an oral interview by telephone or TV conference system in the respective country's JICA office.
The cost of transportation to the respective country's JICA office for receiving an interview will be paid by applicants.
- 4) A committee, which consists of GRIPS and PWRI, will screen the above qualified applicants academically with the application materials such as official transcripts.
- 5) The applicants who are accepted to participate in this program will be decided by the Academic Council of GRIPS finally by **the end of July, 2024.**

In case the number of applicants is more than the capacity of this course, some applicants may not be accepted due to the limited number of seats even though they fulfill the requirements.

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 **no later than July 26th, 2024.**

(*Acceptance Agreement will be sent from GRIPS by e-mail together with the official admission letter soon after this notice of acceptance.)

5. Conditions for Participation

The participants of KCCP are required

- (1)** to strictly observe the course schedule,
- (2)** not to change the air ticket (and flight class and flight schedule arranged by JICA) and lodging by the participants themselves,
- (3)** to understand that leaving Japan during the course period (to return to home country, etc.) is not allowed (except for programs longer than one year),
- (4)** not to bring or invite any family members (except for programs longer than one year),
- (5)** 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,
- (6)** to observe the rules and regulations of the program implementing partners to provide the program or establishments,
- (7)** not to engage in political activities, or any form of employment for profit,
- (8)** 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. The participants shall be responsible for paying any cost for treatment of the said health conditions except for the medical care stipulated in (3) of "5. Expenses", "IV. Administrative Arrangements",
- (9)** 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,
- (10)** not to drive a car or motorbike, regardless of an international driving license possessed,
- (11)** to observe the rules and regulations at the place of the participants' accommodation, and
- (12)** to refund allowances or other benefits paid by JICA in the case of a change in schedule.

6. Certificate and Master's Degree

- Participants who have successfully completed the program will be awarded a certificate by JICA.
- Participants who have successfully completed all graduation requirements will be awarded a Master's Degree, "Master of Disaster Management" by GRIPS and PWRI.

IV. Administrative Arrangements

1. Organizer (JICA Center in Japan)

(1) **Center:** JICA TSUKUBA Center (JICA TSUKUBA)

(2) **Program Officer:** Ms. Otome NEMOTO (tbictp@jica.go.jp)

2. Implementing Partner

(1) International Centre for Water Hazard and Risk Management (ICHARM) under the auspices of UNESCO, Public Works Research Institute (PWRI)

- 1) URL: <https://www.pwri.go.jp/icharm/index.html>
- 2) Address: 1-6 Minamihara, Tsukuba, Ibaraki, 305-8516 Japan
- 3) TEL: +81-29-879-6809
- 4) FAX: +81-29-879-6709
- 5) E-mail: training.icharm@pwri.go.jp
- 6) Remark: 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. PWRI is the renowned practice oriented research institute serving for more than 100 years since its establishment.

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

(2) National Graduate Institute for Policy Studies (GRIPS)

- 1) URL: <https://www.grips.ac.jp/en>
- 2) Address: 7-22-1 Roppongi, Minato-ku, Tokyo, 106-8677 Japan
- 3) TEL: +81-3-6439-6046
- 4) E-mail: admissions@grips.ac.jp
- 5) Remark: GRIPS is a graduate school and research institute established in October 1997. GRIPS aims to be an international center of excellence for the education of future leaders in policy arena, advancement of policy research, and collection and dissemination of policy-related information.

(where “81” is the country code for Japan, and “3” is the local area code)

3. Travel to Japan

(1) **Air Ticket:** In principle, JICA will arrange an economy-class round-trip ticket between an international airport designated by JICA and Japan

(2) **Travel Insurance:** Coverage is from time of arrival up to departure in Japan. Thus traveling time outside Japan (include damaged baggage during the arrival flight to Japan) will not be covered.

4. Accommodation in Japan

Basically, JICA will arrange the following accommodations(s) for the participants in Japan:

JICA TSUKUBA Center (JICA TSUKUBA)
Address: 3-6 Koyadai, Tsukuba, Ibaraki, 305-0074 Japan
TEL: +81-29-838-1111, FAX: +81-29-838-1119
(where “81” is the country code for Japan, and “29” is the local area code)
Please refer to facility information of JICA TSUKUBA at its URL:
<https://www.jica.go.jp/tsukuba/english/office/index.html>

If there is no vacancy at JICA TSUKUBA, JICA will arrange alternative accommodation(s) for the participants.

5. Expenses:

The following expenses will be provided to the participants by JICA:

- (1) Allowances for accommodation, meals, living expenses, outfit, and shipping
- (2) Expenses for study tours (basically in the form of train tickets.)
- (3) Free medical care for participants who become ill after arriving in Japan (costs related to pre-existing illness, pregnancy, or dental treatment are not included)
- (4) Expenses for program implementation, including materials
- (5) For more-details, please see “III. ALLOWANCES” of the brochure for participants titled “KENSU-IN GUIDE BOOK,” which will be given before departure for Japan.

The curriculum of this program is approved as a master’s degree program by GRIPS and PWRI. The application fee, admission fee and tuition for the Master’s Degree Program will be provided by PWRI.

*Link to JICA HP (English/French/Spanish/Russian):

https://www.jica.go.jp/english/our_work/types_of_assistance/tech/acceptance/training/index.html

6. Pre-departure Orientation:

A pre-departure orientation will be held at the respective country’s JICA office (or at Japanese Embassy), to provide participants with details on travel to Japan, conditions of the workshop, and other matters.

*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	
https://www.youtube.com/watch?v=SLurfKugrEw	
Part II: Introduction of JICA Centers in Japan	
JICA TSUKUBA	https://www.jica.go.jp/tsukuba/english/office/index.html

V. Other Information

1. Computer:

The participants are recommended to bring own laptop/notebook computers to prepare the presentation slides and to communicate by e-mail.

2. Relevant Data for Flood Disasters in Participants' Country:

The participants are strongly recommended to bring the relevant data for flood disasters in their countries on their laptop/notebook computers for preparing the presentation slides etc.

3. For the Promotion of Mutual Friendship:

JICA TSUKUBA encourages international exchange between JICA participants and local communities, including school and university students as a part of development education program. JICA participants are expected to contribute by attending such activities and will possibly be asked to make presentations on the society, economy and culture of their home countries.

4. Bring Some Cash:

Allowances, such as accommodation, living, clothing, and shipping allowances, will be deposited to participants' temporary bank account in Japan after 2 to 5 days after their arrival in Japan. It is advisable that participants bring some cash and exchange it at the airport in order to cover necessary expenses for the first few days. It is very important that your currency must be exchanged to Japanese Yen at any transit airport or Narita International Airport or Haneda Airport, Japan soon after your arrival. It is quite difficult to exchange money after that, due to no facility or time during the training program.

5. More information about JICA TSUKUBA

You can check our location, facility and services on our website and social media.

◇ JICA TSUKUBA website [<https://www.jica.go.jp/tsukuba/english/office/index.html>]

◇ JICA TSUKUBA Facebook [<https://www.facebook.com/JICA TSUKUBA>]

We post articles about the KCCP on our Facebook page.



END

ANNEX I: Check List / Application Materials for GRIPS/PWRI Master's Program

ANNEX II: Instruction for Inception Report

ANNEX III: Course Schedule (tentative)

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



CORRESPONDENCE

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

Further, address correspondence to:

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

TEL: +81-29-838-1744