

# TRAINING AND DIALOGUE PROGRAMS

#### **GENERAL INFORMATION ON**

FLOOD HAZARD MAPPING FOR ASIAN COUNTRIES

「アジア地域:洪水ハザードマップ作成」 *JFY 2008* 

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

NO. J-08-04163 / ID. 0884064

From September 2008 to January 2009

Phases in Japan: From Oct. 26, 2008 to Nov. 29, 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**

In the Asia Monsoon areas, especially East and Southeast Asia, there are many floods every year, and much human life and property are lost by flood, and it is predicted that population in urban area will rapidly increase in the near future and vulnerability to flood also increase.

In order to reduce the damage caused by flood and vulnerability, structural countermeasures like an embankment for river or a reservoir are very effective. On the other hand, non-structural countermeasures like "Flood Hazard Map (FHM)", which can offer the information including the past inundation record, anticipated inundation area, evacuation route, evacuation place, etc. to the residents, are also important. Especially in developing countries with undeveloped structural countermeasures, it is helpful to take non-structural countermeasures immediately.

Under such a situation, we have been implementing this training course "Flood Hazard Mapping" for 8 countries in East and Southeast Asia since JFY2004.

#### For what?

To reduce flood damages and promote sustainable development in developing countries in Asia, this program is designed to promote human resources who are familiar with FHM and able to make plans to solve flood-related problems in developing countries through sharing the technology and knowledge obtained in Japan within their organizations.

#### For whom?

The course is offered specifically to technical managers and/or engineers who are involved in flood or river management in the public sector.

#### How?

Participants shall have opportunities in Japan to acquire general/professional knowledge on the flood hazard map to solve flood-related problems. Participants will also formulate an action plan describing what the participant will do after they go back to their home country applying the knowledge and ideas acquired and discussed in Japan among others into their on-going activities.

## II. Description

#### 1. Title (J-No.): Flood Hazard Mapping for Asian Countries (J0804163)

#### 2. Period of program

**Duration of whole program:** September 2008 to January 2009 **Preliminary Phase:** September 15 to October 17, 2008

(in a participant's home country)

Core Phase in Japan:October 26 to November 29, 2008Finalization Phase:December 2008 to January 2009

(in a participant's home country)

#### 3. Target Regions or Countries:

China, Malaysia, Philippines, Cambodia, Lao PDR, Thailand, Vietnam

#### 4. Overall Goal:

An original flood hazard map is created in each region, and the flood damage in the area concerned is mitigated.

#### 5. Objective:

The technology, knowledge and experience, which the participants acquired and experienced in Japan, are shared among the officials and engineers who engage in the flood and river management.

To achieve the above mentioned objective, participants are expected to produce the following outputs by the end of this course:

- (1) To acquire general knowledge on the flood hazard map in Japan and the world and capability of explanation.
- (2) To acquire professional knowledge and techniques of run-off analysis, GIS and inundation analysis, and be able to make an anticipated inundation area map and capability of explanation.
- (3) To acquire knowledge on how to make, disseminate, and utilize the flood hazard map in Japan and capability of explanation.
- (4) To consider the way to effectively make, disseminate, and utilize the flood hazard map through studying Japan's cases, and make action plans which include activities after returning to their countries.

#### 6. Eligible / Target Organization:

Organization concerning to Flood or River Management at the national or local level in the public sector such as governmental/provincial ministries or municipalities

#### 7. Total Number of Participants:

#### (1) Number of Participants;

10participants from below-listed 7 countries

Each country is expected to nominate the technical manager engaging in flood or river management and/or engineer engaging in flood or river management.

#### (2) Candidate Countries:

China(2), Malaysia(2), Philippines(2), Cambodia, Lao PDR, Thailand, Vietnam

#### 8. Language to be used in this project: English

#### 9. Contents:

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

(1) Preliminary Phase in a participant's home country (September 15 to October 17, 2008)					
	uired preparation for the Program in the respective country.				
Modules	Activities				
Preparatory Questionnaire and Report (see ANNEX I)	- Formulation and submission of Questionnaire and Report (by each participants)				
Data for Run-off Exercise (see ANNEX II)	- Preparation and submission of Data for Run-off Analysis (by each participants)				
Progress Report on Policies and Activities of Flood Disaster Management (see ANNEX III)	- Formulation and submission of Progress Report (by each country)				

#### (1) Preliminary Phase

#### 1) "Preparatory Questionnaire and Report" (refer to ANNEX I)

All applicants are requested to fill and submit the "Preparatory Questionnaire and Report" to JICA Tsukuba (email: tbictp1@jica.go.jp, fax: +81-29-838-1790) by August 22th, 2008 (Friday) with A2A3 Form.

#### 2) "Data for Run-off Exercise" (refer to ANNEX II)

All participants are requested to prepare data for run-off analysis exercise in the training course. It is advisable to consult with the participant of 2007 in order to collect data adequately. The data must be in Microsoft Excel format and sent to JICA Tsukuba (Matsumoto.Akihiro@jica.qo.jp) by August 22th, 2008 (Friday).

# 3) "Progress Report on Policies and Activities of Flood Disaster Management" (refer to ANNEX III)

After "Notice of Acceptance," the selected participants in each country are required to cooperate in preparation and submission of the "Progress Report on Policies and Activities of Flood Disaster Management". The report must be within 9 pages of A4 pages in PDF or

Microsoft Word and sent to JICA Tsukuba by email (<a href="Matsumoto.Akihiro@jica.go.jp">Matsumoto.Akihiro@jica.go.jp</a>) by October 17<sup>th</sup>, 2008 (Friday). Please note that each country will make one progress report.

(2) Core Phase in Japan (October 26 to November 29, 2008)					
Participants dispatched by the organizations attend the Program implemented in Japan.					
Modules	Subjects/Agendas	Methodology			
To acquire general knowledge on the flood hazard map in Japan and the world and capability of explanation	General knowledge of FHM     Case example in Japan and foreign countries	Lecture/ Text			
To acquire professional knowledge and techniques of run-off analysis, GIS and inundation analysis, and be able to make an anticipated inundation area map and capability of explanation.	<ul> <li>Run-off analysis exercise (Tank Model, Storage Function Method)</li> <li>GIS exercise (ArcGIS)</li> <li>Inundation analysis exercise (Hec-RAS)</li> <li>Flood Hazard Mapping exercise (Ise City, Mie Prefecture, Japan)</li> <li>Town Watching</li> <li>Interview for residents and officials</li> </ul>	Exercise and Field survey			
To acquire knowledge on how to make, disseminate, and utilize the flood hazard map in Japan and capability of explanation.	<ul> <li>History of Flood Hazard Mapping in Japan</li> <li>Process of Flood Hazard Mapping in Japan</li> <li>Case example in Japan</li> <li>Town Watching</li> <li>Interview for residents and officials</li> </ul>	Lecture/ Text and Field survey			
To consider the way to effectively make, disseminate, and utilize the flood hazard map through studying Japan's cases, and make action plans which include activities after returning to their countries.	- Group Discussion - Making Action Plan	Discussion and Self study /Presentation			

<sup>\*</sup>FHM: Flood Hazard Mapping

# (2) Core Phase in Japan; (October 26th, 2008 – November 29th, 2008) In order to achieve the above-mentioned 4 objectives, the following items are carried out.

<u>Object</u>	Training Subject	Type
(1)	General knowledge of FHM	Lecture/Text
	Case example in Japan and foreign countries	Lecture/Text
(2)	Run-off analysis exercise (Tank Model, Storage Function Method)	Exercise
	GIS exercise (ArcGIS)	Exercise
	Inundation analysis exercise (Hec-RAS)	Exercise
	Flood Hazard Mapping exercise (Ise City, Mie Prefecture, Japan)	Exercise
	Town Watching	Field survey
	Interview for residents and officials	Field survey
(3)	History of Flood Hazard Mapping in Japan	Lecture/Text
	Process of Flood Hazard Mapping in Japan	Lecture/Text
	Case example in Japan	Lecture/Text

	Town Watching	Field survey
	Interview for residents and officials	Field survey
(4)	Group Discussion	Discussion
	Making Action Plan	Self
		study/Presentation

<sup>\*</sup>FHM: Flood Hazard Mapping

Prior to the above program, the presentation of "Progress Report on Policies and Activities of Flood Disaster Management" will be held by each country. The presentation should be made in Power Point. Accordingly it is advisable that each participant will cooperate with another participant in the same country in preparation of the presentation before coming to Japan. About 30 minutes will be allotted for the presentation of each country.

(3)Finalization Phase in a participant's home country  Participants produce final outputs by making use of results brought back by participants. This phase marks the end of the Program.				
Modules Activities				
To share the technologies, knowledge and experience they obtained from this training course	- Sharing the outputs of this training program in Japan within their organization in 40 days after going back to home country			
Activity Report	- Formulation and submission of the report on the above-mentioned activity			

#### (3) Developing Phase;

- 1) In order to share the technologies, knowledge and experience they obtained from this training course, all participants should share the outputs of this training program in Japan within their organization in 40 days after going back to home country.
- 2) All participants should submit the report on the above-mentioned activity to JICA Tsukuba (<a href="Matsumoto.Akihiro@jica.go.jp">Matsumoto.Akihiro@jica.go.jp</a>). The instruction of the above activity will be explained in Japan.

## III. Conditions and Procedures for Application

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

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

#### 2. Nominee Qualifications:

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

#### (1) Essential Qualifications:

Applicants should:

- 1) be nominated by their governments in accordance with the procedures mentioned in the chapter IV
- be the technical managers or engineers with at least five years experience (two years for Doctor holders) and currently engaged in river or flood management issues in the public sector
- 3) be university graduates or equivalent
- 4) be proficient in spoken and written English (Inadequate command of English will hinder training as well as their dairy life)
- 5) have the experience using "Microsoft Word" and "Microsoft Excel"
- 6) be in good health both physically and mentally to undergo the training (as training for long periods and many field trips may pose risks to pregnant women, pregnancy is regarded as a disqualifying condition for this training course)
- 7) be non-military personnel

#### 3. Required Documents for Application:

The following 2 items should be submitted to the respective country's JICA office (or the Embassy of Japan) by the date mentioned in "4. Procedure for Application and Selection".

#### NOTE: Applications without these items will be out of the selection process.

**(1) Nomination Form:** The Nomination Form is attached to this General Information. Applicants should submit one (1) original and three (3) copies.

**(2) Preparatory Questionnaire and Report:** Applicants should fill out the Preparatory Questionnaire and Report (refer to ANNEX I).

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

#### (1) Submitting the Application Documents and Report:

Closing date for application to the JICA Center in JAPAN: August 22th, 2008 (Friday)

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.

And applicants should submit "Preparatory Questionnaire and Report" (refer to ANNEX I) and "Data for Run-off Exercise" (refer to ANNEX II) by **August 22th**, **2008 (Friday)** 

#### (2) Selection:

After receiving the documents through due administrative procedures in the respective government, the respective country's JICA office (or Japanese Embassy) shall conduct screenings, and send the documents to the JICA Center in charge in Japan, which organizes this project. Selection shall be made by the JICA Center in consultation with the organizations concerned in Japan based on submitted documents according to qualifications. The organization with intention to utilize the opportunity of this program will be highly valued in the selection.

#### (3) Notice of Acceptance:

Notification of results shall be made by the respective country's JICA office (or Embassy of Japan) to the respective Government by **not later than September 12th, 2008 (Friday).** 

#### 5. Documents to be submitted by accepted participants:

Before coming to Japan, only accepted participants are required to prepare the following 1 report. This should be sent to JICA by closing date, preferably by e-mail to Matsumoto.Akihiro@jica.go.jp

# (1) Progress Report on Policies and Activities of Flood Disaster Management (refer to ANNEX III): 1 report / 1country

-- to be submitted by October 17th, 2008 (Friday)

#### 6. 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 in the whole program including a preparatory phase prior to the program in Japan. Applying organizations, after receiving notice of acceptance for their nominees, are expected to carry out the actions described in section II -9 and section III -5.

## IV. Administrative Arrangements

#### 1. Organizer:

(1) Name: JICA Tsukuba

(2) Contact: Mr. MATSUMOTO Akihiro (<u>Matsumoto.Akihiro@jica.go.jp</u>)

#### 2. Implementing Partner:

(1) Name: Public Works Research Institute (PWRI)

International Centre for Water Hazard and Risk Management under the

auspices of UNESCO (ICHARM)

Contact: icharm@pwri.go.jo

URL: http://www.icharm.pwri.go.jp

#### 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: Travel insurance is not insured by JICA.

#### 4. Accommodation in Japan:

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

Tsukuba International Center (JICA TSUKUBA)

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

TEL: +81-29-838-1117, FAX: +81-29-838-1790

(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 accommodation for the participants.

#### 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 ticket(s) or chartered bus)
- (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 p. 9-16 of the brochure for participants titled "KENSHU-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 program in Japan, and other matters. Participants will see a video "Training in Japan," and receive a textbook and cassette tape, "Simple Conversation in Japanese." A brochure, the KENSHU-IN GUIDE BOOK, will be handed to each selected candidate before (or at the time of) the orientation.

## V. ANNEX:

**ANNEX I** Format of "Preparatory Questionnaire and Report"

**ANNEX II Data for Run-off Exercise** 

ANNEX III Format of "Progress Report on Policies and Activities of Flood Disaster Management"

# Format of Preparatory Questionnaire and Report (To be submitted with A2A3 Form)

#### Notes:

- i) This "Preparatory Questionnaire and Report" should be submitted with A2A3 Form.
- ii) Applicant without this report will be out of the selection.
- iii) This report should be prepared by each participant.
- iv) This report must be typed in single spacing on A4 size paper (210mm X 297mm).
- v) Photos, figures and graphs should be effectively used.

#### <Cover Page>

"Preparatory Questionnaire and Report"
by
<Your Name>

JICA Region-Focused Training Course on Flood Hazard Mapping JFY 2008

Prepared by < Your Name >

### ---< Q1.Applicant information >-----(1) Organization: Name: (2) (3) Present Post: (4) Country: (5) E-mail: <If available, please indicate your E-mail address> ---- Q2. Your organization and department/unit > (Maximum two pages)------(1) Please describe the Role, Objective and Main Activities of your organization and department/unit. (2) Please show your Organization Chart and indicate your position. ---< Q3. Your work > (Maximum two pages) ------(1) Please describe briefly about your past work for last 3 years. (2) Please describe briefly about your present work. ---< Q4. Issues/Problems on your work > (Maximum two pages)------(1) What issues/problems related to flood disaster mitigation are you engaged now? (2) In the field of flood disaster mitigation, what topics are you interested in? Please describe the topics and the reason. (1) Selection of one target area (municipality, province/prefecture, country, etc.) of which you want to make a flood hazard map in your country. (2) Current policies and countermeasures for flood risk management, damage mitigation, and emergency response measures in the area. (3) Geographic, demographic and hydro-meteorological characteristics using base maps with quantitative information such as average gradient, number of population, rain gauge data and so on as much as possible. (4) Past flood disasters, and their social/economical damages in this area, based on the record from 1990 to 2007 with quantitative information such as number of victims, economic loss, inundation area and so on as much as possible. (5) Number and the types of candidate evacuation center such as primarily schools, nursing homes. (6) Number and the types of disaster prevention centers, including police offices and fire stations. (7) Your ideas on how to prepare and distribute flood hazard maps in the area. ---< Q6. Your expectation for this course>(Maximum two pages)------(1) What and how do you expect does this training course will help to solve the above mentioned

Thank you for your cooperation.

issues/problems?

(2) If you have any request, please write down.

#### **Data for Run-off Exercise**

(To be submitted with A2A3 Form as electronic data)

#### Note:

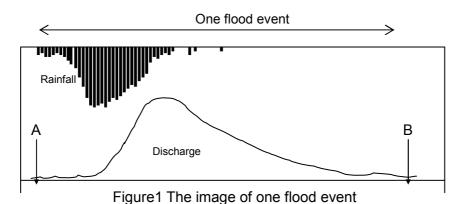
- (1) Select a target area, which, if possible, includes the area proposed in ANNEX II, and prepare hydrologic data concerning to the area.
- (2)If there are some needs for modification, we will inform and request you to modify after checking your data.

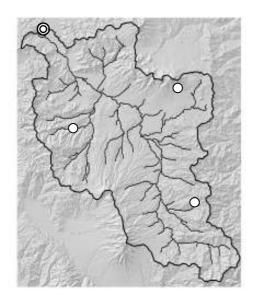
#### Definition:

One flood event means the period from the following A to the following B.

- A; The time when the rain just began to fall
- B; The time when river discharge became the same level as one before the flood

The image of one flood event is shown as Figure 1.





- O Discharge observation point
- O Rain gauge station

#### 1. Time series of Rainfall and Discharge data (necessary)

Please prepare time series of Rainfall and Discharge data of your target area and fill in the Excel Format shown as table 1. You can download it from ICHARM website (http://www.icharm.pwri.go.jp/html/training/index.html)

1) Time Interval: 1 hour or shorter is recommendable (if not available, 1 day is OK).

2) Duration: One flood event containing at least a flood peak

3) Number of Floods: 5 floods (please fill in individual sheet)

4) Observation points: 1 or 2 points for discharge, all rain gauges in the catchment area.

#### 2. Information of the target area

Please prepare information of your target area and fill in the Excel Format shown as table 1. You can download it from ICHARM website

(http://www.icharm.pwri.go.jp/html/training/index.html)

- (1) Catchments area (m<sup>2</sup>) of each discharge observation point (necessary)
- (2) Location (latitude, longitude) of each discharge observation point and rain gauge station (if possible)
- (2) Elevation of each discharge observation point and rain gauge station (m) (if possible)
- (3) The highest elevation (m) (if possible)

#### 3. Map of the target area (necessary)

Please bring the Map which shows each discharge observation point, its catchment area and all rain gauges with you.

#### Remark:

The area map is made by each participant or is the existing one.

Thank you for your cooperation.

Table 1 Time series of discharge and rainfall data

data, time	discharge	discharge	rain	rain	rain	rain	
	point1	point2	gauge	gauge	gauge	gauge	
			station	station	station	station	
			1	2	3	4	
Catchment							
Area (m <sup>2</sup> )							
Latitude							
Longitude							
Elevation							
Highest							
elevation							
m/d h							
m/d h							
m/d h							
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m/d h							
m/d h							
m/d h							
m/d h							
m/d h							

# Format of "Progress Report on Policies and Activities of Flood Disaster Management"

#### Notes:

- vi) A report should be prepared by each country.
- vii) A report must be typed in single spacing on A4 size paper (210mm X 297mm).
- viii) Photos, figures and graphs should be effectively used.

#### <Cover Page>

"Progress Report on Policies and Activities of Flood Disaster Management" in <a href="Your Country"><a href="Your

JICA Region-Focused Training Course on Flood Hazard Mapping JFY 2008

Prepared by < Your Name >

#### <Main Pages>

#### 1. Information on flood disaster management policies in your country

(Maximum five pages)

- (1) Please introduce the outline of flood disaster management policies and countermeasures
  - Basic plan and institutional frameworks
  - Laws and regulations
  - Laws which have articles concerning to FHM
  - Structural countermeasure
  - Non-structural countermeasure including flood hazard maps.
- (2) Please categories the policies and countermeasures you mentioned above (1) and fill in the following two tables using Attachment 1, SAMPLE Table A and B.

Table 1: Disaster mitigation program/practice entry form:

			Individual initiatives	Community Initiatives	Government initiatives
Pro-active	Risk				
response	Reduction				
	Damage Mitigation				
Re-active response	Emergency Management				
(during and after flooding)	Rehabilitation Restoration	and			

Table 2: Law and regulation entry form:

			•	•	
			Individual initiatives	Community initiatives	Government initiatives
Pro-active	Risk				
response	Reduction				
	Damage				
	Mitigation				
Re-active	Emergency				
response	Management				
(during and	Rehabilitation	and			
after flooding)	Restoration				

- (3) Please investigate and introduce flood damages from 2000 to 2007 in your country.
- (4) Please introduce problems in the field of flood disaster management in your country.
  - a) Technical problems
  - b) Organizational problems
- (5) Please propose solutions against the problems you mentioned above (4).

#### 2. Activities by the Ex-Participant of This Training Course

(Maximum four pages)

Please introduce the activities by ex-participants in your country (2004 $\sim$ 2007).

If you want to know about the training course implemented in 2004, 2005, 2006 and 2007, please visit to the website (<a href="http://www.icharm.pwri.go.jp/">http://www.icharm.pwri.go.jp/</a>).

#### (1) Name, Position, Organization and E-mail

Please fill the following table about ex-participants.

No.	Name	Current Position	Current Organization	E-mail
2004-1				2005
2004-2				2005
2005-1				2004
2005-2				2004
2006-1				2006
2006-2				2006
2007-1				2007
2007-2				2007

#### (2) Brief report on activities of each ex-participant

Please describe on the activities of each ex-participant briefly.

#### (3) Network Activities

If there are some networks related to flood management among ex-participants or the officials to share the information, please report such network activities in detail as much as possible.

#### [SAMPLE] See the following sample tables for reference:

Table A: Disaster mitigation program/practice in Japan

		Individual	Community	Government
		initiatives	Initiatives	initiatives
Pro-active response	Risk Reduction	- resettlement to safer area - elevate housing land	- ring levee - drainage pump	flood control project (levee rising, levee set-back, dredging and widening river channels, divergence and by-pass channels, and flood control dams, etc.)
	Damage Mitigation	- flood insurance - flood proofing: e.g. mizuya (water proof house) - emergency provision	- flood fighting corps - flood fighting materials - designation of shelters and evacuation routes - safety check of levees before rainy season and reporting to government authorities.	- water level and rainfall observation; - precipitation forecast, flood forecasting system, weather information system; - evacuation drill - risk communication workshops - flood forecasting dissemination - hazard maps - dissemination systems and support for evacuation - official communication system for transmission of disaster information - emergency drainage pump - organization of rescue teams
Re-active response (during and after flooding)	Emergency Management	- collection of information (weather broadcasting and internet) - raising household goods - self-initiated evacuation	- flood fighting (patrolling of river and levees, flood control construction work), - dissemination of information - group efforts for voluntary evacuation, enquiring into safety conditions, - designation of shelters and distribution of emergency food	- informing real-time rainfall and water level - announcement of flood forecasting and of warning - announcement of evacuation order and evacuation directives - multi-channel alert dissemination - sending rescue teams - procurement and offer of emergency provisions and shelter goods
	Rehabilitation and Restoration	- disposal of rubbish - removing mud - restoration of household goods	- collecting and distributing relief funds - learning and reporting lessons from the disaster.	- restoration of affected facilities (business restoration) - inspection of the cause of disaster - reevaluation of disaster prevention works and their implementation

#### Table B: Related law and legislation:

		Individual	Community	Government
		initiatives	initiatives	initiatives
Pro-active response	Risk Reduction		- Flood Prevention Association Law	Disaster Countermeasures     Basic Law     River Law     Specific-Multipurpose Dam Law
	Damage Mitigation		- Flood Fighting Law - Fire Organization Law	Flood Fighting Law Meteorological Services Law
Re-active response (during and after	Emergency Management		- Flood Fighting Law - Flood Prevention Association Law	<ul> <li>Disaster Countermeasures</li> <li>Basic Law</li> <li>Flood Fighting Law</li> <li>Meteorological Services Law</li> <li>Disaster Relief Law</li> </ul>
flooding)	Rehabilitation and Restoration	- Law for Socio-economic Rehabilitation Aid for Victims		Disaster Countermeasures     Basic Law     Law on Disaster Recovery for     State Funding of Public     Infrastructures Projects

#### 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.



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