



# Knowledge Co-Creation Program (Group & Region Focus)

GENERAL INFORMATION ON

## DISASTER MANAGEMENT FOR LANDSLIDE AND SEDIMENT-RELATED DISASTERS

(TRIGGERED BY HEAVY RAINFALL, EARTHQUAKE AND VOLCANIC ACTIVITY)

課題別研修「土砂災害防止マネジメント  
(豪雨、地震、火山噴火起因)」

**JFY 2017**

NO. J17-04362 / ID. 174481

Course Period in Japan: From October 9, 2017 to December 9, 2017

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)' as a New Start

In the Development Cooperation Charter which was released from the Japanese Cabinet on February 2015, it is clearly pointed out 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 center of mutual learning process.

# **I. Concept**

## **Background**

Extreme events of weather and climate have intensified because of climate change. Earthquakes and volcanic eruptions bring devastating damage to various area of the world every year. In addition, due to over-population in big cities, urbanization, deforestation and excessive development etc., the damage and the human and economic loss caused by sediment disasters have increased. Thus the modern society has been exposed to sediment related natural disasters.

It is an urgent issue for administrative organizations engaged in management of sediment –related disasters to strengthen their capacity to cope with disaster risk.

## **For what?**

This program aims at strengthening of participant's capability on planning of effective countermeasures for prevention/mitigation of sediment-related disasters triggered by heavy rainfall, earthquake and volcanic activity.\_

## **For whom?**

This program is designed for technology-based government officials such as civil engineers and geological engineers who are engaging in the development of countermeasures to prevent and /or mitigate the sediment-related disasters caused by heavy rainfall, earthquake and volcanic activity.

Educator and researcher in educational and academic research institutions such as universities are not qualified as the applicant for this program.

## **How?**

This program consists of 4 components, i.e. (i)general knowledge on administration and activity of disaster prevention/mitigation, (ii)basic and applied technology on countermeasures of sediment-related disasters, (iii)field study of disasters and their countermeasures induced by heavy rain, earthquake and volcanic activity and (iv)exercises on issues related to sediment-related disaster prevention/mitigation.

## **II. Description**

**1. Title (J-No.)**

Disaster Management for Landslide and Sediment-related Disasters (Triggered by Heavy Rainfall, Earthquake and Volcanic Activity) (J1704362)

**2. Course Period in JAPAN**

October 9 to December 9, 2017

**3. Target Regions or Countries**

Brazil, Georgia, India, Indonesia, Myanmar, Nepal, Pakistan, Papua New Guinea, Peru, Philippines, Sri Lanka, Turkey and Viet Nam

**4. Eligible / Target Organization**

Organizations engaged in sediment-related disaster prevention/mitigation activities are the target of this program. Educational and academic research institutions such as universities are outside of the scope of this program

**5. Course Capacity (Upper limit of Participants)**

20 participants

**6. Language to be used in this program**

English

**7. Course Objective**

Participants of this program are expected to improve their knowledge on comprehensive sediment management and be able to enhance their capacity to make countermeasures for preventing and/or mitigating the sediment-related disaster caused by heavy rainfall, earthquake and volcanic activity.

**8. Overall Goal**

The quality of countermeasures for sediment-related disaster prevention/mitigation improves in participating countries.

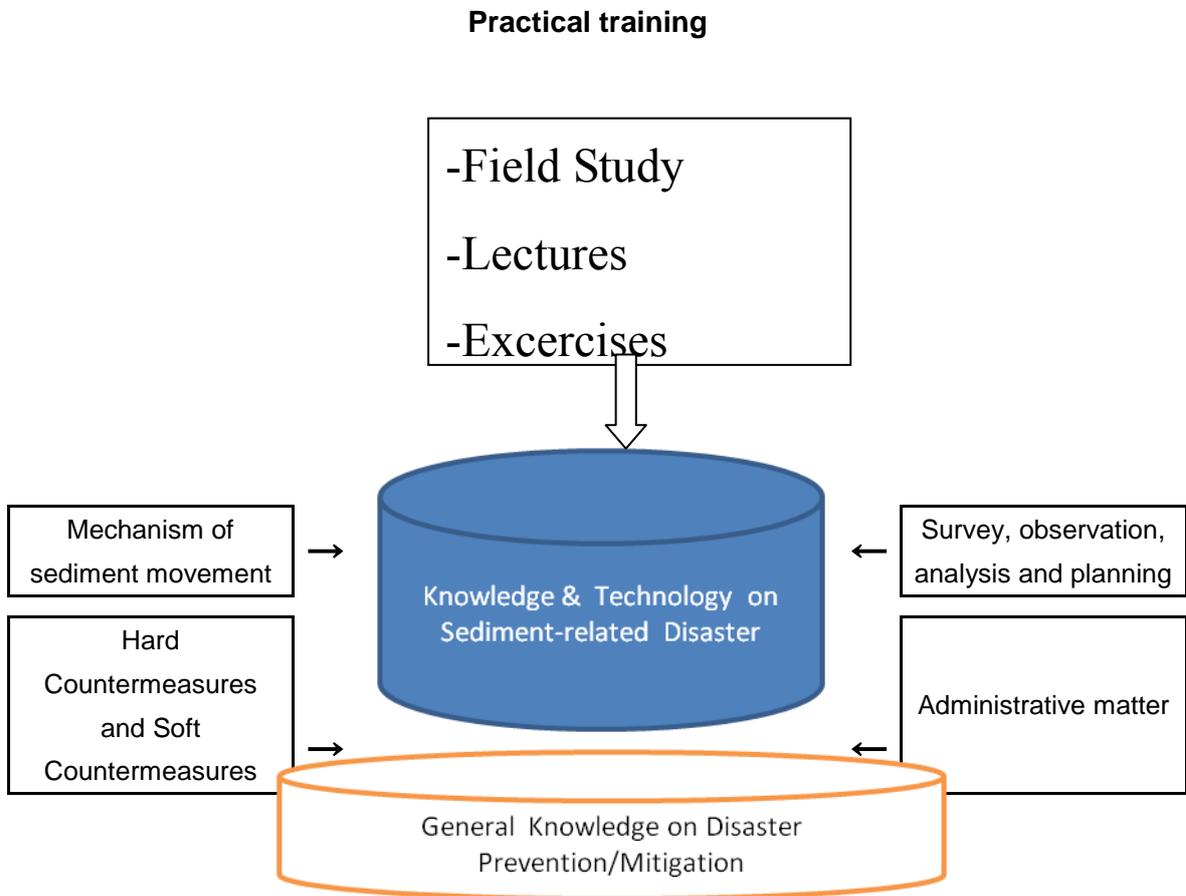
## 9. Expected Module Output and Contents

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

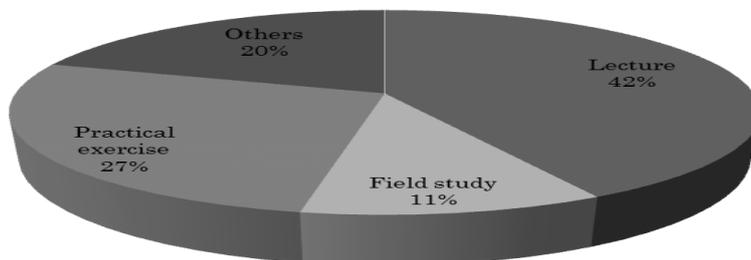
Expected Module Output	Subjects/Agendas
<p>1. General knowledge on administration and activity of disaster prevention/mitigation: To understand and be able to explain: (1) general knowledge of disaster prevention/mitigation activities (2) administration of disaster management in consideration of 'Self Help', 'Mutual Help' and 'Public Help'.</p>	<p>(1) General knowledge of disaster prevention/mitigation which are necessary for officers engaged in disaster prevention/mitigation program</p> <ul style="list-style-type: none"> <li>• Disaster administration in Japan</li> <li>• Role of local government in disaster prevention</li> <li>• Education for disaster prevention</li> <li>• Civil society and disaster prevention activities etc.</li> </ul> <p>(2) Field study for better understanding of the contents of lecture</p>
<p>2. Basic and applied technology on countermeasures of sediment-related disasters: To understand and be able to explain: (1) basic and applied knowledge of erosion and sediment control engineering (2) basic mechanism of sediment-related disaster such as debris flow, landslide etc. (3) structural and non-structural measures for prevention/mitigation of sediment-related disaster</p>	<p>(1) Basic and applied knowledge of "SABO ※" engineering</p> <ul style="list-style-type: none"> <li>• Introduction to "SABO" works</li> <li>• Volcanic activities and sediment-related disasters</li> <li>• Prediction of sediment-related disasters and information transmission</li> <li>• Applied hydrology</li> <li>• Mechanism of debris-mud flow</li> <li>• Mechanism of landslide</li> <li>• Designation of restricted area and land use</li> <li>• Utilization of field materials</li> <li>• Countermeasures of natural dam etc.</li> </ul> <p>(2) Structural measures</p> <ul style="list-style-type: none"> <li>• "SABO" basic plan for debris flow and woody debris</li> <li>• "SABO" planning</li> <li>• Design of "SABO" dam etc.</li> </ul> <p>(3) Non-structural measures</p> <ul style="list-style-type: none"> <li>• Slope stabilization and vegetation works</li> <li>• Crisis management on sediment-related disaster etc.</li> </ul> <p>(4) Field study for better understanding of the contents of lecture</p>
<p>3. Exercise: To understand and be able to explain practical countermeasures for sediment-related disaster Prevention/mitigation</p>	<p>(1) Planning and design of "SABO" facilities (2) Practical method of field survey on sediment-related disaster (3) Hazard mapping and setting a soil water index</p>

※ **SABO** is a Japanese term that means "landslide and sediment-related Disaster management". SABO has become a global term due to the advanced system that Japan has developed.

**<Structure of the program>**



**<Component of the program>**



### **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 composed of contents and facilitation schemes developed in collaboration with relevant prominent organizations in Japan. These special features enable the program to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.
- (3) Applying organizations are expected to nominate the most qualified candidates to address the said issues or problems, carefully referring to the qualifications described in section III-2 below.

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

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

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

- 1) Applicants: government officials (technical officers) such as civil engineer and geological engineer who are engaging in the development of countermeasures to prevent and /or mitigate the sediment-related disasters caused by heavy rainfall, earthquake and volcanic activity.
- 2) Experience in the relevant field: more than 3 years' experience in the field of sediment-related disaster prevention/mitigation program
- 3) Educational Background: undergraduate degree e.g., BSc with basic knowledge of hydraulics.
- 4) Language: competent command of spoken and written English. This workshop includes active participation in discussions, which requires high competence of English ability.
- 5) Health: must be in good health, both physically and mentally, to participate in the Program in Japan. Pregnant applicants are not recommended to apply due to the potential risk of health and life issues of mother and fetus.
- 6) PC skill: practical skill of computer software "Excel", which is used in the exercise.

##### **(2) Recommendable Qualifications**

- 1) Age: under forty five (45) years of age (in principle)

**\*Others:** As this program includes hard field work, it will be extremely difficult for pregnant women to participate. Therefore, from the aspect of maternal protection, there is a difficulty in acceptance of pregnant applicants

### 3. Required Documents for Application

(1) **Application Form and Country Report:** The Application Form is available at the JICA office (or the Embassy of Japan).

(2) **Photocopy of passport:** Submit a photocopy of your passport with the application form, if you already possess one 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:** Submit your English Score Sheet with the application form. If you have any official documentation of English ability. (e.g., TOEFL, TOEIC, IELTS)

### 4. Procedures for Application and Selection :

#### (1) Submission of the Application Documents:

Closing date for Application Form and Country Report on the format attached in Annex to the JICA Center in Japan : **August 25, Friday, 2017**

**Note :** After receiving applications, the JICA office (or the Embassy of Japan) will send them to the JICA Center in JAPAN. Therefore **please confirm the closing date set by the respective country's JICA office or Embassy of Japan of your country** to meet the final date in Japan.)

#### (2) Selection:

After receiving the 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.

#### (3) Notice of Acceptance

Notification of results will be made by the JICA office (or the Embassy of Japan) not later than **September 8<sup>th</sup> , Friday, 2017.**

## **5. <For accepted applicants only>**

### **(1)Preparation for a presentation:**

At the beginning of the program, all participants are required to do a 10-minute presentation on the Country Report of their respective countries. The Power Point presentation should be saved on a USB and submitted to the person in charge on October 10th (Tuesday), 2017 after the program orientation.

Accepted applicants will receive the format to follow for the presentation with the notification of acceptance to the program.

### **(2)Bringing relevant data**

It is recommended to bring precipitation records (hourly, daily) and topographic maps of the disaster affected area. If you bring these data, you will be able to plan and design countermeasures of his/her own country making use of these data in the exercise of this program.

## **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 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.

**Note:** This program includes field study in mountainous areas. Therefore, accepted participants are recommended to bring clothes and shoes suitable for walking and exercise.

## IV. Administrative Arrangements

### 1. Organizer:

- (1) **Name:** JICA Tokyo International Center (JICA Tokyo)  
Economic Infrastructure Development and Environment Division
- (2) **Contact:** Junko Mimaki (Ms.) tictree@jica.go.jp

### 2. Implementing Partner: TBD

### 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 Tokyo International Center (JICA TOKYO)<sup>1</sup>

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

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

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

If there is no vacancy at JICA TOKYO, JICA will arrange alternative accommodations for the participants. Please refer to facility guide of TIC at its URL, <http://www.jica.go.jp/english/contact/pdf/tic.pdf>

### 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 not included)
  - (4) Expenses for program implementation, including materials
- 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.

### 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.

## VI. ANNEX:

All applicants are required to submit the Country Report. The document is used for the selection of the candidate.

The Country Report is basic and essential information for the Japanese lecturers as well as the other participants of this program in order to understand followings as the background information.

- i) the present situation and problem to be solved of participating countries on sediment-related disaster prevention/mitigation
- ii) the responsibilities of the participants themselves and their offices where they belong.

### 1. Country Report:

<Guideline>:

The Country Report should respect the following:

- (1) Use the designated format below.
- (2) Written in Microsoft Word.
- (3) Number of pages should not exceed 5.
- (4) Font: Arial or Times New Roman, size 12.
- (5) Add some charts, graphs and/or pictures to better illustrate your country's situation .

<Format>:

Name of the Participant:
Country:
Organization:
Position/Title:

### 1. Administrative Issues

#### 1) Responsibilities of organization(department /division /section)

*(Please describe the responsibilities of you and your organization, and attach the organization chart.)*

#### 2) Administrative structure, relationship and their roles among organizations

*(Please describe the administrative structure regarding the sediment-related disaster management which includes prevention/mitigation, observation, warning, evacuation, and disaster relief etc. of the government as a whole.)*

**2. Debris flow and landslide hazards, and structural/non-structural countermeasures**

**1) Actual Situation (damages and countermeasures)in your Country**

*(Please describe damages by debris flow and landslide hazards as well as measures (structural measures and nonstructural measures) which have been taken in your country)*

**2) Issues to be solved**

*(Please describe issues of you and your country to be solved in order to manage sediment-related disasters in your country)*

**3. Public and private organizations in charge of various activities related to the sediment disaster**

*(Please fill in the blanks.)*

※ ①Please describe all organizations of every particular item, if there are several organizations in charge.

②If no organization is in charge of the activity, please describe 'none'.

Activity	Organization of Central Government	Organization of Local Government	Private sector including NPO/NGO
Prevention Measures (Structural Measures) for Sediment Disaster			
Observation/Monitoring (Soil Movement)			
Observation/Monitoring (Weather)			
Warning			
Evacuation			
Disaster Relief			
Disaster Education			

## *For Your Reference*

### **JICA and Capacity Development**

The key concept underpinning JICA operations since its establishment in 1974 has been the conviction that “capacity development” is central to the socioeconomic development of any country, regardless of the specific operational scheme one may be undertaking, i.e. expert assignments, development projects, development study projects, training programs, JOCV programs, etc.

Within this wide range of programs, Training Programs have long occupied an important place in JICA operations. Conducted in Japan, they provide partner countries with opportunities to acquire practical knowledge accumulated in Japanese society. Participants dispatched by partner countries might find useful knowledge and re-create their own knowledge for enhancement of their own capacity or that of the organization and society to which they belong.

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs are being customized to address the specific needs of different target organizations, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

### **Japanese Development Experience**

Japan was the first non-Western country to successfully modernize its society and industrialize its economy. At the core of this process, which started more than 140 years ago, was the “*adopt and adapt*” concept by which a wide range of appropriate skills and knowledge have been imported from developed countries; these skills and knowledge have been adapted and/or improved using local skills, knowledge and initiatives. They finally became internalized in Japanese society to suit its local needs and conditions.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from this “*adoption and adaptation*” process, which, of course, has been accompanied by countless failures and errors behind the success stories. We presume that such experiences, both successful and unsuccessful, will be useful to our partners who are trying to address the challenges currently faced by developing countries.

However, it is rather challenging to share with our partners this whole body of Japan’s developmental experience. This difficulty has to do, in part, with the challenge of explaining a body of “tacit knowledge,” a type of knowledge that cannot fully be expressed in words or numbers. Adding to this difficulty are the social and cultural systems of Japan that vastly differ from those of other Western industrialized countries, and hence still remain unfamiliar to many partner countries. Simply stated, coming to Japan might be one way of overcoming such a cultural gap.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.



***CORRESPONDENCE***

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

**JICA Tokyo International Center (JICA TOKYO)**  
**Address: 2-49-5 Nishihara, Shibuya-ku, Tokyo 151-0066, Japan**  
**TEL: +81-3-3485-7051 FAX: +81-3-3485-7904**