

INFORMATION ON THE GROUP TRAINING COURSE

**DISASTER RISK MANAGEMENT  
TECHNOLOGY ON VOLCANIC ERUPTION,  
DEBRIS FLOW AND LANDSLIDE  
MITIGATION**

**JFY 2006**

**集团:火山学・総合土砂災害対策**  
COURSE NO.: J-06-00876

**March 14, 2007 – September 8, 2007**



THE GOVERNMENT OF JAPAN  
JAPAN INTERNATIONAL COOPERATION AGENCY



## ***I. Course Background***

This JICA Group Training Course “Disaster Risk Management Technology on Volcanic Eruption, Debris Flow and Landslide Mitigation” started in 1989 as a commitment by the Government of Japan for the International Decade of Natural Disaster Reduction (IDNDR, 1990-1999), to support and strengthen the level of disaster prevention in developing countries, vulnerable to volcanic/sediment disasters. Since then, until 2006, JICA have received 154 participants from 24 countries, and have greatly contributed to the development of human resources engaged in volcanic observation and/or sabo works.

***Hyogo Framework for Action 2005-2015*** was adopted at the World Conference on Disaster Reduction held in Kobe, Japan on January 2005. The Action identifies to prioritize “assessing and monitoring disaster risks and enhancing early warning”. Monitoring a volcano and sabo works are an essential component of volcanic/sediment disaster early warning system, and thus this Course can be said that it is tied up with the direction of this international framework.

Also, it should be noted that this Course is one of the measures of the ***Initiative for Disaster Reduction through ODA*** which was launched January 2005 by Ex-Prime Minister Junichiro Koizumi. JICA is moving on to further meet the needs of the world to build-up and strengthen disaster management capacities with affluent experience and know-how of Japan in this field.

This Course aims to build-up capacities of developing countries for the better management natural disasters, especially volcanic eruptions and sediment disasters. It is made up of 3 components, i.e. Common Program, Thematic Program and Individual Program.

## **II. Course Description**

### **1. Course Title (No.):**

Disaster Risk Management Technology on Volcanic Eruption, Debris Flow and Landslide Mitigation (J0600876)

### **2. Course Objective/Outcome:**

Participants of this course are expected to improve their capacity on volcanic observation or comprehensive sediment management skills and be able to contribute to the disaster prevention/mitigation efforts of their countries.

### **3. Course Outputs:**

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

#### **【COMMON PROGRAM】**

- (1) to understand and be able to explain the basic common knowledge of volcanology and erosion & sediment control engineering
- (2) to understand and be able to explain the administration of disaster management in consideration of inhabitants' participation

#### **【THEMATIC PROGRAM (VOLCANOLOGY)】**

- (1) to understand and be able to explain the latest geophysical and geological concept of volcanology
- (2) to understand and be able to explain the theories of volcanic earthquakes, geodesy, geoelectromagnetism, geothermics, and geochemistry
- (3) to be able to carry out volcano observation, data analysis and interpretation

#### **【THEMATIC PROGRAM (SABO)】**

- (1) to understand and be able to explain basic knowledge of erosion and sediment control engineering
- (2) to understand and be able to explain basic mechanism of sediment-related disasters such as debris flow
- (3) to understand and be able to explain comprehensive sediment-related disaster prevention measures, structural and non-structural measures
- (4) to understand and be able to explain the environmentally-sound comprehensive sediment management

#### **【INDIVIDUAL PROGRAM】**

- (1) To make a final report as a result of the individual training/ research which theme is set by each interests

### **4. Duration:**

14 March, 2007 – 8 September, 2007:

### **5. Total Number of Participants :**

Number of Participants; 7 participants

### **6. Eligible/Target Organization:**

Organizations involved in volcanic and/or sediment-related disaster prevention/mitigation activities.

**-Target Group-**

Engineers/Researchers who are engaged in Volcanic Observation or  
Engineers who are engaged in Sediment-related Disaster Prevention (Sabo Works)

**7. Language to be used in this Course:**

English

**8. Course Program:**

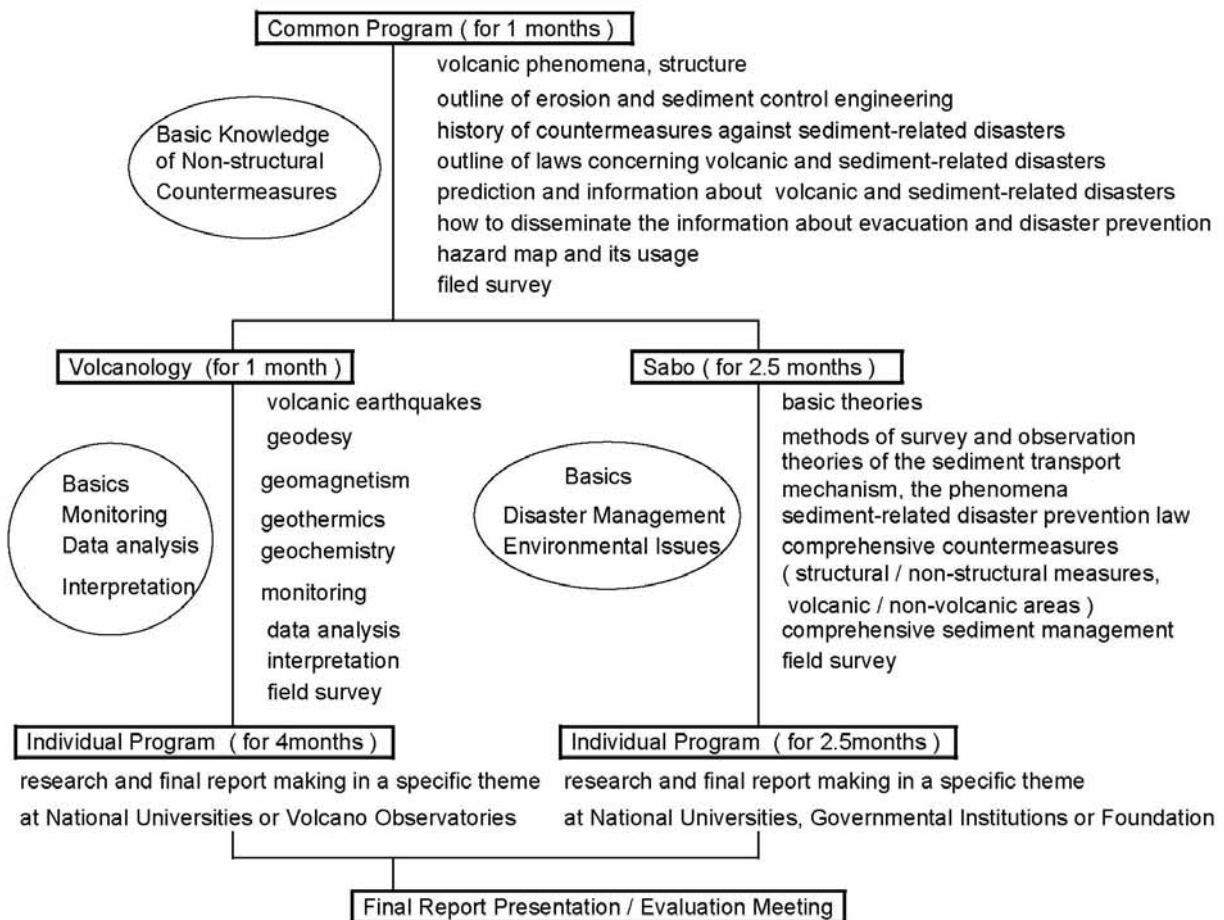
This course consists of 3 components, i.e. Common Program, Thematic Program (Volcanology or Sabo) and Individual Program. The key component of this Course is the Individual Program. Each participant will conduct 2.5/4 months individual training/research at University, Volcano Observatory, Institution or Foundation based on interests of the participating personnel and their organization. The theme of the Individual Program will be set by the Curriculum Committee according to the Needs Clarification Form(see ANNEX 1).

As a result of Individual training/research, each participant will be required to make a final report and present to the Curriculum Committee members. The Curriculum Committee will evaluate the results.

**The Final report will be opened to public on <http://www.sabo-int.org/>.**

(1) Concept

To develop human capacity to mitigate the disasters in the field of Volcanology & Erosion and Sediment Control Engineering



## (2) Schedule of training

## Disaster Risk Management Technology on Volcanic Eruption, Debris Flow and Landslide Mitigation Course FY2006 (Tentative)

March 14, 2008-September 8, 2008

2006/8/29

### Common Program

	DATE	SUBJECT	INSTRUCTOR	BELONGING
Mar	14(Wed)	Arrival at TIC	JICA	
	15(Thu)	Briefing	JICA	
	16(Fri)	Orientation	JICA	
	17(Sat)	Holiday		
	18(Sun)			
	19(Mon)	Orientation	JICA	
	20(Tue)	Program Orientation	JICA	
	21(Wed)	National Holiday	JICA	
	22(Thu)	Medical Health Check	JICA	
	23(Fri)	Presentation of Country Report Opening Ceremony	JICA, Curriculum Committee	
	24(Sat)	Holiday		
	25(Sun)			
	26(Mon)	Volcanic Phenomena/Products of Volcanic Eruptions	Shigeo ARAMAKI	Prof., Nihon Univ. (Emeritus Prof. Univ. of Tokyo)
	27(Tue)	Introduction to Sabo Works	Hiroyuki OHNO	Director, MLIT
	28(Wed)	Structure of Volcanoes	Tadahide UI	Senior Executive Director, Institute
	29(Thu)	Disaster Countermeasures in Japan	Kenichi HANDA	Deputy Director, Cabinet Office
	30(Fri)	Volcanic Disaster Prediction Volcanic Disaster Information	Yoichi NAKAMURA	Prof., Utsunomiya Univ.
31(Sat)	Holiday			
Apr	1(Sun)			
	2(Mon)	Volcanic Eruptions, Risk Management and Emergency Information	Hirumu OKADA	Director of Institute, Hokkaido Univ.
	3(Tue)	Prediction of Sediment-related Disasters and Information Transmission	Yoshiharu ISHIKAWA	Prof., Tokyo University of Agriculture and Technology
	4(Wed)	Exercises in Geomorphology of Volcanoes	Tetsuo KOBAYASHI	Prof., Kagoshima Univ.
	5(Thu)			
	6(Fri)	Volcanic Activities and Sediment-related Disasters	Takashi YAMADA	Associate Prof., Hokkaido Univ.
	7(Sat)	Holiday		
	8(Sun)			
	9(Mon)	Field Inspection, Sakurajima and Unzen	Yoshiki NAGAI	Chief of Ohsumi Office, MLIT
	-13(Fri)		Kazuhiro ISHIHARA	Prof., Kyoto Univ.
	Tetsuo KOBAYASHI		Prof., Kagoshima Univ.	
	Yukiyoshi TERAMOTO		Assistant, Kagoshima Univ.	
	Koji HATA		Chief of Unzen Office, MLIT	
14(Sat)	Holiday			
15(Sun)				

## Volcanology Course

	DATE	SUBJECT	INSTRUCTOR	BELONGING
Apr	16(Mon)	Earth's Interior and Tectonics	Hiroyuki HAMAGUCHI	Emeritus Prof. Tohoku Univ.
	17(Tue)	Magmatology	Yoshiyuki TATSUMI	Program Director, JAMSTEC
	18(Wed)	Volcanic ground Deformation(1)	Kazuhiro ISHIHARA	Director, Institute, Kyoto Univ.
		Volcanic ground Deformation(2)	Makoto MURAKAMI	Research Coordinator, Institute, MLIT
	19(Thu)	Geomagnetic Studies	Hisashi UTADA	Prof., Univ. of Tokyo.
	20(Fri)	Volcanic Volatiles	Minoru KUSAKABE	Prof., Okayama Univ.
	21(Sat)	Holiday		
	22(Sun)			
	23(Mon)	Volcanic Earthquakes and Tremors	Minoru TAKEO	Prof., Univ. of Tokyo
		Analysis of Seismic Data	Ken-ichiro YAMASHINA	Associate Prof., Univ. of Tokyo
	24(Tue)	Geophysical Observation around Volcanoes	Yuichi MORITA	Associate Prof., Univ. of Tokyo
	25(Wed)	Geothermal Observation in Volcanoes	Tsuneomi KAGIYAMA	Prof., Kyoto Univ.
	26(Thu)	Remote Sensing for Active Volcano	Yoshihiro SAWADA	Director-General, Observatory, JMA (Rtd)
	27(Fri)	Generation, Ascent and Effusion of Magma/ Mechanism of Volcanic Eruptions	Yoshiaki IDA	Prof., Univ. of Hyogo
	28(Sat)	Holiday		
	29(Sun)	National Holiday		
30(Mon)	Holiday			
May	1(Tue)	Prediction of Volcanic Eruptions	Hidefumi WATANABE	Prof., Univ. of Tokyo
			Setsuya NAKADA	Prof., Univ. of Tokyo
	2(Wed)	Volcano Eruptions Information	Hitoshi YAMASATO	Senior Coordinator, JMA
	3(Thu)-6(Sun)	National Holiday		
	7(Mon)	Individual Programme: May 7 -Aug 31, including following field inspections in group		
I	Jun 7(Thu) ~ 8(Fri)	Field Inspection, Mt. Fuji Volcanic Ejecta	Kunihiko Endo Marekazu OHNO	Prof., Nihon Univ. Assistant, Nihon Univ.
	Jun 12(Mo) ~ 16(Fr)	Field Inspection in Hokkaido District with Sabo Engineering Group (Mt. Tokachi, Mt. Usu)	Mitsuhiro NAKAGAWA Hiromu OKADA Hitoshi MORI Takashi YAMADA Atsushi YOSHII	Prof., Hokkaido Univ. Director of Institute, Hokkaido Univ. Assistant, Hokkaido Univ. Associate Prof., Hokkaido Univ. Director, Hokkaido Prefectural Government.
Aug	31(Fri)			
Sep	1(Sat)	Holiday		
	2(Sun)			
	3(Mon)	Move to TIC*	JICA	
	4(Tue)	Preparation for Report Presentation	JICA	
	5(Wed)	ditto	JICA	
	6(Thu)	ditto	JICA	
	7(Fri)	Presentation of Final Report, Evaluation and Closing Ceremony at TIC*	JICA, Curriculum Committee	
	8(Sat)	Back to Home Country		

## Sabo Course

	DATE	SUBJECT	INSTRUCTOR	BELONGING
Apr	16(Mon)	Abnormal Weather	Kenji KISHIMOTO	Forecaster, JMA
	17(Tue)	Applied Hydrology	Yasuhiro SHUIN	Associate Prof., Utsunomiya Univ.
	18(Wed)	Actual Condition of Debris Flow	Junichi KURIHARA	Team Leader, Public Works Research Institute
	19(Thu)	Survey and Observation of Debris-Mud Flow	Wataru SAKURAI	Senior Researcher, Public Works Research Institute
	20(Fri)	Mechanism of Landslide, Stability Analysis of Landslide Slopes, Observation Method of Movement of Landslide	Ryosuke TSUNAKI	Director, National Institute for Land and Infrastructure Management, MLIT
	21(Sat)	Holiday		
	22(Sun)			
	23(Mon)	Sediment Transport Hydraulics	Masaharu FUJITA	Prof., Kyoto Univ.
	24(Tue)	Mechanism of Debris-Mud Flow	Junichiro TAKAHAMA	Assistant, Gifu Univ.
	25(Wed)	Design of Measures for Landslide at Niigata Experimental Labo.	Masaaki HANAOKA Kiyoteru MARUYAMA	Chief, Public Works Research Institute Senior Researcher, Public Works Research Institute
	26(Thu)	Field Inspection of Landslide, at Niigata	Einosuke NOZAWA Masaaki HANAOKA	Chief, Niigata Pref. Gov. Chief, Public Works Research Institute
	27(Fri)			
	28(Sat)	Holiday		
	29(Sun)	National Holiday		
30(Mon)	Holiday			
May	1(Tue)	Sabo Planning	Toshihiro HASHINOKI	Acting Chief, Sabo Technical Center
	2(Wed)	Guidelines of Measures against Debris Flow / Driftwood Control	Hideaki MIZUNO	Senior Researcher, National Institute for Land and Infrastructure Management, MLIT
	3(Thu)- 6(Sun)	National Holiday/Holiday		
	7(Mon)	Design of Sabo Dam	Joji SHIMA	Chief, Sabo Technical Center
	8(Tue)	Slope Stabilization and Revegetation Works	Satoshi TSUCHIYA	Prof., Shizuoka Univ.
	9(Wed) 10(Thu)	Hydraulic Model Experiment	Akira ODA	Chief Researcher of Civil Engineering Research Laboratory
	11(Fri)	Establishment of Warning and Evacuation Level	Kazuya AKIYAMA	Senior Researcher, National Institute for Land and Infrastructure Management, MLIT
	12(Sat) 13(Sun)	Holiday		
	14(Mon)	Disaster Information	Hitoshi GODAI	Technical Department Manager, Institute for Sustainable Disaster Prevention
	15(Tue)	ditto	ditto	
	16(Wed)	Hazard Map of Debris Flow by GIS	Akito NAKASUJI	Chief Engineer, Kokusai Kogyo Co., Ltd.
	17(Thu) 18(Fri)	Hazard Map of Debris Movements based on Numerical Simulation and its Utilization	Shintaro YAMASHITA	Chief, Sumiko Consultants, Co., Ltd.
	19(Sat) 20(Sun)	Holiday		
	21(Mon)	Sediment-related Disaster Prevention Law	Takashi INOUE	Director of Sabo Management Office, MLIT
22(Tue)	Case Study of Sabo works	Shigeo HORIUCHI	Chief of Fujigawa Sabo Office, MLIT	

	DATE	SUBJECT	INSTRUCTOR	BELONGING
May	23(Wed)- 25(Fri)	Field Inspection Nikko/ Watarase River	Osamu TAINAKA  Fumiyasu SATOU	Chief of Nikko Sabo Office, MLIT  Chief of Watarase River Office, MLIT
	26(Sat) 27(Sun)	Holiday		
	28(Mon)	Examples of Effective Sabo Facilities	Koji Nishiyama	Director, MLIT
	29(Tue)	Courtesy call MLIT		
	30(Wed)	Design of Facility Utilizing Greenery / Green Belt	Nobutomo OSANAI	Head, National Institute for Land and Infrastructure Management, MLIT
	31(Thu)	Comprehensive Sediment Management in a Watershed Risk Management	Hideaki MIZUNO	Senior Researcher, National Instit ute for Land and Infrastructure Management, MLIT
Jun	1(Fri)	Utilization Guidelines for Sabo Soil Cement	Munehiro Matsui	Manager, Sabo Technical Center
	2(Sat) 3(Sun)	Holiday		
	4(Mon)	Applicability of Sabo Engineering	Masaki HIRUMA	Chief, Sabo Technical Center
	5(Tue)	Field Inspection	Shigeo HORIUCHI	Chief of Fujigawa Sabo Office, MLIT
	6(Wed)	Fujigawa Sabo Office, MLIT		
	7(Thu)	Mt, Fuji/Hakone	Takahiro MURAKAMI	Chief, Kanagawa Pref.Gov
	8(Fri)	Field Inspection	Yasuo ISHII	Chief of Fuji Sabo Office, MLIT
	9(Sat) 10(Sun)	Holiday		
	11(Mon)	Jun 11(Mo) ~ 15(Fr) Field Inspection in Hokkaido District with Volcanology Group (Mt. Tokachi, Mt. Usu)	Mitsuhiro NAKAGAWA  Hiromu OKADA  Hitoshi MORI  Takashi YAMADA	Prof., Hokkaido Univ.  Director of Institute, Hokkaido Univ.  Assistant, Hokkaido Univ.  Associate Prof., Hokkaido Univ.
	15(Fri)		Atsushi YOSHII	Director, Hokkaido Prefectural Government.
	16(Sat) 17(Sun)	Holiday		
	18(Mon)- 20(Wed)	Field Inspection Lake Biwa, Rokko	Kazumi ABURATANI  Katsushi NAGAYASU	Biwako River Office, MLIT  Rokko Sabo Office, MLIT
	21(Thu)	Individual Programme: 21, June-31, Aug, including following field inspection in group.		
	Aug	31(Fri)	Field Inspection, Jul 2(Mo) ~ 6(Fr) (Matsumoto, Jinzu, Tateyama)	Osamu WATANABE  Shigekazu WAKATA  Kenichi HASEGAWA



	DATE	SUBJECT	INSTRUCTOR	BELONGING
Sep	1(Sat)	Holiday		
	2(Sun)			
	3(Mon)	Move to TIC*	JICA	
	4(Tue)	Preparation for Report Presentation	JICA	
	5(Wed)	ditto	JICA	
	6(Thu)	ditto	JICA	
	7(Fri)	Presentation of Final Report, Evaluation and Closing Ceremony at TIC*	JICA, Curriculum Committee	
	8(Sat)	Back to Home Country		

\*TIC・・・Tokyo International Center, Japan International Cooperation Agency

\*JMA・・・Japan Meteorological Agency

\*\*Note: These contents may be subject to minor changes.

### **III. Conditions and Procedure for Application**

#### **1. Responsibility of the Participating Countries/Organizations:**

- (1) It is strongly requested for the government of the participating country and organizations concerned to nominate the applicants who fulfill the requirements for this course and have high motivation and strong commitments to address the current issues in your country/organization.
- (2) If any of the applicants are accepted, the organizations to which the applicants belong are required to support them to focus on making Country Report described in ANNEX 2.
- (3) After the program in Japan, the organizations are expected to support the participant's duties so that they can fully utilize the knowledge and technique that they acquired during the Course.

#### **2. Qualifications of Applicants:**

Applicants should:

- (1) be nominated by their government in accordance with the procedures mentioned in III 4
- (2) be presently engaged in volcanic observation and/or sediment-related disaster prevention (sabo works)
- (3) be university graduates or have an equivalent background
- (4) be under forty (40) years of age
- (5) be proficient in spoken and written English
- (6) be in good health, both physically and mentally to undergo the 6 month long program
- (7) not be serving in any form of military services

#### **3. Required Documents:**

Following items should be submitted to JICA Office (or the Embassy of Japan) by **January 10, 2007.**

**Note; Applications without any of these 3 items will be out of the selections.**

- (1) **Nomination Form: One (1) original and three (3) copies**
- (2) **Needs Clarification Form** (see ANNEX 1)  
Each applicant is required to prepare a typewritten Needs Clarification Form by him/herself in accordance with the Instruction of Annex 1.
- (3) **Country Report** (see ANNEX 2)  
Each applicant is required to originally write and prepare a typewritten Country Report by him/herself in accordance with the Instruction for the Preparation of Country Report (see ANNEX 2).

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

(1) Submission of the Documents for Selection:

Governments desiring to nominate applicants for the Course should submit (a) original Nomination Form, (b) Needs Clarification Form, and (c) Country Report to JICA Office (or the Embassy of Japan) by **January 10, 2007**.

(2) Selection:

- 1) JICA Office (or the Embassy of Japan) accepts the documents for selection, carries out the pre-screening, and send the documents to JICA TOKYO in charge of this course.
- 2) JICA TOKYO, together with the partner organizations, including the Curriculum Committee, of this Course will screen the application forms and decide qualified applicants among those who fulfill the set requirements described in ***III.2*** above by February 1, 2007.

\*\*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.

(3) Notice of Acceptance:

JICA office (or the Embassy of Japan) will inform the applying government of acceptance or non-acceptance of nominees' application **no later than February 1, 2007**.

(4) For the accepted applicants:

The applicants who are accepted to participate in this Course, it is advisable to prepare data and information by electronic file in connection with Needs Clarification Form (Annex1) In case the supervisors of your Individual Program who are appointed by the Curriculum Committee could contact and ask some assignments to the accepted applicant before his/her departure to Japan, the applicant is requested to carry out the assignments.

#### **5 . Rules for Attendance:**

Participants are requested to observe the following rules for attending the course:

- (1) not to bring any members of their family
- (2) to return to their home countries at the end of the Course according to the international travel schedule designated by JICA
- (3) to refrain from engaging in political activities or any form of employment for profit or gain while in Japan
- (4) to observe the rules and regulations of their place of accommodation and not to change accommodations designated by JICA
- (5) to observe the rules at the lectures and so on in the course

#### **6. Certificate**

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

## **IV. Administrative Arrangements**

### **1. Travel to Japan:**

(1) Air Ticket:

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.

### **2. Accommodation:**

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

**Tokyo International Center (JICA TOKYO)**

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

TEL: +81-3-3485-7051, FAX: +81-3-3485-9206 (81: country code for Japan, 3: area code)

\*If no room is available at JICA TOKYO, JICA will arrange alternative accommodations for the participants.

\*During the Individual Program, JICA will arrange suitable accommodations near the assigned training institutions.

### **3. Living Expenses:**

Following expenses will be provided for the participants by JICA:

- (1) Allowances for accommodation, living expenses, outfits and shipping
- (2) Expenses for study tours; basically paid in the form of train ticket(s) or chartered bus.
- (3) Free medical care for participants who become ill after arrival in Japan  
(Cost related to pre-existing illness, pregnancy or dental treatment is not 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.

### **4. Partner Organizations:**

#### **Sabo Department, Ministry of Land, Infrastructure and Transport (MLIT)**

Address: 2-1-3 Kasumigaseki, Chiyoda-ku, Tokyo 151-0066 Japan

TEL: +81-3-5253-8468, FAX: +81-3-5253-1610

#### **Sabo Technical Center (STC)**

Address: 4-8-21 Kudan-Minami, Chiyoda-ku, Tokyo 102-0074 Japan

TEL: +81-3-5276-3271, FAX: +81-3-5276-3391

\*\* Sabo Technical Center (STC) is a juridical body authorized by the Ministry of Land, Infrastructure and Transport (MLIT) to implement various activities of disaster prevention, especially caused by debris flow and landslide.

## 5. Curriculum Committee:

Overall planning of this Course, including arrangements for the Individual Program, is fully supported by the Curriculum Committee, which is organized by Japan's leading experts in this field.

Chairperson	Dr. Hiroyuki Ono	Director for Sabo Planning Coordination, Sabo Planning Division, Sabo Department, Ministry of Land, Infrastructure and Transport
Vice-Chairperson	Dr. Shigeo Aramaki	Professor Emeritus, The University of Tokyo
Member	Dr. Masato Iguchi	Associate Prof., Volcano Research Center, Disaster Prevention Research Institute Kyoto University
	Dr. Tsuneomi Kagiyama	Prof., Aso Volcanological Laboratory, Graduate School of Science, Kyoto University
	Mr. Koichi Kondo	Managing Director, Sabo Technical Center
	Dr. Setsuya Nakada	Prof., Volcano Research Center, Earthquake Research Institute, The University of Tokyo
	Dr. Hiroyuki Nakamura	Prof., Graduate School of Agriculture, Tokyo University of Agriculture and Technology
	Dr. Masao Okamoto	Executive Director, Japan Sabo Association
	Dr. Masakazu Suzuki	Prof., Graduate School of Agriculture and Life Sciences, The University of Tokyo
	Dr. Ryosuke Tsunaki	Director, Research Center for Disaster Risk Management, National Institute for Land and Infrastructure Management, Ministry of Land, Infrastructure and Transport
	Dr. Hidefumi Watanabe	Prof., Volcano Research Center, Earthquake Research Institute, The University of Tokyo

## 6. Pre-Departure Orientation:

A pre-departure orientation will be held at JICA Office (or Embassy of Japan) to provide the selected candidates 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.

# ANNEX:

## 1 Needs Clarification Form

## 2 Instruction for the Preparation on Country Report

Disaster Risk Management Technology on  
Volcanic Eruption, Debris Flow and Landslide Mitigation  
(JFY 2006)

### ***Needs Clarification Form for individual Program***

This Training Course includes 2.5 or 4 months Individual Program in order to meet each applicant's interests. Individual Program is the key component of this Course. In this sense, applicants are requested to clarify what expertise they want to acquire in this significant opportunity.

Based upon this form, the Curriculum Committee will appoint most appropriate trainer and Organization/Institute for the accepted applicants.

For setting your Theme of the Individual Program, please refer to the 3. **Examples** that were actually submitted in the past.

#### **1 Thematic Program**

Please circle the theme you wish to take in the Thematic Program. Also, please be noted that changing the chosen theme will not be allowed during the Course.

Volcanology

Comprehensive Sediment Management (Sabo)

#### **2 Requirement of your organization**

Please describe expectation of your organization to this training program, such as issue to be solved and its barriers.

{ } ( )

#### **3 Individual Program :**

Please specifically identify the subject/concept you wish to take up in your Individual Program based on the theme selected above.

{ } ( )

Also, please provide simple background information for setting your subject/concept.

{ } ( )

### **3. Examples**

#### **(1) Volcanology**

- \* Walking & vehicle Traverse for SO<sub>2</sub> Flux measurement at Japanese volcanoes using a mini DOAD system
- \* Improvement of Precision of Vertical Displacement observed by GPS
- \* Analysis of Recent Activity at Pinatubo Volcano
- \* Seismic Pattern Analyses at Hokkaido and Phiippines Volcanoes using Logarithmic Scales
- \* Seismic Activity at Papandayan Volcano, West Java, Indonesia Before November 2002 Eruption

#### **(2) Sabo**

- \* Geomechanical Behavior of Lahars (Debris Flow), Between Mechanics of Fluids and Mechanics of Solids
- \* Real Time Hazard Map in Cotopaxi Volcano
- \* Sabo Methodology Application to Marcabanba District, Peru based on case study of Kuchisakamoto Landslide, Japan
- \* Sabo Plan for Jeneberang River Basin in Makassar, Indonesia -Application of Sabo Planning after Bawakaraeng Disaster
- \* Numerical simulation for prediction of debris flow

## ANNEX 2

### Disaster Risk Management Technology on Volcanic Eruption, Debris Flow and Landslide Mitigation (JFY 2006)

#### *Country Report*

- (1) This report should be typewritten in double space on A4 size paper and 10-15 pages in length including charts and figures.
- (2) This report should be submitted together with the Nomination Form.
- (3) The content of this report should cover the following topics:
  - Introduction (Name, Country, Organization, Position/Title)
  - Organization chart specifying department/section that they belong
  - Description of duty.
  - Present conditions of the relevant field in respective countries.
  - Description of volcanic and/or debris flow and/or landslide hazards, and countermeasures in respective countries. (3-5 pages)

#### NOTE:

Those who have been accepted to participate in the Training Course will make presentation of their Country Reports at the beginning of training program. For this purpose, participants are highly recommended to bring visual materials for their presentation, i.e. Power Points, etc..

Also, participants should bring maps of the relevant areas and necessary data (ex. observation data, etc.) of the country for the individual program.



# *Reference*

Founded in 1974, the Japan International Cooperation Agency is an implementation agency for technical assistance, focusing on systems building, organization strengthening and human resource development that will enable developing countries to pursue their own sustainable socio-economic development.

The training program for overseas participants is one of JICA's main cooperation programs. Under this program, JICA invites professionals in various fields including administrative officials, engineers and technicians from developing countries to Japan and provide them with skills and technology needed in their countries as well as the chance to share knowledge and experience with participants from other countries. Through this program, participants are expected to acquire skills and technology or create knowledge, bring them back to their countries, and apply them in their workplaces or societies with necessary modifications according to their own conditions to achieve their specific objectives.

## JICA's Mission

We, as a bridge between the people of Japan and developing countries, will advance international cooperation through the sharing of knowledge and experience and will work to build a more peaceful and prosperous world.

## Oath of Service

With passion and pride, as professionals in development cooperation, we will perform our work responsibly and energetically with love and a sense of duty; we will encourage and support the participation of the Japanese people in our work; we will work as partners to those in need of assistance; and we will strive to fill the world with hope and happiness by promoting peace and sustainable development.



### ***CORRESPONDENCE***

For enquires and further information, please contact the JICA office, or the Embassy of Japan. Address any other correspondence to:

Tokyo International Center  
Japan International Cooperation Agency  
(JICA TOKYO)

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