
3. Human Resource Development

3-1. Activities of Disaster Reduction

3-1-1. JICA's Trainer's training for the Disaster Mitigation Training Project

In cooperation with the Japan International Cooperation Agency (JICA), the ADRC conducted a Turkish Disaster Mitigation Training Course from August 21 to 26, 2006, as part of the Disaster Mitigation Training Project that was launched by the JICA Turkey Office in FY 2005. While a training course offered last February was primarily for experts in the fields of urban planning, water-related disasters, and psychology and disaster management, this training course gave engineers an opportunity to visit Japan to learn about Japanese disaster reduction systems and technologies that can be utilized in engineer training programs to be conducted in Turkey.



Fig.3-1-1 Scenery of the training at the Fire Station

The training event featured presentations by experts in various fields, including geotechnical and structural engineering, urban planning, fire disaster management, and local government disaster management systems. All the trainees showed a significant interest in the high level of disaster-related expertise and awareness in Japan, and learned a great deal from the lectures provided.

On the last day of the training course, the trainees visited a high school in Himeji that had been seismically reinforced by a major Japanese construction company, where they learned about the techniques used in the retrofitting process. This was an invaluable opportunity for the trainees, given Turkey's vulnerability to earthquakes and the country's increasing awareness of the importance of seismic retrofitting.

3-1-2. 2006 Disaster Management Training Course for Central Asia and the Caucasus

The Asian Disaster Reduction Center (ADRC), with financial support from the Japan International Cooperation Agency (JICA), conducted its third Russian language training course on disaster management for Central Asia and the Caucasus from August 21 to September 15, 2006. These areas are prone to natural disasters such as floods, droughts, landslides, and earthquakes, and the damage caused by such events tends to spread into neighboring countries. These countries also share common disaster reduction challenges, such as flooding triggered by the melting of mountain glaciers.

Fourteen central and local government officials in charge of disaster management came from Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz, Tajikistan, and Uzbekistan to participate in this training. They visited related organizations and facilities, and learned about the roles that need to be played by the central and local governments, lifeline companies, research institutes, meteorological agencies, the media, hospitals, and NPOs. They also learned about GIS technologies, international disaster reduction cooperation, and disaster prevention education. Participants visited sites in the Rokko Mountains where landslide countermeasures and erosion control measures have been implemented, and saw the Nojima fault on Awaji Island. They also participated in disaster management drills in Osaka.

This training course incorporated “Town Watching,” a method of identifying the underlying risks in a community through the creation of hazard maps. This enabled trainees to better appreciate the effectiveness of this method in raising public awareness of disaster reduction.

A new component in this year’s training was a workshop for developing action plans based on the PCM (Project Cycle Management) method. Over the course of three days, trainees learned the basics of PCM as well as how to put what they had learned into practice. The trainees were able to achieve the objectives of the workshop in a very short time. Upon returning home, they are expected to be leaders who can apply what they have learned to various disaster reduction projects in their own countries.



Fig.3-1-2-1 Scenery of the training at the Fire Station



Fig.3-1-2-2 Scenery of making Hazard Map

3-1-3. JICA Training Course “Disaster Prevention Education in Schools”

Thanks to financial support from the Japan International Cooperation Agency (JICA), the Asian Disaster Reduction Center (ADRC) conducted a training course on “Disaster Prevention Education in Schools” from August 28 to September 15, 2006.

Newly developed this year, this course was designed to provide opportunities for people involved in school education in the countries affected by the Indian Ocean Tsunami to learn about disaster prevention education in Japan and to promote disaster prevention education in schools in their own countries.

The 15 participants included school principals and officials in charge of disaster prevention education, such as ministry of education officials, from five countries including Indonesia, Malaysia, the Maldives, Sri Lanka and Thailand. They heard a series of lectures by the Hyogo Prefectural Board of Education on disaster prevention education systems, disaster prevention teaching materials, and manuals on disaster prevention education in schools. They also visited disaster prevention education classes at Sanda Kindergarten, Shiomi Junior High School, Maiko High School, and Awaji High School in Hyogo Prefecture, and Hamazaki Elementary School in Shizuoka Prefecture.

These visits provided an invaluable opportunity for the participants to see the lessons for disaster education in various grade levels from kindergarten to high school. The trainees were excited to utilize what they learned in Japan to contribute to the development of disaster education in their respective countries.



Fig.3-1-3 Scenery of the training at a school

3-1-4. JICA's Training for Top Officials of Turkish Municipalities

Following the trainer training for Turkish engineers, the Asian Disaster Reduction Center (ADRC), with financial support from the Japan International Cooperation Agency (JICA), conducted a Turkish Disaster Mitigation Training Course for top local officials from Turkey from August 29 to September 5, 2006. This course was part of the Disaster Mitigation Training Project that was launched by the JICA Turkey Office in FY 2005.

Attended by 18 top local officials who had participated in the disaster management training conducted in Turkey in March and May 2006, as well as two officials from Turkey's Ministry of Interior, this training aimed to give participants an opportunity to learn from Japan's disaster management system and related efforts, and to obtain necessary information for their own municipalities.

The training event featured presentations by experts in various fields including national/local disaster management systems, response to and recovery from the Great Hanshin-Awaji Earthquake, urban planning, and efforts to raise public awareness of disaster prevention. Participants also visited various disaster related organizations and facilities in Japan.

Specifically, they visited Hyogo Prefecture and the cities of Kobe and Ashiya, and learned about disaster management systems and recovery from the officials in charge of disaster management at the municipal level.

They also experienced "Town Watching," a method of raising public awareness of disaster reduction by creating community hazard maps. All the trainees were keen to learn from Japan's experiences and to utilize what they learned during this training in their own municipalities.



Fig.3-1-4 Scenery of Town Watching

3-1-5. Disaster Mitigation Management Course for the Youth in Central Asia and the Caucasus 2006

From November 30 to December 5, 2006, the Asian Disaster Reduction Center (ADRC) hosted a Disaster Mitigation Management Course for the Youth in Central Asia and the Caucasus 2006, organized by the Ministry of Foreign Affairs of Japan.

The tour was consisted of 7 participants from Azerbaijan, Armenia, Tajikistan, Uzbekistan, Kazakhstan, Kyrgyz, Georgia in Central Asia.

Participants visited the Cabinet Office of Japan, the Ministry of Land, Infrastructure and Transport, the Asian Disaster Reduction Center, the Crisis Management Center in Kobe-city, the Disaster Reduction and Human Renovation Institution (DRI), Nojima Fault Museum, the Golden Temple and Kiyomizu Shrine in Kyoto, Tokyo Gas, Tokyo Electric Company, the Ministry of Foreign Affairs, Tokyo Metropolitan Government and Takenaka Technical Research Center.

They learned about efforts taken by relevant stakeholders, such as the central and local governments and lifeline companies.

All participants were keen to learn from Japan's experiences and to utilize what they learned during this training in their own municipalities.

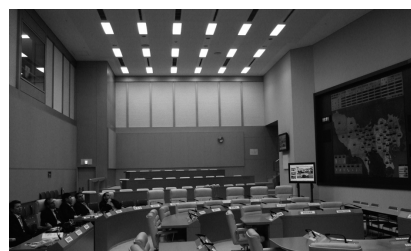


Fig.3-1-5 Lecture at Tokyo Metropolitan Government

3-1-6. JICA Seminar on Disaster Management 2006

The ADRC has held yearly disaster management seminars upon the request of JICA and with its full support since the fiscal year 2000. The seventh Seminar on Disaster Management

II along with Disaster Management and Preparedness in Southeast European Countries was held this year. Its outline was as follows:

(1) Overview

Title: Seminar on Disaster Management II and Disaster Management and Preparedness in Southeast European Countries

Period: January 15 - February 23, 2007

Implementing Organization: ADRC

Participants: 19 officials from 14 countries

Countries: Colombia, Cook Islands, Jamaica, Republic of Macedonia, Mexico, Philippines, Serbia, Sri Lanka, Syria, Tajikistan, Thailand, Turkey, Venezuela, Zambia

(2) Objectives

Trainees are expected to:

- Study Japan's disaster management system to improve their disaster management capabilities
- Identify problems and challenges in the disaster management practice in their countries, and devise solutions to them
- Draft an action plan for improvement.

(3) Background

Japan is located in the area frequently hit by typhoons. Every year the country suffers from disasters such as typhoons and torrential rains. Moreover, Japan is located on part of the Circum-Pacific Earthquake and Volcanic Belt, where active earthquake faults and volcanoes exist. Historically, there have also been numerous tsunami disasters, making Japan one of the most disaster-prone countries.

Having made efforts to improve disaster management based on lessons learned from numerous natural disaster experiences, Japan has become one of the most advanced countries in disaster management in the world today.

On the other hand, natural disasters continue to increase in the world, and many developing countries suffer massive human and property losses, which impede their efforts for social and economic development.

As part of Japan's international disaster reduction cooperation, this program was planned by JICA and the ADRC to share knowledge and experience, among disaster management officials from various countries in order to reduce the loss of lives due to natural disasters and contribute to the international community.

(4) Trainees

19 trainees from 14 countries

(5) Seminar program

To study the Japanese disaster management system comprehensively, the seminar program consists of the following modules:

- 1) Report on disaster measures of each country and exchange their opinions
- 2) Study disaster management of the Japanese central government
- 3) Study disaster management of local governments including measures taken for the Hanshin-Awaji Earthquake
- 4) Study the role of the private sector in disaster management
- 5) Study activities for disaster reduction international cooperation
- 6) Train and practice disaster management activities
- 7) Develop an action plan and report it

The topics and outline of each module are as follows:

(1) Present situation and challenges of each country regarding natural disasters

- Topics (Implementing Organization)
 - Country reports by trainees (ADRC)

- Outline

At the beginning of the seminar, the trainees presented their “Country Reports” on disaster management in their countries. The “Country Report” session provided an opportunity for them to deepen their understanding of the disaster situations of other countries.



Fig. 3-1-6-1 Country Presentation

(2) Disaster management of the Japanese central government

- Topics

- Disaster Management at the National Government Level and International Cooperation (Cabinet Office)
- Emergency Relief Disaster Information Systems (Cabinet Office)
- Emergency Rescue and Relief (Fire and Disaster Management Agency)
- Tachikawa Disaster Prevention Base:
- Substitute Facility of the Government Headquarters for Disaster Response
- Role of the Hyper Rescue Team
- Flood Control Policy of the Japanese Government (Ministry of Land, Infrastructure and Transport)
- Meteorological Information for Disaster Prevention (Japan Meteorological Agency)
- Disaster Relief Law (Ministry of Health, Labour and Welfare)



Fig. 3-1-6-2 Cabinet Office

- Outline

At the Cabinet Office, the trainees attended a lecture on fundamental topics such as the Disaster Countermeasures Basic Act, the Basic Disaster Management Plan, and coordination between the central and local governments, and the budget for disaster reduction measures.

At the Fire Rescue Team Base in Tachikawa, the trainees observed a training of fire rescue team and visited various training facilities consisting of a fire fighting training building, high altitude rescue equipment, fire engines equipped with long-distance water supply capabilities, and rescue helicopters. Many of the trainees commented that they would like to have similar training facilities in their countries.

This module was a very important opportunity for the trainees to learn about Japan’s disaster management. Prevention and mitigation measures to minimize the impacts of disasters contribute greatly to the national economy. Therefore, it is very important for disaster-related organizations to cooperate with each other much closely.



Fig. 3-1-6-3 Tachikawa Disaster Management Base



Fig. 3-1-6-4 Meteorological Agency

(3) Disaster management by local governments in Japan

■ Topics

- Great Hanshin Awaji Earthquake (GHAE), Jan. 17, 1995 (Disaster Reduction and Human Renovation Institution)
- GHAE Nojima Fault Preservation Museum
- Disaster Management of Hyogo Prefecture (Hyogo Prefecture)
- Disaster Management by Kobe City (Kobe City)
- Disaster Management of Hokudan Town (Hokudan Town)
- Disaster Reduction Education at Schools (Maiko High School)
- Disaster Countermeasures and Emergency Treatment Training at Fire Department (CPR and AED training at Kobe City Central Fire Bureau)



Fig. 3-1-6-5 Hyogo Prefecture
Emergency
Management Center

■ Outline

The visit was made to the Disaster Reduction and Human Renovation Institution (DRI), which gives a general overview of the 1995 Great Hanshin Awaji Earthquake.

Then, the trainees had lectures on local government's disaster management at the Disaster Management Center of Hyogo Prefecture, then at the Crisis Management Office of Kobe City, and at the Nojima Fault Museum in Hokudan Town, Awaji Island. They studied countermeasures taken by Hyogo Prefecture and Kobe City, such as emergency measures, restoration and rehabilitation activities after the Great Hanshin-Awaji Earthquake. The Hyogo Prefectural Government constructed a large-scale disaster management base in Miki city, which serves as a back-up facility and as a fire and rescue training center. In Hokudan Town, some Great Hanshin-Awaji Earthquake survivors gave accounts on their experiences.

To see an example of disaster education at schools, they visited Maiko High school, whose Environment and Disaster Mitigation Course is the only of its kind among Japan's high schools. The trainees learned the implementation of disaster education at school and interacted with students.

At Kobe City Central Fire Bureau, the trainees had a practical training for both cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED).

(4) Roles of lifeline and insurance industries

■ Topics

- Disaster Management for Lifeline (1) (Osaka Gas Co., Ltd.)
- Disaster Management for Lifeline (2) (The Kansai Electric Power Co., Inc., The Central Load Dispatching Center)
- Disaster management for Communication (Nippon Telegraph and Telephone West Corporation)
- Introduction to Risk Management & Insurance for Natural Disasters (Tokyo Marine & Nichido Risk Consulting Co., Ltd.)



Fig. 3-1-6-6 Osaka Gas Co., Ltd.

■ Outline

To learn about disaster management practices in lifeline facilities, the trainees visited Kansai Electric Power Co., Inc. and Osaka Gas Co., Ltd. this year.

They visited the Head Office and the Central Load Dispatching Center of Kepco, where they learned that various kind of countermeasures are taken for stable supply of electricity after the Great Hanshin Awaji Earthquake..

They also visited the control center of Osaka Gas, which is equipped with the damper in the building foundation, and learned about the measures of gas supply service in disaster.

The trainees saw various examples, which showed them how the private sector and lifeline companies including public corporation play significant roles at the times of disaster.

Tokyo Marine & Nichido Risk Consulting Co., Ltd. gave a lecture about risk management and earthquake insurance of Japan, New Zealand and U.S.A. from the viewpoint of economic recovery.

(5) Countermeasures by Disaster Type

■ Topics

- Countermeasures for Sediment Related Disasters
Case Study: Sabo Works in Hyogo Pref. (Sabo=sediment control) Sabo Planning Workshop
Niagara Hillside Work
- Countermeasures for Road Disaster Case Study:
Road conservation works in Hyogo Prefecture
- Flood Countermeasures; “Flood Control of Osaka Prefecture”



Fig. 3-1-6-7 Field Trip to Sabo Site

■ Outline

The theme of this training module was measures for floods, sediment-related disasters, road disasters, and other natural disasters besides earthquakes.

The Erosion Control Division of Hyogo Prefecture provided a lecture on the Sabo, (sediment control) dams and afforestation of Mt. Rokko. After the lecture, the trainees visited one of the Sabo dams in Mt. Rokko.

As for flood control, the trainees made a field trip to a underground ricer at the Furukawa intake shaft, and a flood control green space at the Neyagawa river, where they gained valuable experiences.

For road disaster management, the trainees learned about the road information network for real-time disaster information acquisition, and the information dissemination system using electric bulletin boards for drivers, as well as the latest information management technology using GPS cameras.

(6) International Cooperation for Disaster Reduction

■ Topics

- International Forum on Tsunami and Earthquake
- Activities of International Emergency Rescue Team (Japan International Cooperation Agency; JICA)
- Activities of Red Cross Society (Japanese Red Cross Society)

■ Outline

The trainees attended International Forum on Tsunami and Earthquake in Kobe, Hyogo, Japan, to learn about the present and future trends in disaster management.

The trainees attended lectures by the JICA Emergency Rescue Team on various rescue and relief operations. The team had participated in areas struck by the Sumatra Earthquake and in countries affected by the following tsunami.

This seminar program provided an excellent opportunity for the trainees to develop a human network that they will be able to rely on when playing important roles in international cooperation for disaster reduction back in their respective countries.



Fig. 3-1-6-8 International Forum on Tsunami and Earthquake

(7) Thematic Disaster Management

■ Topics

- New Technology for Disaster Reduction: 3D Full-Scale Earthquake Testing Facility
- Protection of Cultural Heritage from Disasters Study Trip to Kyoto; Kyoto City Disaster Prevention Center Traditional Building Preservation Area
- First Aid Drill Hyogo Emergency Medical Center
- Public Awareness Raising Method: Town Watching
- GIS System and its Application in Disaster Management PASCO



- Public Awareness Raising Method: Town Watching Fig. 3-1-6-9 Town Watching Method Fuji Tokoha University
- GIS System and its Application in Disaster Management PASCO

■ Outline

The trainees visited a newly completed full-scale 3D earthquake testing facility. The facility is large enough to perform an actual three-dimensional ground movement situation on a shake table. The trainees were surprised to see the high technology used for the facility.

As for the method of raising public awareness of disaster reduction, Prof. Ogawa of Fuji Tokoha University organized a “Town Watching” tour.

In this walking tour, the trainees walked around a town to assess the current level of potential disaster risks and discuss what should be considered in the development of countermeasures. Then, the trainees prepared a Disaster Management Map based on the results of the Town Watching tour. Since this method can be easily implemented at the community level at low cost, it is expected that trainees will promote it among local communities of their respective countries.

PASCO lectured them on the GIS system and its application to disaster management.

(8) Presentation of Action Plan, Evaluation and Closing Ceremony

■ Presentation of Action Plan

At the end of the Seminar, each trainee made a presentation of action plan, which covers how they are going to find out specific solutions and countermeasures for various kinds of problems in their countries, based on the knowledge and policies which they learned through the Seminar. Each presentation was carried out in line with current problems, solutions, plans and helpful lectures. We could find out the effects of the Seminar in each presentation which included specific plans to be aimed at promotion of disaster capacity in each country.

■ Evaluation

The trainees were asked to answer a questionnaire to give their general opinions about this training course. Most trainees answered the Seminar was very helpful and they are satisfied. They also answered that “there should have been general explanations on how central government and local Japanese coordinate in disaster management.”, “wanted to reduce a time for traveling ”, or “wanted to reduce duplicated contents in lectures” As the organizer, we consider, in retrospect, that each week should have been organized by theme for higher effectiveness, and that there should have been a time for evaluation of each week. We will improve the course by incorporating these evaluation results and comments of the trainees into the course curriculum.

■ Closing Ceremony

Following the closing remarks by the organizer, the course certificates were presented to the respective trainees, and a group photo was taken. The representative of the trainees expressed their determination to use the knowledge and skills they learned in this course for the enhancement of their countries’ disaster reduction capabilities.

(9) Others

As in the previous year, two ADRC visiting researchers, one from Thailand and the other from Mongolia, participated in this program to exchange information with other participants.

Many of the trainees were impressed by the Japanese disaster management system, in which various efforts for disaster reduction are made not only by the central government but also by a wide spectrum of stakeholders in Japan. This ADRC-organized training program saw its sixth year, and further efforts will be exerted to make this program a better opportunity for the next year's trainees.

3-1-7. JICA Seminar on Iran Earthquake Disaster Management 2006

As part of its various collaborative projects with JICA (Japan International Cooperation Agency), ADRC conducted a “JICA Seminar on Iran Earthquake Disaster Management JFY2006” from 18 February to 3 March 2007. This was the second seminar to be held since last year. Twelve Iranian government officials were invited from related ministries, including the Management & Planning Organization, Ministry of Housing and Urban Development, Ministry of Interior, and Ministry of Science, Research and Technology.



Fig.3-1-7 Scenery of a Lecture

To enhance their disaster management capabilities by teaching them about the Japanese disaster management system, the program consisted of lectures focused on the following topics: (1) Japan’s basic concepts of disaster management, (2) countermeasures against earthquake disasters, (3) experiences and lessons learned from Great Hanshin-Awaji Earthquake in 1995, as well as (4) efforts to retrofit houses and buildings.

At the beginning of the seminar, two trainee representatives gave presentations on the disaster situation and disaster management systems in Iran. Later, the trainees visited various Japanese ministries and organizations including the Cabinet Office, Japan Meteorological Agency, and Kobe city government. On the final day, the trainees split into two groups to report on their future action plans based on what they had learned in Japan.