# 3. Accumulation and Provision of Information on Natural Disasters and Disaster Reduction

## 3-1. Policy and Methods

### 3-1-1. Policies on Accumulation

Based on the resolutions of 23 countries in the Asian region, ADRC has been collecting and organizing information on the situation of natural disasters in each country, as well as information, knowledge of and experiences with the systems, plans, and specific measures of each country for disaster reduction. This is to facilitate the sharing of information between countries. The development of such fundamental information infrastructures has been carried out with the aim of promoting the establishment of national disaster reduction systems in each country, and multinational cooperation for disaster reduction in Asia.

Last year, we collected information from the disaster reduction officers of various countries and other related organizations, and constructed a database of the latest information on recent natural disasters, information on disaster reduction systems such as judicial systems and organizations, actual studies of natural disasters that occurred with special attention being paid to the Great Hanshin-Awaji Earthquake, and human resource information on specialists of disaster reduction, with the intention of disseminating the information.

In our third year of activities this year, we have been able to collect more detailed and specific information through collaboration with foreign researchers and an information exchange with the Asian Disaster Reduction Unit of the United Nations Office for the Coordination of Humanitarian Affairs, which is described later. This is in addition to the existing means of collecting information. We have also been able to add these facts to the information that will be disseminated. We plan to continue collecting detailed information on the following, and release the information through the Internet and other media.

1. Disaster reduction systems (judicial systems, organizations, basic plans, and manuals on managing disasters, etc.)
2. Actual cases of disaster countermeasures (measures taken during major disasters in the past, etc.)
3. Information on natural disasters (descriptions and damage incurred by earthquakes, floods, cyclones, and other natural disasters)
4. Human resource information (disaster reduction administrators, experts, international organizations, private companies, NGO members, etc.)

### 3-1-2. Collecting Information from Member Countries, Etc.

In fiscal 2000, following last year, ADRC collected disaster reduction related information on various counties through the following methods:

**1) Requesting information from member countries**
While gaining the understanding of each member country on the purposes of establishing ADRC and needs of multinational disaster reduction cooperation, we have been asking member countries to provide natural disaster information, as well as on actual disaster cases and disaster reduction systems, and have been receiving such information from these countries.

**2) Survey of member countries**

We toured one member country Armenia during this fiscal year to verify the persons in charge of disaster reduction in this counterpart country, explain the purpose of ADRC's activities, obtain basic information on disaster reduction, and ask for the continued support of member countries.

As a result, Armenia pledged its support in providing information to ADRC, and ADRC was able to deepen relations with the disaster reduction administrators in the respective countries, heighten their understanding of our organization, and successfully obtain information on judicial systems and organizations, as well as exchange disaster reduction information.

**3) ADRC International Meeting**

At the Third ADRC International Meeting (December 5 to 7, 2000), member countries, and advisor countries, and countries and organizations participating as observers provided country reports and other materials that include natural disaster information, actual cases of dealing with disasters, and disaster reduction systems. They also voiced their requests concerning the activities of ADRC. In particular, this meeting was highlighted by the participation of representatives of United Nations organizations involved in disaster reduction such as the United Nations Office for the Coordination of Humanitarian Affairs, Asia Unit, the United Nations Centre for Human Settlements (HABITAT) Fukuoka Office, and the World Health Organization (WHO West Pacific Region Secretariat). The meeting proved to be a significant opportunity to locate potential multinational disaster reduction cooperation in the Asian region in the future.

**4) Use of WWW (World Wide Web)**

**Disaster reduction information in each country**

Following the last fiscal year, ADRC has been using the WWW to collect information on the disaster reduction systems of various countries, as well as related information from administrators in charge at international organizations and countries. In particular, India has been sending e-mails and disaster management information by the WWW since the Gujarat earthquake, which the ADRC places on its homepage as needed.

This year, with the cooperation of Indonesia's BAKORNAS and Bandung Institute of Technology, the following were set up in the Bandung University of Engineering; mirror site of the ADRC, disaster information database for Indonesia to provide disaster reduction information itself, and the server to manage these.

In the future, it will be important to track the trends of disaster reduction information supply in various countries, as well as support the active construction of information supply system from various countries through technical support for the construction of mirror sites and disaster information databases.

**Disaster reduction information of academic research institutions and international organizations**

In addition to these efforts, international organizations and research centers are actively collecting and providing disaster reduction information from various perspectives. Through the spread of the Internet services, systems to enable the use of this information over the Internet are gradually being established.

Among the many organizations and research centers, the Center for Research on the Epidemiology of Disaster (CRED), Louvain Catholic University, Belgium, has a disaster database (EM-DAT) carrying statistical data on natural disasters in the world which is available on the Internet.

While the EM-DAT serves as a database on statistic figures, OCHA provides information on natural disasters, and reliable information on disaster measures and management in an effort to support humanitarian activities during disasters at its Relief Web on the Internet.

With regard to ADRC's latest disaster information, the CRED and ReliefWeb databases are automatically linked to share disaster reduction information using the CRED disaster ID as the key. Furthermore, appeals are made to other disaster reduction related organizations to use common disaster IDs to broaden the circle of international disaster reduction information sharing.

## 3-1-3. Other Efforts

### 1) Installation of Mirror Sites in Member Countries

The ADRC set up a mirror server in the Bandung University of Engineering (ITB) to facilitate accesses to the ADRC from within member countries on March 7. The global IP address is 167.205.23.20 and domain name is ipadrc.itb.ac.id. The mirror site can be accessed at http://lpadrc.itb.ac.id/top.asp .

As the ADRC is currently connected by 127 kbps lines, the problem of information transmission speed has been a concern for some time. This was verified through an access experiment from ITB to the ASDR this time. ITB is participating in the WIDE project and though it currently has a 2 Mbps line, it requires more than one minute for the top page of the ADRC to appear. Some of the reasons for this are:

    \*Connection speed of the ADRC
    \*Processing speed of ADRC's web server
    \*Number of simultaneously connected clients and processing volume in ITB
    \*Backbone speed between the ADRC and ITB

The top two reasons can be improved by renewing the ADRC facilities. The bottom two cannot be dealt with with the current server. For this reason, mirror servers with good load distribution effects are expected, and at the same time it is important to set up mirror servers in universities in various countries with high speed lines and establish an environment which facilitates use of ADRC disaster reduction information.

Another function of the mirror server is it enables data input locally. An Indonesian disaster information database was set up to construct a local collaborative information service system. Efforts will not be limited to setting up mirror servers and sharing information. Currently, we will review the database operation system of the latest disaster information input centrally at the Kobe Office of the ADRC. By commissioning partner organizations in various countries to update disaster and disaster reduction information, more information can be provided and shared more quickly than now. In addition, currently information is provided in English and Japanese. By inputting information to the disaster information databases of each country in English and the local language, extensive use by people of various countries can be looked forward to.

In the future, Indonesia will be taken up as a model case and based on this, technical cooperation with Asian countries will be promoted. As the ADRC is composed of 23 member countries in Asia, four advisor countries and one observer, it hopes to set up mirror servers in all of its member countries in the future to provide various information such as accumulated type data (disaster information database, etc.), emergency relief information during disasters, image data from disaster-stricken areas. In order to promote such distributed information supply and sharing systems, there are a diverse range of items which need to be established; system package, operating manuals, clarification of role assignment of collaborating organizations. For this reason, it is ideal to implement a pilot project in Indonesia with whom the ADRC has an excellent partnership with, and through this project, establish the basis for joint projects in the future.

### 2) COE&PDC

#### Center of Excellence in Disaster Management Humanitarian Assistance    (Center of Excellence: COE)

The Executive Director of the ADRC Yujiroh Ogawa and Senior Researcher Bambang Rudyanto visited the Center of Excellence in Disaster Management Humanitarian Assistance in Honolulu on October 10, 2000. The center staff explained that the COE focuses especially on disaster management, humanitarian assistance, and peace keeping activities, aiming at humanitarian protection and reduction of damages during humanitarian crisis while obtaining the cooperation of the people and military. The first step in the cooperation between the COE and ADRC would be to exchange information to build a better relation. Currently, the ADRC receives daily reports on the Asian Pacific region from the COE Pacific Disaster Management Information Network (PDMIN) team via e-mail. The COE website URL is http://coe-dmha.org

#### Pacific Disaster Center (PDC)

ADRC's Bambang Rudyanto visited the PDC office on the island of Maui in Hawaii on November 17, 2000 guided by Peter Colvin. Several issues were discussed with mutual merits of the PDC and ADRC as the main purport, and it was agreed that the launch of joint activities based on the Global Disaster Information Network (GDIN) would be the first step of their partnership. Both centers have already started these activities as members of the GDIN and APDIN. (Asian Pacific Disaster Information Network). The PDC is an information organization of the federal government and supports crisis management of the Pacific and Indian Ocean coastal region. PDC's website is http://www.pdc.org.

## 3) ADPC and APDMC

**Asia Disaster Preparedness Center (ADPC)**
On February 19, 2001, ADRC's Execute Director Ogawa and Senior Researcher Hishita visited the ADPC in Bangkok to seek future collaborative potentials because it seemed the right time to reinforce their relations after the numerous visits they had made to each other since ADRC was launched in 1998.
ADPC is located on the second floor of the Outreach Building of the Asian Institute of Technology on the outskirts of Bangkok.
Opinions on the possibility of future cooperation were exchanged with ADPC's David Hollister, Deputy Executive Director and Kamal Kishore, Information Manager. The two sides agreed to exchange comprehensive MOU prescribing the framework of future partnership.
ADPC is a nongovernmental international disaster reduction training center established in 1986. Activities are diverse, and cover not only training programs, but consultation services and information services according to the needs of various countries and regions, as well as programs for enhancing regional disaster reduction ability.
It has more than 40 staffs and mentioned increasing more.
The ADRC has much to learn from the ADRC since it has 12 years more experience. In particular, the specialized efforts of the ADRC serve as useful reference to a center like the ADRC which works mainly to promote cooperation between the governments of member governments through the sharing of disaster reduction information. Exchange with the ADRC is also considered beneficial to the ADPC, and increased exchanges are looked forward to very much in the future.

**Asia Pacific Disaster Management Center**
The APDMC is a nongovernmental internal disaster reduction consultation organization in Manila, the capital of the Philippines. Based on the requirements of various countries and regions, mainly in the Asia Pacific region, it provides advice on the means to improve disaster reduction and crisis management for both natural disasters and man-made disasters from a professional standpoint. It also provides training programs to train specialists of the government and private level. The APDMC is of the same scale as the ADRC in terms of employee body. All activities are implemented based on contracts with clients and are thus project-oriented specialized consultation activities. Taking the APDMC as a specific example which can provide beneficial services regardless of the organization size, the ADRC looks forward to future exchanges and the promotion of cooperative partnerships being mutually located in the Asian Pacific region.