

3. Information Management on Natural Disasters and Disaster Reductuion

3-1. Policy and Methods

3-1-1. Policy

With the consent from the 24 countries in the Asian region, ADRC has been collecting and organizing information on the situation of natural disasters in each member country and , as well as information, knowledge and experience related to the systems, plans, and specific measures of each country for disaster reduction in order to facilitate information sharing of between member countries. ADRC has been committed to establishing the foundation for such an information network in order to promote establishment of national disaster reduction framework in each member country, and multinational cooperation for disaster reduction in Asia.

In addition, ADRC has collected information from related materials available, the disaster reduction officers of various countries and other related organizations, and constructed an up-to-date database of natural disasters and disaster reduction specialist resources, to help disseminate the information. Furthermore, through collaboration with visiting foreign researchers, the Asian Unit of the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA), and OCHA ReliefWeb Office in Kobe, ADRC has also obtained quick access to more detailed and specific information, which is incorporated in information ADRC disseminates.

ADRC will continue collecting and releasing detailed information on the following through the Internet and other media:

- ① Disaster management systems (legal frameworks, organizations, basic plans, and disaster management manuals, etc.)
- ② Actual cases of disaster countermeasures (taken by the member countries in the past)
- ③ Information on natural disasters (descriptions of natural disasters such as earthquakes, floods, cyclones, etc., and resulting damages)
- ④ Human resources information (disaster reduction administrators, academic experts, international organizations, private companies, NGO members, etc.)

3-1-2. Collecting Information from Member Countries

In fiscal 2003, as in the previous year, ADRC collected disaster reduction related information on member counties through the following methods:

1) Requests to member countries for information

ADRC has made efforts to gain the understanding of each member country on the purposes of establishing the ADRC and the need for multinational disaster reduction cooperation. Upon the request from ADRC, member countries have been providing natural disaster information, as well as information on actual disaster management measures and disaster reduction systems.

2) ADRC International Meeting 2004 (Refer to Chapter 2)

At the Fifth ADRC International Meeting (February 4 to 6, 2004), member countries, and advisor countries, and countries and organizations participating as observers provided natural disaster information including country reports, and other materials on actual cases of disaster management, and disaster reduction systems. They also voiced their requests concerning the activities of ADRC.

The Sixth ADRC International Meeting attracted attendance of many disaster-related international organizations, which also participated in the Third ISDR Asian Meeting co-hosted by the ISDR Secretariat Governments of Cambodia and Japan at the same location. Thus, the Sixth ADRC International Meeting provided a meaningful opportunity for reconfirming the need of building an international cooperation system for more diverse collaboration and more efficient disaster information sharing.

3) Use of WWW (World Wide Web)

(1) Disaster reduction information of each member country

As it did in the last fiscal year, ADRC is collecting information on the disaster reduction systems of member countries from WWW, in addition to related information provided by administrators in charge at international organizations and countries.

In the future, it will be important to keep a close eye on disaster reduction information provided by member countries, and provide technical and other forms of support to member countries for constructing disaster information databases for an information network that facilitates active involvement of member countries in information dissemination.

(2) Disaster reduction information provided by academic research institutions and international organizations

There are other international organizations and research institutions engaged in collecting and providing disaster reduction information from various perspectives. The Internet has expanded over recent years, gradually providing an infrastructure for access to such information.

However, such information is circulated via different and independent channels. As a result, it is not always easy to access the exact information needed. To resolve this problem and promote disaster-related information sharing, ADRC has proposed use of common disaster IDs. The disaster database (EM-DAT) run by CRED of Louvain Catholic University in Belgium provides access to statistical data of disasters all over the world via the Internet. While the EM-DAT serves as a statistical database, OCHA provides information on natural disasters and reliable information on disaster countermeasures and management at its "ReliefWeb" site on the Internet in order to support humanitarian activities during disasters. Use of common disaster IDs for the disaster reduction information will facilitate easy access to information of both EM-DAT and OCHA. ADRC intends to further promote the GLIDE (GLobal unique disaster IDentifier number) ID project launched in 2001 in order to facilitate effective integration of information disseminated by many disaster management-related organizations on the same disasters.

3-2. Information on Disaster Management Systems

3-2-1. Scope of Information

Major components of a disaster management system include a legal system that prescribes the due process to be followed by the government, organizations that implements actual measures under the government, and a basic plan for ensuring the establishment of the disaster management system. In addition, disaster management manuals, hazard maps, disaster management trainings and seminars, and disaster reduction education programs are also included.

4) Legal frameworks

Not all countries have national level laws comparable to Japan's "The Disaster Countermeasures Basic Act." In some countries, government decrees and rules of specified organizations provide for disaster management systems. The backgrounds and processes of formulating laws and regulation vary from country to country, and there is no single "Best way" for all countries. Still, shared information on disaster legislation of different countries will provide a useful reference to countries that are making efforts to establish similar legal frameworks or improve their current frameworks.

5) Organizations

Similarly to the case of legal frameworks, disaster reduction agencies vary from country to country. In addition, these organizations are often restructured while the fundamental legal framework for disaster reduction remains unchanged. Differences among countries in natural environments and socio-cultural background do not reduce the significance of studying organizational systems of other countries, in that the purpose "disaster reduction" is common to

all countries. Furthermore, knowledge of the roles and command chains of organizations of other countries is important to facilitate international collaboration for disaster reduction.

6) **Basic plans**

Many of the member countries are yet to strategically strengthen their disaster preparedness according to comprehensive disaster reduction plans. Open and shared information on disaster reduction plans of other countries will provide good reference materials for countries planning to formulate or revise their disaster reduction plans. Feedback and reviews that these countries would give will be useful in promoting multinational disaster reduction collaboration.

7) **Disaster manuals**

It is considered that most disaster manuals or hazard maps are compiled based on natural disasters experienced by each country or region, or on the type of natural disaster specific to that country or region. However, such manuals and hazard maps make it difficult for countries and regions having suffered same kinds of disasters to share experiences and information on countermeasures, and might cause inconveniences in the actual implementation of international, regional-national, or inter-regional cooperation. Therefore, as it was in the previous fiscal year, ADRC is committed to collecting information to enable the sharing of these existing disaster manuals and hazard maps. Waves of urbanization and globalization continue increasing the pace of changes, and ADRC will continue its effort for the Asian region to share valuable experiences, knowledge, and views of disaster management measures that have been accumulated in different countries and regions.

3-2-2. Level of Information Source

It is important to collect information not only at the national government level but also at local government (city, town and village) and community levels. This is because that the first to cope with a disaster is the individuals, and then local communities and municipal governments (cities, towns or villages). Central governments or the international society moves only when the disaster exceeds the capabilities of local governments. Legal and organizational frameworks established by a central government alone do not automatically improve actual disaster reduction capabilities and preparedness down to municipal and grassroot levels. To build a disaster-resistant society, cross-organizational cooperation is indispensable. Sharing of information at all levels is the first step to this goal.

3-2-3. Methods of Collecting Information

In 2003, as explained in 3-1-2, ADRC continued its effort to gather information on the disaster reduction systems of member countries through requests to them, field surveys, and international conferences, and by its own unique methods using the Internet.

Table 3-2-3-1 lists the reports provided from counterparts of member countries. All these reports are available on the ADRC website. Over recent years, disaster reduction organizations of many countries have been actively promoting information dissemination over the Internet. Therefore, the ADRC website has links to some of these websites, when it is more efficient to jump to them for the latest information than view the reports on the ADRC website.

Table. 3-2-3-1 List of reports from ADRC member countries

No.	Country	Year prepared
1	Armenia	2001, 2002, 2003
2	Bangladesh	1998, 1999, 2001, 2003
3	Cambodia	1998, 1999, 2002
4	China	1998, 1999
5	India	1998, 1999, 2002
6	Indonesia	1998, 1999, 2002, 2003
7	Japan	1998, 1999, 2002
8	Kazakhstan	1998, 1999, 2002
9	Korea	1998, 1999, 2001, 2002
10	Kyrgyzstan	Now Preparing
11	Laos	1998, 1999
12	Malaysia	1998, 1999, 2003
13	Mongolia	1998, 1999, 2002
14	Myanmar	2002
15	Nepal	1998, 1999
16	Papua New Guinea	1998, 1999
17	The Philippines	1998, 1999, 2002, 2003
18	Russia	1998, 1999
19	Singapore	1998, 1999, 2001, 2002, 2003
20	Sri Lanka	1998, 1999
21	Tajikistan	1998, 1999, 2003
22	Thailand	1998, 1999, 2003
23	Uzbekistan	1998, 1999
24	Vietnam	1998, 1999

3-2-4. Future Tasks

As for future tasks, ADRC will further reinforce and expand its database, analyze collected information, and identify the needs of the member countries based on such analyses in order to promote multi-national disaster reduction cooperation.

1) Reinforcement and expansion of the disaster reduction database

ADRC constructed a database on its homepage to give free access to disaster reduction system information it collects for member countries to share. It enables countries and regions to refer to actual examples from other countries to establish and improve their own national or regional disaster reduction systems. ADRC will continue updating and enhancing the contents of its disaster reduction database in cooperation with member countries to make the database more accessible and user-friendly.

2) Analysis of information and dealing with the needs of countries

Information becomes useful only when referred to for analyses. Analysis of collected information is beginning to help clarify the specific circumstances and needs of various countries. Some countries already have national level disaster reduction systems, while others are currently preparing to establish disaster reduction systems at the initiative of the central governments. It is considered that the former countries need to add improvements to enhance and reinforce their existing systems, while the latter group should give priority to the establishment of disaster reduction systems as part of intra-region cooperation.

In order to reduce Asia's vulnerability to natural disasters, it is essential for countries in the region to consider and include disaster reduction measures in their long-term basic national plans. The prerequisite for this to happen is that the central government as well as citizenry has a higher disaster reduction awareness. For a society to give equal weight to post-disaster emergency assistance and to disaster preventive preparations, it is always necessary for lawmakers, policy makers and planners to properly include and incorporate disaster reduction issues into the basic national and regional plans.

3) Promotion of cooperation

As agreed at the Sixth ADRC International Meeting (Feb. 4 to 5, 2004, Siem Reap), it is important to hold regular meetings of disaster reduction administrators and specialists from member countries for exchange of the latest information on disaster reduction systems and disaster management measures. It is also important for ADRC to continue making full use of its visiting researcher program launched in July 1999 so that researchers from the member countries working as its staff will help to promote active personnel and information exchanges in the Asian region. In addition, to reduce damages from natural disasters in Asia, there is mounting expectation that ADRC should serve as a facilitator in formation of a network human, technological, and physical resources in Japan and the other Asian countries for further promotion of exchanges in the region.