2. Formation of a Network for Sharing Information on Natural Disasters and Disaster Reduction

2-1. Formation of a Human Network

At the ADRC, we strive to establish a human network, the basic component in forming a network for sharing information on disasters in the Asian region.

2-1-1. International Meetings

Since the formation of a human network with counterpart member nations, advisory nations, and observers is indispensable in the promotion of disaster management cooperation in the Asian region, the ADRC held the first ADRC International Meeting in February 1999, a second in December of the same year, and a third in December 2000 in Kobe. Vice-ministers, heads of bureaus and departments, and other high-level officials in charge of disaster management from various countries came together to actively exchange their opinions. (Tables 2-1-1-1, 2-1-1-2, 2-1-1-3, 2-1-1-4).

Such personal exchanges are expected to lead to the swift and effective gathering of information in the future.

Table 2-1-1-1 Member countries

Classification: ①Supervisor ②Contact person ③Attended 3rd Intl. Meeting

Country	Classification	Name	Title
Armenia	①②③	Dr. Serguei Balassanian	President, National Survey for Seismic Protection, Government of the Republic of Armenia
Bangladesh	①	Mr. Hiralal Bala	Secretary, Ministry of Disaster Management and Relief, Bangladesh Secretariat, Dhaka
	②③	Mr. Khabiruddin Ahmed Khabir	Joint Secretary, Ministry of Disaster Management and Relief, Government of the People's Republic of Bangladesh
Cambodia	①②③	Mr. Samy Peou	Secretary General, National Committee for Disaster Management
China	①②	Mr. Zou Junyu	Deputy Director-General, Department of International Cooperation, Ministry of Civil Affairs
	③	Mr. Kang Peng	Director, Department of International Cooperation, Ministry of Civil Affairs
India	①	Mr. Bhagat Singh	Additional Secretary & Central Relief Commisioner, Ministry of Agriculture
	②③	Mr. S. K. Swami	Director, Department of Agriculture & Cooperation, Ministry of Agriculture

Country	Classification	Name	Title
Indonesia	①	Mr. H.B.Burhanudin	Assistant Disaster Management, Coordinator Minister for People's Welfare and Poverty Alleviation
	②	Mr. Budi Atmadi Adiputro	Ir., Disaster Management Division, Office of the Ministry for People's Welfare and Poverty Alleviation
	②	Mr. Adang Setiana	Coordinator Minister for People's Welfare and Poverty Alleviation
	③	Ms. Nannie Hudawati	Deputy Assistant for International Relation and Disaster Information System, National Coordinating Board of Disaster Management
Japan	①	Mr.Kazuya Yoshii	Director-General for Disaster Management, Cabinet Office
	②③	Mr. Toshiyasu Noda	Director for Disaster Preparedness, Cabinet Office
Kazakhstan	①	Mr. Alexander Kravchuk	Director, Department for Emergency Prevention, Emergency Agency
	②	Mr. Nurlan Panzabekov	Head, International Cooperation Office, Emergency Agency
	③	Mr. Yerlan Baudarbek-Kozhatayev	First Secretary, Embassy of Kazakhstan
Lao PDR	①	Mr. Soukata Vichit	Director General, Department of Environmental Quality Development and Promotion, Science Technology and Environment Organization (STENO)
	②	Mr. Sitha Phouyavong	Acting Director-General of Cabinet Science Technology and Environment Agency
	③	Mr. Singsavanh Singkavongxay	Head of Environment Data Center, Environment Research Institute, Science Technology and Eivironment Agency
Malaysia	①③	Mr. Mohamad bin Haji Yaakub	Director, Crisis and Disaster Management Unit, National Security Division, Prime Minister's Department
	②	Mr. Abdul Khadir Othman	Deputy Director, Crisis and Disaster Management Unit, Division of National Security, Prime Minister's Department
Mongolia	①	Mr. T. Enebish	Director, Department of Strategic Management and Planning, Ministry for Nature and the Environment
	②	Mr. D. Enkhbold	Officer, Department of Strategic Management and Planning, Ministry for Nature and the Environment
	③	Mr. Namjildorj Nyamdorj	Officer, Department of Strategic Management and Planning, Ministry for Nature and the Environment
Myanmar	①	Colonel Myint Htun	Director General, Fire Services Department (H.Q), Ministry of Social Welfare, Relief and Resettlement
	②	Mr. U Zaw Win	Director, Fire Services Department (H.Q), Ministry of Social Welfare, Relief and Resettlement
Nepal	①	Mrs. Usha Nepal	Joint Secretary, Disaster Relief Section, Ministry of Home Affairs
	②③	Dr. Meen Bahadur Poudyal Chhetri	Under Secretary, Disaster Relief Section, Ministry of Home Affairs
Papua New Guinea	①③	Mr. Leo Meninga	Secretary, Chairman of National Disaster Committee, Dept. of Provincial and Local Government Affairs
	②③	Mr.Kaigabu Kamnanaya	Assistant Director (Risk Management), National Disaster Management Office, Department of Provincial and Local Government Affairs

Country	Classification	Name	Title
Philippines	①②	Dr. Melgabal Sta.Barbara Capistrano	Administrator, Office of Civil Defense, Department of National Defense
	③	Ms. Rosario Cabrera	Regional Director, Office of Civil Defense, Department of National Defense
Korea	①	Mr. Jong-Pal Lee	Director-General, Disaster Prevention and Preparedness Bureau, Ministry of Government Administration and Home Affairs
	②③	Mr. Jinyong Kim	Director, Disaster Preparedness Division, Ministry of Government Administration and Home Affairs
	③	Dr. Keumho Oh	Senior Analyst, National Institute for Disaster Prevention, Ministry of Government Administration and Home Affairs
Russia	①	Mr. Yury Brajnikov	Chief, Dept. Of International Cooperation, EMERCOM of Russia
	②	Dr. Vladimir Kuvshinov	Deputy Chief of Desk, Dept. of International Cooperation, EMERCOM of Russia
	③	Ms. Svetlana Bandurkina	Senior Expert, Dept. of International Cooperation, EMERCOM of Russia
Singapore	①	Mr. Comr James Tan Chan Seng	Commissioner, Singapore Civil Defence Force, Ministry of Home Affairs
	②	LTC Christopher, Tan Eng Kiong	Head, Planning Dept., Singapore Civil Defence Force, Ministry of Home Affairs
	③	Mr. Phua Huat Hor	Head, Operations Planning Branch, Operations Department, Singapore Civil Defence Force, Ministry of Home Affairs
	③	Mr. Abdul Razak bin Abdul Raheem	Head, Public Relations Branch, Public Affairs Dept., Singapore Civil Defence Force, Ministry of Home Affairs
Sri Lanka	①	Mr. Amara Hewamadduma	Secretary, Ministry of Social Services
	②	Mr. W.B.J. Fernando	Director, National Disaster Management Centre, Ministry of Social Services
	③	Mr. W. A. Chulananda Perera	Deputy Director, National Disaster Management Centre, Ministry of Social Services
	③	Mr. Kande Gamaralalage Wijayasiri	Assistant Director, National Disaster Management Centre, Ministry of Social Services
Tajikistan	①	Mr. Bobogado Boltaev	Chief, State Emergency Committee
	②	Mr. Bahrom Mamadaliev	Head, Dept. of the Territory and Population Protection, State Emergency Committee
	③	Dr. Abdurakhim Radjabov	First Deputy Minister, Ministry of Emergency Situation and Civil Defense
Thailand	①	Mr. Pramuan Ruchanaseree	Director-General, Local Administration Dept., Ministry of Interior
	②	Mr. Chainarong Vasanasomsithi	Chief of Planning Section, Civil Defence Division, the Department of Local Administration, Ministry of Interior
	③	Mr. Wachira Chotirosseranee	Governing Officer, Civil Defence Division, General, Ministry of Interior
Uzbekistan	①	Mr. Sosnovsky Valentin Olegovich	Leader, Dept. Of Emergency Situation, Cabinet Ministry
	②	Mr. Abdullaev Zafar Azizovich	Chief of Staff, Secretariat of the Dept. of Emergency Situation, Cabinet Ministry
	③	Mr. Farrukh Mukhsinovich Alimov	Leader Expert, Dept. of Emergency Situation, Cabinet Ministry

Country	Classification	Name	Title
Viet Nam	①	Mr. Nguyen Sy Nuol	Deputy Director, Standing Office of the Central Committee For Flood and Storm Control, Dept. of Dike Management & Flood & Storm Control, Ministry of Agriculture and Rural Development
	②	Mr. Nguyen Huu Phuc	Deputy Director, Disaster Management Center, Dept. of Dike Management & Flood & Storm Control, Ministry of Agriculture and Rural Development
	③	Mr. Nguyen Ty Nien	Director, Department of Dike Management & Flood & Storm Control, Ministry of Agriculture and Rural Development
	③	Mr. Le Xuan Truong	Expert, Department of Dyke Management & Flood & Storm Control, Ministry of Agriculture and Rural Development

Table 2-1-1-2 Advisory Countries
Classification: ①Supervisor ②Contact person ③Attended 3rd Intl. Meeting

Country	Classification	Name	Title
Australia	①	Mr. David Templeman	Director General, Emergency Management Australia
	②	Mr. Rod McKinnon	Director, Policy, Planning and Coordination, Emergency Management Australia
	③	Mr. Morris Bradley	Director of Business Management, Emergency Management Australia
France	①	Mr. Didier Montchamp	Directeur de Cabinet, Direction de la Securite Civile, Ministere de l'Interieur
	②	Mr. Michel F, Morin	Directeur, Direction de la Defense et de la Securite Civiles, Ministere de l'Interieur
	③	Mr. Anthony Rossignol	Assistant, Embassy of France
New Zealand	①	Mr. John Norton	Director, Ministry of Civil Defence and Emergency Management
	②	Dr. Neil Britton	Manager, Sector Development Unit, Ministry of Civil Defence and Emergency Management
Switzerland	①③	Mr. Beat Kuenzi	Senior Program Officer, Division for Humanitarian Aid and Swiss Disaster Relief
	②	Dr. Dieter Wepf	Chief Security Officer, Representative SDR, Division of Humanitarian Aid and Swiss Disaster Relief
	③	Dr. Markus Zimmermann	Member of SDR, Member of the Specialized Group "Prevention/Preparedness"

Table 2-1-1-3 Observer
Classification: ①Supervisor ②Contact person ③Attended 3rd Intl. Meeting

Country	Classification	Name	Title
ADPC	①	Dr. Suvit Yodmani	Executive Director, Asian Disaster Preparedness Center
	②	Mr. David Hollister	Deputy Executive Director, Asian Disaster Preparedness Center
	③	Mr. Aloysius J. Rego	Director, Planning Development and Partner Relations, Asian Disaster Preparedness Center

Table 2-1-1-2 Advisory Countries

Classification: ①Supervisor ②Contact person ③Attended 3rd Intl. Meeting

Country	Classification	Name	Title
USA	③	Mr. James H. Hall	Minister-Counselor for Environment, Science and Technology Affairs, US Embassy
APDMC	③	Mr. Sanny Jegillos	Director, International Operations, Asia Pacific Disaster Management Center
UNCHS (Habitat)	③	Mr. Madhab Mathema	Senior Human Settlements Advisor, UNCHS(Habitat) Fukuoka Office
UNCRD	③	Dr. Michiyo Sugai	National Expert, Disaster Management Planning Hyogo Office, United Nations Centre for Regional Development
	③	Mr. Kazushi Maki	Associate Expert, Disaster Management Planning Hyogo Office, United Nations Centre for Regional Development
UNOCHA	③	Ms. Feng Min Kan	Regional Advisor, Asian Disaster Response Unit, United Nations Office for the Coordination of Humanitarian Affairs(OCHA)
	③	Ms. Takako Izumi	Program Assistant, Asian Disaster Response Unit, United Nations Office for the Coordination of Humanitarian Affairs(OCHA)
WHO	③	Dr. Yoshihiro Takashima	Coordinator, Emergency and Humanitarian Action, World Health Organization Western Pacific Regional Office

<Titles of the participants of ③ are the same as the time of participation.>

2-1-2. Outline of Third International Meeting

The Third International Meeting is outlined in the following:
- Duration: December 5 (Tuesday) to 7 (Thursday) 2000
- Venue: Asia Disaster Reduction Center
  (International Health Development Center Building: Chuo-ku, Kobe, Japan)
- Participants: Total 60 including 40 international experts on disaster reduction from 26 nations and 6 organizations (Table 2-1-1-1 through 2-1-1-4) and other participants.

4) Outline of Conference
At this conference, along with the themes "Cooperation on Disaster Prevention in Asia", "International Emergency Aid Lessons Learnt from Recent Disasters", and "Sharing Information on Disaster Reduction," it was agreed that further cooperation on disaster reduction will be promoted in accordance with the actual situation of each country. Further collaboration on disaster measures and international emergency aid will be promoted in times of disaster in each respective country, and information on disasters and disaster prevention will be shared using technologies such as the Internet to support these activities. In addition, by applying the respective resources and abilities of participating countries and organizations, cooperation on disaster reduction will be promoted with the aim of reducing and preventing damage from natural disasters in the Asian region in the 21st century.

5) Results of Conference
Natural disasters in the Asian region include earthquakes, tsunamis, volcanic eruptions that to occur frequently, as well as floods and cyclones, occurring on a increasing scale due to global climate changes. In the 21st century, the world may experience natural disasters of an even greater magnitude. Faced with this situation, participating countries and organizations agreed on the following items, and cooperation on disaster reduction in the Asian region based on these agreements are anticipated.

1. Evaluation of specific activities
The Tsunami Pamphlet, compiled as a result of the Tsunami Disaster Reduction Enlightening Project undertaken by the ADRC and the government of Papua New Guinea last year, has been reported to have proved useful in actual tsunami disaster reduction (November 2000) by helping to achieve zero human casualties despite material damage, for which Papua New Guinea expressed its gratitude and appreciation. The Tsunami Pamphlet has also been distributed in countries facing the risk of tsunamis such as the Philippines and Indonesia, and has been well received.

2. Promotion of international cooperation such as "Disaster Reduction Human Network Support"

The ADRC has until now received six persons involved in disaster reduction from member countries to train them as disaster reduction specialists. It was agreed that in the future, support and collaboration will be promoted to train disaster reduction specialists and regional leaders locally. First, the disaster handling capacity of persons involved in disaster reduction in Cambodia and Sri Lanka will be reinforced, and in Indonesia and Nepal, training of regional leaders and the spread of information will be implemented among residents. By developing the results of these activities in other member countries, which face similar problems in the aftermath of disasters, it will contribute to the reduction of natural disasters in the whole of the Asian region.

The ADRC signed a memorandum with Cambodia and Nepal on the promotion of the collaborative project on December 6.

3. Reinforcement of support for international emergency aid such as "Emergency Aid Resource Database"

Recognizing the strong need for support in times of large scale disasters in the Asian region, the ADRC will build a database containing information related to emergency aid organizations which can provide the aid sought, specific aid methods, details of support, and support provided until now ("Emergency Aid Support Resource Database"), and provide the information by methods such as the Internet. The ADRC shall also strengthen its partnership with the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), and support information services so that international emergency aid organizations like the United Nations can reply promptly to requests of various countries.

4. Sharing of disaster reduction information

The further collection and sharing of information on disasters is indispensable to the reduction of damage incurred by natural disasters, emergency measures implemented in times of disasters, and strengthening disaster reduction efforts such as recovery and restoration. For this reason, the ADRC will use the latest scientific technologies such as satellite image information and remote sensing to provide disaster and disaster reduction information to member countries and related organizations in conjunction with the flow of the Global Disaster Information Network.

5. Tasks and direction of ADRC

Invaluable opinions were exchanged on the tasks and direction of the ADRC in the future, and the following guidelines were indicated:

*As the collection and provision of disaster reduction and disaster information are important functions of the ADRC, the continued activities of the ADRC as the "pathway" to disaster reduction information are anticipated.

1. Activities to spread disaster reduction information and educate are vital in reducing damage caused by natural disasters.
2. Promotion of disaster reduction cooperation projects corresponding to the actual situation of each country is required.
3. Intermediary function with disaster reduction related organizations from different sectors are necessary.
4. Clarification of future strategies and focus on main activities are looked forward to.

6. General Summary

In order to strengthen disaster reduction capabilities in Asian countries, the ADRC will continue to enhance the collection of disaster and disaster reduction information in various countries to fulfill its role as the disaster reduction information center in Asia. It will then share the gathered information, and at the same time build a database on organizations and resources which are available in times of large scale disasters, as such as international emergency aid organizations to support the prompt implementation of disaster measures in each country.

The ADRC expressed its hope that participating countries would also actively provide disaster reduction related information to the ADRC.

Given the future tasks of clarifying future strategies and focusing on main activities, the ADRC plans to continue fulfilling its roles in reducing and preventing natural disasters in the Asian region in the 21st century.

2-1-3. Participation of Armenia as Member Country

The ADRC sent researchers to Armenia to visit their earthquake disaster reduction research center and explain the aims and activities of the ADRC. As a result, Armenia joined the ADRC in August, 2000 as the 23rd member.

2-1-4. Receiving Visiting Researchers of Member Countries and Activities

Based on the agreement of member countries at the First International Meeting, ADRC has been receiving visiting researchers. So far, we have received five persons under this program to reinforce disaster reduction measures of member countries.

The following outlines our program for accepting visiting researchers:

1) Korea

Shim Kee-Oh

Title at the time of visit: Project Manager, Nation's Institute for Disaster Prevention (Drought control), Ministry of Government Administration and Home Affairs.

Duration: August to October 1999

Conducted research on drought control in Japan. In addition to the introduction of drought control in Korea, he has investigated and reported on recent drought disasters that hit Viet Nam and Papua New Guinea.

2) Viet Nam

Ngo van Sinh

Title at the time of visit: Water-related Disaster Management Specialist, Disaster Management Center, Committee for Flood and Storm Control, Department of Flood Management, Flood and Storm Control, Ministry of Agriculture and Rural Development of S.R. Viet Nam

Duration: December 1999 to March 2000

Apart from presenting information concerning the disaster reduction system and flood control in Viet Nam, he has studied flood measures in Japan while visiting related organizations. He conducted research under Professor Takara and Assistant Professor Toda, Disaster Reduction Institute, Kyoto University, in the area of water-related disasters.

3) Nepal

Lek Nath Pokharel

Title at the time of visit: Section Officer, Disaster Relief Section, Ministry of Home Affairs

Duration: January to May 2000

Apart from presenting information on the disaster relief system in Nepal, he has studied soil- and sand-related disasters in Japan while visiting the relevant organizations. He researched under Assistant Professor Nakagawa, Disaster Prevention Institute, Kyoto University.

He has also compiled a report on the possible collapse and flood management of the glacial lake, Tsho Rolpa in the Himalayas and researched under Professor Ueda (cryospheric variation) at the Atmosphere-Hydrosphere Science Institute, Nagoya University

4) Sri Lanka

Nimal Dharmasiri Hettiarachchi

Title at the time of visit: Deputy Director for Disaster Relief, Department of Social Services, Ministry of Home Affairs

Duration: April to October 2000

Currently investigating disaster measures of various countries in addition to Sri Lanka's disaster reduction system and disaster information services. He is planning to visit related organizations including the Kyoto University Disaster Reduction Center. His interests lie in sustainable development and disaster reduction.

5) Bangladesh

M. Babul Akhter
Title at the time of visit: Assistant Manager, Palli Karma Shayak Foundation, Treasury Department
Duration: May to November 2000
Engaged in Bangladesh's disaster reduction system and disaster information service, as well as involved in joint project with the World Bank applying his experience in small scale loans to NGO's.

6) Sri Lanka
Chulananda Pelera
Title at the time of visit: Deputy Director, Sri Lanka Ministry of Social Welfare, National Disaster Management Center
Duration: November 2000 to April 2001/05/27 Report on Sri Lanka's natural disasters, disaster reduction systems, and organizations such as the National Disaster Management Center. Also compiling the disaster reduction-training manual required by Sri Lanka.

7) Armenia
Ripshima Bardanyan
Title at the time of visit: Secretary to Director, Armenia National Earthquake Center (NSSP)
Duration: March to June 2001
Reported on natural disasters such as the Spitak earthquake and disaster reduction organization such as NSSP. To survey the disaster reduction situation in Japan, he will visit disaster reduction related organizations like the cabinet office, Hyogo Prefecture, Shizuoka Prefecture, etc.

2-1-5. Joint Projects between UN OCHA and ADRC
Since the set up of an Asia Unit by OCHA in the ADRC as a joint project between the two organizations in February 1999, OCHA and ADRC have been exchanging various information as well as collaborating closely.
Main collaborations have been as follows;
Use of ADRC's human network

1) The OCHA Asia Unit is able to use at any time, ADRC's networks with the disaster reduction secretariats of member countries and disaster reduction related organizations. They can also exchange opinions with researchers of member countries currently visiting the ADRC.

2) Provision of disaster information through UNDAC (United Nation's Disaster Assessment)
Because the ADRC is informed of disasters investigated by district advisors such as China, Mongolia, and Cambodia at the actual disaster areas in UN's UNDAC missions whenever requested, the ADRC is able to provide the corresponding information via the Internet, and share it with municipals and NGOs dealing with emergency aid.

3)Of the three sessions, the "International Emergency Aid Lessons Learnt from Recent Disasters" session saw discussions and exchange of opinions by participants on the situation of natural disasters in member countries such as Mongolia and Cambodia with district advisors as the mediator, resulting in a productive meeting.

4) ADRC Open House
In August 2000, the ADRC held an ADRC Open House, which introduced the activities of the center to the local residents of Hyogo Prefecture, Kobe City, etc. During the event, the OCHA Asia Unit described their activities related to assessment of damages incurred by disasters and international emergency aid coordination activities, which were well received by the public and media.

5)JICA Disaster Reduction Administrator Seminar
The ADRC held a disaster reduction administrator seminar in January and February 2001 for administrators of developing countries under the commission of JICA (Japan International Cooperation Association). During the seminar, the district advisor of the OCHA Asia Unit explained the role of the UN in disaster measures, especially the activities of OCHA. This deepened the understanding of participants in the roles and activities of OCHA.

2-1-6. Cooperation with Other International Organizations and Initiatives

1) EMI The Earthquakes and Mega cities Initiatives Workshop

The Earthquakes and Mega cities Initiative (EMI) is a non-profit international earthquake disaster reduction research organization. EMI has working groups in five areas of the world, in which multiple large cities participate. Its aim is to promote earthquake disaster reduction measures through mutual cooperation.

In East Asia, cluster cities disaster reduction conferences attended by Shanghai in China, Manila, capital of Philippines, Seoul of Korea, and Kobe City of Japan. In November, 2000, the conference was held in Seoul, Korea.

Based on its longtime relationships with Kobe City and EMI, the ADRC supported Kobe City at the city workshop of the East Asia Group, and during the previous conference, supported the implementation of the 3-city disaster reduction conference attended by Shanghai, Manila and Kobe. In the recent Seoul conference, Seoul participated for the first time with the three cities above, and intense discussion was carried out between the four cities. Here, it must be noted that Seoul used to be considered a country relatively free of large earthquakes, but has recently been experiencing increasing frequency of larger earthquakes. There are some researchers who predict that an earthquake of magnitude 5 on the Richter scale will hit Seoul city within the next 15 years, and the city has begun in-depth review of earthquake disaster reduction measures. From its experience during the Great Hanshin Awaji Earthquake, Kobe City is expected to be asked by the other three cities to provide advice in various aspects of the disaster. The ADRC is planning to provide as much support as it can to promote cooperation and exchange among the four cities.

2) SAGIP International Conference

Based on the agreement reached in the Asia Region Forum, the Philippines started efforts to promote a multinational framework (SAGIP) in disaster measures with the U.S. and Australia in 1999. The ADRC attended the meeting in October 2000 (Makati, Manila, Philippines) as an observer. The participants were defense and disaster related officials of the 18 countries participating in the ASEAN region forum whose main members are the Philippines, the U.S., and Australia, and UN OCHA.

SAGIP means "relief" in Taglog. The first meeting was held in 1999 on the occasion of the ARF inter-sessional meeting (participants were Philippines, U.S., and Australia).

In this meeting, opinions were exchanged on the topics "early warning system", "decision making and planning process", "disaster measures and restoration and recovery", and "reduction of disasters by disaster reduction" based on the theme "promotion of multinational cooperation in disaster measures". The ADRC also reported on its construction of a disaster reduction database and tsunami disaster reduction educational programs, etc. as examples of multinational disaster reduction cooperation in Asia, and these efforts were highly praised.

(A characteristic of SAGIP was that military and civilian officials involved in disasters attended it to exchange opinions on possible multinational cooperation. The Japanese government only sent its locally stationed defense official. In the future, potential organizational cooperation in disaster measures within the Asia Pacific region should continue to be reviewed.)

3) Centre for Research on the Epidemiology of Disaster, Louvain Catholic University, Brussels (CRED)

The ADRC and Centre for Research on the Epidemiology of Disaster, Louvain Catholic University, Brussels (CRED) agreed on the "MOA between CRED and ADRC on the collaboration of information and data on disasters, concerning cooperation in collecting disaster prevention information" on November 5, 1999. Its aim was to comprehensively track information on disasters which occurred in the Asian region during the past century, and to construct the "Comprehensive Database on Asian Natural Disasters in the 20th Century", which will serve as an asset for reinforcing disaster prevention in each Asian country in the next century. CRED is the only organization in the world with a general natural disaster database. The two parties will disseminate disaster information while sharing and supplementing data.

It was confirmed at the GDIN meeting in March 2001 that the ADRC would promote the Unique ID project proposed in GDIN with ReliefWeb.

4) ReliefWeb (OCHA)

The ReliefWeb of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) provides reliable information on natural disasters and disaster measures via the Internet to support humanitarian aid activities in times of disaster. Since its launch, the ADRC has linked its homepage to the ReliefWeb and built a system, which allows UN information to be browsed efficiently via the ADRC web. From the broad variety of information of various countries available at the ADRC homepage, the ReliefWeb also started to link its homepage to ADRC's web page as a source of disaster reduction information from different countries with the aim of sharing information, and provide efficient information to respective users.

ReliefWeb is currently collecting and providing information in New York and Geneva. Because it is unable to cover 8 out of 24 hours due to the time difference, they have been considering setting up an antenna office in the Asian region.

Based on the existing relationship between ReliefWeb and ADRC, and from the fact that the OCHA Asian Unit is set up within ADRC, OCHA and the Japanese government are currently considering further expanding this Asia Unit and setting up the ReliefWeb antenna office in ADRC.

The antenna office is expected to open as early as the first half of 2001, once the environment has been established.

5) GDIN (Global Disaster Information Network)

The GDIN (Global Disaster Information Network) is a project which was launched by the initiative of the U.S. Department of State (Secretary: Larry Roeder, Policy Advisor, IO/PPC, US Department of State). Its aim is to construct a framework to implement international partnership systematically for sharing disaster information, through this framework improve access to existing information, and implement efficient use of the information to "provide relevant and reliable information promptly to those who require it in a precise form.

Particularly, being able to determine the situation as quickly as possible when a disaster has just occurred is a crucial task. Active use of satellite information and GIS is also taken into consideration.

Since this initiative aims not to compete with existing information organizations but to collaborate with these organizations and effectively use their assets, it shares similar activities and goals as the ADRC.

To date, three international GDIN conferences have been held;

1st: July 16 and 17, 1998 in Washington DC
2nd: May 11 to 14, 1999 in Mexico City
3rd: April 26 to 29, 2000 in Ankara

Prior to the 4th international conference held in Canberra from March 21 to 23, 2001, a pre-meeting (Asia Pacific Working Group Meeting) was held in Canberra between August 16 and 18, 2000.

Having attended the 3rd Ankara meeting, the ADRC has been actively participating in this global disaster reduction information sharing initiative this year by becoming a member of the Asia Pacific Working Group, which has been set up for the 4th conference. (The 4th conference will be discussed later.)

2-2. Network for Sharing Information on Natural Disasters and Disaster Reduction

2-2-1. Configurations of ADRC Network and Information Equipment

Fig. 2-2-1-1. shows the construction of the ADRC network and information equipment. The Internet is reached via the inter-ministry information network (IMnet) and private lines connected to the Osaka NOC IMnet access point. The IMnet promotes the flow of information required for studies carried out between national research centers, special foundations, and research organizations which conduct joint research projects with these organizations, to contribute to the sharing of research information infrastructures at these organizations and the international flow of research information. Currently, the 128 kbps speed of the exclusive lines for connecting to the IMnet poses as the bottleneck of the network. ADRC is thus planning to construct a network which can handle anything from text to live images by applying the latest broad band technologies available, such as the ADSL and FTTH, etc. In consideration of security, the ADRC separates its network inside and outside the center, and installs a firewall in between. The intra-network is connected to the laptop computers of employees, and desktop PCs with various server functions. Each of these PCs is assigned a private IP address, which is valid only inside the center. When a server inside the center is accessed, the built-in address converter function in the firewall converts it to private address in the center so that it can be sent to the server requested. The firewall converts global IP addresses to private IP addresses, as well as controls the passage of packets based on the rules that deal with protocol, and the source and destination of packets. This enables minute restriction of access to the internal systems of the ADRC, as well as the monitoring of illegal accessing.

Fig. 2-2-1-1 Configuration of ADRC Network and Information Equipment
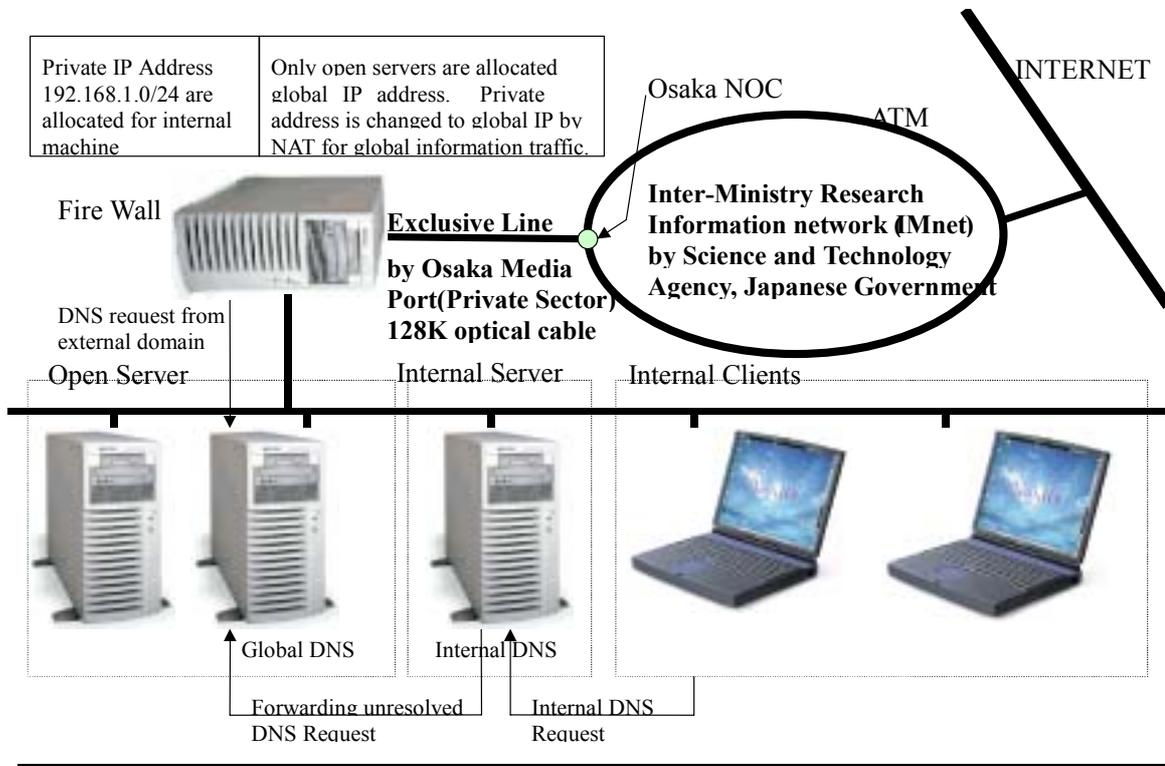
Particularly, for common Internet crimes seen in recent years such as attacks on mail services and web servers, efforts were made to upgrade to a more reliable system, and to implement stringent operations rules for center staff. This has helped prevent Internet crimes such as impersonations by outsiders and rewriting of the homepage, etc; however, to maintain network functions, unrelenting measures to counter Internet crimes are being sought. Peripheral equipment installed includes equipment for network meetings such as CCD cameras and in cams, portable media such as memory stick and compact flash, etc., backup devices such as CD-Rom, MO, and DAT, printers such as black/white laser printers and color laser printers, and raster image input equipment such as flat head scanners and film scanners, and digitizers for inputting digital data.

2-2-2. ADRC Website

As shown in Fig. 2-2-2-1, the ADRC homepage provides information on the following: Recent Disaster Information, Disaster Reduction Specialist Information, Great Handshin-Awaji Earthquake Information, Disaster Reduction Training Information, Member Country Report Information, Disaster Reduction Training Information, Disaster Reduction System Information, Disaster Reduction Calendar Information, and Conference and Academic Meetings Information (URL.http://www.adrc.or.jp). These eight subject areas are accumulated in the form of corresponding databases. When accessed through the Internet, the information is retrieved from the database, and sent in hypertext format to the user while referring to instructions as to the color and layout the information should be displayed to the user. By adopting separate systems for information and layout, etc., such as a database for information, and instructions for the layout, etc., the data administrator is released from complicated tasks such as layout settings. At the same time, layout can be changed freely and collectively according to user needs and the progress of technological innovation. By providing two types of doors for the users according to information category through this data management method, directories for facilitating the access of information can be used. (Refer to Fig. 2-2-2-1.)

Fig. 2-2-2-1 Seven Disaster Prevention Information Databases (left)
Fig. 2-2-2-2 Latest Disaster Prevention Information Database and Screen Layout (right)
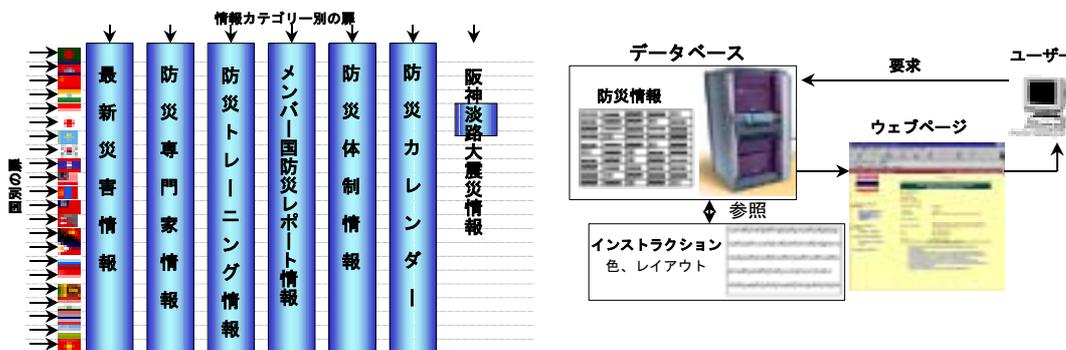
As one example, "Latest Disaster Information" is described here. The purpose of this category is to provide the latest information on disasters currently occurring as soon as possible. Reports provided by the UN and websites of other media are reviewed and summarized. The site also includes links to the original information. As shown in Fig. 2-2-2-3, two tables; a table by disaster and a table by report manage this information. Based on the information accumulated in this table, the information requested by the user (display of a report on a certain disaster) is extracted, and a report is compiled according to the layout instructed.

This fiscal year, the disaster ID number created by CRED is also added to ADRC's latest disasters information database in an effort to promote the sharing of information of disaster information databases all over the world. At the expert meeting of the Global Disaster Information Network, the

disaster common code number proposed by the ADRC was adopted as a pilot project, and this project will be undertaken mainly by CRED, ReliefWeb, and ADRC.

Problems of databases used by different organizations until now include:

Need to search for organization for each disaster

Disaster name sometimes differs according to the organization, thus it cannot be found by the search engine.

(3) Link is cut off when the structure of the database or homepage of an organization is changed.

The use of common code numbers will facilitate the search of databases on past disasters as well as new disaster data. The ADRC has thus started the use of a common disaster ID and is appealing to other organizations to join in the effort.

Information can be updated remotely via the Internet as shown in Fig. 2-2-2-4. Currently, the latest information and disaster prevention calendar in the database are subject to remote updating considering the frequency and necessity of updating. "Topics" (latest news) and "Links" at the top page of the ADRC homepage can also be changed remotely. In the future, we are planning to apply the remote updating function to the whole database, and to improve the system for more accurate information service and prompt information updating upon careful consideration of security.

Five center staff and graduate student part-time employees run the data collection and registration operation for the "Latest Disaster Information". They are assigned day and night shifts to collect information, in order to expedite the information collection and registration time when a disaster hits. During the Gujurat earthquake in India, the first report was registered immediately after the earthquake occurred on January 26. The ADRC was able to provide not only the information from the mass media, but news flashes which were just sent by the Indian government. The ADRC web page was accessed over 300 times daily.

Fig. 2-2-2-3 Latest Disaster Prevention Information Database and Screen Layout (left)
Fig. 2-2-2-4. Information Updating from Remote Areas Using the Internet (right)
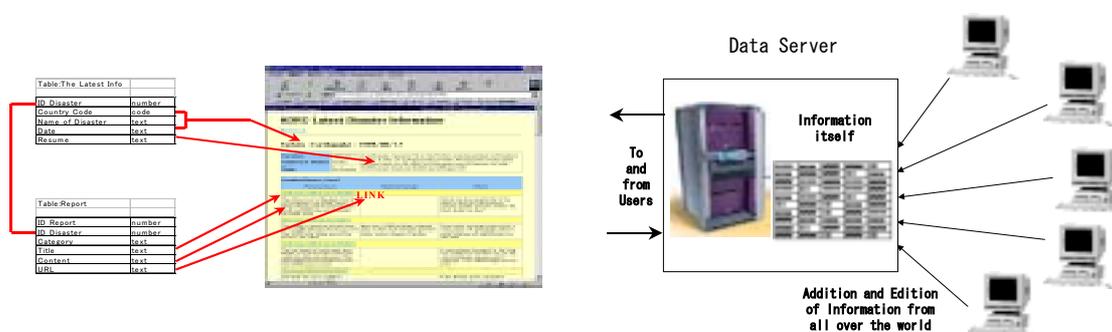
2-2-3. ADRC Highlights

Until now, the ADRC has been providing information mainly through the Internet, as well as promoting the sharing of information with member countries by distributing annual reports and holding expert meetings. However, hearings at expert meetings re-confirmed that although the Internet is available for use in developing countries in Asia, and the ADRC website has been accessed frequently, the environment is still not one where governmental organization staff members can use the Internet all the time. On the other hand, more and more personnel in developing countries now have their own e-mail addresses as the use of e-mail continues to spread.

Under these circumstances, the ADRC has decided to issue a bi-weekly newsletter, "ADRC Highlights", to provide information on its Internet website in a more detailed and timely manner. The first edition was issued on June 1. Through two publications every month, it will reach the 20th edition within this

year as shown in Table 2-2-3-1.

The newsletter contains information provided by the ADRC, recent activities and topics, reports of expert meetings attended, latest disaster information mostly in Asia, and articles by counterparts and visiting researchers. Basically, it is printed on A4 paper and edited into an easy-to-read volume. Contents that cannot be included on paper are placed on the web, with the web addresses indicated in the newsletter.

The newsletter is distributed mainly by e-mail, to ADRC counterparts, participants of past ADRC expert meetings, internal and external ADRC related personnel, visitors to the ADRC, other participants of international conferences in which ADRC participated, 300 in Japan, and 535 overseas. The newsletter is also distributed by fax or direct mail, and is also available in downloadable PDF file, with color pictures on the ADRC homepage. Visitors to the ADRC also receive all printed versions of back issues.

Compared to previous occasions when the ADRC only needed to contact member countries, etc. several times a year, it now sends out information at least twice a month. This has had a positive effect of fostering a sense of unity amongst members, and has helped to increase the frequency of member countries supplying information to the ADRC, receiving high praise at the expert meeting in December.

The distribution of ADRC's information more frequently to many others involved in disaster reduction other than ADRC's counterparts has also markedly enhanced recognition of ADRC. For instance, many participants of the International Meeting knew about ADRC Highlights. Favorable comments were received, even from parties ADRC was unfamiliar with.

ADRC will continue to further enhance ADRC Highlights and distribute it even more widely in efforts to provide relevant and timely information.

Table 2-2-3-1. ADRC Highlights Index

	Date	Main Topics	Sub Topics	Recent Natural Disaster in Asia
Vol. 1	6/1	Greeting from the Chairman, ADRC	1.Intoroduction of ADRC 2.Registration of Mailing Address	
Vol. 2	6/16	Disaster Information Data Base	Participation in the GDIN Conference	1. Earthquake in Bengkulu, Indonesia (June 4,M7.9) 2. Flood in China (Sichuan, Gansu Province)
Vol. 3	7/3	List of Disaster Management Legal Systems and Plans on ADRC's Website		Landslides in Bangladesh
Vol. 4	7/17	Human Resources Information （ADRC E-Net)	1. International Conference held in Bangladesh 2. Unique Activities for Natural Disaster Reduction in Cambodia	Tropical Depression in Philippine
Vol. 5	8/1	Second Anniversary of the Establishment of ADRC (by Dr. Ogawa)	1. Armenia will Join the ADRC Member 2. Open House Seminar of ADRC 3. Natural Disasters in Nepal in this year (reported by counterparts)	1. Drought in Central and South Asia 2. Flood in Cambodia
Vol. 6	8/16	VENTEN as Internet GIS System		1. Flood in India 2. Flood in Bhutan 3. Drought in Central and South Asia (Follow-up)
Vol. 7	9/1	Data Book on Asian Natural Disasters in the 20th Century	Participation in the APDIN	1. Floods in India 2. Floods and Landslide in Nepal
Vol. 8	9/18	Visiting Researcher of ADRC		1. Sudden Tidal Surge in the Bay of Bengal 2. Floods and Landslides in Tokai District, Japan
Vol. 9	10/2	Visiting Researcher of ADRC 2		Tremendous Deluge Hits Asia

	Date	Main Topics	Sub Topics	Recent Natural Disaster in Asia
Vol. 10	10/16	Cooperative Project (Nepal, Cambodia)	About the third ADRC International Meeting	Western Tottori Earthquake (Western Japan)
Vol. 11	11/1	Recent ADRC's Activities 1. 5th Asia Pacific Conference on Disaster Management 2. 2. GDIN Information Technology Exposition & Conference		1. Cambodia Floods and OCHA Activities 2. Bangladesh Storm
Vol. 12	11/16	Promotion of Tsunami Awareness Program in PNG		Landslides in Central Java, Indonesia
Vol. 13	12/1	PNG New Ireland Earthquakes and Tsunamis: Tsunami education was tested		1. Expansion of Floods Damage in Southeast Asia 2. Flood Damage in Sri Lanka
Vol. 14	12/18	The 3rd ADRC Meeting was held in Kobe in Dec.		
Vol. 15 Vol. 16	1/16	New Year's Greetings from the Asian Disaster Reduction Center (by Dr. Ogawa)	1. Major Natural Disasters in the 20th Century 2. Report from the ADRC Visiting Researcher (from Sri Lanka)	1. Dzud in Mongolia 2. A Large Earthquake Hit Central America 3. Tropical Cyclone in Sri Lanka
Vol. 17	2/2	Change in 6 years after the Great Hanshin-Awaji Earthquake, Kobe		A Great Earthquake Hit West India
Vol. 18	2/16	Disaster Management Exhibition Started!	World Conference on Natural Disaster 2001	1. Another Strong Quake rocked El Salvador 2. Successive Disasters in Indonesia
Vol. 19	3/1	JICA Seminar on Disaster Management	ADRC Visited Gujarat, India	
Vol. 20	3/19	ADRC Cooperative Project (Nepal, Cambodia, Indonesia)		
Vol. 21	4/2 (scheduled)	Promotion of Effective Disaster Information Sharing by "Unique ID Number"	1. ADRC Visiting Researcher Program (by researcher from Sri Lanka) 2. Mr. Murata Leave and Mr. Yoshimura Join ADRC	GEIYO Earthquake in Japan