

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

2-1 Formation of a Human Network

1) Formation of a Network with Counterparts (ADRC member countries and others)

We started by identifying contact persons and supervisors in member countries, advisory countries and an observer body and getting to know them personally through investigations of each member country and on other occasions.

At the International Expert Meeting in February, 1999, 30 attendants from 22 countries gathered to compare notes. (Table 2-1-1, 2-1-2 and 2-1-3)

Table 2-1-1 Member Countries

Classification: (1) Supervisor (2) Contact person

(3) Attended 1st Intl. Expert Meeting

Country	Class	Name	Official Position
Bangladesh	①	Mr.Azad Ruhul Amin	Secretary, Ministry of Disaster Management and Relief, Bangladesh Secretariat,Dhaka
	②③	Mr.Mohammad Shamsul Islam	Joint Secretary ,Ministry of Disaster Management and Relief,Bangladesh Secretariat, Dhaka
Cambodia	①	Dr.Uy Sam Ath	Director, Disaster Management Dept., Cambodian Red Cross
	③	Mr.Ouk Damry	First Vice President, Cambodian Red Cross
China	①	Mr.Xu Liugen	Director-General, Foreign Affairs Dept., Ministry of Civil Affairs
India	①	Mr.Bhagat Singh	Additional Secretary & Central Relief Commisioner, Ministry of Agriculture
	②③	Mr.Ani Kumar Sinha	Joint Secretary & Additional Central Relief Commisioner, Natural Disaster Management , Dept. of Agriculture & Cooperation, Ministry of Agriculture
Indonesia	①	Mr.H.B.Burhanudin	Assistant Disaster Management, Coodinator Minister for People' s Welfare and Poverty Alleviation
	②	Mr.Budi Atmadi Adiputro	Deputy Assistant for Rehabilitation and Reconstruction, Coordinator Minister for People' s Welfare and Poverty Alleviation
	②	Mr.Adang Setiana	Coordinator Minister for People' s Welfare and Poverty Alleviation

	⑤	Mr.Aunur Hadi Kotiq	Director of Technology Policy for Regional Development, Agency for the Assessment and Application of Technology, Ministry for Research And Technology
Japan	①	Mr.Keichi Hayashi	Director-General, Disaster Prevention Bureau, National Land Agency
	②③	Mr.Shigemasa Kuromoto	Director, Disaster Prevention Coordination Division, Disaster Prevention Bureau, National Land Agency
	③	Mr.Hisashi Kidera	Councilor, Disaster Prevention Bureau, National Land Agency
	③	Mr.Yoshinobu Fukasawa	Senior Staff Member, Secretariat of the Headquarters for Reconstruction of the Hanshin-Awaji Area, Prime Minister' s Office
Kazakhstan	①	Mr.Alexander Kravchuk	Director, Department for Prevention of Emergency Situation, Emergency Committee
	②	Mr.Nurlan Panzabekov	Head, International Cooperation Office, Emergency Committee
Lao PDR	①	Mr.Soukata Vichit	Director General, Department of Environmental Quality Development and Promotion, Science Technology and Environment Organization (STENO)
	②③	Mr.Sitha Phouyavong	Deputy Director, Integrated Resources and Information of Science and Technology, Science and Environment Organization (STENO)
Malaysia	①③	Mr.Mohamad bin Haji Othman	Director, Crisis and Disaster Management Unit, National Security Division, Prime Minister' s Department
	②	Mr.Adbul khadir Othman	Deputy Director, Crisis and Disaster Management Unit, National Security Division, Prime Minister' s Department
Mongolia	①	Mr.D.Enkhbold	Officer, Department of Strategic Management and Planning, Ministry for Nature and the Environment
	②	Mr.T.Enebish	Director, Department of Strategic Management and Planning, Ministry for Nature and the Environment
	③	Mr.Bandi Ganbaatar	Director, International Cooperation Department, Ministry of 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	Mr.Kul Chandra Shrestha	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	①	Mr.Collin Travertz	Secretary, National Disaster and Emergency Services, Dept. of provincial and Local Level Government
	②③	Mr.Ludwick Kambu QPM	Director General, National Disaster and Emergency Services, Dept. of provincial and Local Level Government
Philippines	①	Mr.Jaime E. Manalad	Regional Director, Office of Civil Defense, Department of National Defense
	②③	Dr.Melgabal Sta. Barbara Capistrano	Administrator, Office of Civil Defense, Department of National Defense
Republic of Korea	①	Mr.Sung-Duck Park	Director-General, Disaster Prevention and Preparedness Bureau, Ministry of Government Administration and Home Affairs
	②	Mr.Hyun-Deok Kim	Director, Disaster Prevention Planning Division, Disaster Prevention and Preparedness Bureau, Ministry of Government Administration and Home Affairs
	③	Mr.Ki-Sung Bang	Director, Disaster Rehabilitation Division, Ministry of Government Administration and Home Affairs
	③	Dr.Dugkeun Park	Project Manager, National Institute for Disaster Prevention, Ministry of Government Administration and Home Affairs
Russian Federation	①	Mr.Yury Brajnikov	Chief, Dept. of International Cooperation, EMERCOM of Russia
	②③	Mr.Vladimir Kuvshinov	Deputy Chief of Desk, Dept. of International Cooperation, EMERCOM of Russia
Singapore	①	Mr.Comr James Tan Chan Seng	Commissioner, Singapore Civil Defense Force, Ministry of Home Affairs
	②③	Mr.Tham Sek Khow	Head Planning Branch, Singapore Civil Defense Force, Ministry of Home Affairs

		Philip	
	③	Mr.Anbalagan Thangarajah	Deputy Head Joint Emergency Planning (EP), Ministry of Home Affairs
Sri Lanka	①	Mr.Amara Hewamaddura	Secretary, Ministry of Social Services
	②	Mr.W.B.J. fernando	Director, National Disaster Management Centre, Ministry of Social Services
	③	Mrs.Vijeyalakshmy Jegarasingam	Additional Secretary, Ministry of Social Services
Tadzhikstan	①	Mr.Bobogado Boltaev	Chief, State Emergency Committee
	②③	Mr.Bahrom Mamadaliyev	Head, Dept. of the Territory and Population Protection, State Emergency Committee
Thailand	①	Mr.Pramuan Ruchanaseree	Director-General, Local Administration Dept., Ministry of Interior
	②③	Mr.Chainarong Vasanasomsithi	Chief of Planning Section, Civil Defence Division, Dept. of Local Administration, Ministry of Interior
	③	Mr.Pricha Rakskhid	Deputy Director-General, Dept. of Local Administration, Ministry of Interior
Uzbekistan	①	Mr.Sosnovsky Valentin Olegovich	Leader, Dept. of Emergency Situation, Cabinet Ministry
	②③	Mr.Abdullaev Zafar Azizovich	Chief of Staff, Secretariat of the Dept. of Emergency Situation, Cabinet Ministry
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 Ngoc Dong	Director, Disaster Management Centre, Dept. of Dyke Management & Flood Control, Ministry of Agriculture and Rural Development
	③	Mr.Hoang Thanh Tung	Disaster Information Engineer, Dept. of Dyke Management & Flood Control, Ministry of Agriculture and Rural Development
	③	Mrs.Bui Thi Bich	Division Head of Flood and Storm Control.

			Dept. of Dyke Management & Flood Control, Ministry of Agriculture and Rural Development
	③	Mrs.Nguyen Thi Tuyet-Hoa	Legislation Expert in charge of Disaster Management, Dept. of International Cooperation, Ministry of Agriculture and Rural Development

Table 2-1-2 Advisory Countries

Country	Class	Name	Official Position
Australia	①	Mr. Alan Hodges	Director General, Emergency Management Australia
	②③	Mr. Rod McKinnon	Director, Policy, Planning and Coordination, Emergency Management Australia
France	*		Direction de la Securite Civile, Ministere de l'Interieur
New Zealand	①	Mr. John Norton	Director, Emergency Management and Civil Defence, Office of Emergency Management & Civil Defence
	②	Dr. Neil Britton	Manager, Sector Development and Education, Office of Emergency Management & Civil Defence
Switzerland	①	Mr. Beat Kuenzi	Program co-ordinator MS geologist, Humanitarian Aid and Swiss Disaster Relief
	②	Dr. Dieter Wepf	Chief Security Officer, Representative SDR, Division of Humanitarian Aid and Swiss Disaster Relief Unit

Table 2-1-3 Observer

Country	Class	Name	Official Position
ADPC	①③	Prof.Dr. Krasae Chanawongse	Chairman, Board of Trustees, ADPC Foundation
	②	Mr. David Hollister	Acting Director and Senior Manager, Asian Urban Disaster Mitigation Program, Asian Disaster Preparedness Center
	③	Mr. Aloysius J. Rego	Acting Director & Senior Manager, Learning and Professional Development Unit, Asian Disaster Preparedness Center

Classification: (1) Supervisor (2) Contact person

(3) Attended 1st Intl. Expert Meeting

2) Formation of a Network with Disaster Management Officers in Countries other than Counterparts

We proceeded with the formation of the network through exchange of information with the following: embassies in Tokyo, consulates general in Osaka, Japanese embassies in overseas countries, disaster-reduction research institutes, universities, NGOs and other private organizations, in the case of ADRC member countries; U.N.-affiliated organs (UNCRD, WHO, UNDP, IDNDR Secretariat), disaster-reduction research institutes, universities, NGOs and other private organizations and overseas press, in the case of non-member countries and concerned organs; and ministries and agencies, prefectural and municipal governments, disaster-reduction research institutes, universities, the mass media, NGOs and other private organizations in Japan.

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

2-2-1 Formation of a Network

The ADRC aims to develop a system for sharing information on natural disasters and disaster reduction by taking full advantage of networking technology. The system, it is hoped, will ultimately hold all the related information by putting it onto database accessible anytime, anywhere, for reasons of information preservation and greater availability.

2-2-2 Guideline for the Sharing of Information on Natural Disasters and Disaster Reduction

To realize the sharing of information on natural disasters and disaster reduction, we have designated the following two functions as a guideline for the information dissemination system of the Center.

* A Portal to Information on Natural Disasters and Disaster Reduction

We will be able to unify information indexes physically located at different places by not only providing the information on natural disasters and disaster reduction the Center gathers but also establishing itself as a gateway to such information through aggressive efforts to import information from other institutes.

* Communications among the people relating Disaster Management

We will facilitate the exchange and sharing of information so as to reduce damage from natural disasters and put information accumulated in the system to more advanced use, by setting up and managing a community of users of the Center's information sharing system.

Only when the above two functions are incorporated will the ADRC's information sharing system become more than a mere list of disaster-related information and begin contributing to the reduction of damage caused by natural disasters.

2-2-3 Designing the System for Sharing Information on Natural Disasters and Disaster Reduction

1) Introducing Database system

The Center accumulates a variety of disaster-related information, including disaster cases, disaster-related laws, organizational setups, plans, manuals, human resources, educational materials and training. Country information, classification of information, duration of disasters, classification of disasters are linked to each piece of information before they are put onto the database. This makes it possible to provide users with information on specific countries and classifications (judicial system, organizations, cases, training dates, human resources) and reduce the burden of maintaining the system.

2) System Configuration

Shown in Fig. 2-2-4-1 is the system configuration of the ADRC. A desktop PC, which servers as a web server and name server, is the key of the system. The database server stores information in database form and provides information in the appropriate form upon request from outside. The mail server controls e-mail. The GIS server provides geographical information on natural disasters and disaster reduction. The printer scanner server controls peripheral devices such as the printer, scanner, MO and CD-RW.

The Center's computer is connected to the Internet via a Fire Wall, assuring the system of a high degree of security against unauthorized access.

[Fig. 2-2-4-1 System Configuration](#)

2-3 Consideration of How Advanced Technology Can be Utilized to Gather Information on Natural Disasters and Disaster Reduction

2-3-1 Background and Policy

The Asian Disaster Reduction Center began by identifying current technical challenges to be tackled in setting up a Disaster Information Clearing House and an Internet GIS (Geographical Information System), which employ technologies designed to meet future requirements for high-speed, high-capacity computers and networks with a wider bandwidth.

2-3-2 Disaster Information Clearing House

The disaster information clearing house provides information on the location of information resources upon request from users to encourage the effective use of these resources which are found at many different locations. The system

greatly facilitates searching for the types of information users need.

Replies to users take diverse forms: some are as simple as information on the location of database, whereas others contain a combination of more advanced information such as the location of primary data needed for data analysis by users, or the location of web sites describing analysis methods or case studies of analysis. In addition, we will introduce other types of information for which the system will carry out elementary computing, such as information on the location of a satellite necessary for obtaining the latest remote sensing data of a specific region.

In this project, we will carry out an actual proof test of a prototype system to identify challenges for practical use and necessary specifications. In fiscal 1998, we designed the system's functions and platform, based on which equipment was introduced and the basic part of the system was developed.

2-3-3 Internet GIS

The Internet GIS has the following two functions:

1. To control from a remote machine a geographic information system running on the server via the Internet and receive the result at the remote location

This will facilitate the formulation of disaster reduction plans and emergency measures when a disaster occurs by categorizing various data on disaster-reduction and fundamental geographic information (political maps, topography, waters and population) and making it possible to perform analysis using the data from a remote location.

2. To develop a new index by adding geographic information to information on natural disasters and disaster reduction provided on the Internet

This aims at achieving a more advanced user interface through the creation of a new information sorting measure by adding a 2-dimensional index of geographical information to the existing indexes, most of which are currently based on alphanumeric characters.

This project aims at developing the Internet GIS, on which disaster-management-related geographic information concerning actual disasters is provided in real time to help gain an understanding of associated problems, and developing and evaluating a user interface which uses geographic information as an index. In fiscal 1998, we designed the system, introduced equipment and constructed the system.

2-3-4 Future Policy

We will start constructing a full-scale system to act as a disaster information clearing house to complete our prototype. We will then reconsider what information to deal with, and will then re-evaluate the user interface, hardware and software, to make the system more practical.

The basic portion of the Internet GIS has already been completed, and system evaluation will commence soon. At the time of writing, we are planning to evaluate the system by gathering, analyzing and providing real-time information on one domestic case using aerial photographs and one overseas case using satellite data.