2-4. Information on Disaster Management Systems

2-4-1. Scope of Information

Included among major components of disaster management system are legal system, organizations, basik plans, and disaster manuals.

(1) Legal frameworks

Not all countries have national laws comparable to Japan's "Disaster Countermeasures Basic Act". Backgrounds and processes of formulation of 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 on countries that are making efforts to establish similar legal frameworks or improve their current frameworks.

(2) Organizations

Similarly to the case of legal frameworks, disaster reduction agencies vary from country to country. These organizations are often restructured while the fundamental legal framework for disaster reduction remains unchanged. Differences among countries in natural environmental conditions and socio-cultural background do not reduce the significance of studying organizational systems of other countries, in that disaster reduction is a purpose common to all countries. Knowledge of the roles and command chains of organizations of other countries is also important to facilitate international collaboration for disaster reduction.

(3) Basic plans

Many of 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.

(4) Disaster manuals

It is considered that most of 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, inaccessibility to 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. Given this, ADRC is committed to collecting information in order 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.

(5) Levels of Information Sources

It is important to collect information not only at the national government level but also at the local government (city, town and village) and community levels, because the first to cope with a disaster are 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 the 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.

(6) Reports from member countries

In 2006, 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 2-2-1 lists reports provided by counterparts in 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 have access to them for the latest information than to view the reports on the ADRC website.

Table. 2-4-1   List of reports from ADRC member countries

No.	Country	Year prepared
1	Armenia	2001, 2002, 2003, 2005, 2006
2	Bangladesh	1998, 1999, 2001, 2003, 2005, 2006
3	Cambodia	1998, 1999, 2002, 2003, 2005, 2006
4	China	1998, 1999, 2005, 2006
5	India	1998, 1999, 2002, 2005, 2006
6	Indonesia	1998, 1999, 2002, 2003, 2004, 2005, 2006
7	Japan	1998, 1999, 2002, 2005, 2006
8	Kazakhstan	1998, 1999, 2002, 2005, 2006
9	Korea	1998, 1999, 2001, 2002, 2005, 2006
10	Kyrgyzstan	2005, 2006
11	Laos	1998, 1999, 2003, 2005, 2006
12	Malaysia	1998, 1999, 2003, 2005, 2006
13	Mongolia	1998, 1999, 2002, 2005
14	Myanmar	2002, 2005, 2006
15	Nepal	1998, 1999, 2005, 2006
16	Pakistan	2005, 2006
17	Papua New Guinea	1998, 1999, 2005, 2006
18	The Philippines	1998, 1999, 2002, 2003, 2005, 2006
19	Russia	1998, 1999, 2003, 2005, 2006
20	Singapore	1998, 1999, 2001, 2002, 2003, 2005, 2006
21	Sri Lanka	1998, 1999, 2003, 2005, 2006
22	Tajikistan	1998, 1999, 2003, 2005, 2006
23	Thailand	1998, 1999, 2003, 2004, 2005, 2006
24	Uzbekistan	1998, 1999, 2005, 2006
25	Vietnam	1998, 1999, 2005, 2006

2-4-2.   Collection of Basic Information for Spread and Enlightenment of the Knowledge on Disaster Reduction

2-4-2-1. Armenia

The Government of the Republic of Armenia recognizes that the integration of mutual efforts aimed at minimizing natural hazards and ecological disasters is one of the most effective mechanisms of ensuring sustainable development. Taking into account of the nature of the disaster that takes place beyond national borders, the Armenian government emphasizes the importance of joint preparation and implementation of regional programs on disaster risk management.

Therefore, the disaster-related national policies are planned through close cooperation with international organizations, foreign states, (both national and local governmental bodies), NGOs and the citizens in order to develop and implement initiatives to minimize emergency risks.

Following the World Summit on Environment and Development (Rio de Janeiro, 1992) the Republic of Armenia has signed and ratified about two tens of Conventions and associated Protocols, including Kyoto Protocol on greenhouse effect.

The National Assembly of the Republic of Armenia has passed more than two tens of Laws in the field of disaster reduction, including the following basic Laws:

1. Law on the Protection of the Population in Emergency
2. Law on Seismic Protection
3. Law on Fire Security
4. Law on Safe Utilization of Atomic energy for Peaceful Purposes
5. Law on Environmental Education and Public Awareness
6. Law on Task Force and Status of a Rescuer
7. Principals of Environmental Legislation

Alongside the Government of the Republic of Armenia has adopted about 40 Regulations directed at developing and introducing targeted activities on risk reduction. From those the noteworthy are: Regulation N 429 of 10 June 1999 "About the complex Program on Seismic Risk Reduction in the territory of Armenia" and Regulation N 796 of 31 December 1999 "About the Program for 2000-2004 on the reduction of emergency situations and the liquidation of consequences thereof and the protection of the population".

At present the Republic of Armenia is being involved in realization of the National Program on Partnership and Cooperation Agreement between the Republic of Armenia and the European Union and state-members of the Union. The program among other important directions incorporates also the problems of harmonization of legislation in the field of disaster reduction.

2-4-2-2. Cambodia

All Ministers and Institutions concerned shall collaborate closely with NCDM when necessary in an emergency situation. In addition, NCDM shall adopt the Cambodian Red Cross as its main partner to jointly conduct relief operations in times of disasters. NCDM has a General Secretariat that acts as an implementing unit within NCDM Headquarters in order to provide advice to the Royal Government on DM issues. There shall also be CDM Structures at the Provincial/Municipal and District Levels.

(1) COMPREHENSIVE DISASTER MANAGEMENT STRATEGY
Flood rehabilitation program

Its objective is "to rehabilitate an economic and social infrastructure, while also indirectly supporting recovery in rural production and incomes.

Local based project on rural disaster management "The Community Self-Reliance and Flood Risk Reduction Project",

ATechnical Assistance (TA) Project that supports the   Royal   Government of Cambodia in increasing community self-reliance in recurrent flood disasters.

(2) DISASTER PREPAREDNESS AND EMERGENCY RESPONSE

Preparedness aside from the yearly small allocation of rice, fuel and cash to NCDM operations, including training.

(3) DISASTER MANAGEMENT INFORMATION SYSTEM

NCDM efforts on the development and installation of a National Disaster Damage and Needs Assessment System. The UN-DMT, with the support from the World Food Program (WFP) and UNICEF, provided for the development of such a system. Key success factors include coordinated actions, high level leadership, and participation of communities before-during- and after disasters.

(4) PUBLIC AWARENESS AND EARLY WARNING

Orientation field visits to flood-prone provinces to disseminate new Sub-decree and Circulars by H.E. Nhim Vanda and senior staff of NCDM are conducted every May of the year. Discussion of the Circular and the new Sub-decree with various government ministries were also separately conducted. The two circulars were renewed which now include the validation and mandate by Prime Minister to be the legitimated legal based documents for disaster preparedness actions.

With limited capacity, system and procedures of information management and reporting system, NCDM is using spreadsheets for data collection and storage. NCDM relies on information collected by local authorities using spreadsheets and fax based on actual occurrence of flood and drought.

(5) COORDINATION AND COLLABORATION

In addition, NCDM provides a coordinating role in establishing and implementing community based disaster preparedness programs with NGOs.

(6) National Emergency Management Plan

The Secretariats at the national, provincial, and municipal levels must cooperate closely with the Cambodian Red Cross (CRC) at all levels of planning and in emergency management. In times of emergency, NCDM General Secretariat shall collaborate with the provincial/municipal CDM and CRC to draw specific operational plans, according to existing guidelines. The plans must be sent urgently to NCDM General Secretariat after they are approved at the provincial and municipal levels.

2-4-2-3. Mongolia

It established the National Disaster Management Agency of Mongolia (NDMA), currently named "National Emergency Management Agency". NEMA combines the State Board for Civil Defense, Fire Fighting Department and State Reserve Agency. It is responsible for implementing the State disaster protection policy and legislation and for organizing nation wide projects to reduce disaster risks and vulnerability through disaster management activities.

(1) Main Activities of NEMA

• Develop and implement disaster protection including strategical planning, disaster protection legislation, policy guidelines, policies, and plans;

• Develop training programmes and plans for all kind of disaster protection training;

• Provide disaster protection activities with a professional operative management

• Set up an information database and internal network for disaster protection and provide communication services;

• Prevent fire and organize fire inspections;

• Study disasters, to do laboratory analysis of radioactive and chemical poisons, and to repair and adjust needed equipments;

• Study fire cases and evaluate them;

• Provide a policy for and coordination of the state reserve;

• Organize the measures related to warehouse economics, quality and technology;

• Provide leadership of the public administration and human resource management;

• Monitor and evaluate the implementation of the disaster protection policy, planning, programme, project, agreements and contracts of cooperation, and to organize internal audit;

• Provide professional advice, support and service directed to developing disaster protection cooperation with foreign countries and international organizations

• Inform the public about the diaster protection policy, and to communicate and provide the public with immediate information related to disasters and forecasts;

• Manage the budget and financial policy of National Emergency Management Agency.

(2) Disaster Management Services of the state

Disaster management services of state, aimag, capital city, soum, and districts are established with their goal to implement disaster management duties. In order to coordinate the activities of disaster prevention, rescue, response and recovery, the following disaster management state services based on related state administrative organization were created:
- Natural and chemical danger assessment and information service;
- Health protection service;
- Food and agriculture service;
- Fuel and energy service;
- Roads and transportation service;
- Construction and urban development service;
- Order service;
- Public awareness service;
- Information and communication service;
- Radiation protection service;
- Professional inspection service.

(3) The roll of the Disaster Management Services of the state

The structure of disaster management organizations is based on territorial-industrial principle regardless of the ownership in the state, aimag, capital city, soum, district, bag, khoroo, entities and enterprises (aimag, soum, bag, khoroo- administrative and territorial units in Mongolia).

The Minister is in charge for emergency management and directs the disaster management activities at the state level. The Governors of the territorial units organize and manage the disaster management activities in their respective aimag, capital city, soum, district and khoroo. Heads of the entities and enterprises organize and manage the disaster management activities in their respective units and organizations.

The state administrative organization in charge of emergency management is NEMA. It is responsible for the implementation of the state disaster management policy & legislation nation-wide.

The State Disaster Management Services has the following functions:
• plan and organize the implementation of disaster management activities within the framework of the engaged section;
• ensure the execution of laws and resolutions of higher authorities related to the disaster management;
• establish the disaster management service, provide staff and a specialized unit according to the specifics of the engaged section and organize their training and preparedness;
• ensure unaltered essential services of engaged section during the disaster situation;
• keep warning information systems of the engaged section constantly ready;
• put in place reserves of machinery, equipment and tools for preventing and responding to damages caused by a disaster situation

- provide disaster management services in aimags and capital city with the professional management of engaged section;
- immediately inform the state administrative organization in charge of disaster management on disaster situations and get their professional support;
- involve the professionals and machinery, equipment and tools of the engaged section in the operational staff in dispatching to disaster site;
- dispose funds allocated for a disaster according to the purpose;
- assess the damages caused by the disaster and propose detailed measures to be taken; and
- provide information and reports on the disaster situation

Emergency management activities are carried out by emergency management departments, specialized unit and state reserve branches in 21 aimags and in the capital city. These units are responsible for disaster prevention at state and local levels; mobilizing rapidly; search and rescue; providing emergency aid to the victims; evacuating them to secure places; and protecting their properties.

(4)　Priority on Disaster Risk Management

- to initiate and present recommendations concerning legal measures for preventing disasters in conditions of market economy system.
- to improve the system and legal grounds for preventing disasters in the interest of government organizations, local administrative entities, enterprise units and individuals.

- to make arrangements for work and activities in conformity with the laws and regulations to enhance working capacity of all organizations concerned for dealing efficiently with any phenomenon of disaster, organize emergency combat groups, rescue teams, national and country services or so-called "headquarters", and train people to the effect.

2-4-2-4. Philippine

(1) Strengthening of the Philippine Disaster Control Capability and Establishing the National Program on Community Disaster Preparedness

Presidential Decree No. 1566　which was promulgated on June 11, 1978 calls for the Strengthening of the Philippine Disaster Control Capability and establishing the National Program on Community Disaster Preparedness. Salient Provisions include among others, the following:

- State policy on self-reliance among local officials and their constituents in preparing for, responding to and recovering from disasters.
- Organization of the National, Regional and Local disaster coordinating councils (DCCs)
- Preparation of the National Calamities and Disaster Preparedness Plan (NCDPP) by the Office of Civil Defense and implementing plans by the NDCC member agencies and local DCCs
- Conduct of periodic drills and exercises by concerned agencies and local DCCs
- Authority for the local government units to program funds for disaster preparedness activities such as the organization of DCCs, establishment of Disaster Operations Center (DOC) and training and equipping of DCC response teams. This is in addition to the 5% under Section 324 (d) of the Local Government Code of 1991, as amended. Under the implementing rules and regulations (IRR) of PD 1566, the disaster management activities of DCC member-agencies as well as procedures and guidelines for inter-agency coordination and dissemination of information during the three phases are defined.

Pre- Disaster Phase

1. Planning for Disaster – Development and formulation of Disaster Management Plan (DMP)
2. Organizing – Organization of DCCs in accordance with the DCC structure set forth in the NCDPP
3. Training – Conduct of training on disaster management for DCC members
4. Drills – Conduct of organizational and community drills/exercises periodically
5. Stockpiling- Predetermination of food, clothing, shelter, medical supplies, transportation and other emergency requirements.
6. Resource Data Canvassing – Identification of existing resources, evaluation of capability resources organization to carry out disaster-related tasks and allocation of suitable roles for resource organization

7. Public Information/awareness campaign in coping with disaster situations in accordance with the office of Civil Defense, Philippine Information Agency well as other government /or private entities with facilities for dissemination of information

8. Communications and Warning Activities – Organization of warning units in the province, establishment of warning system that must be clearly defined and written down in plans, standard operating procedures and other relevant documents, inform concerned officials and agencies in the province as well as the general public of the warning system

Emergency Phase

Mobilizes all emergency services of the DOC namely rescue and engineering, evacuation, first aid, medical services, emergency relief, public and fire auxiliary, transportation and survey/conduct damage assessment with the national government supporting efforts of the Council and evaluation of survey results and submission of damage report and recommendation to NDCC through the RDCC.

Post Emergency Phase

Cross-checking of data of damage report with pre-emergency data obtained to facilitate the location or whereabouts of persons and to assess available community resources for rehabilitation purposes. This phase will also determine the nature of extent of rehabilitation efforts to be undertaken and request of assistance from appropriate government agencies, private offices/agencies or individual, if the situation goes beyond the capability of the PDCC.

(2) Structure of disaster management

The National Disaster Coordinating Council (NDCC) is the policy-making and coordinating body of disaster management at the national level; it directs all disaster preparedness planning, as well as disaster response operations and rehabilitation, both in the public and private sectors. It advises the President on matters related to natural calamities and disasters, including recommendations for the declaration of State of Calamity in disaster-affected areas.

In each local government unit (province, city or municipality), the local DCC is headed by the elected chief executive, such as governor or mayor. Thus, disaster management is imbedded deeply into the democratic governance in the Philippines.

(3) Implementation of the NDCC Four Point Action Plan

The December 2004 flashfloods that affected Quezon and Aurora Provinces of eastern Luzon Island resulted to severe flooding and landslides and led the unusually high death toll as well as extraordinary damage to both public and private properties. The OCD as the implementing arm and Secretariat of the NDCC immediately implemented the Four Point Action Plan for Disaster Preparedness to increase public awareness and involvement in measured put in place by government to minimize the impact of similar disasters in the future.

The NDCC in the implementation of the above action plan has so far achieved the following:

a. Upgrading of PAGASA and PHIVOLCS Forecasting Capability
As of May 31, 2005, PAGASA reported the rehabilitation of its five (5) 5 radars located in Virac, Guian, Aparri, Baler and Baguio.
PHIVOLCS enhanced their volcano and earthquake monitoring system capabilities.

b. Public Information Campaign on Disaster Preparedness
The "Safe Ka Ba?" program has been launched nationwide. Posters, flyers, radio and TV commercials, instructional video, cinema ad formats and pastoral letters have been produced and distributed through the regional centers.

c. Capacity – Building for Local Government Units Particularly in Identified Vulnerable Areas
Local chief Executives have to take leadership role in all phases of disaster management and they should develop a culture of preparedness versus culture of reaction.

d. Mechanism for Government and Private Sector Partnership in Relief and Rehabilitation

One of the most important mechanisms achieved this year is the collaborative partnership program between the NDCC and the League of Municipalities through a MOA signed in February 2005

2-4-2-5. Thailand

(1) Disaster Management System in Thailand

Disaster management system in Thailand has mainly based on Civil Defense Act of 1979 and the Civil Defense Plan 2002. The Natural Civil Defense Committee (NCDC) is the main policy making body. Prior to October 2002, the erstwhile Civil Defense Division of Department of Provincial Administration (the then Department of Local Administration, Ministry of Interior), had been in charge of the Nation Civil Defense Committee Secretariat. After October 2, 2002 Thai government has enacted the Bureaucrat Reform Act 2002, Department of Disaster Prevention and Mitigation (DDPM), has come into existence under the umbrella of Ministry of Interior and has been designated to shoulder responsibility of disaster management of the country and has thus, replaced the former Civil Defense Division as the National Civil Defense Committee Secretariat.

In 2002, Thailand established the Department of Disaster Prevention and Mitigation (DDPM), under the Ministry of Interior, as the principal agency for disaster management coordination among all agencies concerned at all levels.

As regards disaster risk reduction, DDPM shall conduct activities in coordination with other agencies such as: the Metorological Department (TMD), Minsitry of Information Technology, Royal Irrigation Department (RID), Ministry of Agriculture and Cooperatives, Deaprtment of Water Resources, Ministry of Natural Resource and Environment. **1) National Civil Defense Committee (NCDC)**

It coordinates all activities relevant to civil defence and disaster management. The National Civil Defence Committee performs all functions relevant to management of disaster at national level, such as formulation of Civil Defence Master Plan, evaluation of the implementation of the above-mentioned plan by an audit mission, organizing annual or periodical training courses on civil defence and disaster management for government officials at all levels and for the general public, issuing regulations on the payment of remuneration, compensation and other expenditures relevant to civil defence and disaster management activities carried out by all agencies concerned.

2) National Safety Council of Thailand (NSCT)

Apart from National Civil Defence Committee, Thailand has another disaster management related mechanism which has highlighted its tasks and responsibility on man-made disaster management only… that is "The National Safety Council of Thailand" (NSCT). The NSCT has been established in 1982 on the ground of the problem of road traffic accidents in Thailand which annually resulted in the tremendous loss of lives, properties and national economy. Later on, its responsibilities have been extended to cover the prevention of chemical accident, occupational accident, accident in home and public venues, considering preventive measure of fire in high-rise building, accident prevention in subway tunnel construction, providing education of safety etc.

3) National Disaster Warning Center

The National Disaster Warning Center was established under the Order of the Office of the Prime Minister. It is a Prime Minister Thaksin Shinawatra's commitments to protect lives and properties of Thai people and foreign visitors by setting up the National Warning Center as soon as possible. The major task of the National Disaster Warning Center is to detect earthquake and to analyze seismic data to determine the possibility of a Tsunami generation before issuing notification messages to the public and related authorities and rescuers for evacuation of people into safe places. This is to prevent the loss of people's lives and properties as much as possible. From now on, the National Disaster Warning Center will be developed, upgraded of its early warning system and extended its telecommunication networks to be able to cope with multi-hazards disasters apart from Tsunamis.

(2) Priority on disaster risk management

Thailand urgently needs to reform disaster management systems and mechanisms as follows:

1. Public Awareness and Education. Improve public safety of every sector particularly those who are living with risk by enhancing people's understanding of the threats posed by various types of disasters.
2. Materializing Early Warning Systems: Following the catastrophic tsunami disaster in 2004, Thailand took immediate action to establish National Disaster Warning Center, which covers the warning of both natural and man-made disasters.
3. Establishing More International Disaster Management Networks: Thailand needs to enhance the country's disaster management capacity and efficiency through the mobilization of technical assistance from foreign countries, particularly from developed and advanced countries.
4. Effective Damage Assessment: Remote Survey technology must be introduced to effectively assess the damages caused by large scale disaster. The staff of the agencies concerned needs to be trained to enhance their capacity in applying satellite images to assess the damage.
5. Application of Community-Centered Approach: Local Authority and community are in the front line in the event of disaster occurrence, consequently, they are the most vulnerable and effected. It is indispensable to enhance their potentials in responding to disasters, and to equip them with awareness and preparedness.
6. Highlight on Preventive Approach: The new approach of disaster management has shifted its focus from "assistance" or "relief" to "prevention". In this regard, risk reduction to be vigorously taken into account. So as to reduce the risk, both structural and non-structural measures should be materialized, thus, the cost of risk reduction will yield invaluable rate of return when compared with the cost of disaster damage.
7. The Focus on Prevention: Proactive disaster management can reduce the damage and impact substantially.
8. The Focus on Public Participation: The past disaster management in Thailand had underlined the roles of government agencies and simply ignored private sectors, non – government organization, communities and even the public. Unfortunately, there has been a lack of cooperation among agencies concerned. This is a real challenge for DDPM to bring these stakeholders together.
9. The Focus on Unity in Management: The application of the Incident Command System (ICS) will demonstrate unity in management.
10. The Focus on Efficient Communication: The efficient communication system consists of the major system and the reserved system, which are vital for disaster management.
11. The Focus on Human Resource Development: Human resource development is a key factor for disaster management.
12. Livelihood Rehabilitation: Livelihood rehabilitation activities such as community development, vocational training, improving the standards of living should be immediately materialized to normalize disaster victims' means of living.

2-4-2-6. Viet Nam

(1) Disaster Management System in Viet Nam

At the Central level, the National Committee, an inter-ministerial institution serves as a coordinating body for disaster reduction efforts in Viet Nam. Its secretariat is provided by the Department of Dike Management and Flood Control (DDMFC) of the Ministry of Agriculture and Rural Development (MARD). The CCSFC formulates all regulations and mitigation measures related to typhoons and floods. Emphasis is on dike protection, surveillance and maintenance. Local emergency work is coordinated by the provincial CSFC.

(2) Priorities on Disaster Risk Management

1. Water-related mitigation measures for the Red River Delta
   a. Strengthening of dyke systems
   b. Dredging of river channels for quick flood water drainage
   c. Solution of reservoir construction in upstream areas
   d. Flood diversion solution
   e. Afforestation and forest protection
   f. Organization of effective management and exploration activities of flood preventing solutions for the Red river delta and midland areas

2. Water-related mitigation measures for Central Vietnam
3. Water-related mitigation measures for the Mekong River Delta of Vietnam

(3) National Strategy and Action Plan for Disaster Mitigating

First National Strategy and Action Plan for Mitigating Water Disaster was prepared in 1994 through a national consultation process. It identified the need for a multi-sectoral and multi-disciplinary approach to disaster management (engineering, institutional and social) measures to reduce the vulnerability of the country and improve its capacity to cope with the adverse impacts of natural threats. It serves as a basis for annual state plans. The plan has strengthened institutions for disaster mitigation and management.

Second Strategic Action Plan (2001-2020) set up several strategies in disaster mitigation and management that aim to reduce disasters and their impacts on people, property, agriculture, economic well-being, environment, and sustainable development. It lays down responsibilities of various implementing bodies.

2-4-3. Projects for Spread and Enlightenment of the Knowledge on Disaster Reduction on Total Disaster Reduction Management

ADRC has hitherto been promoting the development and dissemination of "Total Disaster Risk Management (TDRM)" as the basic philosophy and strategy for enhancement of capability of disaster reduction at member countries.

This has been developed by ADRC and UN/OCHA, Kobe, based on the philosophy of measures and policies for disaster reduction according to the Central Disaster Prevention Council and the Basic Law on Natural Disasters in Japan, and is considered to be adopted by the ADRC member countries as the basic philosophy for the disaster reduction policies in their countries.

TDRM consists of the following two principles.

Principle 1: Related organization, bodies and individuals should cooperate and collaborate in the mobilization of resources for disaster prevention and take action. Measures for disaster prevention require excellently comprehensive and collaborative policies. In the aspects of policy, it need to cover diverse fields including hardware and software such as repairs of river against flood, preventive information, information network to transmit early warning, reconstruction of daily life at the stage of recovery, mental care for suffering people, and so forth. For the administration, it is difficult to promote these measures only by the department specialized in disaster prevention but it requires to mobilize resources that transverse through its organizations.

Though it depends on the scale of disaster, in many cases, it is insufficient to be taken care by cities, towns or villages. Even in a small sedimentation disaster of which stricken area is confined in a district of single city, town or village, if national or prefectural roads are damaged or rivers under the control of state or prefecture are affected, it is impossible to respond by such city, town or village only.

Moreover, it needs to take notice that the disaster prevention is not a task for the administration only. As it became apparent in the Great Hansin-Awaji Earthquake occurred on January 17, 1995, there is a limitation in the response by the administration only in an event of large scale disaster. It is required on the disaster reduction measures to be able to cope with tasks in local communities which cannot necessarily be covered by the administration, regardless whether how big or small the scale of disaster. Even on the level of individuals, people are required to know sites and routes for evacuation at neighboring district, and secure and inspect valuable articles of the minimum necessity to be carried along.

There are also fields where services are provided by private enterprises such as the communication, life line, insurance, etc, which are indispensable in the disaster prevention.

When a big scale disaster occurs in a developing country, it is difficult, in many cases, for the country to provide emergency measures and promote restoration by it resources only both in terms of quantity and technology. At Aceh, Indonesia, which was one of countries hit by the tsunami disasters in the Indian Ocean, it was indispensable to ask for overseas supports from many countries, donor organizations, NGO's, or other, and it needed to introduce technologies and funds from JICA, the World Bank, etc for the construction of restoration of housing.

From the foregoing, in order to promote disaster prevention measures efficiently and effectively, it is essential to provide measures running across related fields as well as organizations and obtain cooperation and coordination at the inside and outside of country.

Principle 2: It is necessary to provide measures, taking into consideration the four stages related to disaster, i.e. the prevention and mitigation of damages (disaster reduction), prior preparation for disaster, emergency measures immediately after a disaster and restoration/reconstruction of stricken areas and for residents.

Measures against disasters are prone to be focused on emergency responses after disasters. Scenes at stricken areas are broadcast by the CNN, BBC and many other overseas medium, which report relief activities of domestic and overseas donor organizations, NGOs, or others, rushed to the site. Needless to say, rescue of sufferers, medical care for injured, supply of foods and wears, construction of emergency housing, or other activities, are humanitarian and required urgently, and it is indispensable to send resources at that stage.

In many ADRC member countries, it is well known that they recognize the importance of emergency response in the event of disaster from a fact that "Emergency Situation" is included in the title of the national level departments in charge, which are counter part of ADRC.

However, it should not be forgotten that impacts suffered at the occurrence of disaster may be reduced if we are prepared to anticipate it and make various arrangements beforehand. By reinforcing embankments, we can develop river environment that can withstand flooding. Against cyclically assaulting disasters like typhoon, cyclone, etc., if we can observe its route, estimate the course and warn the residents on the way, impacts of disaster will be reduced dramatically.

On the other hand, the restoration and reconstruction which start when the stage of emergency response is over and after the stricken areas have tentative calm do not only mean the recovery of life and economic activities at the disaster areas but also provides a golden opportunity for use to reduce possible impacts at next disaster to the minimum. Mere restoration to the state just before the disaster means that the same suffering will repeat at the next occasion. At this stage, we can enhance significantly the competence of the entire disaster areas to respond to disasters by, for example, expanding the width of narrow roads, changing fragile houses to earthquake-proof structures and adding diversity to industries so heavily reliant on agriculture or fishery.

In our country, following the typhoon that hit Ise Bay in 1959, the Basic Law on Natural Disasters was enacted in 1961 and the measures, which have been implemented separately, were put under a synthetic and cooperative control through the Central Disaster Prevention Council. It was also changed from the countermeasures focused on the emergency provisions to all stages of disaster prevention like preventive measures. It was the age when Japan was entering the high growth of economy and so it is considered that the consciousness of people to the disaster prevention was enlightened along with the increase in individual assets through the development of economy.

Turning attention to Asia, after the establishment of ADRC, new systems that resemble the Central Disaster Prevention Council of Japan, are being established in India, Indonesia, Mongol, Cambodia, Sri Lanka, Thailand, etc, and systems to promote measures for disaster prevention across the fields are being consolidated. In Sri Lanka, particularly, a system similar to that of Japan, which is chaired by President and constituted with members from related government offices, specialists and NGO's, has been established (National Council for Disaster Management – NCDM). From a fact that the leader of opposition party is included in the members of NCDM, the country is now consolidated to establish a disaster prevention system with a united effort over the country. It has DMC (Disaster Management Center) in the Ministry of disaster prevention and human right, which functions as the secretariat of NCDM in the same way as the Cabinet Office in Japan.

In Indonesia, a new disaster prevention control law was enforced in April 2007 and the National Disaster Prevention Agency was established in February 2008, obtaining the signature of the President. In this country too, a synthetic disaster prevention system has been established, which is constituted by disaster prevention-related organizations, NGO's, specialists, private enterprises, or other.

As seen above, systems that conform to TDRM having been promoted by ADRC have become implemented in many Asian countries. However, on the other hand, in several countries, disaster prevention systems focused on the emergency measures are still in the main stream so that we need to continue to propose TDRM.

To promote TDRM, ADRC dispatched its Chairman in May 2006 to Jakarta, Indonesia, where he lectured on TDRM to personnel in charge of disaster prevention from central and local governments, while a review was made on the new disaster prevention law for senior officers of BAKORNAS. Upon invitation from the Golkar Party, the Chairman lectured on the review of new disaster prevention system of Indonesia also at Jakarta in November.

During the question and answer session after the lectures, some one asked about the system and the function of supporting secretariat of the Central Disaster Prevention Council of Japan. There was also exchange of opinions regarding a fact tat the post of chief at the national disaster prevention bureau of Indonesia stipulated under the new disaster prevention law is lower than the level of ministers. It was pointed out that, in order to promote comprehensive measures for disaster prevention, the chief of organization responsible to coordination should be given the authority equivalent to President, vice President or higher than the level of ministers such as Minister of Coordination.

Other than the above, at the Kobe University, part-time lecturers lectured at regular classes focused on the status of disasters in Asia, efforts by international organizations and disaster prevention systems in Japan on December 10 and 17, 2007, at the study on the thesis of ethic creation, the humane studies course of graduate school, and on January 16, 2008, at the Urban Safety Center of the faculty of technology. Lectures are scheduled also at the University of Tokyo or other in the next year.

In 2007, lectures on the "Disaster prevention systems in Japan and international cooperation for disaster prevention" were provided for about 30 trainees from China Administration Academy, who were invited by Canon Global Management Institute, at Meguro, Tokyo. This is a project coordinated from 2003 by the Japan Federation of Economic Organizations at the request of the Academy, which trains selected students of the Academy. In 2007, the training was implemented to cadets of senior officers in China, including newly assigned directors and assistant directors of bureau at respective departments and committees of the national central government as listed on the attached sheet.

In the course of training, the Chairman lectured on the disaster prevention systems in Japan and international cooperation, incorporating on the way questions and answers as well as exchanges of opinions concerning the features of disaster preventions systems in China and Japan. A new organization, the Emergency Administrators Office, was established in the State Council, which is classified as the highest guidance organization concerning critical accidents, events, natural disasters, etc. This organization, belonging to the Commissioners Office of the Council, is responsible to collect information, coordinate with other concerned organizations and take the lead roles in the state of emergency and considered to have the functions similar to the Cabinet Safety and Security Office in our coutry. On the other hand, the National Disaster Reduction Center which has been the counter part to the Asian Disaster Reduction Center, acts as the department in charge of synthetic disaster prevention which, for the disaster prevention and rescue activities of the country, governs the monitor of disaster, early warning, collection of disaster information, study of disaster prevention policy, development of disaster prevention technology, education, disaster prevention education and training, international cooperation, among many others. It was explained that the functions similar to those of the Central Disaster Prevention Council of Japan should be taken care of by the Emergency Office of the State Council.

In the question period after the lecture, it was agreed that it is necessary to provide a function to coordinate synthetic disaster prevention policies and to consolidate disaster prevention systems spread across departments and agencies.

2-4-4. Regarding ADRC Member Country Profiles

(1) Background/Purpose

The UN World Conference on Disaster Reduction (WCDR) held in January 2005 adopted the "Hyogo Framework for Action 2005-2015 (HFA) – Building the resilience of nations and communities to disasters." The framework determined to provide priority items for ten years to persons related to disaster-prevention administration who are involved in reduction of disaster risks.

Following such decision, the Asian Disaster Reduction Center (ADRC) is involved in activities to grasp/confirm the progress status of HFA in respective governments of all 25 member countries and is compiling/preparing a collection book which lists information of the countries concerning disaster reduction administration.

(2) Features

1) The pamphlet covers information on disaster reduction administration of all 25 member countries of ADRC including a new member country Pakistan. Further, the latest information after WCDR is held is obtained for compilation from counterparts of ADRC in respective countries.

2) Although the "Country Information" that was submitted by some ADRC member countries in the past is disclosed on the ADRC home page. However, there was a problem that the Information was not easy to read since content, volume and specifications are not unified among the countries. This time, therefore, the pamphlet itself is designed to be handy, and data of respective countries are arranged to be compact in 6 to 8 pages so that users can easily view information related to disaster reduction on respective countries.

3) Information such as "budget amount related to disaster reduction", "progress status of HFA" and "disaster reduction projects lead by the government" that was not available in the past is included.

(3) Estimated Publication: November   2008

* The pamphlet is scheduled to be published in time with the "Asian Conference on Disaster Reduction 2008" to be held in Bali, Indonesia in November 2008.

(4) Number of copies printed: 500 copies in English

(5) Contents

(1) Status of disaster occurrence, recent catastrophic disasters;
(2) Disaster reduction systems (Organizational chart of administration, system of law, etc.);
(3) Disaster reduction plans
(4) Budgets related to disaster prevention
(5) Progress status of HFA
(6) Introduction of disaster reduction projects lead by government agencies responsible for disaster reduction
(7) Names of government agencies/departments of ADRC counter parts

2-4-5. A Way Forward

ADRC will further reinforce and expand its database, analyze collected information, and identify needs of the member countries based on such analyses in order to promote multinational 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. The database enables countries and regions to refer to actual examples from other countries to establish and improve their own national or regional disaster reduction systems. The 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 under the initiative of central governments. It is considered that the former group of 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-regional 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 must have 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, policymakers and planners to properly include and incorporate disaster reduction considerations into basic national and regional plans.

(3) Promotion of cooperation

Having seen the ACDR, it is important to hold regular meetings of disaster reduction administrators and specialists from member countries to exchange the latest information on disaster reduction systems and disaster management measures. It is also important for the 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 caused by natural disasters in Asia, there is a mounting expectation that the ADRC should serve as a facilitator in the formation of a network for human, technological, and physical resources in Japan and the other Asian countries to further promote exchanges in the region.