Country: Japan

Agency: Japanese Government Headquarters for IDNDR

(Secretariat: National Land Agency, Disaster Prevention Bureau)

#### A) Disaster-reduction Measures in Japan

#### 1. Description of disasters

Every year, Japan is subject to many natural disasters, including earthquakes, typhoons, torrential rains, heavy snowfall, land slides, and volcanic eruptions. The Great Hanshin-Awaji Earthquake of January 17, 1995 was the worst disaster in the postwar period, with more than 5,500 victims. It was the first earthquake to hit directly under a large city with a high concentration of socioeconomic functions and services, and it forced a renewed recognition of the threat that natural disaster poses.

The number of those dead or missing from natural disasters in Japan has been in decline since around 1960; in recent years it has been in the 100-200 range, with a slow overall downwards trend. In 1995, however, we recorded more than 5,000 victims, the first time the total has gone over a thousand in thirty-five years. Moreover, as urbanization progresses, there tends to be an increase in the total damage done should disaster strike. The bill for the Great Hanshin-Awaji Earthquake is estimated at about JYE (Japanese Yen) 9.6 trillion.

## 2. Disaster-reduction laws, organizations and plans

#### (1) Legal framework

The Disaster Countermeasures Basic Act came about in 1961 as a result of a typhoon that hit the Bay of Ise in 1959 and caused more than 5,000 deaths. The act aimed to remedy inadequacies in the old disaster-reduction framework and promote comprehensive, systematic efforts by the government to reduce disasters. It had five main thrusts: i)to clarify disaster-reduction responsibilities and implement programs to prepare for, provide emergency response to, and recover from disaster; ii) to promote comprehensive administrative efforts towards disaster-reduction; iii) to promote systematic administrative efforts towards disaster-reduction; iv) to provide public financial resources to cope with disaster; and v) to set out procedures for proclaiming disaster emergencies.

There are other laws besides the very general Disaster Countermeasures Basic Act that impinge on disaster-reduction efforts, including the flood control laws, the Disaster Relief Law, and the Large-scale Earthquake Countermeasures Act.

#### (2) Disaster-reduction organizations

Overseeing efforts at the national level is the Central Disaster Prevention Council, which is chaired by the prime minister. The meeting is responsible for formulating the Basic Plan for Disaster Prevention that serves as the foundation for disaster-reduction programs. It also discusses other important issues related to disaster-reduction. There are, in addition, twenty-nine designated government agencies and thirty-eight designated public institutions (including Nippon Telegraph and Telephone and all of the electric power companies) that are charged with formulating Operational Plans for Disaster Prevention and implementing disaster-reduction programs.

At the prefectural and municipal levels, there are prefectural and municipal Disaster Prevention Councils. Membership comes from local government agencies, local offices of designated government agencies, police departments, fire departments, designated public institutions and other organizations. These meetings are responsible for implementing disaster-reduction programs according to the Local Plans for Disaster Prevention which they also prepare, and other plans.

Should disaster strike and conditions warrant, the municipal government will first create a Headquarters for Disaster Countermeasures to provide emergency relief. If conditions warrant action at the prefectural level, a Prefectural Headquarters for Disaster Countermeasures will also be created. At the national level, should the scale of the disaster or other conditions warrant designation as a "major disaster" for which national emergency measures is required, a Headquarters for Major Disaster Countermeasures will be set up and comprehensive emergency measures provided, as set out in the Disaster Countermeasures Basic Act.

#### (3) Disaster Reduction Plans

The Disaster Countermeasures Basic Act obligates agencies and institutions involved in disaster-reduction to create, in advance, the following disaster-reduction plans:

#### a) Basic Plan for Disaster Prevention

Created by the Central Disaster Prevention Council, this plan defines basic guidelines for the establishment of disaster-reduction organizations and systems, promotion of disaster-prevention programs, timely and appropriate recovery and reconstruction from disaster, pursuit of scientific and technical research into disaster-reduction, and items of priority in Operational Plans for Disaster Prevention and Local Plans for Disaster Prevention.

## b) Operational Plans for Disaster Prevention

Formulated by designated government agencies and designated public institutions in accordance with the Basic Plan for Disaster Prevention, these plans define measures to be taken to reduce the disasters for which the agency or institution is responsible or to which it may be subject.

## c) Local Plans for Disaster Prevention

Formulated by the prefectural and municipal Disaster Prevention Councils or heads of municipalities in accordance with the Basic Plan for Disaster Prevention and local conditions, these plans contain specific measures to be taken by local disaster-reduction institutions.

## (4) Recent changes to the system

The Great Hanshin-Awaji Earthquake has prompted changes to the system. The major thrusts of these changes are described below.

## a) Legislative measures resulting from the Great Hanshin-Awaji Earthquake

The Great Hanshin-Awaji Earthquake resulted in enormous damage to the residential and social infrastructure of the area. Laws were therefore speedily amended and passed to provide support both for the rebuilding of victims' lives and for the reconstruction of industry and urban services. The basic law for recovery from the quake is the "Law Concerning Basic Guidelines and Organizations for Reconstruction from the Great Hanshin-Awaji Earthquake" (passed in February 1995, effective immediately). This law defines the basic principles for reconstruction from the Great Hanshin-Awaji Earthquake, mandates the establishment of a "Headquarters for Reconstruction of the Hanshin-Awaji Area" as the government organization to oversee these efforts, and urges speedy reconstruction in the affected area. There were fifteen other laws related to the earthquake passed within a period of just over two months, including laws for special tax breaks, a "Special Fiscal Assistance Law," and a "Law Concerning Special Measures for Reconstructing Urban Areas in the Disaster Zone."

## b) Immediate disaster response system

The Cabinet rendered a series of decisions in February 1995 designed to provide more timely information on the overall scale and extent of disaster at the initial stages by reinforcing the primary information gathering system for large-scale disasters and establishing a chain of communications leading up to the prime minister himself. The specific decisions taken were:

- i) To gather early information from local sources and to utilize aircraft, ships and other sources in information-gathering activities;
- ii) To clarify information liaisons so as to establish a speedy chain of reporting leading up to the prime minister's official residence;
- iii) To gather primary information from public institutions and report that information to the prime minister;
- iv) To provide the equipment necessary for the transmission of information between competent ministries and agencies and the prime minister's official residence; and
- v) To convene emergency meetings of competent officials in the prime minister's official residence and to concentrate information there.

The ministries and agencies involved in disaster-reduction also strengthened their systems to provide for speedier information gathering.

#### c) Law Concerning Special Measures for Earthquake Disasters

The Law Concerning Special Measures for Earthquake Disasters (passed June 1995, effective July), which came out of the experiences of the Great-Hanshin-Awaji Earthquake, was established to protect the lives, health, and property of the people of Japan from earthquake damage. The law mandates the creation of "Five-year Plans for Earthquake Disaster Emergency Projects" for all prefectures in the country, provides special central-government funding for projects based on these plans, and sets up a system for conducting surveys and research on earthquakes.

#### d) Revisions to the Disaster Countermeasures Basic Act

One of the biggest problems seen in the Great Hanshin-Awaji Earthquake was that vehicles abandoned on the roads became a major impediment to the emergency vehicles sent to provide primary care. This resulted in amendments to the Disaster Countermeasures Basic Act (passed June 1995, effective September) that provide for more stringent traffic regulation during times of disaster, define compulsory measures to be taken by the police, self-defense forces, and fire departments in dealing with abandoned vehicles and the like, and define compensation for any physical damages resulting therefrom.

Other revisions to the Disaster Countermeasures Basic Act have been made (passed December 1995, effective immediately), including i) a relaxation of the criteria for establishing emergency disaster headquarters and enhancements to headquarters' organizations; ii) stronger powers for the chair of the Headquarters for Emergency Disaster Countermeasures (the prime minister); iii) definition of the legal status of local disaster headquarters; iv) provision of the authority to engage in relief activities to personnel of the self-defense troops dispatched for disaster relief; v) necessary disaster-reduction measures to cover volunteer activities, aid to those most vulnerable to disaster, and acceptance of overseas assistance; and vi) measures to provide for mutual assistance among local public agencies and organizations.

## e) Revisions to the Basic Plan for Disaster Prevention

The Basic Plan for Disaster Prevention was created in 1963 and partially amended in 1971. Subsequently, disaster-reduction has been enhanced principally by the Essentials of Earthquake Countermeasures for Large Cities and General Principles Relating to Countermeasures for Earthquakes Directly Below the Southern Kanto Region.

However, in July 1995 the plan underwent major revisions to reflect subsequent changes in socioeconomic conditions. The new Basic Plan for Disaster Prevention clarifies the roles of the central government, public institutions, local governments and organizations, and residents in basic, required disaster-reduction programs, providing specific and practical guidelines for disaster-response in chronological order. To provide more accessible references for specific kinds of disasters, it contains chapters on programs for earthquakes, wind and flood damage, and volcanic damage, as well as a chapter on items that all disasters have in common.

Though the revisions are broad, they can be categorized as follows: i) utilization of various means to quickly gather information including the extent of the damage; ii) enhancements to the emergency disaster-response system, including establishment of a broad-based response system; iii) assurance of emergency transport; iv) enhancements to the stockpile and procurement systems and assurance of appropriate supplies; v) enhancements to the living environments of places of refuge and provisions for speedy supply of emergency temporary housing; vi) measures for the acceptance of overseas assistance and volunteer activities; and vii) cares for those most vulnerable to disaster.

#### 3. Disaster-reduction programs

#### (1) Disaster-reduction budget

The total central government budget (after budget supplements) for disaster-reduction programs in fiscal 1993 was JYE 4.7 trillion, including expenditures for scientific and technical research, disaster-preparedness, land conservation, and disaster recovery.

#### (2) Outline of disaster-reduction programs

# a) Promotion of scientific and technical research on disaster-reduction

Disaster-reduction research and development is governed by the Disaster-reduction Research and Development Basic Plan (approved by the prime minister in December 1993), which provides a framework for comprehensive and effective research from a long-term vantage point. Related institutions play their roles in pursuing research on earthquake in an effective manner with guidance from the Basic Plan and the Proposition on Earthquake Prediction Plan of the Geodesy Council. They also promote research on earthquake in close cooperation with each other under the Headquarters of Earthquake Research Promotion, and perform general evaluations of the results obtained.

## b) Strengthening of disaster prevention and preparedness

Japan pursues disaster prevention and preparedness programs on a continual basis in order to prevent disasters from happening. The main focus of these programs is maintaining and enhancing disaster-preparedness systems and facilities and equipment.

# i) Promoting awareness of disaster-preparedness and training voluntary disaster-preparedness organizations

Japan has declared September 1, the date on which the Great Tokyo Earthquake of 1923 occurred, to be "Disaster Prevention Day" and August 30 to September 5 to be "Disaster Prevention Week" During this time in particular, a series of events is held to increase public awareness of disaster-preparedness. There are also about 70,000 voluntary disaster-preparedness organizations (as of April 1995) around the country through which local residents engage in disaster-preparedness activities in conjunction with related institutions. Roughly 44% of all households in Japan belong to these organizations.

#### ii) Disaster drills

Given the importance of full readiness and repeated training, disaster-preparedness drills are conducted around Japan each year envisioning such scenarios as earthquake, typhoon, major fire, or landslide.

## iii) Development of disaster-reduction facilities and equipment

Japan maintains and enhances measurement and warning systems, disaster-proof telecommunications and broadcasting systems, fire-fighting and flood-fighting systems, and disaster-resistant road networks and ports. In an effort to build more disaster-resistant urban structures, we also maintain places of refuge, evacuation roads, and open spaces; engage in land readjustment and redevelopment work, and build and maintain facilities to protect buildings from earthquake, fire, and flood damage.

#### c) Promotion of land conservation

Japan pursues land conservation on the basis of long-term (generally five-year) plans for each major aspect of conservation: forest conservation, flood control, sabo, coastal land conservation, prevention of landslides on steep inclines, sewer construction, agricultural disaster-reduction, and sink-hole prevention.

#### d) Disaster emergency response and recovery

Should disaster strike, disaster headquarters are established and emergency assistance administered as described above. When a large number of households are affected by the disaster, the Disaster Relief Law applies, enabling the victims to secure medical care by relief teams, provisions of food, drinking water, basic necessities, and emergency temporary housing, and any other relief measures deemed necessary.

Public facilities damaged by disaster are repaired and rebuilt speedily, either directly by the central government or through subsidies. The government may also provide loans to disaster victims and special provisions to affected local governments, usually in the form of tax rebates and local government bond issues. When damage is severe, the area is designated as being subject to "extreme-severity disaster," which opens the way to higher subsidy rates for reconstruction, relaxed lending conditions for disaster loans to the victims, and other special measures.

# e) Development of information and telecommunications systems

To gather accurate information on disasters and transmit it quickly, institutions involved in disaster-reduction develop and maintain disaster monitoring and warning systems. They also have a "disaster communications network" to provide effective communication among related institutions should a major disaster strike.

#### (3) Areas to be worked on

In order to make a full review of Japan's disaster-reduction systems in light of the experiences of the Great Hanshin-Awaji Earthquake, the prime minister has convened a Disaster-reduction Study Group comprised of experts in the field. This group has met several times and in September 1995 recommended: a) programs to improve administration and implementation, and b) desirable changes to the legal framework. Included in the first group were information gathering and transmission systems, emergency response systems, assistance to victims, recruiting and training of disaster personnel, enhancement of disaster-reduction facilities and equipment, and cooperation with the private sector; in the second, considerations of the national disaster-response system, wide-area mutual assistance agreements between local governments, procedures for wide-area assistance among fire departments, measures to deal with new issues in disaster-reduction such as the role of volunteers, and establishment of a disaster mutual-assistance fund. The government is reviewing the recommendations with a view to taking the measures needed to implement them. (Some of them have already been taken including revision of the Disaster Countermeasures Basic Act.)

## B) International Cooperation in Disaster-reduction

Geographically, Japan is located in an area in which natural disaster is common, but it has managed to overcome this handicap to simultaneously achieve economic growth and a reduction in disasters. It is one of the few developed countries to do so, and as such it is important that it transfer the disaster-reduction knowledge and technology that it has accumulated. The Great Hanshin-Awaji Earthquake has uncovered new issues to be considered. The experiences and lessons from this disaster have reaffirmed for us the importance of international cooperation.

## 1. Programs for the International Decade for Natural Disaster Reduction

## (1) The Japanese Government Headquarters for IDNDR

Japan was one of the principal proponents of the International Decade for Natural Disaster Reduction and has used the decade as an opportunity to advance both international cooperation in the area of disaster-reduction and domestic disaster-reduction programs. In May 1989, the government established within the National Land Agency the "Japanese Government Headquarters for IDNDR," a national committee chaired by the prime minister and charged with maintaining close cooperation between government institutions involved in the program and ensuring that work on goes forward in a comprehensive and effective manner.

To bring these efforts to a wider segment of the population, academia and industry have taken the lead in the Japan National Committee for IDNDR, an organization founded in August 1990.

#### (2) Specific programs

The first meeting of the Japanese Government Headquarters for IDNDR, which was held in November 1989, approved basic government guidelines for programs to be conducted during the decade. On the international level, the guidelines mandate active participation in and cooperation for the programs planned for the decade by the United Nations and others. In particular, they call for contributions to the mitigation of damage from natural disasters in developing countries by providing from a long-term vantage point: i) technical cooperation to assist in raising the levels of disaster-reduction science and technology and disseminating that

information, and assistance for human resources development and improved disaster-reduction systems; ii) assistance for specific projects that will contribute to disaster-reduction; iii) communication of Japanese experiences and knowledge at international conferences and other fora for the exchange of experiences and knowledge among countries; and iv) enhancement of international emergency assistance. Alongside these efforts to promote international cooperation and exchange, Japan is also engaged in an active publicity campaign, including exhibitions and lectures on disaster-reduction.

## 2. International disaster-reduction cooperation today and future directions

## (1) Outline

There are five categories of international disaster-reduction cooperation in which Japan is engaged:

- i) Technical cooperation, including acceptance of trainees, dispatch of experts, and implementation of development surveys;
- ii) Grant aid, including grants for disaster-reduction facilities and equipment, and emergency assistance in times of disaster;
- iii) ODA loans assistance, including loans for disaster-reduction facilities;
- iv Cooperation for the UN IDNDR Secretariat and other international institutions;
- v) Dispatch of Japan Disaster Relief Team and provision of emergency relief supplies.

  These international disaster-reduction cooperation programs are an important part of Japanese international cooperation and efforts are being made to enhance and expand them.

In the five-year period between fiscal 1990 and 1994, Japan spent a total of JYE 328 billion on official development assistance (ODA) in disaster-reduction areas. In fiscal 1994 alone it spent JYE 54 billion, which was about 3% of the total ODA budget for the fiscal year which is JYE 1,941 billion. Of these funds, about JYE 47.5 billion went to disaster-reduction ODA for the Asian region in fiscal 1994, roughly 88% of the total for disaster-reduction.

(2) International disaster-reduction cooperation programs today

Below is a review of the international disaster-reduction cooperation programs in which Japan is currently engaged.

#### a) Technical cooperation

Japan enthusiastically accepts trainees from abroad. The Japan International Cooperation Agency (JICA) provides a large number of group training courses, including the Disaster-reduction Science And Technology Course, the Seminar on Administration for Government Managers Disaster-prevention, the Meteorology II, the Volcanology and Volcanic Sabo Engineering Course, the Group Training Course in River and Dam Engineering II, and the Group Training Course in Fire Service for Administrative Officers. These courses are held with the cooperation of government ministries and agencies involved in disaster-reduction activities. In fiscal 1994, fifty-three people from fifteen Asian countries participated in them, and the courses have been extremely well-received.

Japan also sends experts in disaster-reduction technology to Asian countries to contribute to the improvement of their disaster-reduction technology. Among their main responsibilities are training of local personnel by the transfer of technology, and the implementation of development surveys from the perspective of disaster-reduction. An example of one such survey is the Study on the Disaster Prevention Plan for Severely Affected Areas by 1993 Disaster in the Central Development Region of Nepal.

In addition, Japan provides project-type technical cooperation that combines, in an organic manner, the acceptance of trainees, the dispatch of experts, and the provision of equipment. These projects foster technology development and engineering skills, and, in doing so, improve recipient countries' ability to deal with flood damage, land slide disaster, mountain fires, and mountain-area disasters. Examples include technical centers on sabo in Indonesia and Nepal, and the Pilot Scheme for Technological Development on River Information System Project in China.

#### b) Grant aid

Grants, which require no repayment, are provided on a bilateral basis. Examples include the Project for Watershed Management and Irrigation Development in Mithawan of Pakistan, the project for building of a Multipurpose Cyclone Shelter and establishment of the Meteorological Microwave Network in Bangladesh, and River Embankment Project in Nepal.

#### c) ODA loans assistance

ODA loans assistance, which involve long-term loans at subsidized interest rates, is implemented on a bilateral basis and is the largest component of disaster-reduction ODA. Examples include the Commodity Loan for Mt. Pinatubo Disaster Rehabilitation and Reconstruction in the Philippines, the Lower Solo River Improvement Project in Indonesia, and Commodity Loan for Flood Disaster Relief in Pakistan.

d) Cooperation administered through the UN or other international institutions

Japan contributes to the UN IDNDR Secretariat. In fiscal 1995, it contributed approximately JYE 50 million.

Japan also contributes funding and personnel to projects to prevent mountain fires and other disasters administered by such organizations as the International Tropical Timber Association.

#### e) Emergency relief

Japan provides disaster relief teams and supplies under the Law Concerning the Dispatch of Japan Disaster Relief Team of 1987. Among the activities engaged in during 1994 was the dispatch of teams to Indonesia to help deal with a volcanic eruption. A total of about JYE 250 million in emergency supplies was provided during the year.

#### (3) Major international cooperation programs and future directions

Japan is engaged in many international disaster-reduction cooperation programs that involve a number of countries. The major ones are described below.

a) Studies on the promotion of disaster-reduction systems in developing countries

Since 1991, Japan has been reviewing the disaster-reduction programs of developing countries concerning current status and future challenges and comparing them with similar programs and technologies in Japan in order to study and propose potential measures to be taken. During the first three years, these studies were performed for the Philippines; during the second two years, for Indonesia. A study on Vietnam is scheduled to commence in 1996.

## b) Eastern Asia Natural Hazards Mapping Project

This project will use global resource satellites to collect information on geological disasters in East Asian countries, creating a database and eventually a map from that data. So far, we have been sponsoring an international forum and workshops and seeking the cooperation of research institutes in putting together the geological disasters map. We expect to be able to provide a finished map to countries by 1999.

#### c) Improvement of early warning systems

Japan exchanges meteorological data and observation, analysis, and forecasting technology that is useful in disaster-reduction with meteorological agencies in other countries. It also serves as the hub for meteorological information for the Asian region through the World Meteorological Organization, and makes active contributions to the mitigation of tsunami damage by exchanging tsunami warnings and observations for earthquakes occurring in Japanese coastal waters and in the Pacific region.

For typhoons, Japan provides information over the World Meteorological Organization's dedicated "GTS" and other networks. In the future, we plan to improve both the content of the information and the technology used to gather it, and to provide active technology assistance to potential user countries.

## d) Research and development of Advanced Land Observing Satellite (ALOS)

We are engaged in the "ALOS" project to develop the technology for precise, fast observation of natural disasters and changes in the natural environment regardless of weather conditions or time of day. We are currently at the stage of basic research, with a launch target of fiscal 2001.

## e) Third-country training

Third country training is a program to train people from neighboring countries at sites in developing countries that, as a result of Japanese technical cooperation, have reached requisite levels of technology. For example, Japan provides financial and technical cooperation to the Asia Disaster Preparedness Center at the Asia Institute of Technology in Thailand for the Disaster Prevention and Mitigation Course. It also provides financial and technical cooperation for the International Advanced Course on Earthquake Disaster Prevention for Building Engineers by the Institute of Human Settlements, Ministry of Public Works in Indonesia and promotes technical transfer to neighboring countries.

f) Contributions to the International Center for Integrated Mountain Development (ICIMOD)

Between 1993 and 1995, Japan contributed a total of \$300,000 to ICIMOD, an institution that conducts comprehensive information gathering, analysis, and training on development, disaster-reduction, and environmental conservation in the Hindu Kush-Himalaya Mountains. It also dispatched experts to the center. Under the project, which is scheduled to conclude in 1997, satellites are being used to map dangerous areas and manuals on land-slide prevention are being created.

# g) Joint research on disaster-reduction in the Asia-Pacific region

During the October 1995 Asian-Pacific Economic Cooperation Minister's Conference on Regional Science and Technology Cooperation, Japan proposed the promotion of joint research on disaster-prevention with priority on earthquakes. This proposal is scheduled to be discussed.

## (4) Basic stance on future in disaster-reduction cooperation

Japan has been active in international cooperation in the area of disaster-reduction, particularly in the Asian region, where we have deep historical, economic, and social ties, and where we share many of the same geographical and meteorological vulnerabilities to natural disaster. Countries in this region often experience large disasters that may in some cases damage economic development and social stability. Japan engages in a wide variety of international cooperation in disaster-reduction in this region, utilizing its experiences with natural disaster and the disaster-reduction technology that it has accumulated.

Japan will continue to provide active cooperation in the area of disaster-reduction. Our basic stance in this is summed up in the following principles:

- a) The "Yokohama Strategy for a Safer World" that was adopted at the World Conference on Natural Disaster Reduction in Yokohama in May 1994 underscores the importance of disaster-reduction cooperation at the regional level and in light of this we will be moving forward with disaster-reduction cooperation in the Asian region taking full account of the Plan of Action of the Yokohama Strategy.
- b) Japan will be moving forward with a wide range of projects to prevent, prepare for, and mitigate natural disasters. These projects include the improvement of disaster-reduction systems and programs in Asian countries, the formulation of disaster-reduction plans, dissemination of disaster-reduction knowledge, enhancement of information communication networks, research and development of disaster-reduction science and technology, land conservation projects, and disaster-reduction drills. To this end, we will continue to enhance bilateral assist through technical cooperation, ODA loans assistance, and grant aid. Likewise, we will continue to be actively involved in multilateral cooperation to prevent, prepare for, and mitigate natural disaster by, for example, contributing to the UN IDNDR secretariat.
- c) Japan will do all in our power to mitigate the damage and to relief affected people when disaster strikes and we are requested by the affected country, Japan will take emergency relief activities in a flexible and timely manner by dispatching the Japan Disaster Relief Teams and providing relief supplies and emergency grant assistance.
- d) In light of the importance of reinforcing disaster-reduction policies among Asian countries, Japan will work to further enhance its assistance in the area of disaster-reduction for developing countries.
- (5) Proposals from Japan Japan has two proposals for cooperation among the countries participating in the ANDRC.
- a) The Yokohama Strategy points out the establishment of regional centers for disaster-reduction and prevention as one of the cooperative activities in regions that share many common aspects of disaster-vulnerability. In this context, Japan proposes that the participant countries immediately begin to consider the creation of the system which has the functions of a disaster-reduction center for the Asian region. This system has such objectives as accumulating information on disaster-reduction in the Asian region, providing the information for the countries, conducting studies on the promotion of disaster-reduction cooperation for developing countries and, should disaster strike, gathering information on emergency assistance and other issues.
- b) In view of the discussions and results achieved during the ANDRC, we propose to further consider ways among the countries in which international disaster-reduction cooperation can evolve in the Asian region, and to hold a forum for continual discussions, including discussions at the expert level.