

SECTION B: STRATEGIES AND ACTIVITIES

1. Steps towards achieving the 3 main Decade targets

The Government Headquarters for IDNDR decided the basic policy for promoting activities for the International Decade for Natural Disaster Reduction on November 6th, 1989. As set forth in the following, and under the policy, the members of the Headquarters are promoting the IDNDR activities in a comprehensive manner.

November 6, 1989

THE BASIC POLICY FOR PROMOTING ACTIVITIES FOR THE "INTERNATIONAL DECADE FOR NATURAL DISASTER REDUCTION"

Government Headquarters for IDNDR Decision,
Government of Japan

Paying due respect to the United Nations General Assembly Resolution on the "International Decade for Natural Disaster Reduction (IDNDR)," and bearing in mind the various circumstances existing in Japan, the activities for the IDNDR shall be promoted in accordance with the following basic policy:

I. Basic viewpoints with regard to the promotion of the IDNDR

The United Nations, at its 42nd General Assembly, adopted the resolution on the IDNDR to be launched in 1990, with a view to reducing through concerted international actions the adverse effects of natural disasters, such as loss of life, property damage, and social and economic disruption, worldwide, especially in developing countries.

With regard to this objective of the Decade and taking into account the present conditions of Japan's disaster countermeasures as well as international cooperation for disaster prevention, various activities for the IDNDR shall be promoted in accordance with the following basic viewpoints:

1. Natural disasters are seriously affecting the world, especially in developing countries, on the other hand scientific and technological progress is enabling us to prevent or mitigate adverse effects of natural disasters. There are the recognitions in the background of the United Nations resolution. Therefore, the Government Headquarters for IDNDR shall further promote international cooperation for the reduction of damage caused by natural disasters throughout the world, especially in developing countries, and raise the awareness and deepen the understanding of our people toward these issues, and thus consolidate the basis for

the support of the promotion of international cooperation in the future.

2. Japan is situated in a land condition vulnerable to natural disasters, meteorologically, topographically and geologically, and numerous lives and properties have been lost every year by natural disasters. In recent years, the number of people lost and missing by natural disasters has been gradually decreasing, but on the other hand, the effects of disasters are becoming more complex and diversified due to changes in economic and social circumstances, such as urbanization and informationization. Various disaster countermeasures shall be promoted in order to conserve the national land and protect the lives and properties of the people from such disasters.

II. Promotional Activities for the IDNDR

Based on the above-mentioned basic viewpoints, the following measures shall be vigorously carried out.

1. Promotion of international cooperation and exchanges.

The IDNDR Government Headquarters shall positively participate in and cooperate with various projects planned by the United Nations system and other organizations regarding the IDNDR. At the same time, the IDNDR Government Headquarters shall, with a view to contributing to reduction of damage caused by natural disasters, especially in developing countries, engage in the promotion of international cooperation and exchange activities concerning disaster reduction, under long term prospects, mainly in the following areas:

- 1) Assistance for the improvement and diffusion of science and technology related to natural disaster reduction, training of personnels, and improvement of the counter-disaster systems, etc., through technical cooperation in such areas as training activities, joint research, dispatch of experts, supply of equipment, etc.
- 2) Assistance to projects conducive to the reduction of natural disasters.
- 3) Promotion of the transference of Japan's experience and knowledge, and mutual exchanges of experiences and knowledge of each country through holding international conferences, etc.
- 4) Enhancement of international emergency relief assistance.

2. Promotion of disaster countermeasures in Japan.

In order to ensure that all the people will be able to live safely, disaster countermeasures shall be promoted mainly in the following fields of activities:

- 1) Promotion of scientific and technological research in disaster prevention.
- 2) Enlargement and reinforcement of disaster prevention systems, and development

and improvement of disaster prevention facilities and equipment.

- 3) Promotion of various projects for national land conservation.
- 4) Proper guidance of land use for a safe environment, and promotion of various measures toward realization of multipolar decentralized national land structure.
- 5) Strengthening of disaster emergency and recovery measures.

3. Promotion of popularization and public relations activities.

In addition to the activities stated above, in accordance with the objectives of the IDNDR to spread the knowledge on disaster prevention and to raise the public awareness toward disaster prevention, various public relation activities such as exhibitions and lectures shall be implemented, commemoration ceremonies and issuance of commemorative stamps shall be promoted.

III. Methods to promote activities for the IDNDR

Comprehensive and effective promotion of the above-mentioned activities shall be achieved through a close collaboration among all relevant administrative organs. In order to widely acquaint the public with the purpose of this movement, as well as to raise nation-wide interest, it is necessary to promote activities with close collaborations between governmental organs, local governments and private organizations. It is expected that those organs and organizations will vigorously implement activities in accordance with the objectives of the IDNDR.

In this way, the Japan's IDNDR activities are comprehensively and effectively carried out in extensive areas. But, here, the activities directed towards achievement of the IDNDR targets will be particularly described.

(a) Comprehensive national assessments of risks from natural hazards, with these assessments taken into account in development plans:

- (1) Promotion of risk assessments, and provision of disaster preventive charts by area.

Each local public organ has been conducting disaster preventive assessments to comprehensively and scientifically grasp the risks of hazards of the area, taking the hazard inducing factors (earthquake, typhoon, heavy rain, etc.), possible causes of hazards (steep slope, soft ground, etc.), history of hazards and change in land use into consideration and been preparing area disaster prevention charts having the various data related to the hazards and characteristics of the area arranged in a highly integrated form in unit of community, town association or school area in reference to maps and ledgers, and for these, a special tax grant measure is taken.

- (2) Each Prefectural Police Force surveys the areas of risk from hazards and has

them kept in data for use for police activities in the event of a disaster.

(3) Maintenance of coastal disaster prevention data maps.

In order to promptly and adequately carry out the relief and rescue activities from the sea in the event of a disaster (volcanic eruption, earthquake and/or tsunami) occurring in a remote island or peninsular area, there have been coastal disaster prevention data maps developed containing natural information of coastal line, water depth, etc., social information presenting locations of public organs and disaster preventive information including areas vulnerable to hazards and evacuation sites.

(4) Formulation of liquefaction map preparation manual.

There has been prepared a manual showing a general method of preparing a map for approximate prediction of the possibility of liquefaction causing adverse effects to small buildings among the liquefaction of the ground due to an earthquake.

(5) Formulation of a guideline for preparation of hazardous areas of volcanic eruption and preparation of a map of volcanic eruption hazardous areas.

Assessing the area degree of risk from volcanic disaster, a guideline has been provided for preparation of the hazardous areas from the indicated volcanic eruption disasters. Also, for the active 27 volcanoes, implementation of a system for warning and evacuating local inhabitants is expedited through preparation of volcanic hazard maps.

(6) Preparation and publication of sediments disaster hazard maps.

A hazard map showing highly dangerous places from sediment disasters, dangerous streams of flow, potential landslide sites and dangerous places of slope failure was prepared for the area of jurisdiction of the public works office in the respective prefectures, and such maps were released throughout the country in 1991.

(7) Preparation of sediment disaster hazardous area maps.

Sediment disaster hazardous area maps showing, in addition to the highly dangerous places from sediment disasters, sediment disaster hazardous areas (dangerous streams of flow, landslide-threatened areas, and dangerous areas of slope failure), hazardous areas under the building codes, evacuation roads and refuge sites, have been prepared in model areas.

(8) For adequate management of those road sections which will have traffic controlled beforehand and for disaster prevention works, the objective routes have been chosen among the national highways under the jurisdiction of the Ministry of Construction, and the following surveys been carried out.

1) Arrangement of records in the form of collecting historical data of disasters and rainfall conditions to verify with each other.

2) Examination of adequate rainfall indexes for considering the correlation of

rainfall and hazards.

- 3) Preparation of hazard maps noting the topographical and geological conditions, records of the closure of road due to hazards in the past, and disaster preventive works.
- 4) Assessment of the stability in the traffic control sections, including reexamination of the propriety of the standard values and management methods.
- (9) Execution of the survey of the dangerous torrents of debris flow.

A survey of torrents subject to hazards from debris flow was carried out simultaneously throughout the country, and such torrents were released in May 1993. (79,318 torrents)

- (10) Execution of the inspection of the dangerous places of landslide.

To implement programs efficiently and to improve precaution and evacuation systems in the event of a landslide, etc., the inspection is carried out every 5 years.

- (11) Execution of the survey of the dangerous places of landslide.

To grasp the distribution and actual conditions of the potential landslide sites in relation to the farm land and agricultural facilities and emergency of preventive measures, a "survey of hazardous sites of failure from landslides" is carried out for the agricultural areas throughout the country at a rate of once in about 10 years, and depending on the publicity and imminence of hazards, designation of "landslide prevention areas" is made under the Landslides Prevention Law, with necessary measures taken. The fourth survey is scheduled from fiscal 1994.

- (12) Execution of the inspection of the dangerous places of steep slope failure.

To perform comprehensive earth-fall countermeasures by implement of efficient programs and improvement of precaution and evacuation systems, etc., the inspection is carried out every 5 years.

- (13) For the areas of greater vulnerability to hazards and lower agricultural productivity than the other areas because of soil is covered by some special nature, they are designated as special soil zones under the Law for Special Measures for Special Soil Zone Disaster Prevention and Promotion, and now the disaster prevention and farm land improvement project is being carried out under the ninth special soil zone countermeasure project plan.

- (14) Execution of the inspection of the dangerous places of avalanche.

To perform comprehensive avalanche countermeasures by implement of efficient programs and improvement of precaution and evacuation systems, etc., the inspection is carried out every 5 years.

- (15) Execution of the survey of hilly hazardous sites.

To grasp the actual conditions of the areas subject to hazards from hillside collapse or landslide and prevent such hazards, a survey of the dangerous sites

of hillside hazards has been carried out for the potential hillside collapse areas subject to hazards from hillside collapse (including hazards due to falling stone), potential landslide areas subject to hazards from landslides, and potential collapsed sediment runoff areas subject to hazards from flow of sediments due to hillside collapse or landslide or of volcanic eruptions, and a reassessment survey was conducted in fiscal 1991-1992.

(b) Mitigation plans at national and/or local levels, involving long-term prevention and preparedness and community awareness:

(1) Basic Plan for Disaster Prevention.

The Basic Plan for Disaster Prevention provides the basis of the measures which are considered to be necessary for disaster prevention in Japan, and also the standards for preparation of Local Plans for Disaster Prevention. It was prepared by the Central Disaster Prevention Council installed in the Government.

It specifies the following:

- i. Comprehensive and long-term plan for disaster prevention;
- ii. Matters of importance in the local plans for disaster prevention; and
- iii. Other standards which are considered to be necessary for formulation of local plans for disaster prevention.

The Basic Plan for Disaster Prevention is examined every year and revised as required in consideration of the results of scientific research works concerning disasters and disaster prevention, conditions of the disasters of occurrence, and effects of the emergency measures taken against such disasters, with the purports of the examination announced to the public. The current Basic Plan for Disaster Prevention was prepared in 1971, and in view of the changes in the socio-economic conditions thereafter, the examination is presently made for review of the plan.

(2) Local Plan for Disaster Prevention.

The local plan for disaster prevention is a comprehensive plan for disaster prevention for a particular area, and it specifies the roles of the organs related to disaster prevention in the area and plans for disaster prevention, emergency measures against disaster and disaster restoration. It includes the prefecture and municipal plans for disaster prevention.

1) Prefecture plan for disaster prevention

The matters specified in the plan are as follows:

- i. With respect to the disaster prevention for the prefecture area concerned, the business, or an outline of the business, to be processed by the designated local administrative organs, prefecture, municipalities and public corporations concerned;
- ii. Plans by item for disaster prevention, disaster emergency measures and disaster restoration for the prefecture area concerned (information

collection and transmission plan, relief plan, etc.);

iii. Plans for provision, reserve, acquisition, distribution, transport and communication of labour, facilities, equipment, commodities and funds required for the actions listed in "ii" (food reserve plan, portable water supply plan, etc.); and

iv. Any other matters which the prefecture disaster prevention council considers to be necessary for disaster prevention of the prefecture area.

The prefecture disaster prevention plan has been prepared by each of all prefectures, and the respective prefecture disaster prevention councils examines the details of the plan every year, and the greater part of them have some revisions made every year. When the revision is made, it is generally published by official bulletins.

2) Municipal Plan for Disaster Prevention

The matters specified in the plan are nearly the same with those in the prefecture plan for disaster prevention. While the prefecture plan for disaster prevention comprises the business or works to be processed by the State and related organs and is thus mainly intended for comprehensive operation of the disaster preventive administration in the area, the municipal plan for disaster prevention is mainly related to the municipality concerned and has importance placed on effective and specific implementation of the disaster preventive activities in the area. The municipal disaster prevention council gives consideration to the plan every year, revises it as required, and announces the core. The municipal plan for disaster prevention is most closely connected to the inhabitants, and for its implementation, the cooperation of the inhabitants is required, and so it is broadly dispersed to the inhabitants by bulletins.

(3) Other plans

Except the foregoing, the designated administrative organs and designated public corporations have respectively an operational plan for disaster prevention provided, specifying the measures to be taken for disaster prevention with respect to the assigned duties, while each Prefectural Police Force has respectively a disasterpolicing plan formulated, and the municipalities have respectively a municipal fire fighting plan and a rescue plan formulated, with examination made every year.

(c) Ready access to global, regional, national and local warning systems and broad disbursement of warnings:

1. The following prediction and warning systems are maintained and operated.

(1) Computer Systems for Meteorological Services (COSMETS).

COSMETS is a system for producing and disseminating forecasts and warnings and

is comprised of Central Automated Data Editing and Switching System (C-ADESS) and Numerical Analysis and Prediction System (NAPS). C-ADESS is a system of exchanging meteorological data not only in Japan but also in the world and has the input data simultaneously transmitted to NAPS. It provides the automatically edited data and image information such as radar echo charts and weather charts to the meteorological organizations in and out of Japan via telecommunication circuits or radio. NAPS analyses the atmospheric condition over the world with a super computer using observed data transmitted from C-ADESS and predicts the future atmospheric condition. It computes the global atmospheric condition up to 8 days and predicts more precisely around Japan up to 2 days every day. Also, based on the radar and AMEDAS data, it produces radar-AMEDAS composit and carries out 3-hour forecasts of rainfall every hour. In addition, it executes various data processing on meteorology, including computation of wave forecasts and preparation of climate data.

(2) Earthquake Phenomena Observation System (EPOS)

EPOS is a system for observing precursory phenomena to issue a warning of tsunami by determining the seismic center, magnitude, etc. immediately after the occurrence of an earthquake and to predict a large-scale earthquake which is concerned to occur in the Tokai area in the future. This system is to the Tsunami Forecasting Center administering to the Tokai District in the Meteorological Agency.

(3) Earthquake and Tsunami Observation System (ETOS)

Each District Meteorological Observatory has the telemetered records of seismographs located at various sites, and once an earthquake occurs, the data is automatically aggregated. This system computes the location of the hypocenter and magnitude of the earthquake from this data and, should a tsunami occur, immediately issues a tsunami warning.

(4) River Information System

This system gathers by telemeter the data of water level and rainfall of the hydrological stations distributed in the basin of a river and re-transmits the collected data promptly to the necessary locations and grasps the conditions of rivers and dams in floods and low-water, thus allowing reinforcement of the management.

(5) Radar Rain Gauge Information System

Unlike the measurement of point rainfalls by ground rain gauges, this system is designed to match-up the surface size, intensity and location of a rainy region by radar.

(6) Sediment Disasters Monitor System

This is a system to observe and predict debris flows, landslides and earth-falls on the basis of data collected by pluviometers, observation equipments, etc.

The systems have been set up for early warning and evacuation.

(7) Automated Landslide Monitor System

This is a system to automatically measure the surface fluctuation, ground fluctuation, ground water level and precipitation in use of such devices as extensometer, bubble type ground-clinometer, pipe type strain meter, insertion type inclinometer, vertical extensometer, ground water level gauge, pore water pressure gauge and rain gauge, and transmit the data of measurement to a remote observation station by wire (public or exclusive circuit) or radio for processing of the data to determine if there is a risk of an occurring landslide and, if any, warn the risk by indicating on CRT and peep sound.

(8) Avalanche Monitor System

This is a system to observe those meteorological factors which may have a great influence on the occurrence of an avalanche (such as atmospheric temperature, snow depth, wind velocity, wind direction and insulation) on a slope having a possibility of an avalanche, transmit the data of measurement in real time, immediately process and analyze the data according to predetermined calculation formulas, and inform the results.

(9) Hillside disaster prediction facilities

These facilities are designed for efficient erosion control projects through analysis of rainfall data and for contribution to local warning and evacuation.

(10) The disaster prevention information system for transmitting observation data with satellite to damage area in quasi-real time and for advanced analysis is being established.

2. Further, the following prediction and warning transmission systems are maintained and operated.

(1) Transmission system of Police

The National Police Agency has established nationwide communication networks which are self-supporting or exclusive for the purpose of transmitting information directly related to police activities. The networks are also used to transmit forecasts and warnings issued by local meteorological observatories. In the case of a warning of a tidal wave issued, the police transmit it to Municipality and inform residents of it.

(2) River information supply system

This is a system to collect, process and supply various data of a river and its basin possessed by the river manager, for the purpose of contributing to adequate management and promotion of river use, flood control activities, warning and evacuation activities, and use for domestic and industrial aspects.

(3) Safety information transmission facilities

For the purpose of transmitting urgent information to people using the coasts, there is promoting the provision of broadcasting facilities, etc. in local areas.

Further, for smooth and prompt transmission of fishery, living and disaster safety information in fishing villages, provision of such facilities as outdoor loud speaking devices and warning devices is being expedited.

(4) Navigation warning to ships

For safety of ship traffic, navigation warnings of underwater volcanoes and abnormal tide levels are given to ships by radio in a 24-hour system.

(5) Promotion of sea safety information transmission project

Tsunami warnings, typhoon information, driftage and other information concerned with safety of navigation and operation of fishing boats, which the Fisheries Agency has obtained, are provided to the coastal stations for fishery distributed throughout the country, and the coastal stations for fishery receiving such information are providing the information which belong to fishing boats for safe navigation of the fishing boats.

(6) Fishery area information system (Marine Phone)

By providing portable radio stations on small fishing boats, communications between fishing boats or with the fishermen's cooperative association, market or home is then secured. So, this is a system intended for safe navigation and efficient fishing operation including exchange of information on weather, sea conditions and tsunami and other disasters.

2. Present national plan for natural disaster reduction

(1) Disaster Prevention Plan

(a)-1 Basic Plan for Disaster Prevention

a) Time span covered:

Central Disaster Prevention Council decision on June 14, 1963 and revision on May 25, 1971

b) Agencies, institutions and organizations involved:

Government, local public bodies, Designated Public Corporations etc.

c) Implementing agencies:

formulated by Central Disaster Prevention Council

d) Funds available for implementation:

Basic policy for establishment of disaster prevention system, promotion of disaster prevention projects, prompt and adequate disaster restoration, promotion of scientific and technological researches on disaster prevention, and matters of importance in planning operation for disaster prevention and local disaster prevention

(a)-2 Operational Plan for Disaster Prevention

a) Time span covered:

(Each plan has different time span.)

b) Agencies, institutions and organizations involved:

Government, local public bodies, Designated Public Corporations etc.

c) Implementing agencies:

formulated by the respective Head of Designated Administrative organs and Designated Public Corporations

d) Funds available for implementation:

Plan about items as criteria for tasks to be done by the Designated Administrative Organs and Public Corporations when preparing the measures to be taken for disaster prevention and local Plan for Disaster Prevention

(a)-3 Local Plan for Disaster Prevention (prefecture government level)

a) Time span covered:

(Each plan has different time span.)

b) Agencies, institutions and organizations involved:

Government, local public bodies, Designated Local Public Corporations etc.

c) Implementing agencies:

formulated by the respective Prefectural Disaster Prevention Councils

d) Funds available for implementation:

Plan about tasks or work to be handled for disaster prevention by the disaster prevention organ in relevant area

(a)-4 Local Plan for Disaster Prevention (municipal level)

- a) Time span covered:
(Each plan has different time span.)
- b) Agencies, institutions and organizations involved:
Government, local public bodies etc.
- c) Implementing agencies:
formulated by the respective Municipal Disaster Prevention Councils /Mayors of cities, Towns and Villages
- d) Funds available for implementation:
Plan for disaster prevention facilities, disaster prevention, information correction and transmission, predictions and warnings, emergency measures and recovery measures for the relevant areas; and plans for arranging, stockpiling, procuring, allocating, transporting and notifying the labor, facilities, equipment, materials, funds, etc. required for the said measures

(b)-1 Basic Plan for Earthquake Disaster Prevention

- a) Time span covered:
(Area under Intensified Measures against Earthquake Disaster of Tokai Earthquake)
Central Disaster Prevention Council decision on September 3, 1979 and revision on August 21, 1990
- b) Agencies, institutions and organizations involved:
Government, local public bodies in the Area under Intensified Measures against Earthquake Disaster, Designated Public Corporations etc.
- c) Implementing agencies:
formulated by Central Disaster Prevention Council
- d) Funds available for implementation:
Basic national policies for earthquake disaster prevention after issuance of warning statement
described about items as basic of the Intensified Plan for Earthquake Disaster Prevention and Short-term Plan for Earthquake Disaster Prevention; and items related to comprehensive disaster prevention training

(b)-2 Intensified Plan for Earthquake Disaster Prevention

- a) Time span covered:
(Each plan has different time span.)
- b) Agencies, institutions and organizations involved:
Government, local public bodies in the Area under Intensified Measures against Earthquake Disaster, Designated Public Corporations etc.
- c) Implementing agencies:
formulated by the respective Head of Designated Administrative organs, Designated Public Corporations, Prefectural Disaster Prevention Councils and Municipal Disaster Prevention Councils /Mayors of cities, Towns and Villages
- d) Funds available for implementation:
Plan about items related to the Short-term Prevention Measures

against Earthquake Disaster to be taken after the issuance of Earthquake Warning Statements; and items related to the arrangement of facilities and others to be urgently arranged for earthquake disaster prevention, such as evacuation land, evacuation roads, fire fighting facilities and others; and items related to the training and PR required for disaster prevention drills and earthquake disaster prevention

(b)-3 Short-term Prevention Measures against Earthquake Disasters

a) Time span covered:

(Each plan has different time span.)

b) Agencies, institutions and organizations involved:

Government, local public bodies in the Area under Intensified Measures against Earthquake Disaster etc.

c) Implementing agencies:

formulated by Manager or administrator of the facilities such as hospital, theater, department store, etc. and the facilities handling petroleum, explosives, etc.

d) Funds available for implementation:

Plan about items related to the measures to be taken as Short-term Prevention Measures against Earthquake Disasters to be executed at the issuance of Earthquake Warning Statements; and items related to the training and PR required for disaster prevention drills and earthquake disaster prevention

(2) Plan for Research and Development

(a) Basic research and development plan for disaster reduction

a) Time span covered:

Decided by the Prime Minister in Dec. 1993; reviewed about every 10 years

b) Agencies, institutions and organizations involved:

Science and Technology Agency and other government research institutions

c) Implementing agencies:

formulated by the Prime Minister

d) Funds available for implementation:

Basic policy for comprehensively and effectively promoting research and development of disaster reduction in a long-term view

(3) Five-year Plans Related to the National Land Conservation Works

(a) 8th Forest Conservation Project Five-Year Plan

a) Time span covered:

1992-1996

b) Agencies, institutions and organizations involved:

Ministry of Agriculture, Forestry and Fisheries, Forestry

<p>Agency and local public bodies</p> <p>c) Implementing agencies: Ministry of Agriculture, Forestry and Fisheries, Forestry Agency and local public bodies</p> <p>d) Funds available for implementation: Project expense: 2,760 billion yen Shares: Directly operated project - Government, 10/10, 2/3 Prefecture, 1/3 Subsidy project - Government, 5.5/10 or less</p>
<p>(b) 8th Flood Control Project Five-Year Plan</p> <p>a) Time span covered: 1992-1996</p> <p>b) Agencies, institutions and organizations involved: Ministry of Construction and local public bodies</p> <p>c) Implementing agencies: Ministry of Construction and local public bodies</p> <p>d) Funds available for implementation: Project expense: 17,500 billion yen</p>
<p>(c) 5th Shore Protection Works Five-Year Plan</p> <p>a) Time span covered: 1991-1995</p> <p>b) Agencies, institutions and organizations involved: Ministry of Agriculture, Forestry and Fisheries; Ministry of Transport; Ministry of Construction; and local public bodies</p> <p>c) Implementing agencies: Ministry of Agriculture, Forestry and Fisheries; Ministry of Transport; Ministry of Construction; and local public bodies</p> <p>d) Funds available for implementation: Project expense: Ministry of Agriculture, Forestry and Fisheries: 304.2 billion yen Ministry of Transport: 390.0 billion yen Ministry of Construction: 345.8 billion yen</p>
<p>(d) 3rd Steep Slope Collapse Countermeasures Project Five-Year Plan</p> <p>a) Time span covered: 1993-1997</p> <p>b) Agencies, institutions and organizations involved: Ministry of Construction and local public bodies</p> <p>c) Implementing agencies: local public bodies</p> <p>d) Funds available for implementation: Project expense: 1,150 billion yen</p>
<p>(e) 7th Sewage System Improvement Five-Year Plan</p> <p>a) Time span covered: 1991-1995</p> <p>b) Agencies, institutions and organizations involved: Ministry of Construction and local public bodies</p>

- c) Implementing agencies:
local public bodies
- d) Funds available for implementation:
Project expense: 16,500 billion yen
Shares: 2/3, 5.5/10, 1/2, 4/10

(f) 4th Land Improvement Long Term Plan

- a) Time span covered:
1993-2002
- b) Agencies, institutions and organizations involved:
Ministry of Agriculture, Forestry and Fisheries
- c) Implementing agencies:
Ministry of Agriculture, Forestry and Fisheries and local public bodies
- d) Funds available for implementation:
Project expense: 41,000 billion yen

(4) Others

(a) 5th Urban Parks Development Five-Year Plan

- a) Time span covered:
1991-1995
- b) Agencies, institutions and organizations involved:
Ministry of Construction and local public bodies
- c) Implementing agencies:
Ministry of Construction and local public bodies
- d) Funds available for implementation:
Project expense: 5,000 billion yen
Shares: Subsidy Land acquisition, 1/3
Facility development, 1/2

(b) Urban Disaster Preventive Structuring Project Plan

- a) Time span covered:
1986-
- b) Agencies, institutions and organizations involved:
Ministry of Construction and local public bodies
- c) Implementing agencies:
local public bodies
- d) Funds available for implementation:

Note: Five-year plans related to the national land conservation works and plans mainly for disaster prevention are listed.

3. Legislation introduced and enacted in relation to natural disaster reduction

(1) Basic Law

o Disaster Countermeasures Basic Act

Law for promoting development and improvement of the comprehensive and well-planned administration for disaster prevention by the establishment of necessary and responsible systems regarding disaster prevention through the Government, local governments and other public corporations, the formulation of disaster prevention plans and basic policies of disaster prevention relating to disaster preparedness, disaster emergency measures, disaster recovery measures, fiscal measures and other necessary measures for the purpose of protecting the national land, the life and limb of the citizens and their property

(2) Law for Monitoring and Warning

o Meteorological Service Law

Law for ensuring sound development of weather services and thus public welfare including disaster prevention by providing the fundamental system for weather services, and for promoting international cooperations concerning weather services

(3) Law for Countermeasures against Each Disaster

a) Countermeasures against Storms and Floods

o Act on Special Measures for Disaster Prevention in Areas Vulnerable to Typhoon

Law for promoting conservation of the national land and stability of the life of the citizens by providing special measures concerning the projects of public work facilities and other facilities in order to prevent damage by typhoon and other disasters in areas vulnerable to typhoon

o Act on the Extraordinary Measures for Disaster Prevention and Development in the Special Soils Areas

Law for promoting conservation of the special soils areas by means of the establishment of proper disaster countermeasures and other measures in the special soils areas and by means of providing special assistances to the projects in accordance with them

o Act Concerning Anti-Erosion and Anti-Flood Special Measures

Law for expediting urgent and systematic execution of soil and water conservation projects

o River Act

Law for promoting development and improvement of facilities for comprehensive management of rivers and prevention of flood and other hazards

o Sabo Act

Law for promoting control of harmful acts and development of erosion control in designated areas for erosion control in accordance with the Sabo Law promulgated in 1897

- o Act on Disaster Prevention due to Collapse of Steep Slope Area
 - Law providing designation of the dangerous areas for steep slope failure, enforcement of steep slope failure preventive works, rules of the share of the cost, development of the systems of warning and evacuation and other measures in order to protect the life of the citizens against disasters by steep slope failure
- o Forest Law
 - Law for promoting conservation and culture of forests and increasing productive capacity of forests by means of providing the forest plan, protection forest and other fundamental matters concerning forests, and for contributing conservation of the national land
- o Temporary Measures Law for Protection Forest Consolidation
 - Law for promoting conservation of the national land by means of the formulation of protection forests development plans and by means of the measures including change of a forest plan and purchase of the forests designated as protection forests by the Government according to those plans in order to urgently develop protection forests
- o Landslide Prevention Act
 - Law providing enforcement of landslide prevention works and other works, rules of the share of the cost, restriction of activities in landslide-threatened areas and other measures in order to prevent or reduce the damage by landslides and coal-sluge avalanches
- o Seacoast Act
 - Law for protecting the coast from damage by tsunami, storm surge, waves and fluctuation of sea water or ground, and for promoting conservation of the national land
- o Land Improvement Act
 - Law for adequately and smoothly carrying out the projects of improvement or development of land for agricultural use
 - Including regulations concerning development of necessary facilities in order to prevent disasters in land for agricultural use
- o Sewerage Act
 - Law for promoting development of sewerage systems by providing the standards of establishment and management of sewerage systems and others
 - Including regulations concerning development of sewerage systems assuming a role of removing rain water in urban areas
- b) Earthquake Disaster Countermeasures
 - o Large-scale Earthquake Countermeasures Act
 - Law for designating an area under intensified measures against earthquake disaster as a prior measure of a large-scale earthquake and promoting reinforcement of the observation system and development of the disaster prevention system to allow the disaster prevention measures to be taken

- simultaneously to reduce the damage
 - o Act concerning the Special Fiscal Measures for the Project for Urgent Improvement of Earthquake Countermeasures in Areas under Intensified Measures against Earthquake Disaster
 - Law for promoting the preparation of Earthquake Countermeasure Development Plan in the area under intensified measures against earthquake disaster, the provision of refuge sites and evacuation roads, and development of disaster prevention facilities including earthquake resistant improvement of school buildings
- c) Volcanic Disaster Countermeasures
 - o Act on Special Measures for Active Volcanoes
 - Law for protecting the life and limb of the citizens in such areas as remarkably damaged or threatened by volcanic eruption and other volcanic phenomena by means of taking special measures including development of facilities such as refuge facilities and agricultural facilities for disaster prevention, and promotion of volcanic ash removal project
- d) Countermeasures against Snowfall Disaster
 - o Act on Special Measures for the Snowy Areas
 - Law for promoting establishment of comprehensive measures concerning improvement of the basic conditions including snow disaster prevention and industry in the snowy areas, and for promoting implementation of them
 - o Special Measures Act for Securing Road Traffic in Special Snowy and Cold Area
 - Law providing special measures concerning snow removal and prevention in roads and prevention of freezing and snow damage in the remarkable snow covered and cold area in order to secure road traffic
 - o Act on Special Measures Concerning Assistance of Cost of Snow Removal Project from Public Facilities Implemented by Local Bodies on Heavy Snow Fall
 - Law providing assistance of cost of snow removal project from public facilities implemented by local governments on heavy snow fall
- (4) Countermeasures concerning Land Use for Disaster Prevention
 - o Urban Planning Law
 - Law providing necessary matters concerning city plan including contents of city plan, procedure for decision, restriction provided in it, city plan projects
 - Including regulations of specifying a fire proof district and a quasi-fire proof district in city plan in order to prevent danger of fire in urban areas, and including reconstruction of damaged urban areas, security of safety in urban areas and development considering disaster prevention
 - o Law for Regulation of Development etc. of Building Land

Law providing necessary regulations for the purpose of disaster prevention concerning works of creation of housing sites and other works in urban areas or in urbanizing areas in danger of earth-fall and sediment runoff by creation of housing sites

o Land Readjustment Law

Law provideing necessary matters concerning land adjustment projects including enforcement persons, enforcement way, rules of the share of the cost

Including special measures concerning development of good urban areas on disaster prevention by improvement of facilities and by creation of sound urban areas, and concerning reconstruction of urban areas using land adjustment projects in order to remove causes extending damage by disasters and to create sound urban areas not only by means of recovering damaged areas but by means of improvement of public facilities and promotion of use of housing sites

o Urban Renewal Law

Law providing necessary matters concerning systematic redevelopment in urban areas

Including as one of the aim of urban renewal improvement from areas threatened by disasters because of crowded wooden buildings to good urban areas on disaster prevention

o City Parks Law

Law providing the standards concerning establishment and management of urban parks

Including development of parks considering disaster prevention such as fire prevention zone, evacuation zone and buffer zone

o Urban Green Space Conservation Law

Law provideing necessary matters concerning preservation of green zones and promotion of tree planting

Including that any area having an adequate location, scale and form as a necessary interception zone, buffer zone or refuge zone for prevention of disasters may be specified as a green preservation zone in city plan

o Act to Preserve the Suburban Green Zone in the National Capital Region

Law providing necessary matters concerning preservation of green zones having good natural environment in the Suburban Development and Redevelopment Area in the National Capital Region

Including that any suburban green zone being effective for preventing disasters may be specified as a suburban green zone preservation area, and that any suburban green zone preservation area being remarkable effective to prevent disasters may be specified as a special suburban green zone preservation area in city plan

o Act concerning the Development of Natural Reserve Areas in the Kinki Region

Law providing special measures concerning development of natural reserve areas including preservation of suburban green zones in Kinki Region

Including that any suburban green zone being effective to prevent disasters may be specified as a suburban green zone preservation area, and that any suburban green zone preservation area being remarkable effective for preventing disasters may be specified as a special suburban green zone preservation area in city plan

o Productive Green Land Act

Law providing necessary matters concerning productive green zone in city plan

Including that an urban area comprising farm land which is effective for preventing disasters and securing good living environment may be specified as a productive green zone in city plan

(5) Regulation to Enterprises and Others Related to Disaster Prevention

o Radio Law

Law for securing fair and efficient use of radio wave

Including that where an emergency situation such as natural disaster has occurred or is likely to occur, necessary communications for rescue of life, relief from disaster damage, securement of traffic and telecommunication or maintenance of the order may be made by radio stations

o Wire Telecommunications Law

Law for establishing the order concerning wire telecommunication by regulating establishment and use of wire telecommunication

Including that where an emergency situation such as natural disaster has occurred or is likely to occur, the person establishing wire telecommunication must have the communications that is necessary matters for disaster prevention, relief, traffic, telecommunication, securement of supply of electric power and maintenance of the order to be carried out in priority

o Telecommunication Business Law

Law for securing offer of telecommunication works and protection of users' benefit by making management of telecommunication enterprises proper and reasonable

Including that where an emergency situation such as natural disaster has occurred or is likely to occur, the telecommunication enterprises must have the communications that is necessary matters for disaster prevention, relief, traffic, telecommunication, securement of supply of electric power and maintenance of the order to be carried out in priority

o Broadcast Law

Law for promoting sound development of broadcasting by means of regulating to adapt it to public welfare

Including that it is clearly the social responsibility of