

Section C: INTERACTIONS

1. Publications on IDNDR-related subjects

(1) Pamphlets

- (1) Title: International Decade for Disaster Reduction (Japanese & English)
Issuing authority: Government Headquarters for IDNDR
Place of issue: Tokyo
Year issued: 1990
- (2) Title: 1994 World Conference on Natural Disaster Reduction (Japanese)
Issuing authority: Government Headquarters for IDNDR, Japan National Committee for IDNDR.
Place of issue: Tokyo
Year issued: 1992
- (3) Title: Working on Disaster Reduction: Towards the International Decade for Natural Disaster Reduction (Japanese)
Issuing authority: Ministry of Transport
Place of issue: Tokyo
Year issued: 1991, 1993
- (4) Title: Towards the International Decade for Natural Disaster Reduction (Japanese)
Issuing authority: Section of International Decade for Natural Disaster Reduction, Ministry of Construction
Place of issue: Tokyo
Year issued: 1990
- (5) Title: IDNDR International Decade for Natural Disaster Reduction (Japanese & English)
Issuing authority: Ministry of Agriculture, Forestry and Fisheries
Place of issue: Tokyo
Year issued: 1991
- (6) Title: Disaster Countermeasures in Japan (Japanese & English)
Issuing authority: Disaster Prevention Coordination Division, Disaster Prevention Bureau, National Land Agency
Place of issue: Tokyo
Year issued: 1991
- (7) Title: Earthquake Disaster Countermeasures in Japan (Japanese & English)
Issuing authority: Earthquake Disaster Countermeasures Division, Disaster Prevention Bureau, National Land Agency
Place of issue: Tokyo
Year issued: 1993
- (8) Title: Volcanic Disaster Countermeasures in Japan (Japanese & English)
Issuing authority: Earthquake Disaster Countermeasures Division, Disaster

Prevention Bureau, National Land Agency

Place of issue: Tokyo

Year issued: 1991

- (9) Title: Preparing for the Tokai Earthquake (Japanese)

Issuing authority: Earthquake Disaster Countermeasures Division, Disaster Prevention Bureau, National Land Agency

Place of issue: Tokyo

Year issued: 1992

- (10) Title: Impacts of Sea Level Rise on the Coastal Zone and Countermeasures (Japanese & English)

Issuing authority: Ports and Harbours Bureau, Ministry of Transport

Place of issue: Tokyo

Year issued: 1993

- (11) Title: Disaster Prevention in Japan (Japanese & English)

Issuing authority: Supervision by the Section of International Decade for Natural Disaster Reduction, Ministry of Construction, issued by the International Engineering Consultants Association (Japan)

Place of issue: Tokyo

Year issued: 1990

- (12) Title: Preserving a Rich Lifestyle (Japanese & English)

Issuing authority: Silt Prevention Department of the Rivers and Waterways Bureau, Ministry of Construction

Place of issue: Tokyo

Year issued: 1993

- (13) Title: Japanese Autonomous Disaster Prevention Policy (English)

Issuing authority: Fire Defense Agency

Place of issue: Tokyo

Year issued: 1992

- (14) Title: Considering about the Problem of International Disaster Prevention: a data book (Japanese)

Issuing authority: Supervision by the Section of International Decade for Natural Disaster Reduction, Ministry of Construction, issued by Kanto Regional Construction Bureau, Ministry of Construction.

Place of issue: Tokyo

Year issued: 1992

- (15) Title: A Helping Hand Across Borders: Uniting the World through International Cooperation (Japanese)

Issuing authority: Supervision by the Section of International Decade for Natural Disaster Reduction, Ministry of Construction, issued by Kanto Regional Construction Bureau, Ministry of Construction.

Place of issue: Tokyo

Year issued: 1992

- (16) Title: Overseas Emergency: Disaster Relief Assistance (Japanese & English)

Issuing authority: Section of International Decade for Natural Disaster Reduction, Ministry of Construction

Place of issue: Tokyo

Year issued: 1991

- (17) Title: Promotion of "Earth Diagnosis" Satellites Network (Japanese)

Issuing authority: Research and Development Bureau, Science and Technology Agency

Place of issue: Tokyo

Year issued: 1993

(2) Videos, etc.

- (1) Title: For a Safe Future (Japanese & English)

Producing authority: Disaster Prevention Coordination Division, Disaster Prevention Bureau, National Land Agency

Place of production: Tokyo

Year produced: 1991

- (2) Title: Towards a 21st Century with Less Damage from Natural Disasters (Japanese & English)

Producing authority: Disaster Prevention Coordination Division, Disaster Prevention Bureau, National Land Agency

Place of production: Tokyo

Year produced: 1991

- (3) Title: Protecting Lives from Wind and Water Damage (Japanese & English)

Producing authority: Disaster Prevention Coordination Division, Disaster Prevention Bureau, National Land Agency

Place of production: Tokyo

Year produced: 1992

- (4) Title: Learning from Earthquakes (Japanese & English)

Producing authority: Disaster Prevention Coordination Division, Disaster Prevention Bureau, National Land Agency

Place of production: Tokyo

Year produced: 1993

- (5) Title: IDNDR - For the Reduction of Natural Disaster-(slide)

Producing authority: Section of International Decade for Natural Disaster Reduction, Ministry of Construction

Place of production: Tokyo

Year produced: 1992

- (6) Title: Preparing for Disasters in Japan (English)

Producing authority: Fire Defense Agency

Place of production: Tokyo

Year produced: 1991

(7) Title: Fear No More (English)

Producing authority: planning by the Ministry of Agriculture, Forestry and Fisheries, production by the Agriculture and Forestry National Broadcasting Corporation

Place of production: Tokyo

Year produced: 1992

(3) Survey reports

(1) Name of report: Survey Report on the Promotion of the Creation of Natural Disaster Prevention Policies in Developing Nations (Japanese & English)

Issuing authority: Disaster Prevention Coordination Division, Disaster Prevention Bureau, National Land Agency

Place of issue: Tokyo

Year issued: 1992, 1993

(2) Name of report: (1) Meteorological Work Cooperation Survey (Nepal, Sri Lanka, Bangladesh); (2) Meteorological Work Cooperation Survey (Papua New Guinea, Solomon Islands, Vanuatu, Tuvalu, Kiribati); (3) Meteorological Work Cooperation Survey (Mexico, the Dominican Republic, Jamaica, Costa Rica, Nicaragua); (all of the above issued in Japanese)

Issuing authority: Ministry of Transport

Place of issue: Tokyo

Year issued: (1) 1991; (2) 1992; (3) 1993

(3) Name of report: Date Report of Hydrographic Observations (Series of Astronomy and Geodesy, Geomagnetic Observation at the Hatizyo Hydrographic Observatory) (English)

Issuing authority: Hydrographic Department of the Maritime Safety Agency, Ministry of Transport

Place of issue: Tokyo

Year issued: published once annually

(4) Name of report: ① Country Reports II: Survey on Road Disasters

② Program of PIARC/IDNDR Activities and Analysis of Survey on Road Disaster; (all of the above issued in Japanese)

Issuing authority: PIARC/Working Group G2

Place of issue: Tokyo

Year issued: 1992

(5) Name of report: Comparative Research Related to an Evaluation of the Susceptibility of Major Urban Areas to Natural Disaster in Developing Nations (Japanese & English)

Issuing authority: Japan National Committee for IDNDR

Place of issue: Tokyo

Year issued: 1992

- (6) Name of report: International Comparative Research on the Collection and Distribution of Information at Times of Natural Disaster (Japanese & English)

Issuing authority: Japan National Committee for IDNDR

Place of issue: Tokyo

Year issued: 1992

- (7) Name of report: Multilanguage Glossary on Natural Disasters

(Japanese & English)

Issuing authority: Japan National Committee for IDNDR

Place of issue: Tokyo

Year issued: 1992

(4) Conference reports

- (1) Name of report: Report on IDNDR International Conference 1990 Japan (Japanese & English)

Issuing authorities: Government Headquarters for IDNDR, Japan National Committee for IDNDR, The City of Yokohama, Kagoshima Prefectural Government, United Nations Centre for Regional Development (UNCRD)

Place of issue: Tokyo

Year issued: 1990

- (2) Name of report: Report on IDNDR Summit Conference on Earthquake and Natural Disaster Countermeasures 1991 Japan (Japanese & English)

Issuing authorities: Government Headquarters for IDNDR, Japan National Committee for IDNDR, Tokyo Metropolitan Government

Place of issue: Tokyo

Year issued: 1991

- (3) Name of report: Report on IDNDR Chiba International Conference 1992 Japan (Japanese & English)

Issuing authorities: Government Headquarters for IDNDR, Japan National Committee for IDNDR, Chiba Prefectural Government, City of Chiba

Place of issue: Tokyo

Year issued: 1992

- (4) Name of report: International Seminar on Earthquake Prediction and Hazard Mitigation Technology (English)

Issuing authority: the Bureau of Research and Development of the Science and Technology Agency

Place of issue: Tokyo

Year issued: 1991

- (5) Name of report: Proceedings of the Workshop on Predicting Volcanic Eruptions

and Hazard Mitigation Technology (English)

Issuing authority: the Scientific and Technological Research Center, Science and Technology Agency

Place of issue: Tsukuba City, Ibaraki Prefecture

Year issued: 1992

- (6) Name of report: List of Publications 1969-1991, Panel on Wind and Seismic Effects of the U.S.-Japan Conference on the Development and Utilization of Natural Resources (UJNR) (English)

Issuing authority: Panel on Wind and Seismic Effects of the U.S.-Japan Conference on the Development and Utilization of Natural Resources (UJNR), Public Works Research Institute of the Ministry of Construction, National Instituted of Standards and Technology Department of Commerce

Place of issue: Japan, America

Year issued: 1992

- (7) Name of report: (1) Proceedings of the IDNDR International Symposium on Earthquake Disaster Reduction Technology-In Commemoration of the 30th Anniversary of International Institute of Seismology and Earthquake Engineering); (2) Earthquake Disaster Reduction Handbook-1992- In Commemoration of the 30th Anniversary of the International Institute of Seismology and Earthquake Engineering.

(all of the above issued in Japanese)

Issuing authorities: IDNDR International Symposium on Earthquake Disaster Reduction Technology Action Committee, Building Research Institute of the Ministry of Construction

Place of issue: Tsukuba City, Ibaraki Prefecture

Year issued: 1992

- (8) Name of report: Report on Remote Sensing Promotion Conference, 1st-3rd edition (Japanese & English)

Issuing authorities: Research and Development Bureau, Science and Technology Agency

Place of issue: Tokyo

Year issued: 1st edition: 1992

2nd edition: 1993

3rd edition: 1993

2. IDNDR meetings and conferences held or planned

(1) Conferences sponsored by Japanese organizations

(1) Name: IDNDR Asia Fire Defence Conference in Nagoya

Date: May 31, 1990

Location: Nagoya

Sponsors: Ministry of Home Affairs, Fire Defense Agency, Asian Fire Defense Association, National Conference of Fire Chiefs

Description: This conference was held with the objective of providing a forum wherein fire chiefs from the countries of Asia could meet and exchange views on the state of disasters in the countries of Asia and activities performed by fire defense organizations at times of disaster.

Main occupations and number of Japanese and foreign participants: Persons related to fire defense and fire defense work; Japanese participants: 1,000; Foreign participants: 100

(2) Name: IDNDR International Conference 1990 Japan

Date: September 27 - October 3, 1990

Location: Yokohama City, Yokohama Prince Hotel; Kagoshima City, Shiroyama Kanko Hotel

Sponsors: Government Headquarters for IDNDR, Japan National Committee for IDNDR, The City of Yokohama, Kagoshima Prefectural Government, United Nations Centre for Regional Development (UNCRD)

Description: Together with promoting the exchange of knowledge and experiences related to disaster prevention between all the nations of the world in the first year of the International Decade for Natural Disaster Reduction, this conference was held with the objective of communicating the knowledge and experience of Japan to other countries and especially to establish procedures for the reduction of damage from natural disasters occurring in developing countries. At this conference a number of broadbased themes such as efforts to prevent damage from natural disasters, international cooperation, the effectiveness of disaster prevention measures, and urbanization and disaster prevention were studied from a wide variety of angles and those issues which must be addressed in the future were delineated herein.

Main occupations and number of Japanese and foreign participants: Number of participants: 1300; Japanese participants: government organization workers, regional government workers, workers in fields related to disaster prevention, mass media, etc.; Foreign participants: experts from United Nations organizations, Red Cross Societies from participating nations, representatives of domestic committees from the participating countries, from 16 international organizations from 42 nations

(3) Name: IDNDR Summit Conference on Earthquake and Natural Disaster

Countermeasures 1991 Japan

Date: October 8-11, 1991

Location: Tokyo Metropolitan Government City Hall and other locations

Sponsors: Government Headquarters for IDNDR, Japan National Committee for IDNDR,
Tokyo Metropolitan Government

Description: With a theme centered around the prevention and reduction of damage from earthquakes, this conference was held to act as a forum in which people from all the nations of the world could exchange views on ways of responding to earthquakes and other natural disasters in Japan, one of the major earthquake centers of the world, as well as to act as a stimulus for the promotion of measures to guard against natural disasters in all the countries and cities of the world. At this conference those issues which must be addressed by the nations and cities of the world and those issues related to efforts towards international cooperation were delineated towards the goal of the prevention and reduction of earthquake damage.

Main occupations and number of Japanese and foreign participants: Japanese participants: 476 (government organization workers, regional government workers, workers in fields related to disaster prevention, mass media, etc.); Foreign participants: 136(experts from United Nations organizations, Red Cross Societies from participating nations, and persons responsible for natural disaster prevention from cities all around the world from 6 international organizations from 38 nations)

(4) Name: IDNDR Chiba International Conference 1992 Japan

Date: November 27-30, 1992

Location: Chiba City, International Conference Hall in Makuhari Messe and other locations

Sponsors: Government Headquarters for IDNDR, Japan National Committee for IDNDR,
Chiba Prefectural Government, City of Chiba

Description: Centered around a theme of rising to the new challenge of disaster prevention, this conference was held with the objective of promoting the sharing of latest in knowhow on disaster prevention measures through the exchange of views and information on disaster prevention measures in countries and urban areas faced with the danger of damage from natural disasters. New topics such as the latest in meteorological observation, mass media and natural disaster early warning systems, the application of new technologies to the field of disaster prevention, and the measures taken by corporations against damage from natural disasters were taken up for broadbased discussion.

Main occupations and number of Japanese and foreign participants: Japanese participants: 803 (government organization workers, regional government workers, workers in fields related to disaster prevention, researchers,

etc.); Foreign participants: 108 (experts from United Nations organizations, administrative officials from participating nations, researchers, and representatives from NGOs from all around the world from 5 international organizations from 37 nations).

(5) Name: IDNDR International Symposium on Earthquake Disaster Reduction Technology

Date: December 15-17, 1992

Location: Tsukuba City, International Conference Hall at the Research Exchange Center of the Science and Technology Agency

Sponsors: IDNDR International Symposium on Earthquake Disaster Reduction Technology Action Committee, Building Research Institute of the Ministry of Construction

Description: As the International Seminar on Seismology and Earthquake Engineering at the Architectural Research Center of the Ministry of Construction was facing the coming of the 30th anniversary since its founding, this seminar was held to commemorate this anniversary and to aim at the achievement of the objectives of the International Decade for Natural Disaster Reduction which had begun in 1990. In this symposium, proposals for the objectives of the earthquake disaster prevention technology in the IDNDR were offered and problems in the process of spreading earthquake disaster prevention technology and transferring this technology to developing countries were clarified, and their solutions were searched.

Main occupations and number of Japanese and foreign participants: Approximately 220 researchers and engineers in fields related to earthquake disaster prevention (140 from Japan, 80 from abroad (27 countries))

(6) Name: Special Symposium on the International Decade for Natural Disaster Reduction

Date: May 21, 1993

Location: Tojo Kaikan

Sponsors: Headquarters of International Decade for Natural Disaster Reduction of the Ministry of Construction

Description: This Special Symposium on the International Decade for Natural Disaster Reduction to mark the 70th anniversary since Great Tokyo Earthquake and the 25th anniversary since the founding of the Panel on Wind and Seismic Effects of the U.S.-Japan Conference on the Development and Use of Natural Resources (UJNR). At this symposium, specialists on natural disasters from both Japan and America gave talks on damages resulting from natural disasters, training, future technologies, and other similar topics.

Main occupations and number of Japanese and foreign participants: American participants: 10 persons from U.S. Government research institutes; Japanese participants: Approximately 250 persons from the Japanese Government,

regional government enterprises and public corporations, and the private sector, etc.

(7) Name: Scientific Conference of International Association of Hydrological Science

Date: July 11-23, 1993

Location: Yokohama City

Sponsors: Science Council of Japan, Japan Society of Civil Engineers, etc.

Description: This conference has been held once four years since 1982.

Participants' understanding of disaster prevention and global environment problems was deepened and challenges on fields of researches towards 21st century was discussed among researchers on hydrology and meteorology from all over the world.

Main occupations and number of Japanese and foreign participants: Japanese participants: 1,000 persons, foreign participants: 900 persons.

(8) Name: IPCC Eastern Hemisphere Workshop on the Vulnerability of SeaLevel Rise and Coastal Zone Management

Date: August 3-6, 1993

Location: Tsukuba City, Tsukuba Center for Institutes

Sponsors: Ministry of Transport, Ministry of Agriculture, Forestry, and Fisheries, Ministry of Construction, Environment Agency, the Australian Government Environmental, Sports, and Special Regional Authority, and the Coastal Research and Development Center Foundation

Description: In response to the predictions of the IPCC concerning rising sea levels, this workshop was held to build a common awareness of the problem of global warming and to search for effective ways of responding in the event that rising sea levels become an actual reality.

Main occupations and number of Japanese and foreign participants: Approximately 100 administrative personnel, scholars, and other participants from 19 coastal nations in Eastern Hemisphere such as the Pacific Rim nations

(9) Name: International Tsunami Symposium

Date: August 23-25, 1993

Location: Wakayama City

Sponsors: International Tsunami Symposium Organizing Committee

Description: This symposium was held upon the request from International Association of Geodesy and Tsunami Committee of Union of Geophysics, science, technology and socio-economic problems on tsunami was discussed internationally.

Main occupations and number of Japanese and foreign participants: Japanese participants: 88 persons, foreign participants: 54 persons

(10) Name: 1993 Aichi/Nagoya International Conference on Natural Disaster

Reduction

Date: November 1-4, 1993

Location: Nagoya City, Nagoya Congress Center and other locations

Sponsors: Government Headquarters for IDNDR, Japan National Committee for IDNDR, Aichi Prefectural Government, City of Nagoya, International Bank for Reconstruction and Development (The World Bank), United Nations Centre for Regional Development (UNCRD)

Description: Center around a theme of preventing damage from natural disasters in major urban areas in the 21st century, this conference was held with the objective of providing a forum wherein participants could exchange information based on their own recent experiences in all the countries of the world concerning the prevention of disasters, a reduction of their consequences, and recovery from their effects in the major urban areas which are now recognized as being the most vulnerable to natural disasters, and through this discussion to find those policies for developing countries and the other nations of the world by which a wide variety of disaster prevention policy knowledge is put to use. Topics such as the evaluation of the susceptibility to damage, disaster prevention policies designed to ensure that lifelines remain unbroken, safety measures for schools, hospitals and other major public facilities and their use as centers of disaster relief, the form and content of disaster prevention policies in regional governments, the importance of citizens' participation in the field of disaster prevention, and other important issues in disaster prevention in major urban areas were taken up for broadbased discussion.

Main occupations and number of Japanese and foreign participants: Japanese participants: 964 (government organization workers, regional government workers, workers in fields related to disaster prevention, researchers, etc.); Foreign participants: 131 (experts from United Nations organizations, administrative officials from participating nations, researchers, and representatives from NGOs from all around the world from 9 international organizations from 45 nations).

(11) Name: IDNDR Symposium

Date: November 2, 1993

Location: Tokyo, Ruby Hall

Sponsors: Section of International Decade for Natural Disaster Reduction of the Ministry of Construction, River Planning Division

Description: The causes underlying damage resulting from natural disasters differ in all the countries of the world depending on climactic, geographical, and other natural conditions as well as on national traditions and other cultural background properties. To respond to damage occurring under

different conditions such as these it is necessary to take steps appropriate to the special characteristics of individual nations. This symposium was held to respond to this need by deepening participants' knowledge of the special characteristics of the public enterprise personnel and natural disaster and damage occurring in the individual participating nations and to discuss ways of reducing this damage.

Main occupations and number of Japanese and foreign participants: Foreign participants: 13 (public enterprises personnel); Japanese participants: 17 (persons with experience of working overseas from the Ministry of Construction and related organizations)

(12) Name: International Seminar on Climate Change in the Asia-Pacific Region

Date: February 14-18, 1994

Location: Tokyo

Sponsors: Meteorological Agency, Ministry of Transport

Description: This conference is to be held with the objective of inviting persons responsible for the observation of climactic change and the creation of monitoring structures in developing nations to Japan in order to exchange views and information on global warming and the form and content of policies for the observation and monitoring of the ozone layer and similar phenomena.

Main occupations and number of Japanese and foreign participants: about 15 persons related to meteorological observation and studies

(13) Name:

Date: March 1-4, 1994

Location: Tsukuba City, Research Exchange Center

Sponsors: Science and Technology Agency

Description: This international conference is to be held with the objective of gaining the participation of highlevel government personnel and researchers involved in the field of earthquake prediction and earthquake disaster reduction principally from those Asian Pacific Rim nations in earthquake zones so as to exchange views and information on the prediction of earthquakes, earthquake disaster reduction, and the state of related research in the participating nations, as well as to contribute to the reduction of damage from such earthquakes and to further efforts to promote the objectives of the United Nations' Decade of Natural Disaster Reduction.

Main occupations and number of Japanese and foreign participants: Japanese participants: 6 university professors, 5 government researchers; Foreign participants: government personnel, universities, laboratories: 11 persons

(14) Name:

Date: October 19-21, 1994

Location: Yokosuka, Yokosuka General Cultural Center (tentative name)

Sponsors: Port and Harbour Research Institute, Ministry of Transport, and the Coastal Research and Development Center Foundation

Description: This conference will be held in order to study the hydroengineering problems related to the construction of ports and harbours in developing nations and throughout the world.

Main occupations and number of Japanese and foreign participants: Japanese participants: 350 (national and private sector researchers, together with universities and people responsible for ports and harbours from regional government enterprises and public corporations); Foreign participants: 50 (national and private sector researchers, together with universities)

(15) Name: International Sabo Symposium: Hydrology and Sediment Problems in Volcanoes and Steep Lands

Date: August 28-30, 1995

Location: Tokyo, Sabo Kaikan

Sponsors: Sab Academic Association

Description: Sub Themes: 1. Volcanic hydrology (penetration, flow, underground water, soiled water, corrosion, development of gullies, etc.); 2. Sediment movement (collapse, debris flows, mud flows, magma flows, rock formation flows, lava flows, natural dams, woody debris flows, sand flows, geotopological changes, etc.); 3. Volcanic sediment disaster (research of actual examples: Pinatubo, Unzen, Melabi, NephadTelleruis, St. Helens, Sumer Mayon, etc.); 4. Volcanic erosion control measures (hard, soft, hazard maps, land use, emergency response measures, consideration for the environment, etc.); 5. Erosion control in desolated mountain areas (methods of surveys, prediction, countermeasures, etc.); 6. Erosion control in harmony with the environment (methods of surveys, planning, examples of actual implementation, etc.);

Tours: Shimabara, Unzen, August 31- September 2

Main occupations and number of Japanese and foreign participants: Researchers and technicians in erosion control, volcanic science, civil engineering, rivers, hydrology, geotechnics, forestry, disaster prevention, environmental science, etc.

(2) Conferences sponsored by International organizations, etc. with Japanese contribution

(1) Name:

Date: January, 1993

Location: Washington, D.C.

Sponsors: PIARC/Working Group G2 (chaired by Toshio Iwasaki, Chairman of the Civil Engineering Research Laboratory)

Description: Reports were given by member nations on recent examples of road damage, and studies were conducted towards the creation of a comprehensive

report for the reduction of road damage.

Main occupations and number of Japanese and foreign participants: Japanese participants: 2; American participants: several; France: 1-3; United Kingdom: 1; India: 1; Others

(2) Name: World Conference on Natural Disaster Reduction

Date: May 23-27, 1994

Location: Yokohama, Pacifico Yokohama

Convener: United Nations

Description: This conference is to be held with the objective of reviewing the activities carried out thus far during the first half of the International Decade for Natural Disaster Reduction through the presentation of reports from nations of the world, international organizations, and other participants on the state of activities related to the IDNDR and of deciding upon a course for the activities to be carried out during the latter half of the Decade.

Main occupations and number of Japanese and foreign participants: Approximately 1,000 participants expected to attend (representatives of states, IDNDR national committees, U.N. agencies, other intergovernmental organizations, scientific associations, non-governmental organizations, the private sector)

(3) Name: International Sabo Administrators Conference

Date: 1996 (month and date as yet undecided)

Location: Bayern, Germany

Sponsors: International Interpraevent Association

Description: This conference was first held in 1992. Held once every four years, it is a forum where highranking administrative officials from the four nations of Switzerland, Austria, Germany, and Japan which act as leading nations in erosion control projects can meet and exchange information and hold discussions on administrative and technical issues related to erosion control projects.

Main occupations and number of Japanese and foreign participants: (From the 1992 conference held in Switzerland) Japanese participants: Officer for Washout Countermeasures from the Sediment Control Department of the River Bureau of the Ministry of Construction, Head of the Erosion Control Division of the Public Works Research Institute of the Ministry of Construction, one other participant; Swiss participants: Head of the River Division of the Water Resources Bureau, two other participants; Austrian participants: Head of the Bureau for Water Right and River of the Ministry of Agriculture and Forestry, two other participants; German participants: Head of the River Department of the Bureau of Civil Engineering for the State of Bayern, two other participants; Total: 11 persons

(4) Name: Interprevant '96

Date: 1996 (month and date as yet undecided)

Location: Bayern in Germany

Sponsors: International Interprevant Association

Description: First held in 1967, this conference is held once every four years as an international conference for the discussion of damage resulting from floods, landslides, and avalanches together with ways of dealing with these problems. This conference serves as a forum for the exchange of views and the presentation of information and research results of the participating nations' main administrative and research institutions concerning things such as surveys and research on damages resulting from floods, landslides, avalanches and other causes as well as plans for guarding against these dangers, structures, the specification of high risk areas, early warning systems, and prediction of the same.

Main occupations and number of Japanese and foreign participants: (From the 1992 conference held in Switzerland) Japanese participants: National and public research institutes (2), Universities (13), Others (40); Total: 55; Foreign participants: developed nations (418); developing nations (16) Total: 434

3. Current or planned partnerships and cooperation related to IDNDR with other countries

(1) Cooperation with international agencies

(1) World Meteorological Organization (WMO).

The acquisition of worldwide meteorological observation data on real-time basis is absolutely essential to the performance of meteorological services, and it is for this reason that Japan actively cooperates with the World Meteorological Organization (WMO), by playing a role as a center for the provision of meteorological data in the Asian region and data from the Geostationary Meteorological Satellite and by contributing to planning and implementation of WMO programmes.

(2) UNESCO Intergovernmental Oceanographic Commission (IOC).

Japan is one of the Members participating in the Tsunami Warning System in the Pacific promoted by the IOC with a view to allowing Members to provide one another with warnings of information on tsunamis caused by earthquakes occurring in the Pacific Region so as to prevent/mitigate the damage resulting from these tsunamis when they hit coastal regions far from the seismic center. In addition to providing the above information, Japan makes every effort to expend and strengthen the activities of the International Coordination Group for the Tsunami Warning System in the Pacific through hosting a meeting of the System, etc.

(3) ESCAP/WMO Typhoon Commission.

For the three meteorological, hydrological, and disaster prevention and preparedness components, Japan carries out related scientific and technological researches, holds seminars, and offers technical assistance as a leading nation in the Committee.

(4) Permanent International Association of Road Congresses (PIARC).

Japan provides cooperation in landslides on steep slopes (TC12) and natural disaster prevention (Working Group G2). The importance of technology development to both development and developing countries and examination of technology to grasp the steep slopes in danger of landslides by aerial and satellite photography was recognized at Yokohama Conference held in April 1993, and these works are carried out towards Montreal Conference in 1995.

(2) Cooperation with domestic organizations in individual countries

(1) Worldwide Meteorological Bureaus.

In order to provide effective information for the prevention and reduction of damage from natural disasters, Japan cooperates with other National Meteorological Services on the exchange of meteorological data and information on observations, analyses, and forecast techniques.

Japan also receives trainees from developing countries through the frameworks

provided by the Japan International Cooperation Association and other organizations to promote technical and knowledge transfers, such as meteorological radar observation, application of meteorological satellite data, computer usage to process meteorological data, and other relevant technologies, necessary for the enhancement of their meteorological services.

(2) Worldwide Earthquake and Tsunami Related Organizations.

In order to provide effective information on earthquakes and tsunamis for the prevention and reduction of damages from natural disasters, Japan is in cooperation with organizations such as the International Seismic Center (ISC) to exchange information on the data dissemination, analyses, and prediction techniques.

(3) China and Indonesia.

1) International joint research; International joint research on natural disaster reduction (IDNDR) (FY 1991-FY 1993).

China: Geological Research Institute of the National Seismological Bureau
Process Dynamics Research Institute of the National Seismological Bureau,
Shanghai Dozai University, Sian Seismological Bureau, Chinese Science
Institute Toshu Glacier and Tundra Research Institute.

Indonesia: Volcanic Survey Institute of the Ministry of Mining and Energy,
Geotechnical Development Center of the National Science Institute, Water
Resources Development Institute of the Public Works Ministry, Volcanic
Erosion Control Technology Center, Bandon Institute of Technology,
Hasanudin University, Kajamada University.

Japan has implemented joint research efforts in China and Indonesia to predict, guard against, and reduce the extent of damage from natural disasters, bringing observation equipment directly to these nations to perform experiments and observations.

2) International joint research: International Joint Research on the Prediction of and Guarding Against Natural Disasters in China and Indonesia (FY 1994-FY 1998).

China: Process Dynamics Research Institute of the National Seismological
Bureau, Sian Seismological Bureau, Seito Mountain Range Damage and
Environmental Research Institute of the Chinese Science Institute

Indonesia: Volcanic Survey Institute of the Ministry of Mining and Energy, Water
Resources Development Institute of the Public Works Ministry.

Under this program, joint research will be conducted on the prediction of and guarding against damage from volcanic eruptions, floods, and coastal damage in Indonesia and earthquake damage in China.

(4) Indonesia and the Philippines.

International joint research on methods of preventing damage caused by sand

and stone avalanche in alluvial fan (FY 1991-FY1993).

Indonesian Volcanic Erosion Control Technical Center, the Philippines Ministry of Public Works and Road.

In addition to collecting data on fanshaped land areas in the nations of Southeast Asia and creating a data bank from this data, Japan has participated in the analysis of materials and model experiments with which to perform the surveys needed to clarify the characteristics of land movements in these fanshaped areas, and based on these results further improvements and developments have been made on erosion control methods which are being used in efforts to provide more effective assistance and improve Japanese land erosion technology.

(5) The United States, Indonesia, and the Philippines.

Joint international research on the development of methods for the prediction of damage caused by sand and stone avalanches in volcanic regions (FY 1990-FY 1992).

Cascade Mountains Observatory of the United States Survey Institute, Indonesian Volcanic Erosion Control Technology Center, Philippine Volcano and Seismology Research Center.

In order to develop the methods needed to predict the effective scope and scale of land movements which lead to damage and to prevent or reduce the damage which results from landslides in volcanic regions, work has been performed through the analysis of video recordings of volcanic mudslides and lava flows, surveys of accumulated materials, onsite observations, and largescale experiments to reveal the physical mechanisms underlying land movements.

(6) China.

1) Research on the improvemental technology of earthquake resistance for the construction of facilities to act as lifeline supports based on the Japan-China Science and Technology Accords.

Process Dynamics Research Center of the National Seismological Bureau.

Programs have been implemented for (1) cooperative research on technologies for the construction of earthquake resistant facilities to act as lifeline supports, (2) the exchange of technical information through the holding of workshops, and (3) exchange of researchers between China and Japan.

2) Studies on Mitigation and Control of Sediment Disasters.

Mountain Disasters and Environmental Research Institute of the Chinese Science Institute.

Joint research and other cooperative efforts have been performed in conjunction with the holding of workshops for the exchange of information on the development of survey methods on landslides, mudslides and other soil damage, the development of research methods on movement mechanisms, the development and

testing of engineering methods to counter these problems, and the development of security and escape procedures.

3) Studies on Mitigation and Control of Landslide Debris Flow Disasters Railroad Science Research Institute.

Cooperative efforts are being conducted on the research of the mechanisms underlying mudslides and landslides, observation and prediction techniques, prevention measures and management policies.

4) Japan-China Conference on River and Dam.

Foreign Affairs Division, Hydraulic Bureau.

This conference is held for the purpose of exchanging and enhancing river and dam technologies, and countermeasures for flood prediction and warning and flood control are examined.

(7) South Korea.

1) Oceanographic Research Center.

In order to contribute to the development of coastal regions and oceanographic engineering in Japan and South Korea, efforts are being made to promote the exchange of research data and researchers in the fields of (1) oceanographic observation equipment and system development technologies, (2) design technologies for coastal and oceanographic structures, (3) oceanographic energy development technologies, (4) oceanographic environmental protection technologies, and (5) coastal disaster prevention technologies.

2) Japan-South Korea Cooperation Conference on River and Water Resources Development Technologies.

Water Resources Department, Construction Bureau.

Technical cooperation on river and water resources development is carried out.

(8) The Philippines.

Research Disaster Prevention Planning for the Philippine Regional Roads(FY 1989-FY 1991).

Road Bureau of Ministry of Public Works.

Three pilot states have been selected for which manuals and guidelines were created for recovery from damages in the event of the occurrence of regional road damage (e.g., the collapse of raised or lowered ground levels, the sweeping away of bridges, etc.) due to rainfall or other causes.

(9) Thailand.

1) Observations and Research Concerning Changes in the Rain Forest and its Effects (FY 1990-FY 1999).

Irrigation Bureau, Ministry of Agriculture Cooperation.

River plain areas in Thailand where the rain forest is disappearing and river plains with the same characteristics but with the rain forest remaining in an

undestroyed state are selected through analyses and onsite studies based on written materials, references, satellite photographs, and aerial photographs, after which observations are made of changes in the balance of supply of water, the production of soil, flows, accumulations, and river beds. These observations are then used to accumulate the basic data needed to development methods of understanding the unique characteristics of rivers in rain forest regions and predict the changes that accompany the loss of the rain forest.

2) Research on disaster prevention measures for Thai roads.

Road Bureau, Ministry of Transport and Communication.

Road management system including preservation of damage records and drastic road structure design by road improvement, etc. will be proposed through survey on landslides on steep slopes, damages of bridges, flooded road, etc. Then manuals for road improvement as disaster countermeasures and for disaster restoration will be proposed.

(10) The United States

1) U.S.-Japan Conference on the Development and Utilization of Natural Resources (UJNR).

i) The Panel on Wind and Seismic Effects.

National Institute of Standard and Technology, Department of Commerce (NIST/Secretariat); Department of Transportation; United States Geological Survey, (USGS); Department of the Navy; Department of the Army; Department of Energy (DOE); National Science Foundation (NSF); etc.

Researches on the problems on revising the design standards, records of strong winds and strong earthquakes, storm surges, tsunamis, etc. and activities on comprehensive disaster prevention countermeasures, new technology fields, etc. are carried out.

ii) The Panel on Earthquake Prediction Technology.

United States Geological Survey, (USGS/Secretariat); National Institute of Standard and Technology, Department of Commerce (NIST); National Geodetic Bureau; National Aeronautics and Space Administration; National Science Fund; Nuclear Regulatory Commission.

Information exchange on geodetic survey related to earthquake prediction and geophysical observation, information exchange and examination of earthquake prediction technique based on the outputs from geodetic survey and geophysical observation, exchange of researchers from related organizations, other cooperation and information exchanges on earthquake prediction are carried out.

2) Laboratory Models of Pyroclastic Density Currents.

Cascade Mountains Observatory United States Geological Survey.

Research is being performed on the mechanisms underlying pyroclastic flows accompanying volcanic activity and the resulting mud flows, together with

studies of methods of preventing or reducing the damage resulting from such flows.

3) Studies on Mechanism of Woody Debris Transport and Deposition caused by Debris Flow and Collapses (1992 fiscal year).

Forestry General Research Institute.

For enhancing the reasonable design of driftwood countermeasures facilities, prediction of driftwood disasters and technologies on driftwood disaster prevention, mechanism of woody debris transport and deposition was clarified through the field survey and the channel model test, and mechanism of occurrence of driftwood disasters.

4) Dynamics and Effects of Woody Debris Transport and Deposition by Debris Flows and Floods (new proposal for the 1993 fiscal year).

Pacific Region Research Center, Forests and Fields Agency of the Department of Agriculture.

Research performed on the transport and deposition of woody debris in alluvial and nonalluvial areas.

5) Snow Avalanche Management, Landslide Prediction, and Control

Forestry Bureau of the Department of Agriculture, United States Survey Institute, etc.

Research exchanges performed between the United States and Japan in order to promote research and development of techniques to guard against damage from snow, snow avalanches, and landslides.

6) Hydrology, Water Resources, and the Effects of Global Climactic Change on Them United States Survey Institute, National Aeronautics and Space Association, California University at Davis, etc.

Performance of information exchanges, exchanges of researchers, joint research, and workshops with the objective of gaining an engineering perspective of those changes accompanying global warming and occurring on a global scale as well as their effects on hydrology and water resources when viewed over entire flow areas.

7) International Workshop on Dam Construction and Management Technologies and Environmental Improvement in Reservoirs and Dam Lakes in the next generation.

U.S., Holland, Portugal.

For promoting science and technologies in the field of rivers and dams through the cooperation of research and technology, management and plan of rivers and dams and design of river structures and dam.

(11) France.

Japan-France Seminar on Water Control for Rivers Lakes and Marshes.

Economic, Foreign Affairs and Research Bureau of the Ministry of Environment Research and technologies on water management of rivers and lakes (flood

control, irrigation, water resources development, water environment protection, drainage basin management etc.)

(3) International disaster prevention cooperation by Official Development Assistance (ODA)

(1) Bilateral assistance.

Japan extends official development assistance in the field of disaster countermeasures to the countries in Asia, Middle East, Africa, Central and South America, and East Europe. The amount is 42,796 million yen in the fiscal year 1990 and is 53,802 million yen in the fiscal year 1991.

Some examples of ODA projects in the fiscal year 1991 are shown below by type.

The direct government loans were provided for the Cyclone Disaster Relief and Economic Reconstruction as commodity loan in Bangladesh, the Afforestation Project in Aravalli Hills in India, and the Mount Kelud Urgent Volcanic Disaster Mitigation Project in Indonesia, etc. The grant aid were provided for the Project for Provision of Heavy Equipment and Spare Parts for Mt. Pinatubo Relief and Rehabilitation in the Philippines, for the Cyclone Disaster in Bangladesh as emergency aid, etc. The grant aid is mainly extended to Asian countries, but it is also allocated to Middle East, Africa, Central and South America, and East Europe. The technical cooperation is implemented in the form of the acceptance of trainees, through the group training, the individual training and the third-country training, the dispatch of technical experts, equipment supply programs, the project-type technical cooperation, development studies, preliminary studies, the research cooperation, and so on. An example of the project-type technical cooperation is the Water Management Training Project on the Loess Plateau in the People's Republic of China. The Study on Nationwide Hydro-Meteorological Data Management Project in the Kingdom of Nepal, the Study on River Environment for the Tributaries of Han River System in Seoul Municipality, Republic of Korea, the Study on Seawall Construction Project in Male Island, Republic of Maldives are examples of development studies. The dispatch of the international disaster relief teams and the provision of essential supplies in the fiscal year 1991 were for the cyclone disaster in Bangladesh, typhoon disaster in the Philippines, etc.

(2) Aid to multilateral organizations.

Japan also contributes substantially to the organizations related to emergency relief such as Department of Humanitarian Affairs/Office of the United Nations Disaster Relief Coordinator (DHA-UNDRO) and to international organizations dealing with disaster prevention, such as World Meteorological Organization (WMO). Japan has provided the Trust Fund of IDNDR with 500 thousand dollars every year since 1990.