

# INTERNATIONAL WORKSHOP ON NATURAL DISASTER MANAGEMENT

GETTING TOGETHER  
SHARING EXPERIENCE  
DEVELOPING COOPERATION

FOR

DISASTER PREPAREDNESS  
AND MANAGEMENT

10 - 12 June, 1999  
Beijing, China

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## **INTERNATIONAL WORKSHOP ON NATURAL DISASTER MANAGEMENT**

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## **MESSAGE OF CONGRATULATIONS**

*Delegates,*

I am pleased to learn that the International Workshop on Natural Disaster Management is being held in Beijing. I would like to extend my warm congratulations.

China is a country that suffers from comparatively many natural disasters. The Chinese Government attaches great importance to the management and reduction of natural disasters, so as to safeguard and improve the people's livelihood. We have given priority to the role of disaster reduction in the economic and social development of the country, upheld the guiding principle of coordination of economic construction and reduction of natural disasters, gradually enhanced the natural disaster relief capabilities, and scored remarkable achievements.

In 1998, China suffered from severe flooding along the Yangtze River, the Nenjiang River, and the Songhua River. Under the leadership of the Chinese Communist Party and the Chinese Government, the people of the entire country demonstrated the great spirit of "unity of will and strength, dauntlessness and tenacity, indomitableness and vicariousness" in the face of the flooding. We mobilized the entire people, coordinated the efforts of the military and civilians, and achieved a great victory over the flooding with rare heroism and careful organization and deployment. After the calamity, the Chinese Government mapped out an overall plan according to the actual conditions and on the basis of scientific study. We took into consideration both production and people's livelihood, enacted some palliative measures while tackling the issue at its root-causes, and bore in mind both immediate and long-term interests. We succeeded in mobilizing and leading the people in their disaster-relief efforts, in restoring production, and rebuilding their homeland.

The Chinese Government will continue to adhere to the policy of giving priority to prevention while combining disaster prevention with combating and relief. China will pool and rationally allocate all the resources, and properly handle the relationship among disaster-reduction, population, resources, and environment. We will step up the national management of natural disasters and enhance our comprehensive ability to reduce disaster.

Reducing natural disasters is a long-term task facing all countries in the world. The launching of the "International Decade for Natural Disaster Reduction" has given a boost to the global disaster-reduction efforts. The Chinese Government has attached great importance and rendered assistance to the "International Decade for Natural Disaster Reduction". China stands ready to intensify international exchange and cooperation in a bid to enhance its ability to manage natural disasters and to make its contribution to international disaster-reduction efforts.

It is my conviction that with the concerted efforts of the international community, we will be able to effectively alleviate the losses incurred from natural disasters and promote the progress and development of mankind.

I wish the workshop full success.

**Jiang Zemin**  
**President**  
**The People's Republic of China**  
**Beijing, June 10, 1999**



## **WORKSHOP SUMMARY**

### **International Workshop on Natural Disaster Management**

**Beijing, China  
10 to 12 June, 1999**

The International Workshop on Natural Disaster Management was held in Beijing from 10 to 12 June 1999. It was hosted by the Government of the People's Republic of China and organized by the Ministry of Civil Affairs, the United Nations Development Programme (UNDP), and the Office for the Coordination of Humanitarian Affairs (OCHA). It was attended by domestic and international scientists, government officials, policy makers and front-line managers, all in all more than 120 delegates: 56 Chinese participants, 36 participants from 20 countries, 32 participants from 21 UN agencies and international organizations. The workshop provided a forum for sharing the Chinese experience with, and learning from, other disaster-prone countries, especially developing countries, in managing severe storms and catastrophic floods, defining effective methods of preparing for and mitigating natural disasters, sharing lessons in natural disaster reduction and management, and exploring opportunities for technical cooperation among disaster-prone countries.

The significance of the Workshop was highlighted by a message from President Jiang Zemin, delivered by the Minister of Civil Affairs, Mr. Duoqi Cairang, during the opening ceremony. In his message, President Jiang said that the Government attaches great importance to the management and reduction of natural disasters, so as to safeguard and improve people's livelihoods. He also commended the launching of the "International Decade for Natural Disaster Reduction" (IDNDR) by the United Nations as having advanced global disaster reduction.

In the opening statements by the Minister of Civil Affairs, OCHA and UNDP, it was noted that the vulnerability of modern societies to natural disasters has steadily increased over recent years. The Minister of Civil Affairs described the fight against natural disasters as one of the major common factors facing mankind in its efforts of seeking subsistence and development. OCHA, represented by Mr. Gerhard Putman-Cramer, Deputy Director of OCHA Geneva and Chief, Disaster Response Branch - on behalf of Mr. Sergio Vieira De Mello, UN Under-Secretary-General - indicated that according to statistical evidence there have been three times as many disaster events resulting in heavy losses over the past ten years as was the case in the 1960s; consequently, economic losses have been nine times greater, currently exceeding US \$90 billion a year. In 1998, natural calamities claimed the lives of more than 50,000 people worldwide.

UNDP's opening statement, presented by Ms. Yasemin Aysan, Chief Disaster Reduction and Recovery Branch, ERD - on behalf of Mr. Omar Bakhet, Director Emergency Division, UNDP - stressed the progress made in disaster reduction and management, notably in forecasting and early warning as well as national capacity building, which has helped to protect people's lives and economic assets. In its introductory presentation, the UNDP Country Office in China pointed out that the 1998 floods in China were an example of concerted national action for disaster reduction and management, helping to protect assets and save lives, and very significantly reducing the death toll as compared with the 1954 floods. The successful leadership, the efficient implementation, and the coordination of the large-scale national disaster relief effort following last year's floods were praised in this context. The substantial assistance offered by the international community through the United Nations system and other channels, including bilateral contributions and the Red Cross Network, was acknowledged. The commitment of the UN system to support disaster-prone countries as effectively as possible in the area of disaster reduction and management was confirmed.

The Chinese Government delivered a series of technical presentations focusing on experience and lessons



learned from the 1998 flood disasters. Effective early warning and preparedness, strong leadership and coordination, top priority to prevention, combined with flood fighting and relief efforts, economic and infrastructural development, use of the armed forces, and a high level of public solidarity were considered to be crucial elements in successful disaster management during the 1998 floods. Recognizing that the irrational exploitation of natural resources, urbanization, economic development, and destruction of the ecological environment in high-risk areas have contributed to the high losses caused by the floods, China's future loss-reduction strategy will aim to harmonize the relations between human beings and nature. Considerable sums are being invested at central and local levels for flood prevention through sustainable land-use management, reforestation, water conservancy, flood control, promotion of broad-based utilization of applied sciences, and advanced technologies and other complementary measures.

The subsequent presentations describing the role and strategy adapted by the UN system in disaster management increased awareness among participants about the potential support that can be provided through the UN system and through international cooperation and coordination fora. On behalf of the United Nations Disaster Management Team (UN-DMT) in China, the World Health Organization (WHO) provided a detailed overview of the UN system activities in response to the 1998 floods, including programme accomplishments and lessons learned.

The eight country presentations which followed examined a wide range of disaster management issues and many lessons learned in different parts of the World. Viet Nam reported on its experience of systematically processing data from statistics, maps and remote sensing through application of Geographic Information Systems (GIS), illustrating the need to make the best use of modern information technology to provide a sound basis for natural disaster reduction and management. Bangladesh stressed the importance of non-structural, community-based disaster reduction methods including training, public awareness and warning systems. Cuba also attaches great importance to community-level disaster preparedness and emphasized the role of the military forces and the Civil Defense Organizations in responding to natural and technological disasters at various levels. Kenya stressed the need for effective coordination among different institutions, especially the authoritative coordinating function of the President's Office.

Peru's experience demonstrated how deeply the El Nino and la Nina phenomena affected economic and social development in the American and Pacific regions. The representative from Peru pointed out that thorough research, multi-sectoral coordination of response to El Nino and La Nina, improved international cooperation, and the establishment of monitoring networks are all vital to the realization of the global disaster mitigation objective. Canada presented the application of a new generation of Radarsat Monitoring Technology for improved flood monitoring. The important function of Geographical Information Systems in remote sensing data processing, and flood disaster assessment, with an impact on decision-making, emergency rescue and disaster reduction, was stressed. The detailed report presented by the Philippines discussed the warning systems for this highly disaster-prone country by pinpointing the necessity of an interdisciplinary approach whereby science, communication, public administration, and people's participation all play an integral part in disaster mitigation. Poland reported on the efforts undertaken to restructure institutional mechanisms, prompted by the 1997 Oder River floods. They aim to enhance coordination between those responsible at central and local levels, and to improve their capacity for decision-making and execution of plans.

The workshop continued with group discussions on technical disaster management issues in the areas of disaster forecasting, disaster reduction theory and practice, emergency preparedness, relief, rehabilitation and reconstruction. During the discussions, participants shared similar interests and "best practices" and explored opportunities for possible international cooperation, with particular emphasis on technical cooperation among developing countries (TCDC)

The Workshop's final conclusions and recommendations, highlighting possible areas and modalities of TCDC in disaster prevention and preparedness, relief, rehabilitation, and reconstruction, were presented to the plenary by the UN Resident Coordinator in China.

The official closure of the Workshop was marked by two closing statements. The first was delivered by Dr. Nay Htun, Assistant Secretary General, UNDP Assistant Administrator and Director of the Regional Bureau for Asia and the Pacific, who stressed the need for soil rehabilitation and sustainable land-use management for disaster prevention. He indicated that UNDP saw the workshop as a first step in a cooperation process among developing countries in disaster management. Mr. Xu Ruixin, Vice-Minister of the Ministry of Civil Affairs, PRC, presented the final address in which he briefly summarized the workshop objectives as well as the highlights of country presentations and the deliberations in plenary and group sessions and expressed the hope for future fruitful cooperation among countries faced by the threat of natural disasters for the benefit of mankind.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **I. General Conclusions**

**Forward-looking and effective disaster reduction strategies are required to meet the challenges of natural disasters in the next millennium. These can only be achieved through concerted action at different levels and through a multi-disciplinary and inter-sectoral approach.**

In view of the increasing threat from natural disasters worldwide and the complex nature of hazards that modern societies will face in the future - as exemplified by El Nino and the recent haze and forest fires in South East Asia - more vigorous efforts and far-sighted disaster reduction strategies are needed. Scientists from many different disciplines, policy makers, public administrators, vulnerable communities, as well as the private sector will have to be brought together for concerted action. Participants recognized the valuable role and accomplishments of the International Decade for Natural Disaster Reduction and the Chinese National IDNDR Committee since 1990 and emphasized the need to promote continued commitment to disaster reduction in the future through the IDNDR Programme Forum and related successor arrangements, within and beyond the United Nations.

**International cooperation through exchange of information and knowledge, use of science and technology and financial support should be significantly expanded to improve disaster management as well as sustainable land-use and environmental management.**

The importance of wider international information exchange and cooperation improved early warning, forecasting and modeling, and better use of science and technology for disaster reduction and management was recognized. The close inter-linkage between disaster reduction and sustainable environmental management was underlined. In this context, it was recommended that the role of the UN system in disaster management and coordination should be further enhanced and that donors and funding agencies should provide increased support to highly disaster-prone countries with limited resources, to facilitate cooperation, capacity building and disaster reduction activities.

### **II. Possible Areas and Modalities for Technical Cooperation among Developing Countries (TCDC) in Disaster Management**

**The Workshop recommends the broad implementation of meaningful technical cooperation among disaster-prone countries, and particularly developing countries, during the different phases of the disaster management cycle.**

Participants agreed on the usefulness of technical cooperation among developing countries (TCDC) in the disaster management field. Over and above ongoing initiatives and projects, the workshop recommended the launching of meaningful TCDC, with a wider range of modalities between countries in all locations, regarding all types of natural disasters and at all stages of modernization and development.

The working groups highlighted "best practices" in disaster management and recommended possible areas of TCDC in disaster prevention and preparedness, relief, rehabilitation and reconstruction, as well as possible

modalities of TCDC

### **III. Disaster Prevention and Preparedness**

**Taking the opportunity to build on other countries' experience in disaster prevention and preparedness can make a significant contribution to protecting lives and reducing losses. Key areas identified by participating countries included risk assessment, flood mitigation, information management systems, early warning and forecasting as well as public awareness and community preparedness.**

Risk assessment is a multi-disciplinary and cross-sectoral activity, which can be put into practice through TCDC at sub-regional or regional level and can use expertise and apply scientific models from a variety of countries. Regarding flood mitigation, the experiences of China, Bangladesh, and other countries suggest that combining structural and non-structural measures, such as legislation, training, education, public awareness, building of institutions and warning systems, can be a highly effective approach.

The use of modern information management technology, including remote sensing and Geographic Information Systems (GIS) in disaster management is of vital importance for integrating and processing information as a basis for disaster reduction and contingency planning. A number of countries, such as China and Vietnam, have made significant progress in this regard, which can be of benefit to others. National disaster information networks should be further strengthened and developed to facilitate also sub-regional cooperation in natural disaster reduction. The relevant UN agencies can play an important role in encouraging TCDC in this area, by facilitating technology transfer and providing or raising funding support.

Early warning and forecasting are prime areas for future information exchange and cooperation. There is a need to improve longer-term climatological forecasting and weather forecast methodology. Cross-boundary access to data as well as systems for sharing meteorological and hydrological data are essential in order to help countries in sub-regions to establish models and forecasts, to make contingency plans and to take adequate preparedness measures to counter the threat of catastrophic floods or windstorms.

Communication of information and coordination of action among scientists, public administrators, and vulnerable communities is particularly critical regarding early warning. Scientific ability to anticipate and predict disasters far exceeds the capacity to communicate disaster-related information to public administrators, scientists, and society at large. While accurate forecasts are important, they are of little use unless they are understood and acted upon by public administrators. Communication is the basis for action and the key to effective preparedness and mitigation. The human dimension of "bringing early warning down to earth" needs to be borne in mind. The media may play an important role in educating the public and public administrators.

Local communities should be considered as primary actors in the design and implementation of disaster reduction measures. The need for community disaster preparedness and recourse to traditional coping mechanisms was strongly emphasized and was illustrated by examples from the Philippines and Papua New Guinea. Special attention should be given to training, public awareness raising, and education programmes for local communities.

In view of the close relationship between development and vulnerability, it is recommended that instruments of "disaster-impact-assessment" be established for development projects.

### **IV. Disaster Relief**

**A number of countries have enhanced their capacity for disaster relief operations and are willing to share their experience with others. This can be achieved through cooperation for better response readiness and by providing support during disaster response operations. Disaster-prone countries are encouraged to make use of established international and regional networks and systems, which are available to facilitate this process.**

The local communities and governments of affected countries bear the brunt of the responsibility for providing relief assistance to the survivors of disasters, and there should not be an over-reliance on international assistance. The participants recognized, however, the added value of timely and coordinated international inputs to complement national response efforts, if and when required. National capacity for effective mobilization and management of international relief aid should be strengthened. To this effect, it was felt that updated information should be provided to disaster-prone countries on all the instruments available to assist them accordingly. This should also include international cooperation regarding the use of Military and Civil Defense Assets in Disaster Relief (MCDA). The proposed deployment of OCHA Regional Disaster Response Advisors in disaster-prone regions was welcomed by participants in this connection, as they would act as a link with OCHA's Disaster Response Branch, whereby access to different forms international assistance and of TCDC could be facilitated.

In order to implement rapid and effective disaster relief assistance following the occurrence of a disaster, early and qualified information on damage and needs is essential. Coordination of relief activities among the many actors involved at the local, provincial, national and also international level, is another key factor for successful emergency relief management. Progress has been made in recent years in developing methodology for rapid assessment as well as programme and operational coordination, *inter alia* through the United Nations Disaster Assessment and Coordination (UNDAC) system. Participation in this system and related training activities can help to facilitate exchange of experience and national capacity building.

Emergency management procedures, pre-storage of relief supplies and search and rescue activities are additional areas where cooperation and exchange of know-how and experience are important. Search and rescue should be based on commonly agreed upon standards and procedures, as developed and endorsed at specialized international fora such as the International Search and Rescue Advisory Group (INSARAG).

The use of modern information technology, including communications technology, is also indispensable during relief operations, and particularly so for emergency operations-centre management. It not only helps maintain an up-to-date overview of the situation, damage and needs, but also helps to speed up mobilization of resources, delivery of relief assistance to affected populations, management of operations, tracking of relief supplies, reporting and accountability. Capacity building and technical cooperation for development of disaster management information systems is strongly encouraged.

## V. Rehabilitation and Reconstruction

**TCDC during the rehabilitation and reconstruction process should be provided in ways which ensure the promulgation of "best practices" and the use of the process as an opportunity for "transformation" by making societies less vulnerable to future natural hazards.**

The need to link relief at the earliest opportunity with recovery and rehabilitation measures in order to allow the affected population to regain self-reliance as soon as possible was strongly emphasized. The public in general and the communities in particular need to play a more decisive role in helping each other during the recovery process. It should be borne in mind in this connection that local characteristics can be very different from place to place and solutions should be suitable to local conditions and needs. It was apparent from the Chinese experience that water conservation measures, rehabilitation of dykes, and other engineering works should be initiated along with relief measures at the earliest possible juncture. Engineering solutions need to be complemented with non-structural measures for future disaster mitigation.

The "resource gap" between relief activities on the one hand and rehabilitation and reconstruction needs on the other is widely acknowledged. In many developing countries, including China, there is an urgent need for expanded insurance coverage for disaster damage. Resources mobilized through insurance schemes may help to assist in recovery. This will be an important area of cooperation between developing and developed countries in the future.

The post-disaster period often presents an opportunity for improving systems and institutional frameworks such as early warning mechanisms and disaster management structures, as was highlighted by experiences in the Dominican Republic and Poland. Cooperation with other countries, and an exchange of experience and knowledge is essential during this process.

It is of utmost importance to ensure disaster mitigation and vulnerability reduction during the rehabilitation and reconstruction process. As emphasized by Chinese officials, reconstruction efforts should aim at making houses and assets more resistant to future floods; risk mapping can ensure that vulnerable people are relocated to safer areas. Documentation covering "best practices" in worldwide natural disaster mitigation would contribute to this effort.

The key role of environmental management for disaster prevention and future risk reduction is one of the main issues that have emerged from the 1998 floods in China. Many underlying ecological problems and improper patterns of development contributed to the flood becoming a disaster, including deforestation in the upper basin of the Yangtze River Basin, the massive growth in upland populations and agriculture, soil erosion and heavy siltation. Recognizing the critical importance of sustainable land-use management and environmental restoration for future disaster reduction, the Government formulated a new policy framework to promote ecological watershed management. This can be considered a major achievement and an example to be followed by other countries. Unless the root causes of natural disasters are addressed, the cost in lives and in property from natural disasters is bound to increase steadily.

## **VI. Modalities of TCDC and the Potential Role of the UN system**

**TCDC by means of bilateral and multilateral programmes is strongly encouraged. The UN, other international organizations, and bilateral donors are all called upon to facilitate TCDC through appropriate mechanisms and inputs.**

In general, TCDC may include activities such as study tours, exchange projects, participation in exercises, sharing of expertise, and development and implementation of regional and sub-regional cooperation agreements. The Internet offers new possibilities for linkages and exchanges.

Direct cooperation between disaster-prone countries, through bilateral and multilateral programmes as well as regional initiatives, is strongly encouraged. The UN system may serve as a broker and facilitator to promote TCDC in disaster management. The UNDP Country Offices, Regional Bureau and Emergency Response Division, as well as OCHA and relevant UN agencies are available to assist interested countries. Any support from donor countries and international organizations to underpin such shared initiatives would be extremely useful and welcome. The Red Cross network, including Regional Delegations of the International Federation of Red Cross and Red Crescent Societies (IFRC), also offers its services to promote cooperation in the field of disaster relief and preparedness.

In addition, a number of ongoing or planned UN projects for sub-regional, regional and international cooperation in disaster reduction and management were highlighted by UN-DESA, UNEP, Habitat, UNDP, WMO, UNESCO-IOC and IOM. There are several relevant networks and initiatives at international and regional levels, which were brought to the attention of participants as they may serve as catalysts for promoting technical cooperation among disaster-prone countries.

## **WORKSHOP OPENING STATEMENT**

**Minister Duoqi Cairang  
Ministry of Civil Affairs  
The People's Republic of China  
Beijing, China**

*Fellow Deputies,*

First of all, please allow me, on behalf of the Chinese government, to extend our warm welcome to representatives, experts, scholars, and officials present here from relevant countries, the UN system, and international organizations. I also wish to convey our warm congratulations on the opening of the *International Workshop on Natural Disaster Management* in Beijing.

With the new Millennium approaching, it is of great significance to convene this workshop in Beijing by the United Nations and the Chinese Government. Peace and development are two main themes of the world today. They will also certainly continue to be the theme in the 21st century. One of the major common subjects in front of mankind in its efforts in seeking subsistence and development is how to fight against natural disasters. Today, domestic and international experts, scholars and officials are meeting in Beijing to discuss effective ways to prevent and mitigate natural disasters; to make exchanges of experience in natural disaster relief, reduction, and management; and to seek how to make full use of the operational mechanism of the United Nations in preventing and responding to natural disasters. I am confident that the achievements in the workshop will positively promote benefit to international exchange and cooperation in the area of natural disaster management.

In the summer of 1998, extremely serious floods, seldom seen before, occurred in the valleys of the Yangtze, Nen, and Songhua Rivers of China. Under the strong leadership of the Party and the Government and with the arduous efforts of all circles, we won a complete victory in the battle against the floods.

We owe our victory in fighting against the 1998 flood mainly due to the following factors:

First of all, the correct leadership, the strong organization and coordination of the Party Central Committee and the State Council were the guarantee of this victory. Upon the occurrence of the floods, the Party and the State Council gave top priority to flood fighting and relief operations. They made timely and well-conceived arrangements for the nationwide work of fighting against the floods and for carrying out relief operations. They also made the timely and significant decision of employing the People's Liberation Army (PLA) to struggle together with civilians in the flood-fighting and relief operations. Under the unified arrangement of the Central Government, all ministries/departments under the State Council acted in close coordination and made a concerted effort to give support to the flooded areas. Party Committees and governments at all levels in the flood areas regarded flood fighting and relief operations as their central task. They strengthened their leadership for this work and went all out to do a major job of mobilization and organization. The non-flooded areas actively organized activities for disaster relief with donations to fully assist the flooded areas. The PLA firmly implemented the arrangements of the Central Government by dispatching more than three hundred thousand military personnel to be involved in the relief work. All parts of Government and various departments across the nation fully developed the spirit of great coordination by subordinating partial and local interests to the overall interest, immediate interest to long-term interest; thus forming a powerful cohesive force in the entire society

Second, the rapid development of economic construction provided a solid material guarantee for implementing the natural disaster strategy of *giving top priority to prevention and combining it with fighting and relief efforts*. For more than two decades since China's opening-up and reforms, our economic

construction has developed very fast. The people's living standards are improving step by step. The central and local governments constantly increase their input in natural disaster relief. In particular, the rapid development of the infrastructure contributing to disaster relief, including railways, highways, and telecommunications, provides a material guarantee to the improvement of emergency relief capacity and to minimizing losses from natural disasters. The considerable input of funds by the central and local governments met urgent needs in disaster relief; the development of telecommunications, and improvement of capability of science and technology in disaster relief enabled the government to acquire correct information about disaster trends to be able to make correct decisions rapidly, and the constant improvement of capability in transportation ensured timely delivery of relief supplies.

This economic development enabled the smooth implementation of the disaster reduction strategy of *giving top priority to prevention and combining it with fighting and relief efforts*. In the 1998 Flood, losses and casualties were minimized. Appropriate arrangements were made to resettle the flood victims who were also provided with their basic livelihood. Social stability and economic development were guaranteed in the flooded areas. After the flooding, the Chinese government worked out rehabilitation plans on the basis of the current situation and future requirements for flood control in the valleys of the great rivers and lakes of China. Much financial and material resources and manpower have been invested. All these efforts have improved the integrated flood control capability along the great rivers and valleys of China.

Third, bring PLA's main force into full play. The PLA, armed police, and militia reserve force were the main force in fighting against the floods. From holding fast to the Jinjiang dike, to closing up a breach in the Jiujiang River; from the battle against flooding in Wuhan; to flood control in the area of Dongting Lake; from defending the Daqing Oil Fields; to the decisive battle with flooding in Harbin; PLA were found everywhere there were risks and the most difficult tasks. Carrying forward the spirit of defying fatigue and sacrifice, and through continuous fighting, the PLA played the role of maintaining stability, ensured the safety of major rivers and lakes, ensured the safety of key cities and main lines of communication, and the safety of people's life and property.

Fourth, fully develop the fine tradition of *when one is in difficulty, help comes from all sides*. The Chinese nation has the fine tradition of *when one is in difficulty, help comes from all sides*. This has been fully demonstrated whenever natural disasters occur. After the occurrence of the 1998 Flood, people of all nationalities in China, personalities from all circles in the Hong Kong Special Administrative Region, compatriots in Macao and Taiwan, overseas Chinese, and foreign citizens of Chinese origin showed great concern for the flood effected people. They made donations in cash and in kind to support the flooded areas enthusiastically. People close to the flooded areas, in addition to donations, also accommodated those immediately transferred from the flooded areas without any pre-conditions and without payment. This mutual assistance has greatly helped people in the flooded areas to overcome their difficulties and to reconstruct their homeland.

China's achievements in disaster relief has been widely praised and appreciated by the international community. In 1996, three people respectively from the Armed Police, Civil Affairs and PLA were granted the International Civil Defense Award by the ICDO. The winners from the sectors of the Armed Police, Civil Affairs and PLA received their awards because of their outstanding performance in natural disaster relief. Internationally, last year the United Nations granted the Sasakawa Award to China for the first time.

Governments of all countries, UN organizations, concerned international organizations, and the international community provided valuable support and assistance to China's flood disaster relief operations. I would like to take this opportunity, on behalf of the Government of China and people in the flooded areas, to express our hearty thanks to those who showed their concern over, and support to the flooded areas; including governments of many countries, UN organizations, international organizations, and the international community.

The Chinese government highly appreciates the role of the United Nations in the area of natural disaster

reduction and UN's contribution in this aspect. For a long time, the UN system has devoted itself to global disaster reduction efforts. In particular, since the adoption of the resolution in designating the last decade of the century as the *International Decade for Natural Disaster Reduction* (IDNDR) at the 42nd UN Assembly in 1987, the United Nations has made positive efforts and scored fruitful achievements in strengthening and coordinating global efforts for the prevention and mitigation of natural disasters; in organizing emergency rescue work regarding natural disasters; and in promoting international cooperation in natural disaster reduction. The UN system has strongly promoted the development of natural disaster reduction undertakings throughout the world.

The Chinese people have accumulated rich experience in their struggle against natural disasters over the past millenniums. Especially since 1989, the Chinese government has positively responded to the call of the United Nations and made encouraging progress in promoting the IDNDR. I believe, our experience will be of useful enlightenment for most developing countries. Meanwhile, as one of the countries with the most severe natural disasters among all developing countries, China should also draw upon the experience and advanced scientific technology of other countries; including both the developed and developing countries in the area of natural disaster reduction so as to improve our future level of natural disaster management.

The government of China has always attached great importance to friendly cooperation with the UN system and with the international community. As always, we will actively undertake international exchanges and cooperation in natural disaster reduction. We will make great efforts to conquer natural disasters to make our common homeland safer and better.

I wish the workshop complete success! And I wish everybody a pleasant stay in Beijing!

Thank you.





## **UNITED NATIONS STATEMENT AT THE INTERNATIONAL WORKSHOP ON NATURAL DISASTER MANAGEMENT**

**Mr. Sergio Vieira de Mello**  
**Under-Secretary-General**  
**United Nations, New York**

*Your Excellency Mr. Duoji Cairang, Minister of Civil Affairs, Respected Guests, Colleagues,*

The United Nations conceived the idea of this workshop, in close cooperation with the Chinese Government, in December 1998. On behalf of the United Nations, I thus warmly welcome all of you and hereby express the hope that you will fully participate by sharing your experiences and exploring all avenues for enhanced Inter-governmental technical cooperation in the field of natural disaster preparedness, mitigation, and management.

I see that our initiative has been widely welcomed. We have amongst us 36 participants from 20 countries, 32 participants from 21 UN agencies and international organizations, and 56 Chinese participants. The large response reflects our obvious consensus on the necessity and importance of this workshop.

I am also pleased to know that participants represent policy-makers, government officials, experts and frontline managers in natural disaster preparedness management, relief, and rehabilitation. Such a wide spectrum of participants brings to the workshop a rich body of knowledge on natural disaster management and I am therefore fully convinced that the objectives set for the workshop will be met with success.

Natural disasters ignore national boundaries. They are an increasing and worldwide threat to people's lives and property. This is particularly the case in developing countries, a fact of which we have been sorely reminded in the 1990s and which was a motivation for the UN member states to declare the 1990s as the International Decade for Natural Disaster Reduction. According to all available statistics, natural disasters are on the rise. There have been three times as many heavy loss disasters in the past ten years as was the case in the 1960s: economic losses have been nine times greater, currently exceeding US\$ 90 billion a year. In 1998, natural calamities claimed the lives of more than 50,000 people. Recent years have witnessed amplified forms of natural disasters, spanning several regions and caused unprecedented damage. Consequently, extreme levels of economic impact and social disruption have been experienced. Let us take our host country, China, and its neighbours, as examples. China's current national natural disaster-invoked losses range from 4 to 8 per cent of the gross domestic product, thereby competing with the annual national growth rate in the severest cases. Bangladesh has suffered five huge floods post-1950s, and 8 devastating cyclones this century. The people of Vietnam's Mekong Delta have withstood 3 extensive floods in the 1990s.

There are more and more pointers to a climate-related accumulation of extreme weather-induced events. Many recent disasters of large magnitude can be traced to climatic variations such as El Nino and La Nina. Natural phenomena seem to have changed in frequency and magnitude also on account of global warming and related atmospheric and environmental changes. The hastening deterioration of the natural environment and the apparent decrease in natural resource bases on a global scale are also major reasons as to why the risks from natural hazards have increased.

Global statistics for overall human and economic losses incurred by natural catastrophes in 1997 show that windstorms and flooding caused 64 per cent of deaths and 83 per cent of the economic losses. In China's case, the 1998 floods affected 180 million people and took 4,100 lives. The floods were responsible for direct economic losses exceeding US \$ 26 billion. Bangladesh underwent two flood disasters in 1998, in which 2,435 people lost their lives.

The United Nations Office for the Coordination of Humanitarian Affairs is deeply concerned with the increasing human and economic losses engendered by natural disasters. The UN system has a long record of coordinating international emergency relief following natural disasters. Over the last 30 years, the United Nations has provided an important platform for concerted international approaches in this field. While the policy and advocacy aspects for promotion of long-term disaster reduction strategies have been embodied in the IDNDR during the last decade, the humanitarian assistance sector of the United Nations has restructured to adapt several times to a globally changing environment. The coordination function for international natural disaster response is today established within the Office for the Coordination of Humanitarian Affairs (OCHA). OCHA undertakes to mobilize and coordinate the collective efforts of the international community, in particular those of the United Nations agencies, to meet in a coherent, effective and timely manner the needs of those exposed to human suffering and material destruction in disasters and emergencies. This also involves reducing vulnerability, promoting solutions to root causes and facilitating the smooth transition from relief to rehabilitation and development. If such a mandate is to be realized on a worldwide scale, more action needs to be taken, and indeed must be taken at local, national, regional and international levels. OCHA will continue to vigorously advocate long-term disaster mitigation strategies, with all parties concerned, and support coordination arrangements with international organizations, governments and the private sector to reduce the human and economic losses caused by natural disasters. OCHA will also aim at improved networking among humanitarian actors at regional and global levels, and establish a presence in disaster-prone regions, to enable the UN system to respond more rapidly, to support affected countries more effectively, and to contribute to training activities and improved contingency planning and preparedness. Therefore OCHA is particularly pleased to co-organize this workshop with UNDP and the Chinese Government, and to provide a platform for participants where experiences can be shared, views expressed, and possibilities for enhanced international cooperation in natural disaster management be explored.

Most of today's participants come from natural disaster-prone countries, where floods and windstorms cause much human suffering and massive economic loss. Your collective experiences may lead you to agree with me that natural disasters are not caused by nature only, they are caused by the disastrous impact of natural hazards such as floods, cyclones, typhoons and windstorms on vulnerable societies. Natural disasters are not simply an outcome of natural forces; they are aggravated by human actions which degrade the environment and expose populations and assets to risks. So far, we cannot prevent natural hazards but we are indeed able to reduce their disastrous impact on our societies, thereby ensuring that macro economic development efforts have not been in vain.

We can no longer afford, be it financially or socially, to rely on the relative cure of relief when disasters strike. While enhanced preparedness measures for more efficient rescue operations will be necessary, we must first turn much greater attention to the introduction of preventive strategies aimed at saving lives and protecting assets before they are lost. The programme of the International Decade for Natural Disaster Reduction, adopted by the General Assembly in 1989 and refined at the World Conference on Disaster Reduction in Yokohama, provides us with the necessary guidelines for action. The Government and people of China have made particularly good progress, and taken exemplary action, through the IDNDR National Committee for Natural Disaster Reduction, to put into practice the strategy and policy recommendations of the IDNDR. The establishment of the Natural Disaster Reduction Plan of the People's Republic of China, the planning and building of the Chinese National Centre for Natural Disaster Reduction, and the creation of a network of national disaster information and evaluation services have been key elements in this process. I should like to pay tribute, in particular, to the Minister for Civil Affairs of China, Mr. Duoqi Cairang, who has spearheaded the Chinese initiatives in this regard and who was awarded with the 1998 United Nations Sasakawa Disaster Prevention Award, in recognition of his distinguished contribution to disaster prevention, mitigation, and preparedness. Our recognition also goes to Professor Wang Angsheng, of the Chinese Academy of Sciences, who has been co-winner of the award, in view of his many activities, at the national and international level, aimed at strengthening awareness of the importance of natural disaster prevention and preparedness. The recent floods in China have taught us, however, that there is never any respite, and that we should further intensify and expand our efforts as we stand on the brink of the next millennium.

Many other countries on the globe, besides China, have faced the challenges of trying to reduce the devastating impact of natural disasters. There is a wealth of knowledge and accumulated experience that is worth sharing so that we can move further forward together. The different United Nations operational agencies are committed to supporting governments of disaster-prone countries as effectively as possible and OCHA will duly provide its services in the areas of policy development, advocacy, and coordination.

From this morning onwards, we will listen to 13 presentations on natural disaster management. Speakers will share their successes, and the difficulties encountered, in the practice of natural disaster preparedness, mitigation, management, relief, and rehabilitation. To name but a few, China will share its success stories in forecasting, preparedness and rescue, as well as in rehabilitation. The United Nations Disaster Management Team for China will present its experiences and lessons learned from its assistance to the 1998 flood victims in China. Canada will share its successful flood monitoring system. Kenya will introduce its accumulated experience in the management of different kinds of disasters. Poland will focus on lessons learned from floods there in 1997. In addition, six group discussions have been designed to provide opportunities for participants with similar interests to further their understanding of shared concerns and to explore opportunities for possible international cooperation. I hope that the workshop will further clarify the major issues that we, the international community, must address in the near and longer-term future.

I would like to end this statement by expressing my sincere appreciation for the support given by the Chinese Government for the organization of this workshop, to the United Nations Resident Coordinator, and especially the staff of her Beijing Office, both UNDP and OCHA, for sharing the responsibility incurred by the conduct of this workshop, and to you, the participants, for your active participation in the coming sessions.

Trusting the next few days will live up to our hopes, let me wish you a constructive workshop.



## **UNDP STATEMENT AT THE INTERNATIONAL WORKSHOP ON NATURAL DISASTER MANAGEMENT**

**Mr. Omar Bakhet  
Director  
Emergency Response Division  
of the United Nations Development Programme  
UNDP, New York**

*Your Excellency, the Minister of Civil Affairs, Distinguished Guests, Colleagues, Ladies and Gentlemen,*

The United Nations Development Programme (UNDP) is very pleased to co-organize this workshop, in close collaboration since its initiation at the end of last year, with the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), and the Chinese Government.

On behalf of UNDP, I would like to thank all of you - the participants from countries with recent disaster experience and our host country China, the UN Agencies, international organizations, missions and donor representatives - for your interest in attending this workshop in order to share your experiences, views and recommendations. Your willingness to support each other's efforts underscores the key objective of this workshop: to facilitate global exchange across countries with similar disaster risks, windstorms and floods in particular; and to foster cooperation among the diverse actors present here - policy makers, government officials, technical experts, humanitarian, and development agencies.

Let me now briefly focus on some of the issues that I hope we will be discussing in the next few days. Destructive disasters have occurred in all parts of the world in recent years in most of the countries represented at this workshop, but with different consequences. In countries where disasters are seasonal and recurrent events, such as floods in China, cyclones in Bangladesh, and typhoons in the Philippines and Vietnam, there has been significant improvement in disaster early warning, both at the technical level as well as in acting upon the warnings at the national and community levels. This has resulted in measurable reduction in loss of life. Another area where most countries represented in this forum have been making considerable progress, is their commitment to national capacity building. Action on this takes place at both national and local levels through training and by putting the necessary institutional structures in place. The UNDP, through its Country Offices and the Disaster Reduction and Recovery Programme (DRRP), continues its technical and financial support to these national efforts. It is my hope that during the thematic discussion groups, participants will exchange their experiences and challenges in these areas of success, and build partnerships for the future.

Let me now turn to areas where challenges are still great. Over the past ten years, both the severity and number of natural disasters have been on the increase. Compared to the 1960's, in the 1990s the number of catastrophes has increased five-fold and the damage has increased by a factor of nine (Munich Re, 1999). Despite noticeable improvements in saving lives in windstorms and floods, disasters continue to have a serious impact on the social and economic fabric of countries and communities. Between 1987 and 1997, the total direct economic loss from natural disasters was US\$ 700 billion (Munich Re, 1998). This figure does not include the very high cost of rehabilitation and reconstruction after disasters. In monetary terms, losses in developed countries may be very high but these countries often have the means to recover from the impact of disasters. The setback to overall human and economic development from disasters is often significant in small island States such as in the Caribbean and the Pacific, and for countries with fragile economies, such as the Central American countries which were hit by Hurricane Mitch last year.

Furthermore, the losses can often be high for limited geographical regions. For example in 1998, the total

worldwide economic losses are estimated to be approximately US\$ 65.5 billion. Over half of these losses, US\$ 35 billion, were due to Asian flooding, with US\$ 30 billion attributable to the losses in China from the Yangtze River flooding. In the same year, the second largest disaster was hurricane Mitch, with losses of US\$ 5 billion. As a result, 66% of the losses in 1998 were incurred by the developing countries (Swiss Re, 1999).

Recent examples once again highlight the fact that disasters divert precious financial resources and human energy from sustainable development. Protecting lives is an unquestionable obligation. But, without protecting the livelihoods of people vulnerable to disasters and a nation's economic assets, it is not possible to break the vicious circle of saving people only to render them more vulnerable to future disasters. In this respect, the challenge is complementary. We need to improve the management of emergencies but, equally, we need to invest in reducing future disasters through better preparedness, prevention, and mitigation activities.

As a part of its overarching goal of strengthening international cooperation for sustainable human development, UNDP will continue to support capacity building in disaster management at national and local levels. At the same time, the UNDP will pursue this goal by intensifying its efforts in supporting disaster reduction and recovery in collaboration with similarly committed development partners.

To conclude, let me express my deep gratitude to the Chinese Government for hosting this meeting and for providing all the necessary support. I would also like to thank the UNDP Office in Beijing for their efforts to make it a successful event and to OCHA for sharing the responsibility for the preparations. This forum, I hope, will facilitate future collaboration in disaster reduction among the participants. I thank you for your participation and wish all of us a successful workshop.

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