



Writing in The Independent, 14 October 1998, Khabiruddin Ahmed, Director (planning) DMB stated:

“The 1998 flood was most devastating, inundating and affecting 68% of the country, although the number of deaths was much less than on the 88 flood. This is due to preparedness and public awareness. The Government thus deserves credit for handling the flood situation boldly and effectively.”



The UNDP Representative in Dhaka, in an article published in The Independent, said:

“Bangladesh as a nation has shown the world that it has the capacity to cope with natural disasters, and though there is still room for improvement, today we can commend the people, the NGOs, the district personnel and other local Government officials, all the people who came together to share information, shelter, food medicine, medical supplies and to help each other through the flood.”

The 1998 IDNDR International Photo Contest aroused great interest among the photographers of Bangladesh and the standard of entries was very high. The winner of the contest, Azizur Rahim Pev, has his work published on the front cover of this report.

“আন্তর্জাতিক প্রাকৃতিক দুর্যোগ”

১৪ অর্ড

প্রাকৃতিক দুর্যোগ প্র

দুর্যোগ ব্যবস্থাপনা ব্যুরো - দুর্যোগ

বিশেষ ভে

১৯৮৮

খাবির উদ্দিন আহমেদ

পরিচালক, দুর্যোগ ব্যবস্থাপনা ব্যুরো, ঢাকা



বাণী

দুর্যোগ মোকাবেলায় দেশের যাবৎ ব্যয়সাধারণ আর্থনৈতিক দুর্যোগ প্রশমন ফান্ড শস্যের উৎপাদকে অতি গুরুত্ব দেয়া হয়। এ বিষয়ে প্রেসিডেন্ট ‘আন্তর্জাতিক দুর্যোগ প্রশমন ও পুনর্বাসন’ আন্তর্জাতিক আর্থনৈতিক ও সহযোগিতা ফান্ড অতি গুরুত্ব দেয়।

বিশ্ব প্রকৌশলিক সংস্থা ও কৃষকদের উৎসাহিত করা বাংলাদেশ প্রকৌশলিক সেব্যের উন্নয়ন ও প্রাকৃতিক দুর্যোগ প্রতিরোধ করা সেরা ও দ্রুততম পন্থা। এ বিষয়ে প্রেসিডেন্ট ‘আন্তর্জাতিক দুর্যোগ প্রশমন ও পুনর্বাসন’ আন্তর্জাতিক আর্থনৈতিক ও সহযোগিতা ফান্ড অতি গুরুত্ব দেয়।

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CHINA

The prestigious UN Sasakawa Disaster Prevention Award was presented in 1998 to two Chinese, Mr. Duo Ji Cai Rang, Minister of Civil Affairs and Prof. Wang Ang-Sheng of the Chinese Academy of Sciences.

This prize, a recompense for outstanding achievements in the field of disaster reduction and work done over a number of years, carries a prize of US \$ 50,000, and was presented to the winners in Geneva on Natural Disaster Reduction Day.

In China, the Day was marked by workshops, televised speeches by executive leaders or experts and newspaper articles.

1990
2000
CNC/IDNDR

CHINA DECADE FOR NATURAL DISASTER REDUCTION

**Prediction and Prewarning for Storm Surge:
A Case Study**

State Oceanic Administration

Houses ruined by typhoon

Typhoon 9711, generated at 08:00, August 10, 1997, in the east of Guam, landed at 21:30, August 18 on Zhejiang Province with a wind force of over scale 12 and an air pressure of 960 hbar at its center. After landing, the typhoon turned toward the north, and entered Jiangsu Province, then entered Shandong Province and the Bohai Sea. It decayed at 21:00, August 21 in Liaoning Province. As a result of the simultaneous occurrence of strong wind, spring tide and heavy rain, the landing of Typhoon 9711 at the coastal area of the eastern China caused unprecedented disaster, which affected a large area seriously. Observations at the coastal stations during the storm surge indicated that the high tides measured at 28 stations exceeded the local warning limits and the high tides at 13 stations broke the historical records.

Forecasting of the storm surge caused by Typhoon 9711

A prediction of the storm surges to be caused by typhoons in 1997 was made in early year. It was that the impact of tidal disasters would extend further toward the north in 1997 than in the previous years. On the basis of the analysis of historical data, experts concluded that there would be less typhoons in 1997, but the probability of typhoon's impact on the coastal area of the eastern China would be higher. This prediction was made to the public to raise the public's awareness of coastal disasters and to call for precautionary measures against the disasters. When Typhoon 9711 entered the area identified as an area of importance for typhoon forecasting and warning, the marine environmental forecasting stations and centers concerned enhanced their consultation and gave full play to their expertise to provide parameters for typhoon forecast. They used storm surge numerical forecasting models to calculate the path of the typhoon, and issued a forecast of the extraordinary storm surge with a lead-time of 36 hours.

United Nations
Department of
Humanitarian Affairs

International Decade for Natural Disaster Reduction

IDNDR
1990 - 2000
Building a Culture of Prevention

Record Floods Strike Repeatedly in China

The relentless march of floods of the 90s in China is taking a heavy toll on social and economic development, and leading to new ways to deal with flood disasters. Millions of people have been affected. Economic losses from floods in the 1990s alone approach \$67 billion. A look at a series of major flood disasters in the 90s - in 1991, 1994, 1995, 1996 and 1997 - shows the tragic socioeconomic impact of these disasters, as well as changing attitudes about management of flood risks.

1991: Floods devastated an area in eastern China (bigger than Switzerland and Austria combined (1,800,000 km²). Three million houses were swept away, and another six million severely damaged. Ten million people were resettled.

1994: South and southeast China suffered billion-dollar losses in six provinces and nearly 300,000 people died. In 1995, over 100 million were threatened by floods from melting snow and record levels of rainfall. Ten provinces in central, eastern and southern China were affected.

1996: In the most devastating Chinese flood of the 90s, flood losses soared to over \$20 billion. Heavy rain saturated central and southern China, triggering many landslides. Over 100 million people were affected; 2700 were killed; one million people were evacuated. Well over a million houses were destroyed and nearly ten million were damaged; 8,000 factories closed, and 109,000 km² of farmland were flooded.

1997: Floods killed over 100 people and affected 5.6 million in eastern and southern China in the first half of July. 10,000 mines and factories were closed, 340,000 hectares of farmland were destroyed, 482 km of dikes were damaged; 26,000 houses were destroyed.

1991 Floods in China

Floods have been a way of life for centuries in China, but in recent years they have gained deadly and costly momentum. Development patterns are a contribute to the changing impact of floods. This is illustrated by the story of Wen Ziyin, a 71-year-old Chinese trishaw driver. The Far Eastern Economic Review, in a 1994 cover story on floods and droughts, recounted Wen's reactions, standing amidst the rubble of his home after the 1994 floods. "When we were small," Wen recalled, "we never feared typhoons." A bamboo grove and four barges stood between his house and the river when he was young.

After a new airport was built, an industrial area sprang up around it, taking away the land which had absorbed heavy rains for years. When a summer typhoon struck right after high tide, it quickly breached riverfront dykes, and Wen had "barely an hour from the first trucks under the door until we saw the house collapse." With the collapse of their home, there was no trace of money they had stashed in the walls, which they were saving to build a new home.

Both economic changes and record floods are having an impact on flood protection priorities. In the latest World Disaster Report of the Red Cross/Red Crescent Societies (IFRC), a study in the Yangtze delta shows that people now tend to prefer non-structural remedies - such as early warning systems and insurance - to structural

Talan City in Shandong province hosted a professional workshop on water issues, organised by the Provincial Disaster Relief Co-ordinating Group and the Provincial Disaster Prevention Association.

30 experts in hydrology, meteorology, oceanography and environmental protection participated.

Gansu Provincial Disaster Prevention Association and Earthquake Resistant and Reduction Consulting Group convened a multi-sector meeting that included water experts.

In **Hong Kong**, the combination of extremely hilly terrain, deeply weathered rock profiles, high seasonal rainfall and the intense concentration of population and development on hillsides, has in the past resulted in some severe landslide problems in the country's dense urban environment.