

World Meteorological Organization

Outreach Activities about Meteorological and Hydrological Services in Disaster Risk Reduction

Asian Conference on Disaster Reduction 2007
25-27 June 2007, Astana, Republic of Kazakhstan

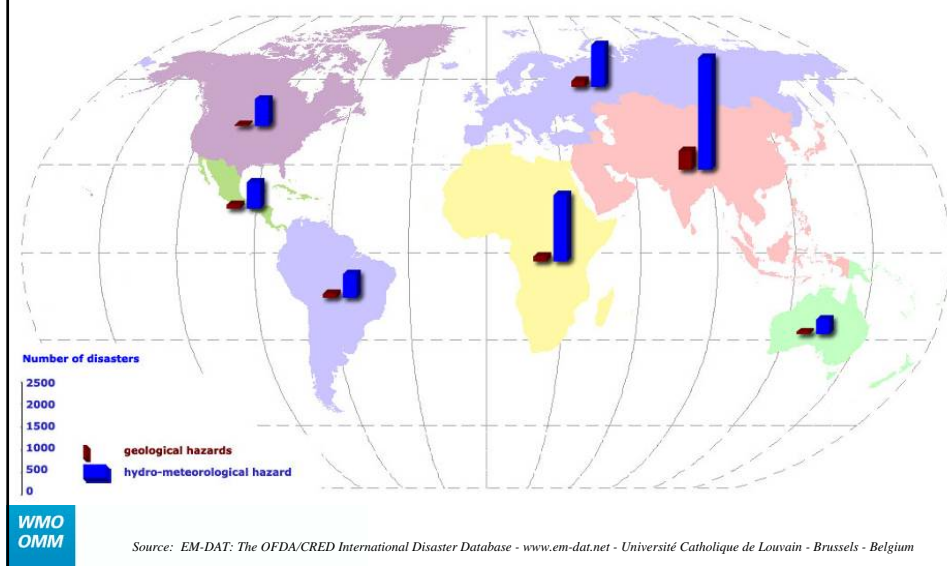
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**We cannot avoid hazards ...
but we can Prevent Them from Becoming Disasters**

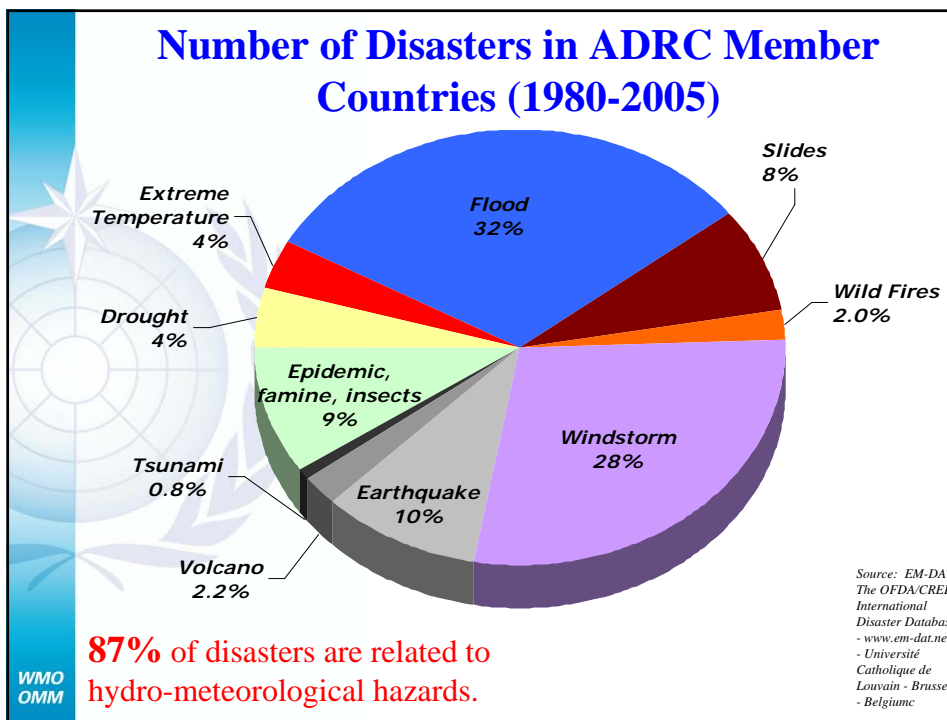


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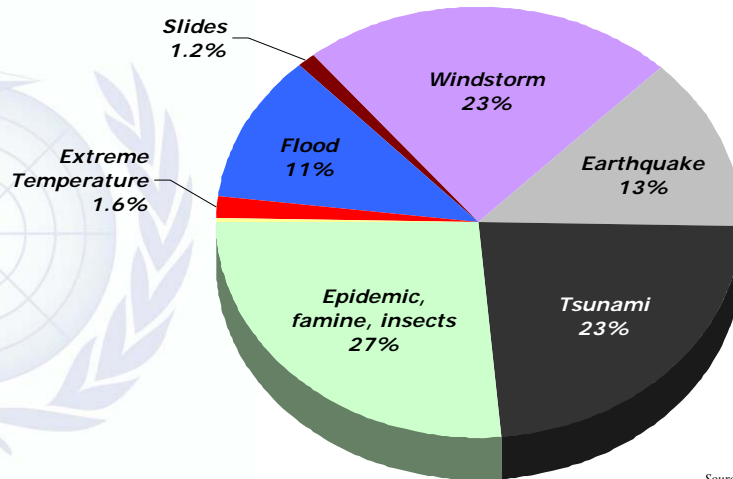
90% of Disasters are Hydro-Meteorological (Number of Events, 1980-2005)



Number of Disasters in ADRC Member Countries (1980-2005)



Loss of Human Life in ADRC Member Countries (1980-2005)

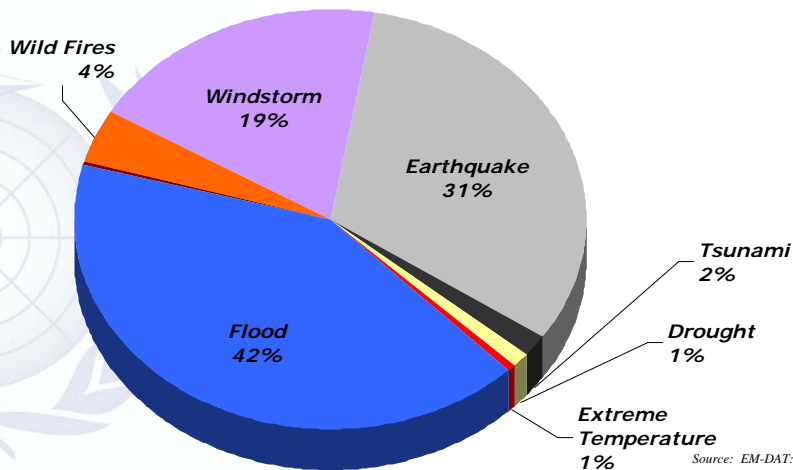


64% of loss of life are related to hydro-meteorological hazards.

Source: EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium

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Economic Losses in ADRC Member Countries (1980-2005)



67% of economic losses are related to hydro-meteorological hazards.

Source: EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium

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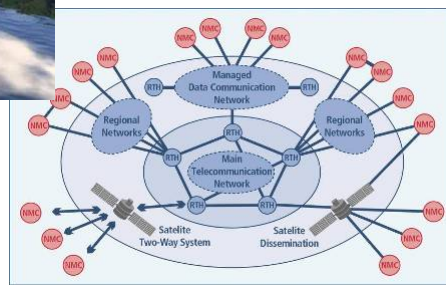
WMO Coordinated Networks in Support of Disaster Risk Reduction Observation & Communication



Global Observing System



Coordinated Satellite Activities



Global Telecommunication System

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National Meteorological and Hydrological Services

Provide products and services, 24/7

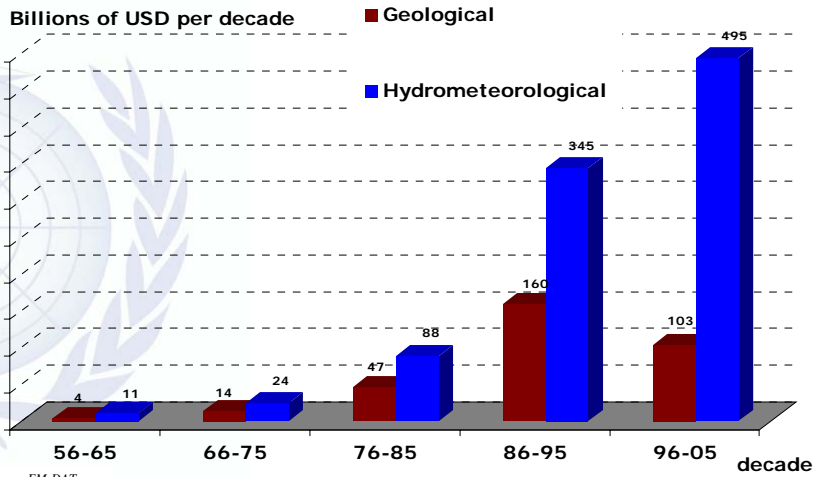
- Meteorological, hydrological, climate and hazard information and mapping
- Early Detection, Forecasts and Warnings (next hour to climate time scales)



Severe storms, tropical cyclones (hurricanes and typhoons), storm surges, floods, cold spells, heat waves, droughts, forest fires, locust swarms, etc...

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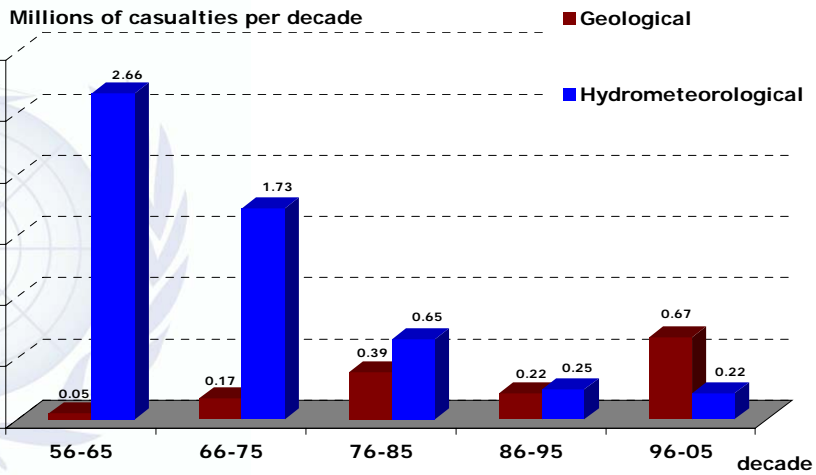
Economic Losses are on the Way Up



Source: EM-DAT:
The OFDA/CRED
International Disaster
Database - www.em-dat.net - Université
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- Brussels - Belgium

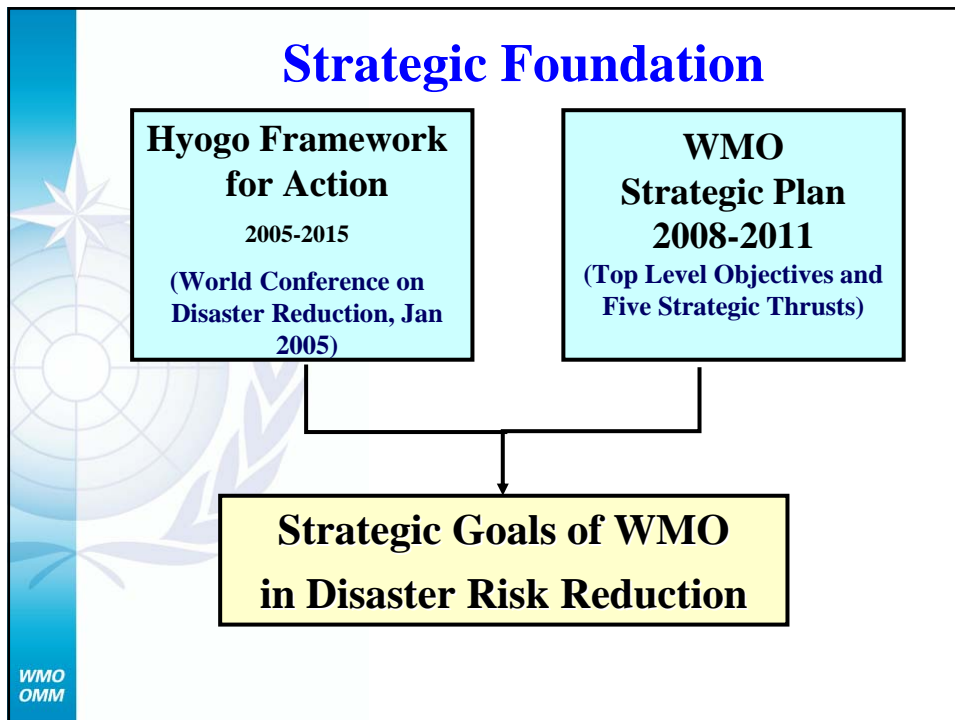
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While Casualties related to Hydro-Meteorological Disasters are Decreasing



Source: EM-DAT:
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- ## WMO Strategic Goals For Disaster Risk Reduction
1. Strengthening and sustainability of **early warning systems**
 2. Analyzing and providing **hazard information for risk assessment**
 3. Delivery of **timely and understandable** warnings and specialized forecasts -- **driven by user requirements**
 4. **Integration** of NMHSs' products and services in disaster risk reduction,
 5. Strengthening WMO/NMHS **cooperation and partnerships** at national to international level with disaster risk reduction organizations
 6. **Public outreach and educational** campaigns
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Linking DRR Strategic Goals to Action

Implementation through regional and national projects, with following end results:

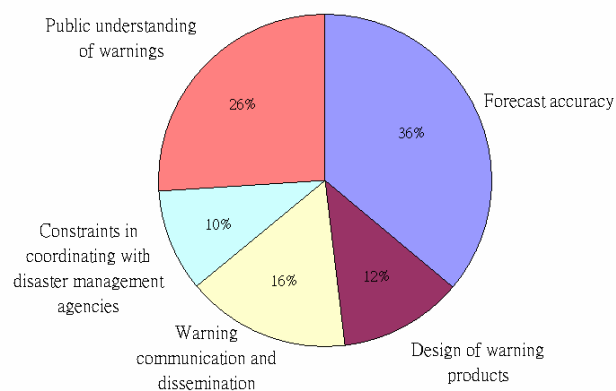
1. **Modernized** NMHSs systems.
2. Strengthened national **operational** multi-hazard **early warning systems**.
3. Strengthened **hazard analysis** and **risk assessment capacities**.
4. Strengthened **cooperation** of NMHSs with **civil protection** and disaster **risk management agencies**.
5. **Trained** NMHS
6. **Sustained** capacities over time
7. **Enhanced awareness** ministerial and public

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Challenges Faced by NMHSs in the Provision of Warnings

[Source : Report on PWS Survey on Severe Weather Warning Services, WMO 2006]

Tropical Cyclones Warning

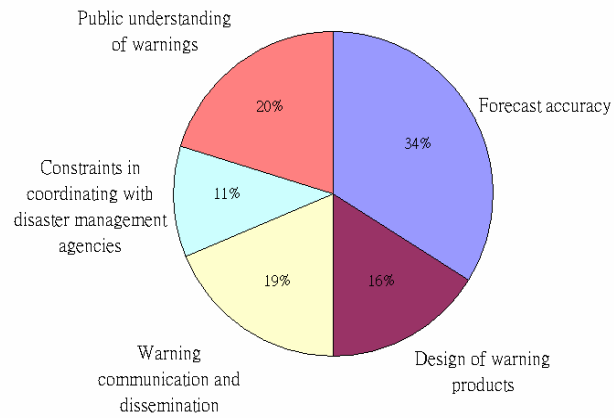


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Challenges Faced by NMHSs in the Provision of Warnings

[Source : Report on PWS Survey on Severe Weather Warning Services, WMO 2006]

Rain Warning

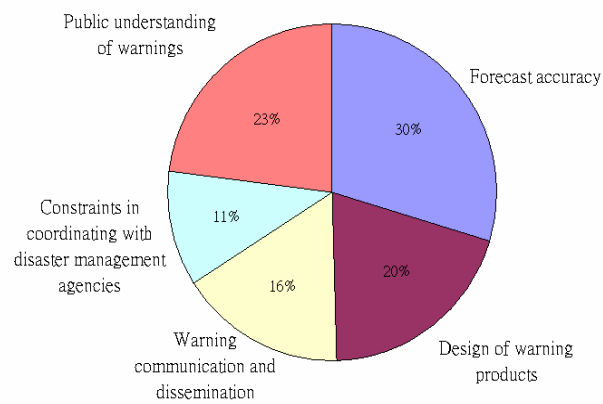


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Challenges faced by NMHSs in the provision of warnings

[Source : Report on PWS Survey on Severe Weather Warning Services, WMO 2006]

Hot and Dry Weather Warning



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How Can WMO Help in Public Education and Outreach?

- Provision of guidance on formulation of strategies for developing public education and outreach
- Provision of materials/information to support science curricula in schools on topics such as meteorology, hydrology and climate and related hazards/vulnerabilities and training of teachers
 - Multi-hazard approach
 - Climate variations and change
- Provision of information for community-based preparedness Programmes
- Provision of technical support of national met services to provide multi-hazard analysis and risk assessment for development of building codes, in particular, for building safer schools
- Other public awareness materials, brochures, etc. targeted at specific age groups
 - **Climate, water,** weather, early warning systems with multi-hazard approach

Partnerships Partnerships Partnerships

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Outreach Activities: the Hong Kong Experience Safer Living – Reducing Natural Disasters



Objective:

A one-year (March 05 - May 06) community education programme aiming to:

- Promote public participation in reducing natural disasters
- Increase public preparedness to deal with natural disasters; and
- Build a community dedicated to preventing risk and disasters

Organizers:

Security Bureau
Civil Engineering & Development
Department
Hong Kong Observatory
Drainage Services Department
Information Services Department
Hong Kong Red Cross

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<http://saferliving.info.gov.hk>

Campaign Promotion



Opening Ceremony & 3-day Exhibition



An exhibition featuring display panels, video shows and game booths was held at the same venue. It attracted thousands of visitors.



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Meteorological Series III – an 8-episode of TV programme



The 3rd new TV documentary "Meteorological Series III" jointly produced by the Hong Kong Observatory and Radio Television Hong Kong

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Popular Science Lecture Series



Teachers' Workshop

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Popular Science Lecture Series



Tropical Cyclones in the western North Pacific and the South China Sea



Thunder and Lightning in summer in Hong Kong

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Popular Science Lecture Series



Flooding and Flood Prevention in Hong Kong



The Geological Past of Hong Kong and Landslide Disasters



Rescue operation by Government Flying Service under adverse weather conditions

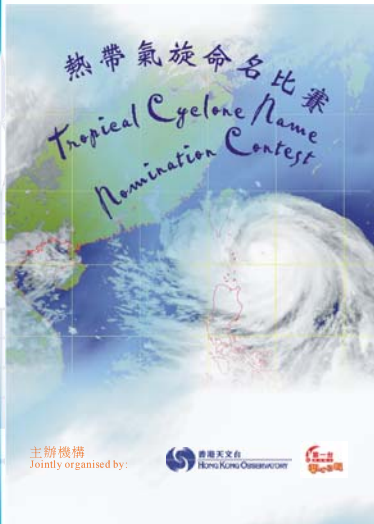
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Roving Exhibition on Slope Safety



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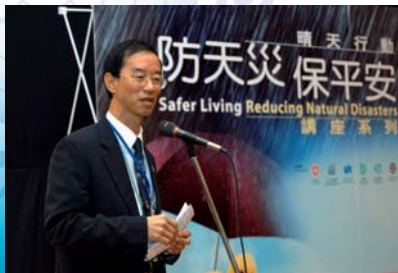
Tropical Cyclone Name Nomination Contest



About 20,000 entries

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Seminar on "Safer Living - Reducing Natural Disasters"



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About 300 participants attended

One-month Major Exhibition



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Attracted more than 24,000 visitors

Rescue Drill Demonstration



Attracted more than 1,300 visitors

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Thank You

For more information please contact:

Maryam Golnaraghi, Ph.D.

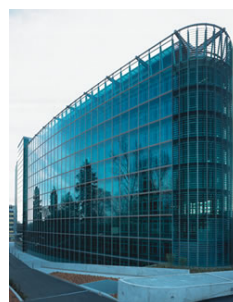
Chief of Natural Disaster Prevention and
Mitigation Programme

World Meteorological Organization

Tel. 41.22.730.8006

Fax. 41.22.730.8023

Email. MGolnaraghi@WMO.int



<http://www.wmo.int/disasters>

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