



Integrating community-based disaster risk management activities into people-centered early warning system

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Points of discussion

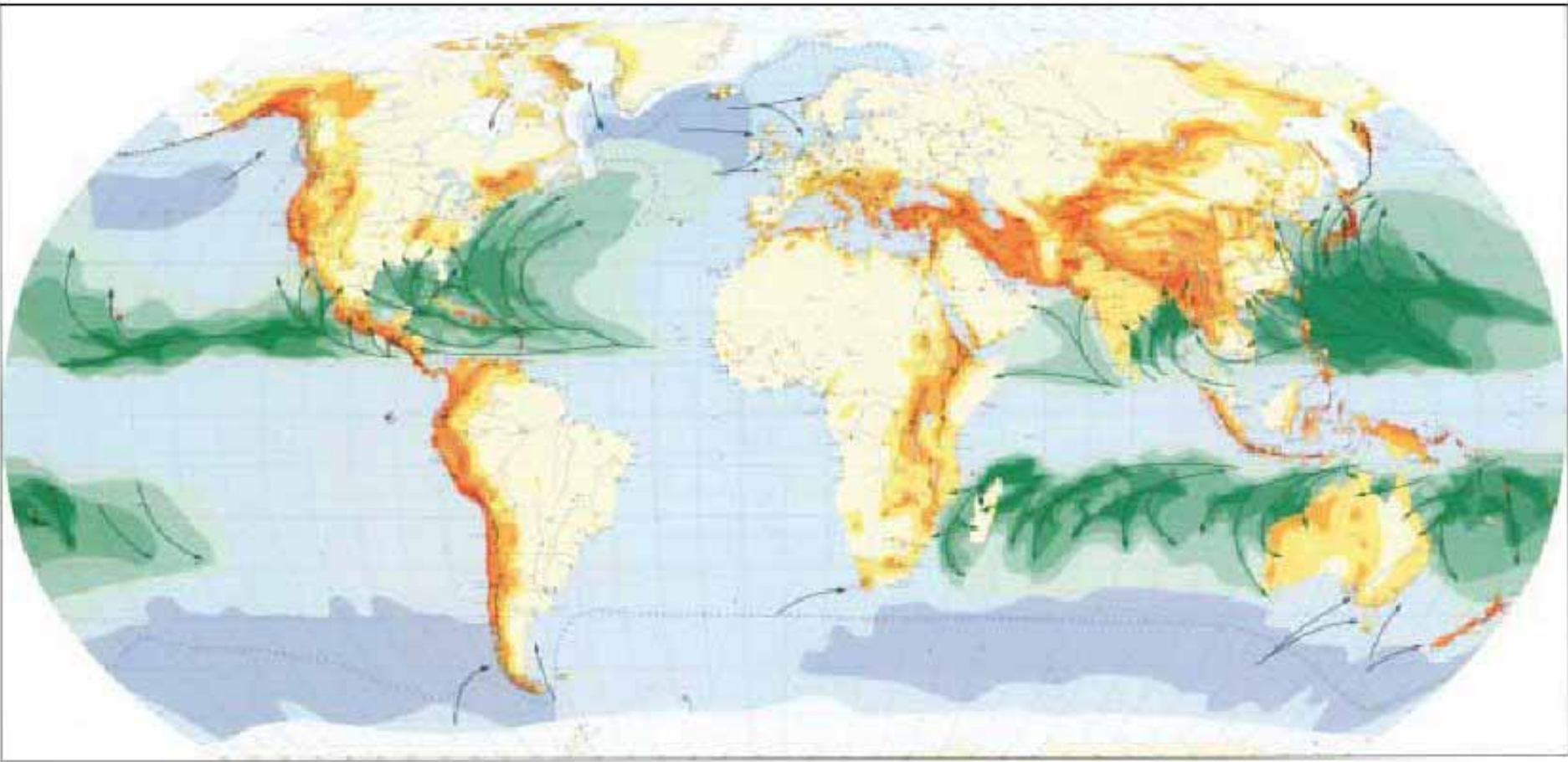
- **Perspectives in Asia-Pacific**
- **Regional trends of disaster impacts**
- **Regional experiences**
- **Lessons learned**
- **Messages**





World Map of Natural Hazards

Source: Munich Re



<p>Earthquakes</p> <ul style="list-style-type: none"> Shallow (depth < 700 km) Intermediate (depth 700-300 km) Deep (depth > 300 km) 	<p>Volcanoes</p> <ul style="list-style-type: none"> Active Extinct Submarine 	<p>Tropical Storms and Cyclones</p> <ul style="list-style-type: none"> Category 1 Category 2 Category 3 Category 4 Category 5 	<p>Extratropical Storms/ Winter Storms</p> <ul style="list-style-type: none"> Extratropical storm Winter storm Extratropical cyclone 	<p>Other Natural Hazards</p> <ul style="list-style-type: none"> Drought Flood Other 	<p>Political Borders</p> <ul style="list-style-type: none"> State border International border Other
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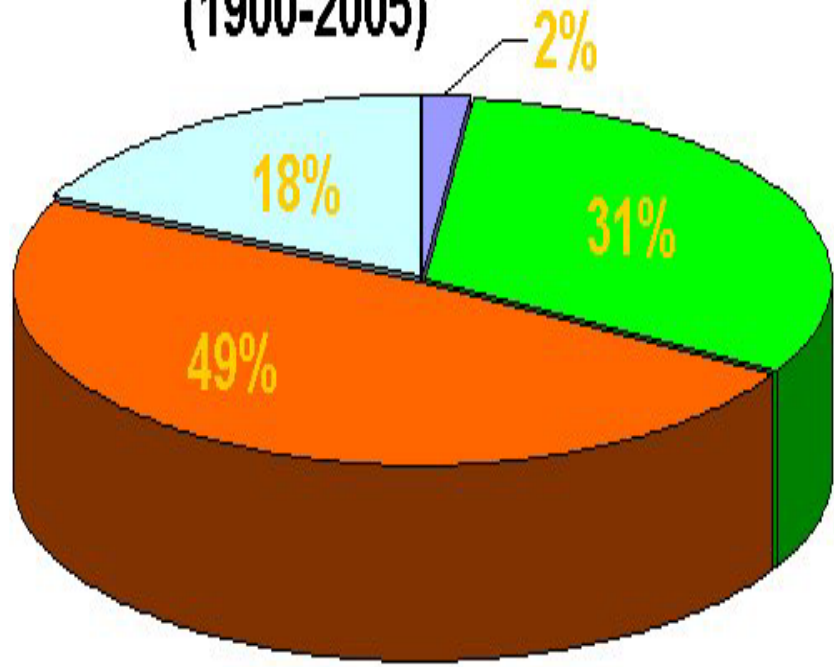
Regional Perspectives

- ❑ **Most populated: 60% of World population**
- ❑ **Highest economic growth rates**
- ❑ **Highest number of poor**
- ❑ **91% of the World deaths and 49% of World damage by natural disasters during last century**
- ❑ **Rich and long history of disaster management**



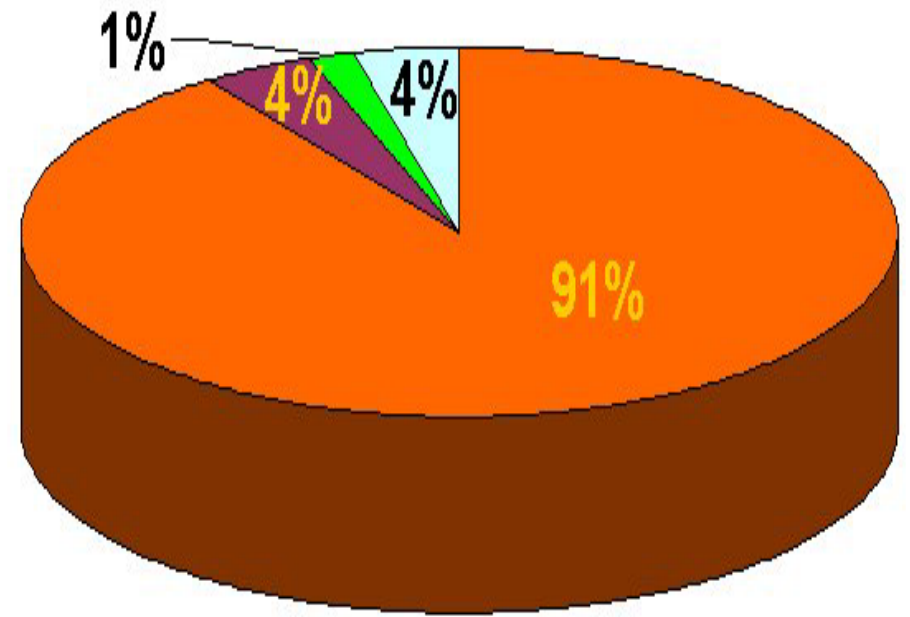


Damage in US\$ by Continents (1900-2005)



Africa America Asia+Pacific Europe

Number of Deaths by Natural Disasters by Continents (1900-2005)



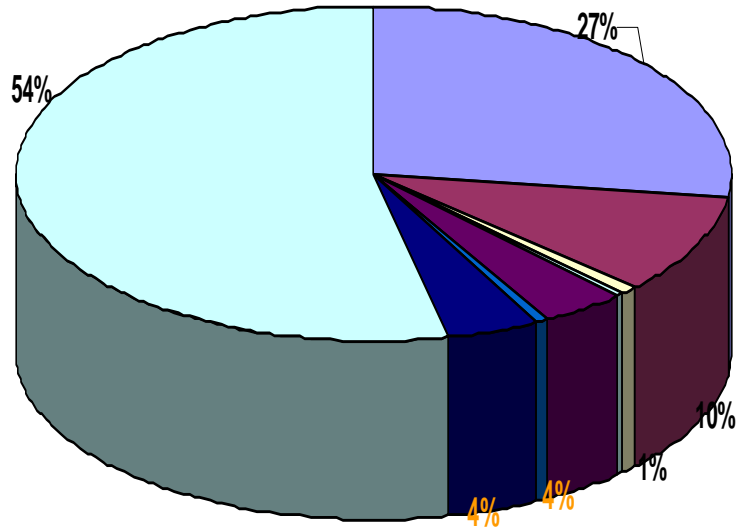
Asia-Pacific Africa America Europe





Number of Deaths by Disasters in Asia and the Pacific - 1950-2005

(Total: 5,536,242)

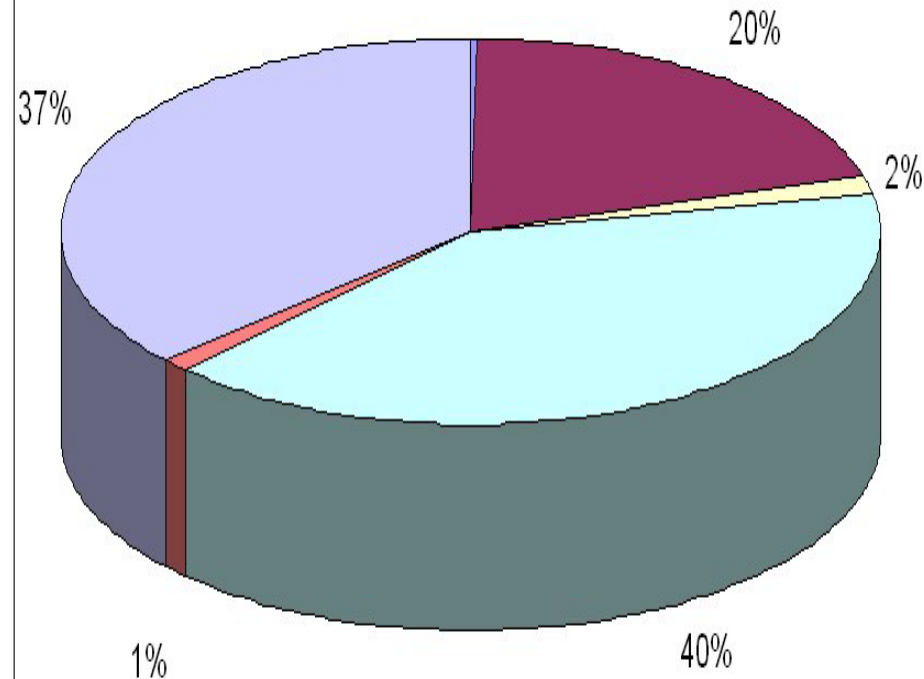


- Drought
- Earthquake
- Epidemic
- Extreme Temperature
- Famine
- Insect Infestation
- Slides
- Volcano
- Wave / Surge
- Wild Fires
- Wind Storm + Flood

TOTAL DEATHS IN ASIA-PACIFIC BY NATURAL DISASTERS IN

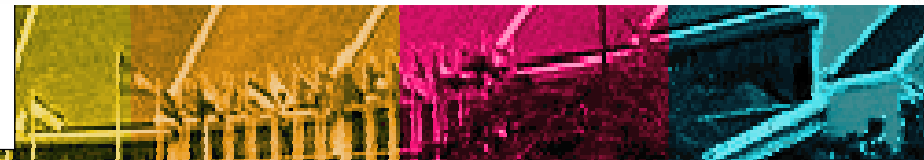
1990-2004 (excluding epidemic and famine)

627,356



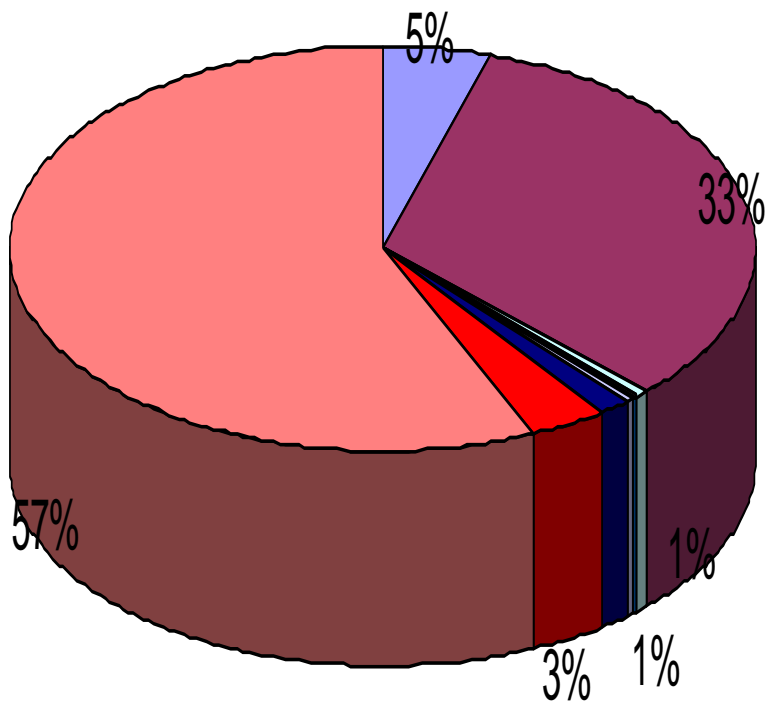
Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium"

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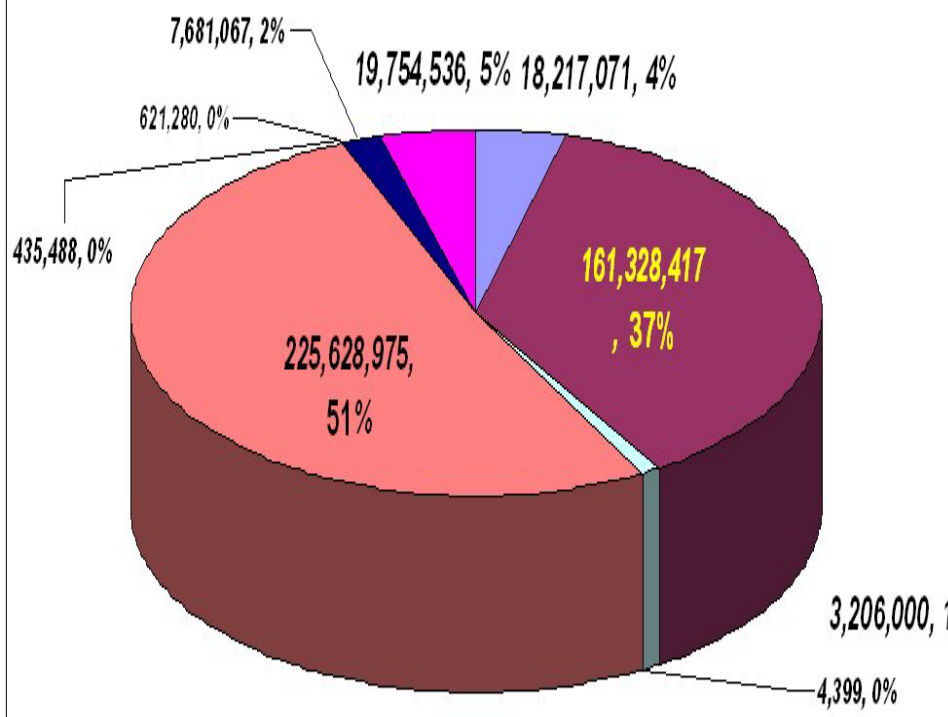


Damage in US\$ in Asia & Pacific, 1950-2005 (Total=US\$588,015,432,000)



- Drought
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DAMAGE BY NATURAL DISASTERS IN ASIA-PACIFIC IN 1990-2004 Total = US\$436,877,233,000



- Drought
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- Epidemic
- Extreme Temperature
- Famine
- Flood/Cyclones
- Slides
- Volcano
- Wave / Surge
- Wild Fires





Regional trends of disaster impacts

- **Important reduction in the average number of annual deaths by natural disasters from 100,000 people in the past five decades to 41,000 people during the past 15 years**
- **Average annual damage by natural disasters has increased from US\$10.6 billion to US\$29 billion**
- **Increasing severe impacts on the poor**





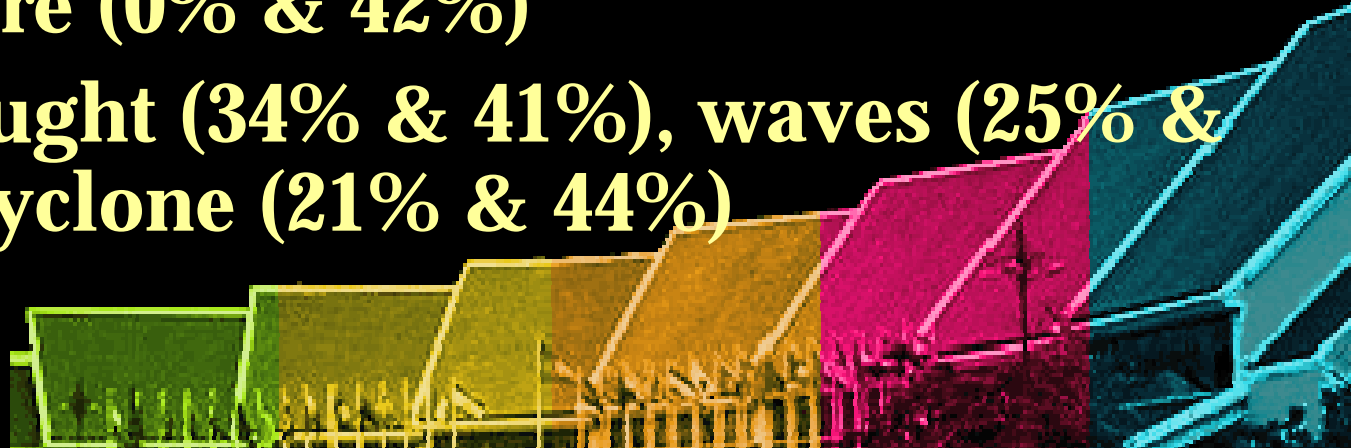
Major subregional disaster impacts (1950-2005)

	Deaths	Damage (US\$)
North-East Asia	2,649,275	386,608,653,000
Central Asia	38,200	47,811,747,000
South Asia	2,549,782	85,553,650,000
South-East Asia	291,230	41,209,436,000
Pacific	9,468	26,836,946,000
TOTAL	5,537,955	588,020,432,000



Major subregional disaster types

- **NEA: flood/cyclone (81% death & 60% damage), earthquake (11% & 39%)**
- **CA: earthquake (73% & 51%), flood/cyclone (12% & 47%)**
- **SA: drought (59% & 15%), flood/cyclone (29% & 63%), earthquake (7% & 19%)**
- **SEA: Waves (61% & 12%), flood/cyclone (25% & 38%), wildfire (0% & 42%)**
- **Pacific: Drought (34% & 41%), waves (25% & 1%), flood/cyclone (21% & 44%)**





Regional experiences

- **Mekong River Commission: from flood mitigation to integrated development**
- **Typhoon Committee: towards integrated typhoon-related disaster risk management**
- **Panel on Tropical Cyclone: from reduction of loss of lives by cyclones to multi-hazard risk management**
- **Regional haze early warning**





Important regional findings

- **Most important reduction in number of annual deaths by cyclones, e.g. from over 300,000 deaths in 1970 to 140,000 deaths in 1991 to less than 3,000 deaths in 1998 by same magnitude of cyclone in Bangladesh**
- **Reduction was possible with increasing efforts to strengthen community-based disaster risk management (CBDRM) supported by early warning**
- **CBDRM process is given higher attention**





Challenges in CBDRM

- 💧 **Continuity and consistency of policies**
- 💧 ***Coordination and stakeholders' participation***
- 💧 **Resource mobilization versus policy and programming**





UNESCAP Activities on CBDRM

- 💧 **Guidelines on Participatory Planning and Management for Flood Mitigation and Preparedness**
- 💧 **Promotion of CBDRM in South-East Asia under Partnership for Disaster Reduction, Phase 2 (PDR-SEA 2, with ADPC and funded by DIPECHO)**
- 💧 **Promotion of institutionalization of CBDRM under PDR-SEA 3 (with ADPC and funded by DIPECHO)**





Lessons learned

- Experiences showed that people-centered early warning efforts have contributed to greatly reduce the loss of lives from water-related disasters
- People-centered early warning systems are much more effective and sustainable, when supported by systematic implementation of CBDRM
- Integration of CBDRMs into socio-economic development process is necessary, such as experienced in countries in South-East Asia
- The above elements need to be implemented in a systematic programme as part of HFA, for which the development of strategic national action plans (SNAPs) is recommended





Key Messages

- **Efforts to further reduce number deaths from water-related disasters in Asia and the Pacific can only be made with the development of people-centered early warning systems**
- **Implementation of HFA needs to include the development of people-centered early warning systems and promotion of CBDRM**
- **Implementation of HFA through the development of strategic national action plans (SNAPs) offers the best approach to integrate CBDRM into people-centered early warning systems and synergize national efforts towards result-based disaster risk management**





Thank you

