



Disaster Risk Reduction 2007 Global Review

www.unisdr.org

**Global Platform for Disaster Risk Reduction, First Session
Geneva, 5-7 June 2007**

Andrew Maskrey
International Strategy for Disaster Reduction (UN/ISDR)



Purpose

- *Preview of major global assessment report on disaster risk reduction to be launched in 2009*
- *Interim report of progress for the First Session of the Global Platform on Disaster Risk Reduction, Geneva, June 5-7, 2007*



Content

- *Interpretation of patterns and trends in global disaster risk from recent reports*
- *Review of progress made by countries since the WCDR*
- *Analysis of how progress is addressing global disaster risk*
- *Challenges for the ISDR system*



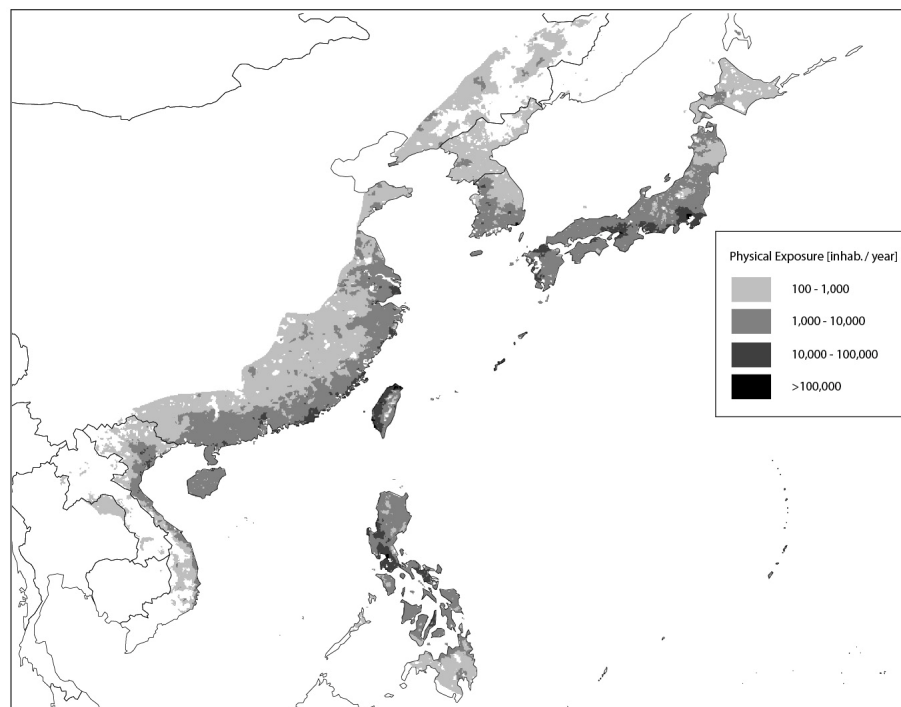
Intensive Disaster Risk

- *82% disaster mortality 1975-2005 in 20 large disasters with over 10,000 deaths each, mainly in developing countries*
- *38.5% disaster economic loss in 21 large disasters with over US \$10 billion losses each, mainly in developed countries*
- ***Disaster loss, particularly mortality, is concentrated in intensive risk hotspots***



Hazard Exposure

Population and economic assets concentrated in hazard prone areas



Physical Exposure to tropical cyclones in North West Pacific Ocean.



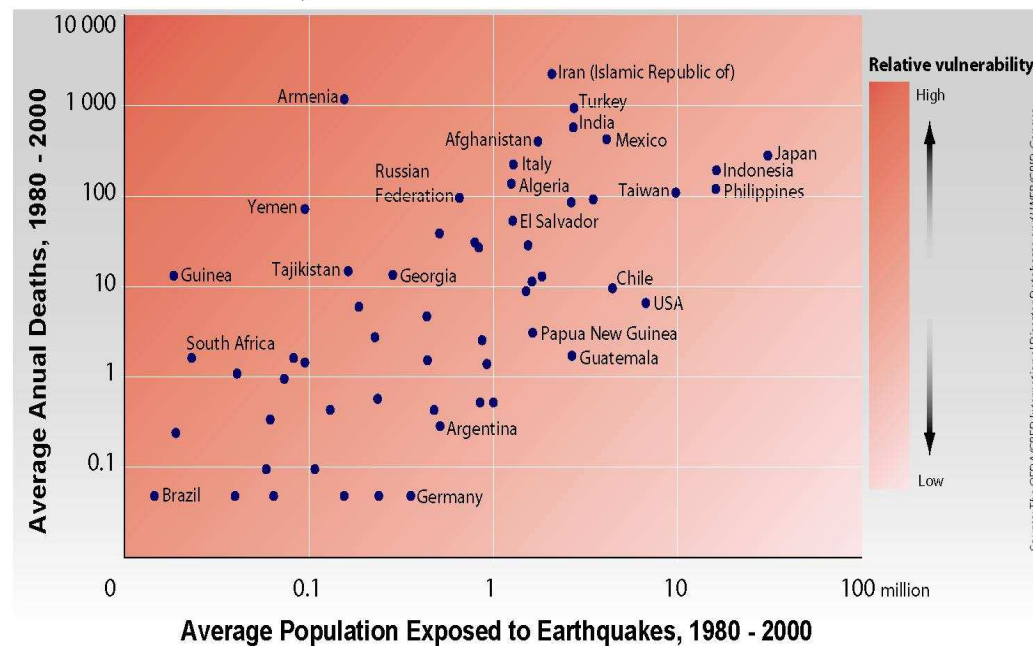
Relative Vulnerability Indicators for Earthquakes

Iran 1,074
Turkey 345
India 211
Italy 175
Algeria 109
Mexico 103

Japan 9
Costa Rica 2.91
USA 0.97

*(Killed per million
 exposed 1980-
 2000)*

Relative Vulnerability for earthquakes

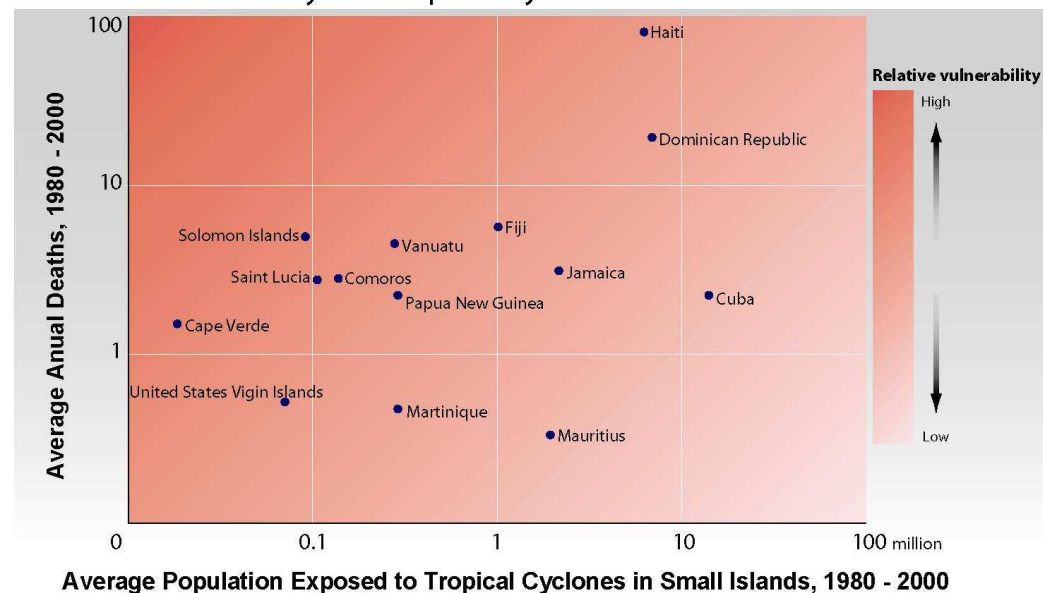




Relative human vulnerability for Cyclones in SIDS

Haiti 13
Dominican Republic 2.79
Jamaica 1.34
Cuba 0.16
(Killed per million exposed 1980-2000)

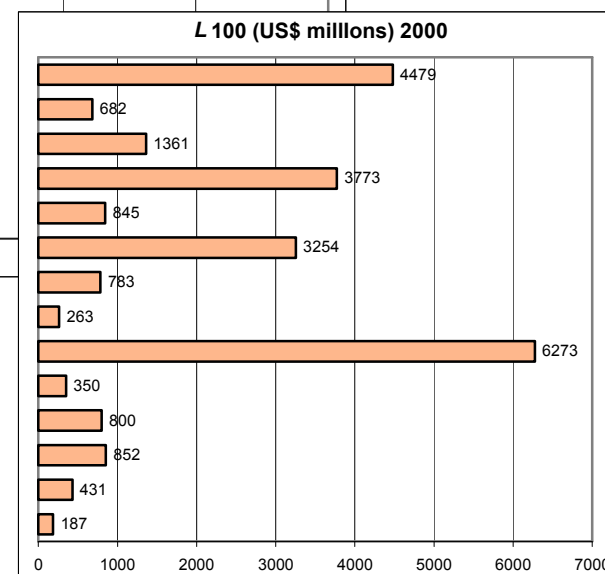
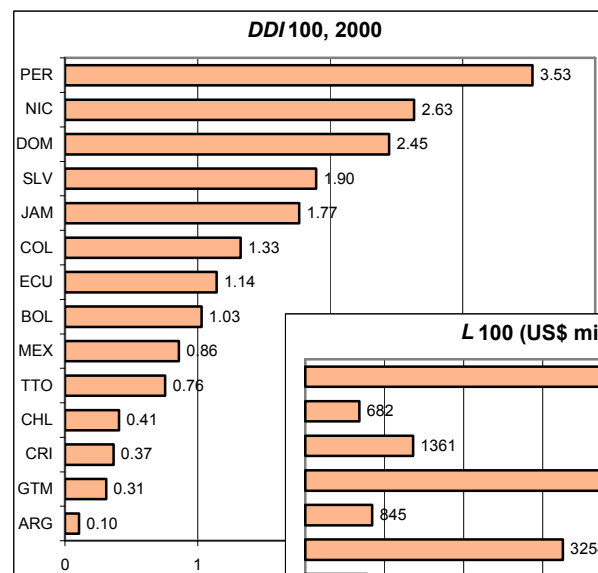
Relative Vulnerability for Tropical Cyclones in Small Islands





Relative Economic Vulnerability

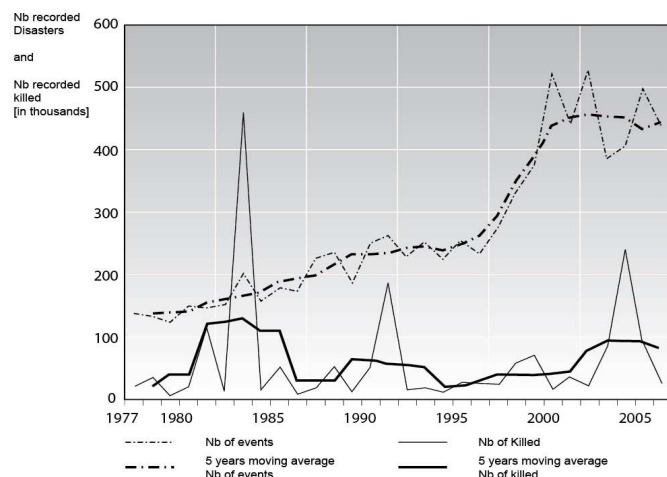
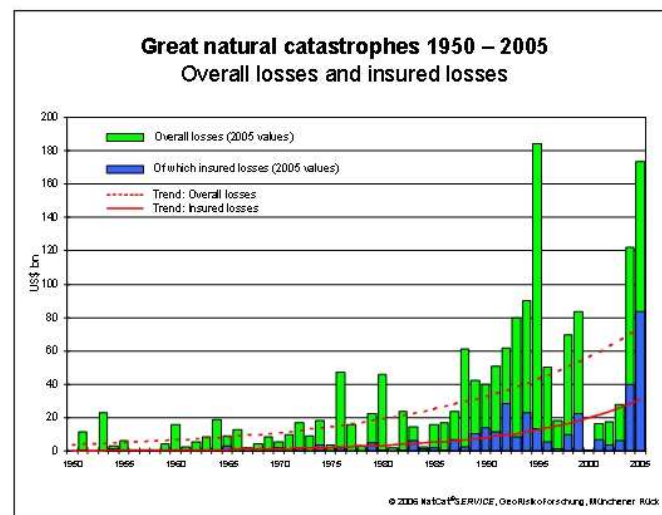
Some countries have greater economic capacity to absorb catastrophic disaster loss than others





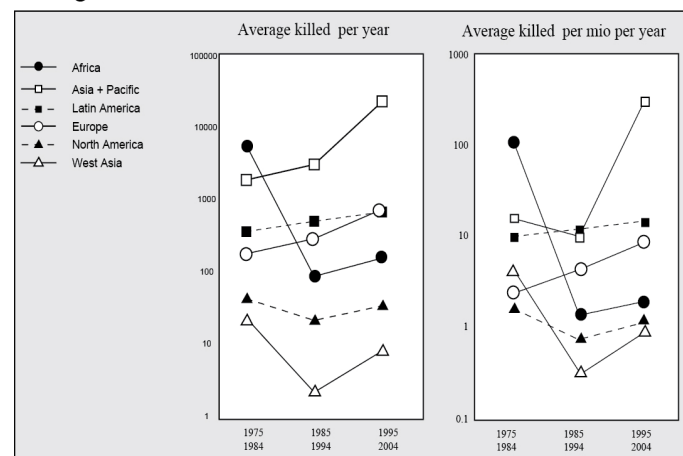
Global Trends

*Economic loss,
mortality and
number of
disasters is
increasing*



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

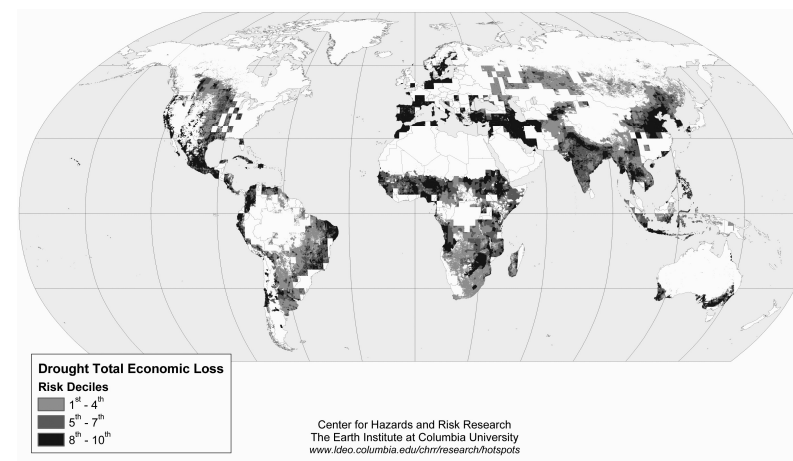
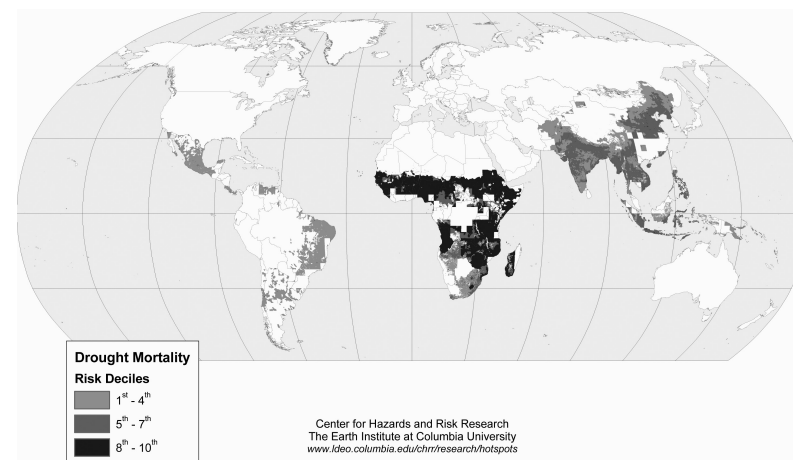
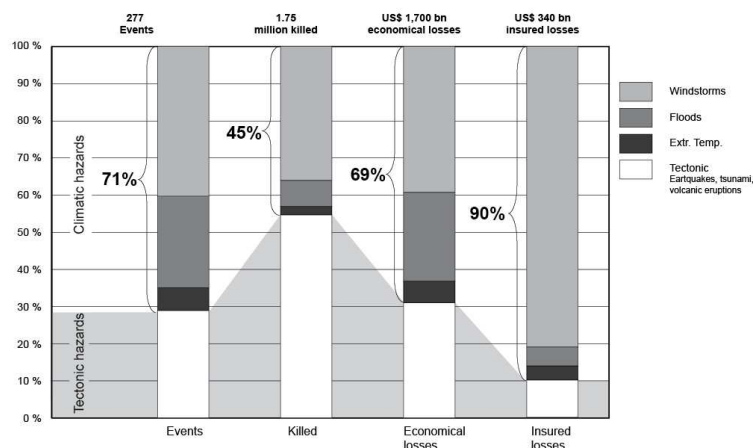
Regional trends





Climatic Risk Hotspots

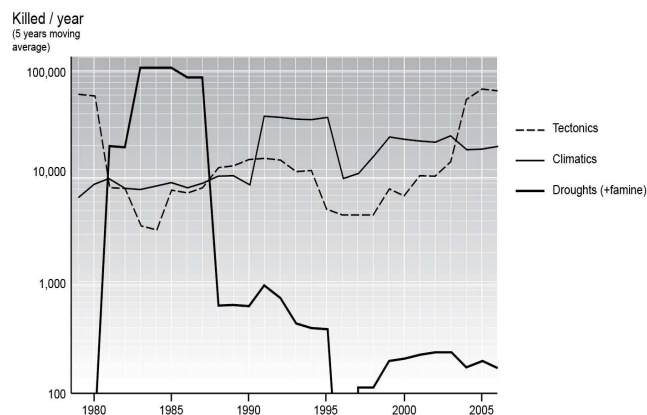
- *Mortality concentrated in less developed regions, in creasing economic loss in more developed regions*
- *Mortality sensitive to reduction by enhanced early warning, preparedness and response*



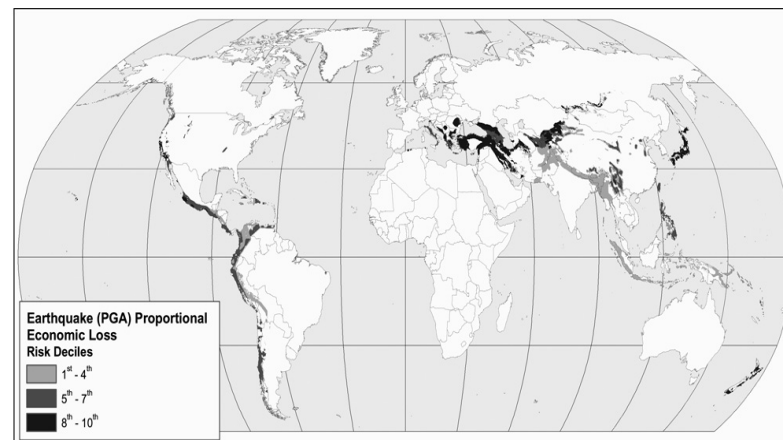
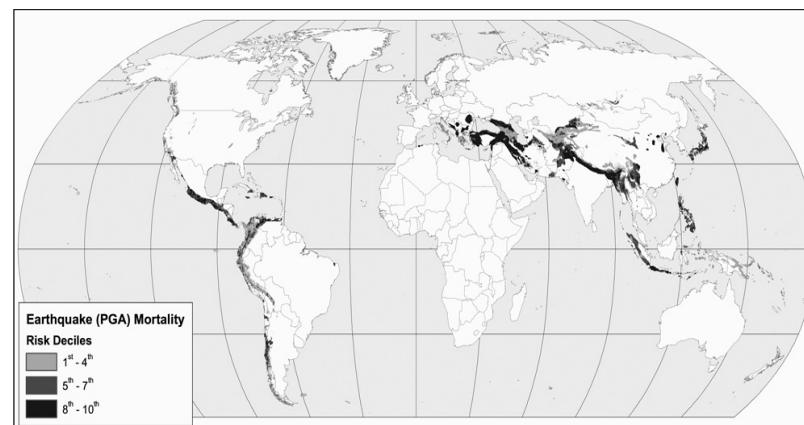


Earthquake Disaster Risk

- *Increasing mortality and relative economic loss concentrated in hotspots in rapidly urbanizing middle-income countries*
- *Mortality risk only partially sensitive to reduction by early warning and preparedness*



Peduzzi, ISDR 2007
Data sources: EM-DAT, OFDA/CRED www.em-dat.net

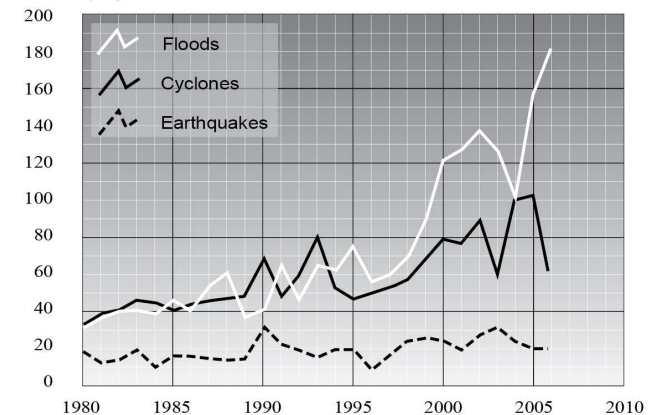




Extensive Disaster Risk

- *22% of disaster mortality*
- *Small-scale climatic disasters and related mortality increasing rapidly*
- *Related to highly localised floods and flash floods, landslides, mudslides, fires etc. over extensive areas*
- *Drivers include urbanisation and environmental change*
- *Loss of housing, livelihoods and infrastructure in rural areas and informal settlements*

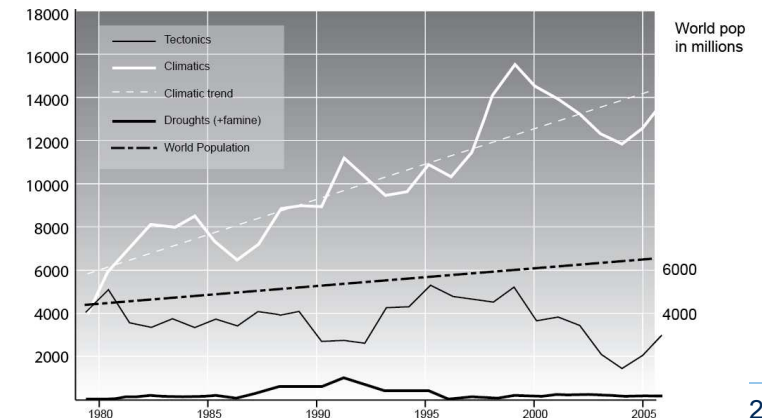
Number of recorded disasters per year



Graphic : Pascal Peduzzi, ISDR, 2007
Sources: EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net
University Catholique de Louvain, Brussels - Belgium

Average killed per hazard per year without "mega event"

Average killed per year
(5 year moving average)





Global Climate Change

- *Distribution, severity and predictability of climate hazard changes*
- *Specific impacts in terms of:*
 - *More intense floods, droughts and storms*
 - *Sea level rise*
 - *Glacier melt*
 - *Cyclone hazard*



Progress: HFA Priority Area 1

- *Political momentum at the national and regional level in all regions*
- *Large scale disasters as catalysts for new institutional arrangements and legislation*
- *Focus on disaster preparedness and response. Low involvement of development sectors*
- *Difficulties in implementation*



HFA: Priority Area 2

- *Growing involvement in compiling national hazard, risk and loss information*
- *Information not yet mainstreamed into planning and decision making*
- *Major advances in early warning*
- *Difficulties in linking warning to response and national systems to local capacities*



HFA: Priority Area 3

- *Important progress in introducing disaster reduction into the school curricula in all regions*
- *Public awareness programmes*
- *Information portals*
- *Focused principally on preparedness and response*



HFA: Priority Area 4

- *Enhancements to building codes and planning standards*
- *Incorporation of disaster reduction into poverty and development strategies*
- *Limited progress in hazard mitigation and vulnerability reduction*
- *Low engagement of private sector; civil society ; financial sector (risk transfer)*
- *Lack of integration of disaster reduction and adaptation to climate change strategies*



HFA: Priority Area 5

- *Widespread progress in improving mechanisms for preparedness and response*
- *Strengthening of capacities of both local authorities and communities*
- *Local level disaster risk reduction is not addressing risk factors*



Earthquake Risk Hotspots

Current progress may partially reduce mortality risk but not economic loss risk. Both will continue to rise particularly in rapidly urbanizing countries.

Challenges include:

- Risk sensitive planning and building*
- Strategies for guiding unregulated building and settlement*
- Investments in reducing vulnerability of key facilities*
- Risk transfer and contingency financing*



Climatic Risk Hotspots

Current progress can dramatically reduce mortality risk but not economic loss risk. Economic loss risk will continue to increase while climate change may stall or reverse the reduction in mortality risk.

Challenges include:

- Improved identification of climate risks and application in risk sensitive planning and building and in vulnerability reduction*
- Environmental measures to reduce climate hazard exposure*
- Strategies for involving rural communities and informal sectors*
- Risk transfer and contingency financing*



Extensive Risk

Current progress may reduce mortality risk but not loss of livelihoods assets, housing and local infrastructure. Loss will increase due to climate change and will threaten the achievement of MDGs and lead to new hotspots.

Challenges include:

- Local level disaster risk reduction has to include risk sensitive planning and building, vulnerability reduction and environmental measures to reduce climatic hazards*
- Depends on decentralization of authority and resources to the local level*



Challenges for ISDR system

- *Institutional arrangements*
- *Risk identification*
- *Early warning*
- *Investment*
- *Urban risk reduction*
- *Climate risk reduction*
- *Local level disaster risk reduction*