Risk and poverty in a changing climate

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Why a Global Assessment Report on Disaster Risk Reduction

- Disaster risk threatens both human and economic development and is magnified by climate change.

- Hyogo Framework for Action (HFA) endorsed by 168 UN member states in January 2005

- First biennial global assessment report of disaster risk reduction of the International Strategy for Disaster Reduction (ISDR). Coordinated by UNISDR with UNDP, World Bank, UNEP, ProVention, WMO and many other partners.
Objectives of the Report ......

- Accurately identify and measure contemporary patterns and trends in disaster risk
- Increase our understanding of the causal factors of risk and of its consequences for human and economic development
- Assess the progress being made by countries towards achieving the HFA
- Propose policy initiatives to address gaps and challenges
Disaster risk is intensively concentrated
it’s unevenly distributed.....

Mortality risk for tropical cyclones in two countries with similar exposure: Japan and the Philippines

- 22.5 million exposed per year
  - GDP cap. US$31,267
  - HDI = 0.953
  - Mortality ratio = 1

- 16 million exposed per year
  - GDP cap. US$5,137
  - HDI = 0.771
  - Mortality ratio = 17

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...... is increasing globally

**Increase in global flood risk 1990-2007**

**Mortality**

- Risk
- Exposure
- Vulnerability

**Economic loss**

- Risk
- Exposure
- Vulnerability

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and..... hits small countries hardest.

Cumulative net capital formation (NKF) from 1970 to 2006, in Millions of Constant 2000 USD, with and without the effect of economic disaster loss.
Global risk is driven by poverty and weak governance
Risk is also extensively spread .....
and increasing rapidly

Number of flood and rain extensive risk loss reports (1980–2006)

Extensive weather-related housing damage (1980–2006)
….. feeds back into poverty

Number of houses damaged in Mexico since 1980

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driven by....... deficient urban and local governance

Floods in Cali, Colombia since the 1950’s mirroring the expansion of informal settlements in the city
...vulnerable rural livelihoods

Weather related hazards in Africa

Weather-related hazards
- **Floods** (average annual frequency)
  - >50
  - 20-50
  - <20

**Tropical cyclones**
(sum of winds in km/year)
- 100,000–426,510
- 30,000–100,000
- 10,000–30,000
- 3,000–10,000
- <3,000

**Droughts index**
(frequency and intensity)
- Very high
- High
- Moderate high
- Moderate low
- Low

Lakes and oceans
- Regional extent
- Other regions

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and ... declining ecosystem services

Landslide risk in Peru before and since the mid 1980s
magnified by climate change

Mixed progress in reducing risk

Hyogo Framework progress by income classification

Level of progress

Priority 1  Priority 2  Priority 3  Priority 4  Priority 5

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Disaster trends & impacts -> rising

1b. Human losses: hazards by personal income

Number of People Killed (Income Class/Disaster Type)
(1975-2000) World Summary

- Low income: 1,347,504 (67.98%)
- Lower-middle income: 520,418 (26.25%)
- Upper-middle income: 87,414 (4.41%)
- High income: 27,010 (1.36%)

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Source: EM-DAT, OFDA/CRED, Brussels, world data 1900-2004;

2. Economic losses: non-insured and insured
Trends: Statistics included in the latest UN Secretary-General report on the ISDR (2008)

**July 2007-June 2008**
- 364 disasters caused by natural hazards, with some signs of increased frequency and amplitude
- 212 million people affected
- 240,000 killed (13 times higher than previous reporting period)
- Economic cost doubled compared to 2006/2007
- Cyclone Nargis Myanmar: 140,000 people dead or missing
- Sichuan earthquake China: over 87,000 dead

-> Need for effective people-centered early warning systems and EQ resistant construction

- **2000-2007**: Frequency of hydro-meteorological hazards increased by 8.4%/a on average, average annual cost exceeded US$ 80 billion

However also encouraging examples:
- Bangladesh preparedness during Cyclone Sidr: 3,400 people died compared to 300,000 during similar cyclone in 1970 and 138,000 in 1991
- Other examples: Iran during cyclone Gonu, Madagascar during cyclone Ivan and five consecutive others in 2007
Trends - Statistics included in the latest UN Secretary-General report on the ISDR (2008) (2)

**Environmental degradation:**
- Since 1980 20% of world’s mangroves lost increasing vulnerability
- 70% of 5.2 billion hectares of dry lands used for agriculture already degraded and threatened by desertification
- Sub-Saharan Africa: agriculture production declining by almost 1% per year

- **Urbanization** progressing: 3.3 billion people living in urban areas, by 2030 5 billion (in particular Africa and Asia)
- **Risks of increased vulnerability** - due to high population density, insufficient livelihoods, lack of access to basic services, social vulnerability - putting people at higher disaster risk

-> Need for urgent scaling up of the implementation of the Hyogo Framework
-> Need for further inclusion of DRR strategies and the HFA in national policies and programmes in the context of the FCC Nairobi work programme
the key message

In order to:

- Reduce disaster risk and achieving the Hyogo Framework of Action
- Adapt to climate change
- Achieve the Millennium Development Goals

Address the underlying risk drivers:

- poor urban governance;
- ecosystem decline;
- vulnerable rural livelihoods
Accelerate global efforts to avoid dangerous climate change and to increase the economic resilience of small and vulnerable economies

- Invest in risk reducing development to address the underlying risk drivers

- Introduce governance innovations to ensure that risk reduction considerations are factored into all new development

- Disaster risk reduction lowers the cost of poverty reduction and climate change adaptation

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Trends: Findings and recommendations of the latest UN Secretary-General report on the ISDR (2008)

“In order to achieve more effective implementation of the Hyogo Framework, it is critical that Member States strengthen their cooperation through the existing Strategy system mechanisms, including national and regional platforms and the second session of the Global Platform (Geneva, 15-19 June 2009). Building on the good experiences of existing national platforms, Member States are strongly urged to develop and strengthen such national coordination mechanisms for disaster risk reduction.

(...) 147 countries have not yet established national platforms, and 66 lack official Hyogo Framework for Action focal points.

Despite the increased commitment by Governments and other stakeholders, governments are still not on track to achieve the goals set in the Hyogo Framework. A lack of awareness, commitment and resources still remain the main obstacles.
Some findings and recommendations of the latest UN Secretary-General report on the ISDR (2008)

•“… ensure strong coherence and synergy between climate change and disaster risk reduction agendas…. This could include participation in multi-stakeholder platforms for disaster risk reduction .. By all concerned entities, including for …climate change…”

•“Member States are encouraged to…setting targets for public spending on multi-year disaster risk reduction programmes…. The Secretary-General encourages Governments, donors and funding institutions to increase their investment in DRR.”
What does disaster risk reduction have to do with sustainable development?

Investments in risk reduction protects national development gains, livelihoods and lives.
Thank you