Disaster Risk Reduction and Climate Change Adaptation
an International Perspective

www.unisdr.org

From the past natural disasters to the challenge of climate change in Europe – Paris 26-28 November 2008

Sálvano Briceño
Director, International Strategy for Disaster Reduction (UNISDR)
World Bank Global Hotspots Study –
25 million km sq. and 3.4 billion people highly exposed to at least one natural hazard; 105 million people highly exposed to three or more hazards
Great “Natural” Disasters 1950-2005
Economic and insured losses with trends

© 2006 NatCatSERVICE, Geo Risks Research, Munich Re
Climate change and disaster risk are now coupled issues

“Costs of extreme weather alone could reach 0.5 - 1% of world GDP per annum by the middle of the century, and will keep rising if the world continues to warm.”

“Climate change is happening and measures to help people adapt to it are essential. And the less mitigation we do now, the greater the difficulty of continuing to adapt in future.”

STERN REVIEW: The Economics of Climate Change, 2006
Extreme events
Climate Change in Europe

According to the European Union’s Green Paper (now White Paper) on Climate Change Adaptation in Europe, we expect temperature to rise of 4-5°C throughout Europe.

The yearly rainfall is expected to drop by up to 40 per cent of current annual precipitations.
Global Trends: Disasters are NOT natural

Natural and human-induced hazards:
Increased intensity and frequency of extreme climatic events

Increasing vulnerability:
Socio-economic: poverty, unplanned urban growth, lack of awareness and institutional capacities...

Physical: insufficient land use planning, housing, infrastructure located in hazard-prone areas, policy-made disasters...

Environmental degradation: unsustainable management of ecosystem services: coral reefs, forests, mangroves, watersheds, wetlands, arid zones...
The changing face of risk

- Vulnerability to hazards is increasing, and rapidly

- Climate-change-specific impacts (sea-level rise, temperature rise, glacier melting) will aggravate existing vulnerability

- Hazards are changing: increased intensity and/or frequency of known hazards

- Some regions will face hazards they have no experience with

Need to implement joint risk reduction & adaptation strategies and act urgently to avoid further warming
Hyogo Framework for Action 2005-2015:
Building the resilience of nations and communities to disasters

... to substantially reduce disaster losses, in lives, social, economic and environmental assets....

Three strategic goals

- The integration of disaster risk reduction into sustainable development policies and planning.

- The development and strengthening of institutions, mechanisms and capacities to build resilience to hazards.

- The systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes.
Hyogo Framework for Action 2005-2015: Building the resilience of nations and communities to disasters

Five priorities for action

1. **Governance**: ensure that disaster risk reduction is a national and local priority with strong institutional basis for implementation
2. **Risk identification**: identify, assess and monitor disaster risks and enhance early warning
3. **Reducing the underlying risk factors** in various sectors (environment, health, construction, etc.)
4. **Knowledge**: use knowledge, innovation and education to build a culture of safety and resilience at all levels
5. **Strengthen disaster preparedness for effective response**

*Words Into Action: A Guide for Implementing the Hyogo Framework*

www.unisdr.org/eng/hfa/docs/Words-into-action/Words-Into-Action.pdf
Practical actions to reduce vulnerability to natural hazards and adapt to climate change

- Strongly promote culture of prevention and resilience
- Develop institutions (policies, plan legislation, multi-stakeholder mechanisms...) to actively contribute to these goals
- Identify risks (risk mapping, hazard & vulnerability assessments), early warning systems
- Build hazard-resistant structures (critical infrastructure, schools, hospitals, avoid high risk zones...)
- Protect and develop hazard buffers (forests, reefs, mangroves..)
- Improve preparedness, response, develop pre-disaster recovery plans
- **In other words, implement the Hyogo Framework for Action**
Climate Change Process: Opportunities to Reduce Climate Risk

• UNFCCC and Kyoto Protocol are essential to:
  – Reduce climate change risks by reducing GHG emissions (CC mitigation)
  – "Mitigation is about avoiding the unmanageable and adaptation about managing the unavoidable »
  – Share and learn through UNFCCC Nairobi Work Programme on Impacts, Vulnerability & Adaptation
  – Develop Bali Action Plan DRR mandate

• HFA is essential for CC adaptation and effectively reducing risk of extreme events and provides relevant guidance to reduce vulnerability and manage risks
Bali Action Plan: DRR for Adaptation

• Agreed by UNFCCC COP-13, Bali, December 2007
• Will guide negotiations during 2008 – 2009 on the global climate regime to apply from 2012
• Recognises the importance of risk reduction for adaptation, calls for:
  • *Risk management and risk reduction strategies, including risk sharing and transfer mechanisms such as insurance;*
  • *Disaster reduction strategies and means to address loss and damage.*
• Urgent need to support Governments to develop Bali mandate on disaster risk reduction.
Responding to Bali’s DRR mandate

1. Collaboration between climate change and DRR bodies and experts:
   – Encourage systematic dialogue and information exchange (e.g., national platform for DRR and climate change national communications team)
   – Promote the joint development of disaster reduction and adaptation strategies and action plans
   – Include disaster risk reduction experts in the national climate change adaptation policy team to support negotiations
Responding to Bali’s DRR mandate

2. Accessible DRR information and tools for climate change adaptation negotiators and managers:

- Mobilize the collection and summary of national risk information, including socio-economic data concerning existing vulnerability and capacity.
- Review national development strategies and sector plans to identify actual or potential interventions.
- Provide practical information and guidance on DRR and risk management (concepts, tools, measures, policies, etc., and sources of information).
- UN/ISDR is developing guidance for Governments on specific risk reduction measures to support the implementation of the Bali Action Plan.
3. Draft CC adaptation and DRR strategies and action plans, drawing on the HFA:

- Convene cross-sectoral teams to formulate integrated multi-sector adaptation & DRR strategies and plans and to inform and advise national adaptation negotiators
- Start the development of adaptation plans (stimulate integrated policy) drawing on the approach and language of the Hyogo Framework and building on available DRR strategies and action plans
- Include adaptation action on all five of the Hyogo Framework’s priority areas
- UN/ISDR is developing guidance on elements required in an adaptation and DRR framework
Providing the Knowledge Base for Adaptation: Further Opportunities

- **IPCC**
  - Proposed further assessment on reducing risk of extreme events to guide adaptation efforts
  - Proposing scoping workshop at IPCC meeting in April

- **WB/ISDR Study on Economics of disaster risk reduction**
  - Assessing costs and benefits of specific DRR measures
  - Links with WB Study on CC adaptation economics

- **Development of common assessment framework under WB/GFDRR**
  - Identifying tools for assessing current and climate change risks
  - Reducing risks in integrated fashion
CC + DRR: a shared agenda...

The Bali Action Plan: international recognition of relevance of disaster risk reduction to adaptation

Opportunity to make a difference in next 18 months (Road to Copenhagen, Dec 2009) through:

• Supporting CC negotiators
• Building collaboration DRR-climate adaptation bodies at all levels
• Making DRR tools accessible
• Using the Hyogo Framework’s approach and language
• Planning to connect the post-Kyoto and the post-Hyogo agendas more closely
CC + DRR: a shared agenda...Europe Focus


UNFCCC 30th Subsidiary Bodies Sessions (SBI, SBSTA, AWG-LCA) from 1-12 June 2009 in Bonn, Germany

World Bank, 5th Urban research symposium: Cities and climate change, responding to an urgent agenda from 28-30 June 2009, in Marseille, France

UNFCCC AWG-LCA session in August/Sept 2009

UNFCCC, United Nations climate change conference in Copenhagen (COP 15) from 30 November - 11 December 2009, in Copenhagen Denmark
"Climate change is expected to cause more severe and more frequent natural hazards. As our cities and coasts grow more vulnerable, these hazards can lead to disasters that are far worse than those we have seen to date. We have a moral, social and economic obligation to build resilience by 2015. Implementing the Hyogo Framework for Action will also help us reach the Millennium Development Goals."

Ban Ki-moon
Secretary-General
United Nations, 2007