

Disaster Risk Management in a Changing Climate




Discussion Paper
F. Sperling & F. Szekely

**A contribution to the *World Conference on Disaster Reduction*
in Kobe, Japan, January 18-22, 2005 prepared on behalf of
the Vulnerability and Adaptation Resource Group (VARG)**



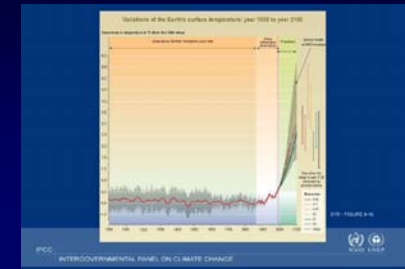
Background

VARG is informal network of bi- and multilateral agencies to facilitate information exchange on the impacts of climate change on development processes and raise awareness about possible remedial measures




Implications of Climate Change for DRM

- Changes in the magnitude and frequency of climatic extremes affects exposure to hydro-meteorological hazards
- Changes in average climatic conditions and climatic variability – modulate underlying environmental and socioeconomic vulnerabilities
- New Hazards






Evolution of Disaster RISK Management and Adaptation to Climate Change

- **DRM:** Increasing shift from humanitarian relief efforts to risk management (IDNDR, Yokohama, WCDR), focus on multiple hazards, *emphasis on addressing underlying vulnerabilities*
 - **Adaptation to CC:** From scientific debate to P&Ms, UNFCCC process, increasing emphasis on adaptation (as necessary complementary measure to climate change mitigation), strong scientific influence, top-down and bottom-up measures, *emphasis on addressing underlying vulnerabilities*
 - **Important:** Climate change adaptation *begins* with addressing existing vulnerabilities to current climate variability and climatic extremes.
- 



There are important differences

- Climate change adaptation: not only focused on changes in extremes, longer term time horizon considered (2025, 2050, 2100)
 - DRM: Multi-hazard, emphasis on present day vulnerabilities, based on historical experiences. Separate policy frameworks
- BUT...
- 



... the agendas are converging

Converging agendas, because both DRM & Adaptation to climate change

...constitute risk management approaches

Disaster risk management approach increasingly takes a forward looking perspective and aligns in that with climate change focus.


...emphasize on vulnerability reduction

...link to development processes






Development: The integrative framework for DRM & Climate Change Adaptation

- Poor people are usually most affected by natural disasters and also likely to suffer the most from the adverse consequences of climate change
 - Development processes can reduce or exacerbate vulnerabilities to natural hazards and climatic changes
 - Disaster risk management and climate change adaptation both need to address processes that define environmental and socioeconomic vulnerabilities
- 



Converging agendas... but do we know enough about climate change impacts to inform DRM

- Knowledge of change in itself is already important as it requires a flexible approach to risk management
 - Often the qualitative direction of climatic changes is known, and in many case at least the likely range of quantitative changes in specific climate parameters
 - Numerous tools for assessing climate change vulnerabilities and adaptation measures exist that can be linked with/complement DRM methodologies
 - There is an increasing number of programs and projects addressing climate change adaptation
- 



SUMMARY

- There is an outstanding opportunity to increase the coordination between disaster risk management and climate change adaptation efforts in the development context
 - The capabilities are there. Analytical and tools exist that help to assess risk and identify remedial measures.
 - Yet the number of coordinated and systematic efforts is limited and takes largely place on the project level. What are the challenges that need to be overcome to promote a more comprehensive risk management approach?
- 