Understanding Disaster Risk
Concepts and Trends in Global Disaster Risk Reduction

Workshop on Coherent Disaster Risk Reduction Strategy Development in the SAARC Region

09-11 July 2019, SDMC (IU), Gandhinagar, India

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#ResilienceForAll
30 Years of Disaster Impact

- **Globally**: 20,000 disasters, 2.7 million deaths and 6 billion affected
- **Asia-Pacific**: Most disaster prone region in the world – 45% of disasters, 70% of mortality and 90% of affected population
- **South Asia**: 30% of Asia-Pacific impact: Flood and Storm (most frequent); Earthquake and Storm (most mortality); Drought and Flood (most affected); Flood and Storm (most economic losses)

Data Source: EMDAT
30 years of Disaster Risk Reduction

Pre-1970s: AD-HOC DISASTER RESPONSE
1970s-1990s: HUMANITARIAN ARCHITECTURE
1992
International Decade for Natural Disaster Reduction (IDNDR)
1994
International Strategy for Disaster Reduction (ISDR)
1999
End Poverty
2000
Yokohama Strategy and Plan of Action
2005
International Framework for Action
SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030
2015
2019
Sendai Framework for Disaster Risk Reduction 2015-2030

SDGs
2019
SDG Summit
2015
Global Platform for Disaster Risk Reduction
2000
We Can End Poverty 2015
2015
Millennium Development Goals
1989
United Nations Framework Convention on Climate Change
PARIS 2015
COP21-CMP11
2019
Climate Action Summit 2019
A Race We Can Win

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Disasters are not Natural
Progress and Achievements

- A structured dialogue on disaster risk reduction: From global to local
- Structured institutional structures on disaster risk management – Dedicated government institution and identified Focal Points
- DRM policies, strategies and plans, and legislation
- Officialization of data (Sendai Framework / SDG reporting)
- New actors and stakeholders
- Guidance for implementation, innovative tools and instruments

- High progress in governance and preparedness mechanisms
- Low progress in addressing underlying risks

Source: UNDRR
Result

Disasters are resulting in annual consumption losses of US$520 billion and pushing 26 million people into poverty every year.

*Source: ESCAP 2017*

**Economic Losses 1980 – 2017**

*Source: UNDRR with data from Munich Re*

**Proportion of people falling into poverty from selected disasters**

*Source: ESCAP 2017*

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Top 10 countries/territories in terms of absolute losses (billion US$) 1998-2017

Economic Losses, Poverty and Disasters 1998-2017 (CRED, UNISDR. 2018.)
Implications on Sustainable Development

- Capital investments (e.g. infrastructure) and social expenditures (e.g. health and education) required to mitigate disaster risk
- However, potential disaster losses will erode these investments
- Risk-blind investments will create further risks

The boundaries and names shown and the designations used on the map do not imply official endorsement or acceptance by the United Nations.
A Changing Understanding of Risk

- **Changing environment**
  - Intensifying disaster trends & more frequent events
  - Resource scarcity and degradation (land, water, food, energy, biodiversity)
  - “Unchecked” urbanization coupled with high exposure of population and assets in high risk areas.
  - Increasing governance challenges, coordination, accountability, institutional mechanisms, migration, conflict

- **Climate change - The great risk amplifier**
  - Risk profile will continued to be altered by climate change
  - “Robust difference” between impacts at 1.5°C and 2°C – average temperature, frequency of hot extremes, heavy rainfall in some regions and the probability of drought in some areas [Exponential disaster impact]

- **Multidimensional understanding of vulnerability**
  - Vulnerability is also dynamic: **Equity, poverty, inclusion** – all being fundamental development challenges contributing to vulnerability

- **Risk cannot be compartmentalized**
  - Systemic risk: Need to understand the cascading and interconnected nature of risk
  - Avoid compartmentalized research, hazard-by-hazard risk assessment and management
A Changing Metrics of Risk

- We can no longer use the past as a reliable indicator of the future: Need for adaptive, anticipatory planning that seeks to identify the **drivers of risk**
- **Changing risk metrics**
A Changing Paradigm of Disaster Risk Management

The classic ‘disaster risk management cycle’
are we ready to implement the new paradigm?
Institutional Landscape

• Implementation through development plans, DRR plans, sectoral plans, hazard-specific plans
• Horizontal: Varied levels of shared responsibilities
• Vertical: Varied levels of devolved responsibilities
Towards System Risk Governance
“Innovation curve” – from destructive to regenerative approaches

The Global Assessment Report on Disaster Risk Reduction (GAR), 2019
Financing Disaster Risk Reduction

- **International financing:**
  - Disaster risk reduction accounts for less than 5 percent of global ODA,
  - Post-shock assistance (response, reconstruction, relief and rehabilitation) receives 20 times the funding compared to prevention and preparedness

- **Public financing / Macroeconomics:**
  - Dedicated DRR funding?
  - Budgetary allocation a function of recent/last disasters
  - Sector-specific implementation – issues of financing and coordination
  - Local DRR funding
  - Issues of contingent liability

- **Private financing**
  - Role of business resilience

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Revisiting DRM cycle – Implementation and Financing

1. **Corrective risk management:**
   Mitigation / Early warning and preparedness

2. **Compensatory risk management:**
   Insurance, Risk Transfer, Risk Financing

3. **Prospective risk management?**
   - Drivers of risk

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Cost of resilience vs cost of disasters?
Key Messages

- Appreciate the risk complexity and renew efforts to adopt a systems approach its understanding
- Apply the most appropriate or mix of risk management strategies in specific contexts
- Risk disclosure → Risk pricing
- Revisit public financing mechanism to invent means for financing prevention
- From ‘Government’ to ‘Governance’: A whole-of-government and whole-of-society approach
  - Inclusiveness
  - Localization
- Risk is everyone’s business!
Key Resources

- **Disaster Risk Reduction Terminology**
  [http://www.preventionweb.net/eng/professional/terminology/](http://www.preventionweb.net/eng/professional/terminology/)

- **Sendai Framework for Disaster Risk Reduction 2015-2030, UN**

  [http://www.preventionweb.net/gar/](http://www.preventionweb.net/gar/)

- **Understanding Disaster Risk – based upon GARs 2009, 2011, 2013, 2015, UNISDR – including risk models, viewers and data**
  [http://www.preventionweb.net/risk](http://www.preventionweb.net/risk) and [http://risk.preventionweb.net/capraviewer](http://risk.preventionweb.net/capraviewer)


- **Unbreakable, GFDRR, World Bank**

- **View all UNISDR GETI National Workshop Recommended Reading and Sources:**
  [https://www.preventionweb.net/collections/geti-national](https://www.preventionweb.net/collections/geti-national)
Thank you

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