

IAIS Global Seminar

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Macau SAR

Disaster Risk Financing and Insurance

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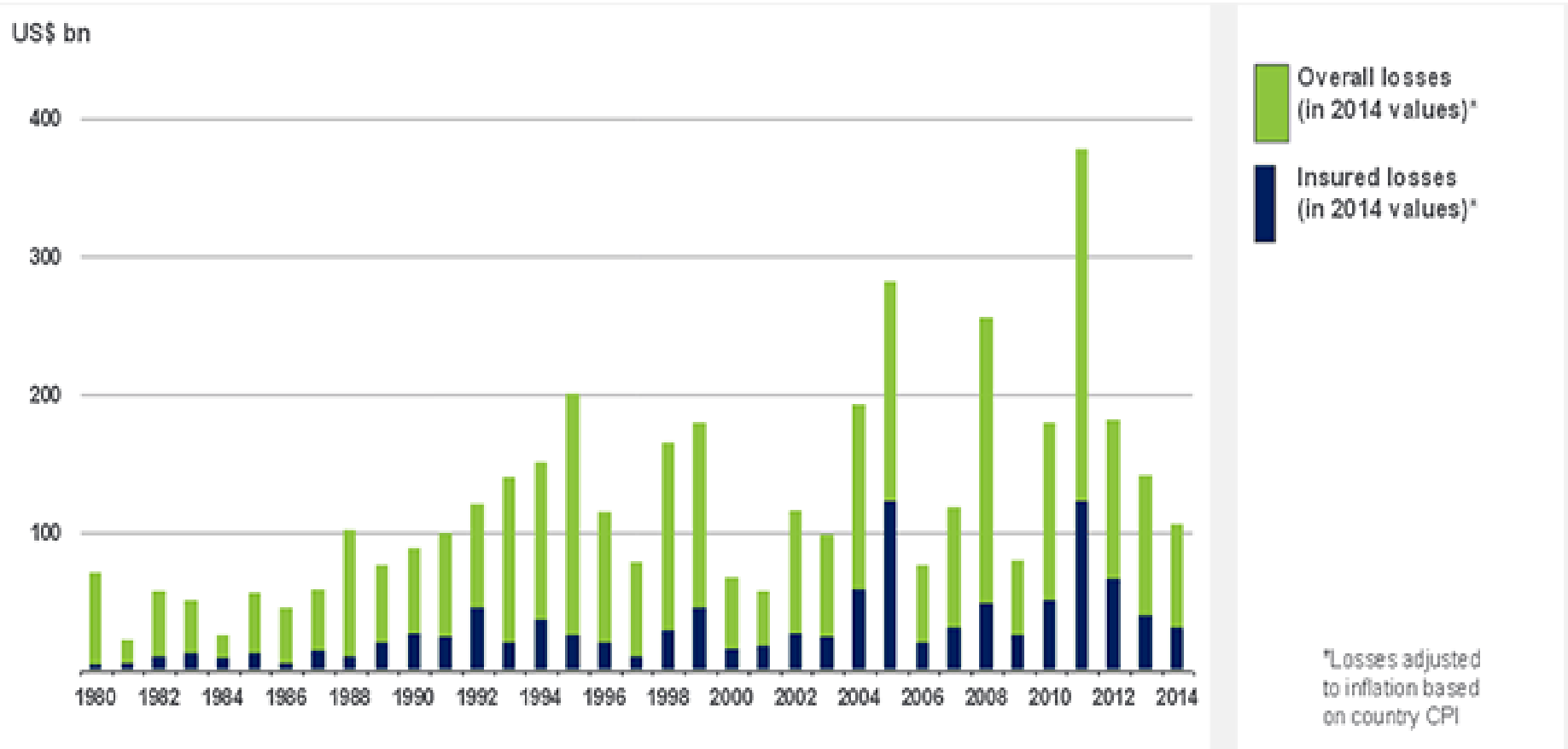
Asian Development Bank



OUTLINE

- The challenge
- Menu of solutions
- Improving outcomes
- The way forward

DISASTERS ARE INCREASING AND THEIR COSTS GROWING

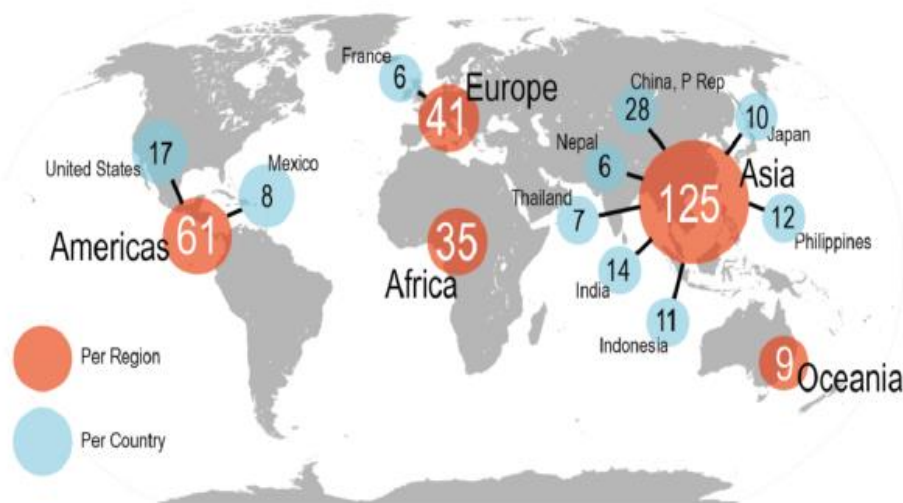


Source: © 2015 Munich Re, Geo Risks Research, NatCatSERVICE. As of January 2015.

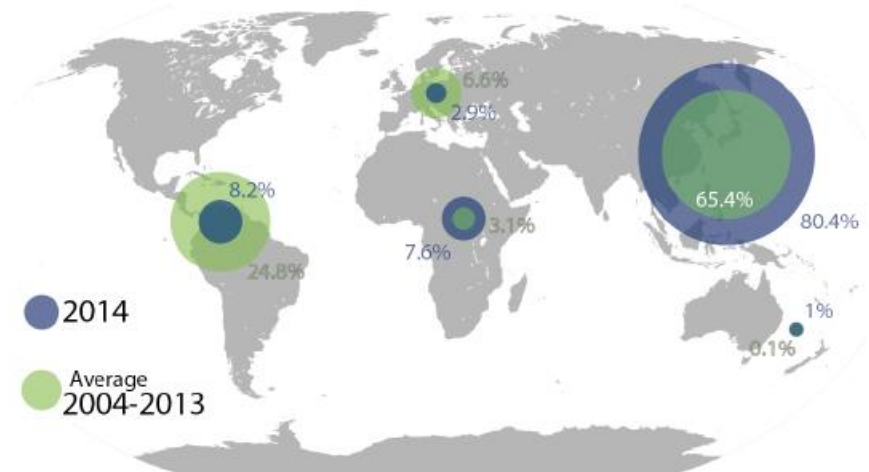
DISASTERS ARE INCREASING AND THEIR COSTS GROWING

	2014	2004-2013 yearly average
No. of country-level disasters	271	369
No. of countries affected	94	118
No. of deaths	6,434	99,740
No. of people affected	102 mil.	175 mil.
Economic damages (US\$)	85 bil.	147 bil.

TOP 10 : Number of reported natural disasters by continent

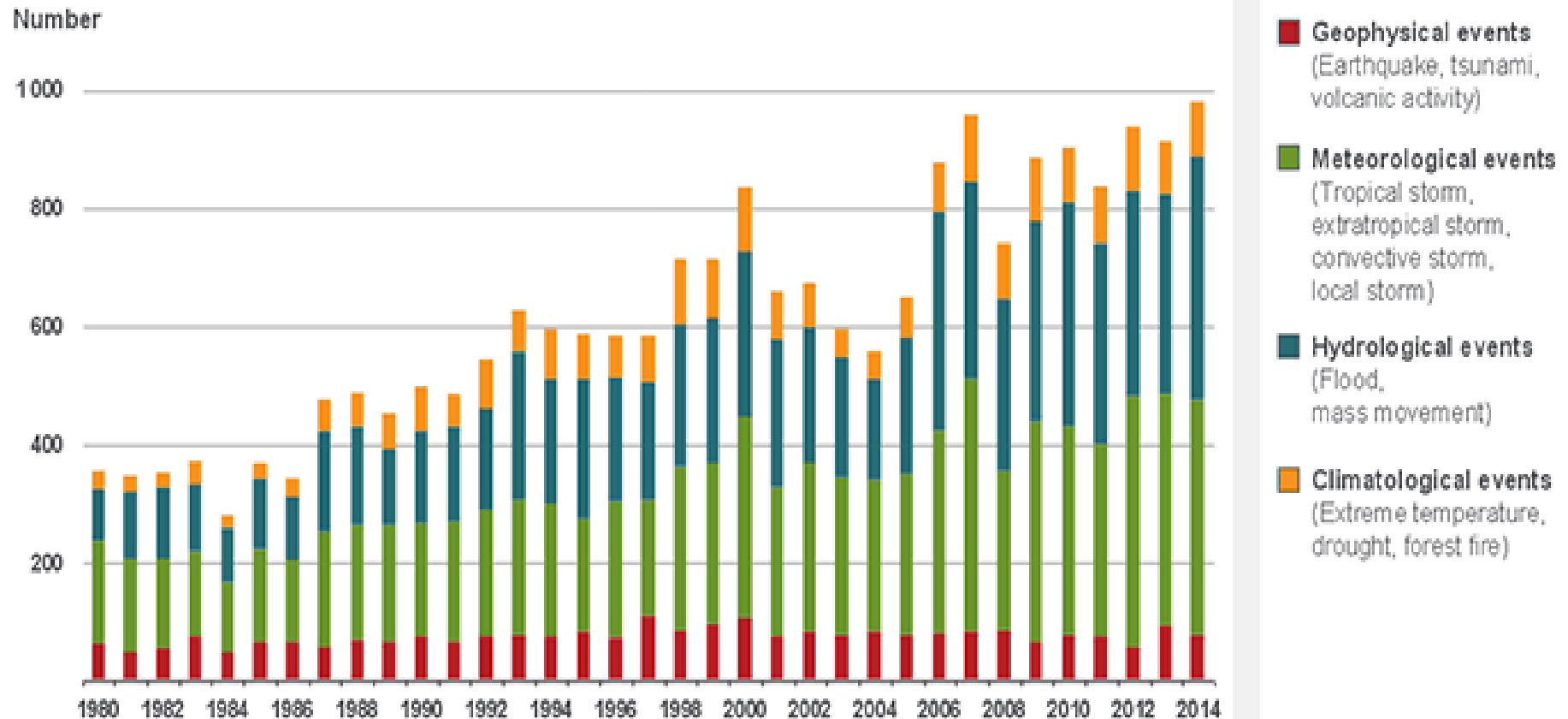


Percentage of people killed by continent



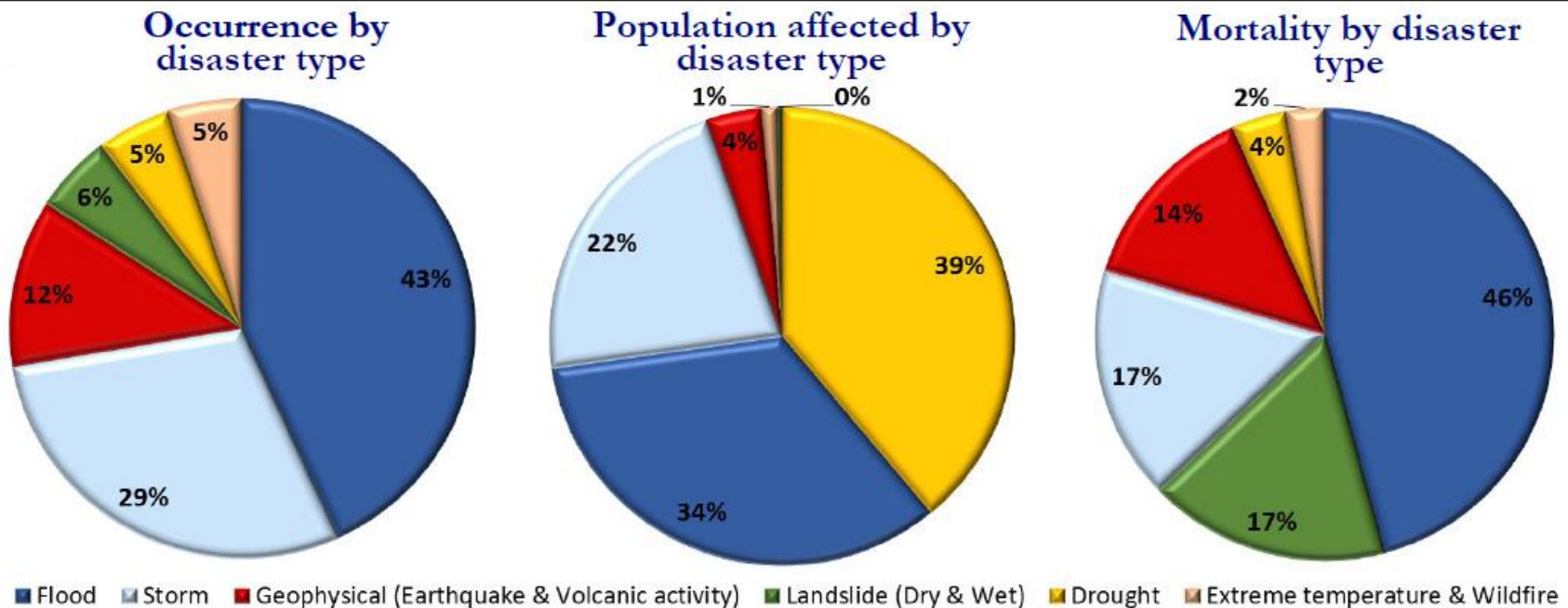
Source: Centre for Research on the Epidemiology of Disasters (CRED)

DISASTERS ARE INCREASING AND THEIR COSTS GROWING



Source: © 2015 Munich Re, Geo Risks Research, NatCatSERVICE. As of January 2015.

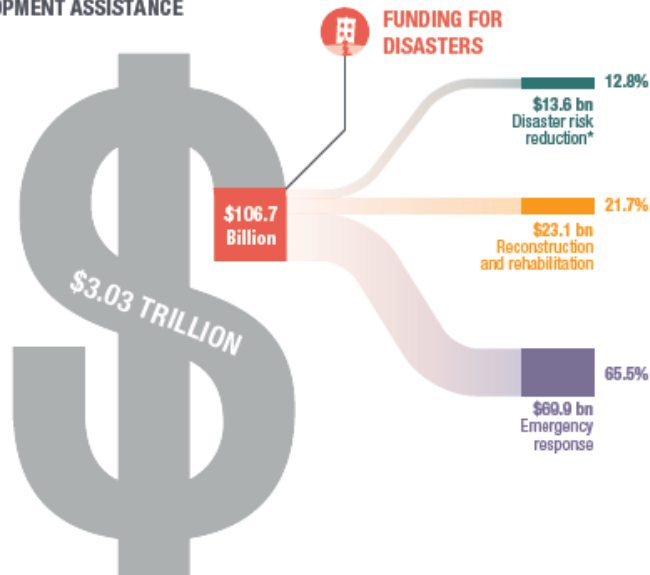
DISASTERS ARE INCREASING AND THEIR COSTS GROWING



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FUNDING FOR DISASTER IS A FRACTION OF DEVELOPMENT ASSISTANCE

TOTAL DEVELOPMENT ASSISTANCE
1991-2010



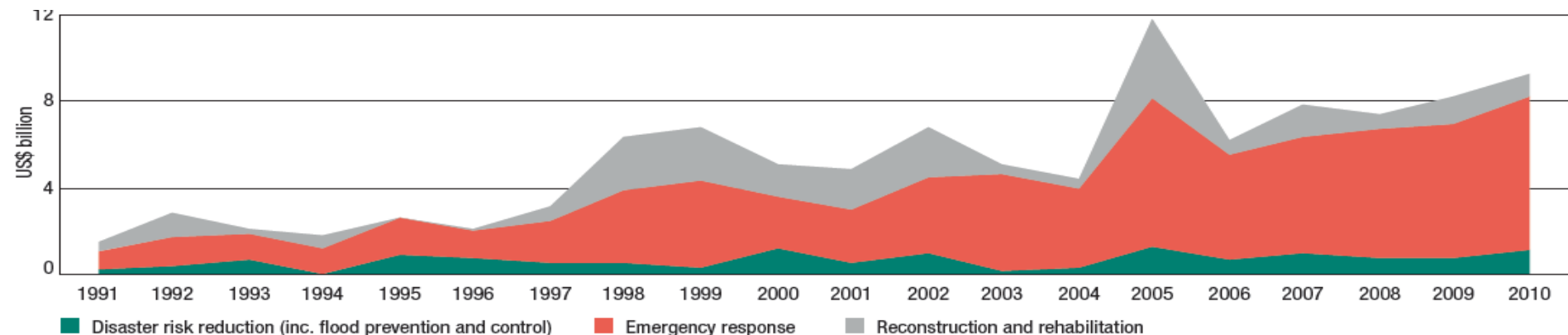
* finance for flood prevention and control included in DRR

DRR COMPARED WITH OTHER
DEVELOPMENT ASSISTANCE
2010

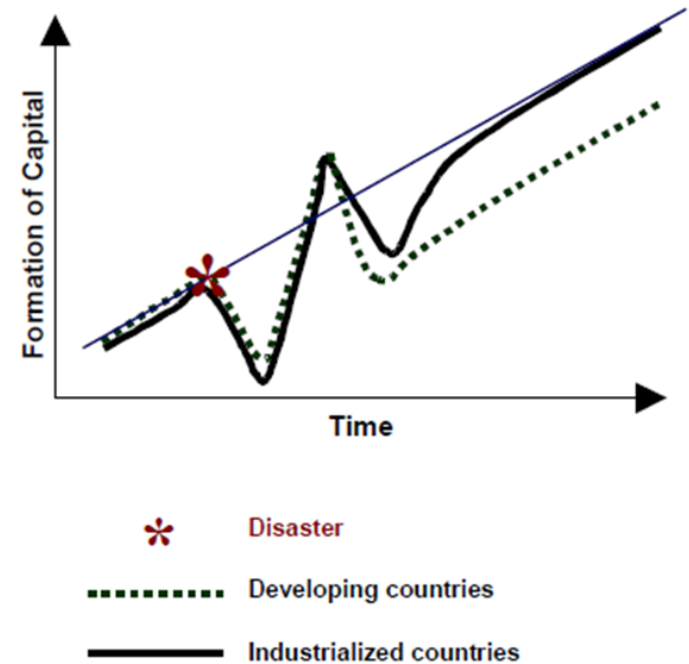
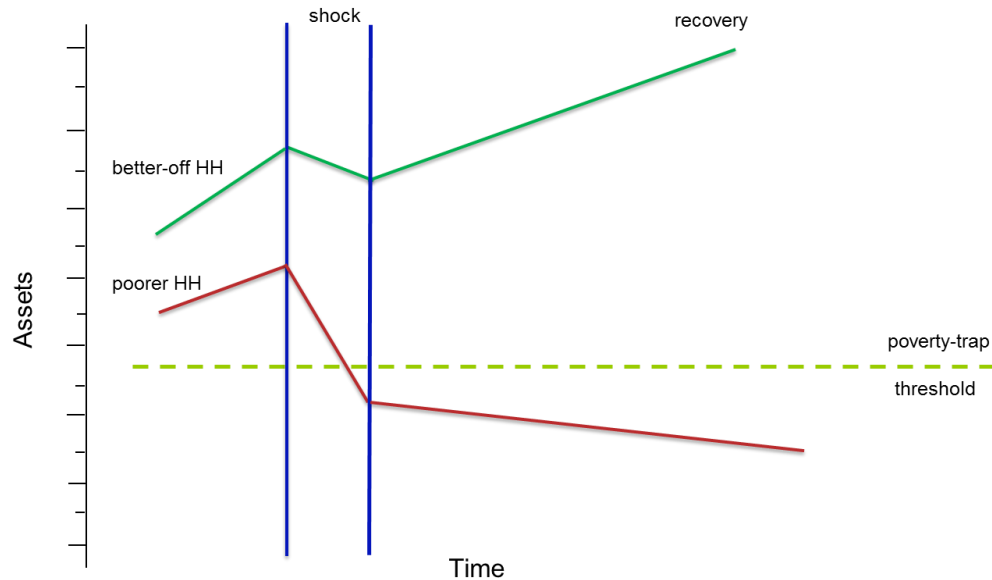


Source: Finance for Reducing Disaster Risks, ODI and UNDP

: The share of DRR in international aid for disasters, 1991 to 2010 (constant 2010 US\$)



DISASTER RISK MANAGEMENT IS PART AND PARCEL OF DEVELOPMENT ACTIONS



Source: Carter, Little, Mogues, and Negatu 2005

Without a risk-sensitive approach,
development cannot be sustainable.

RATIONALE FOR DISASTER RISK MANAGEMENT & DISASTER RISK FINANCE

Losses = Risk factor

$$\text{Risk} = \text{Hazard} \times \text{Exposure} \times \frac{\text{Sensitivity}}{\text{Capacity}}$$

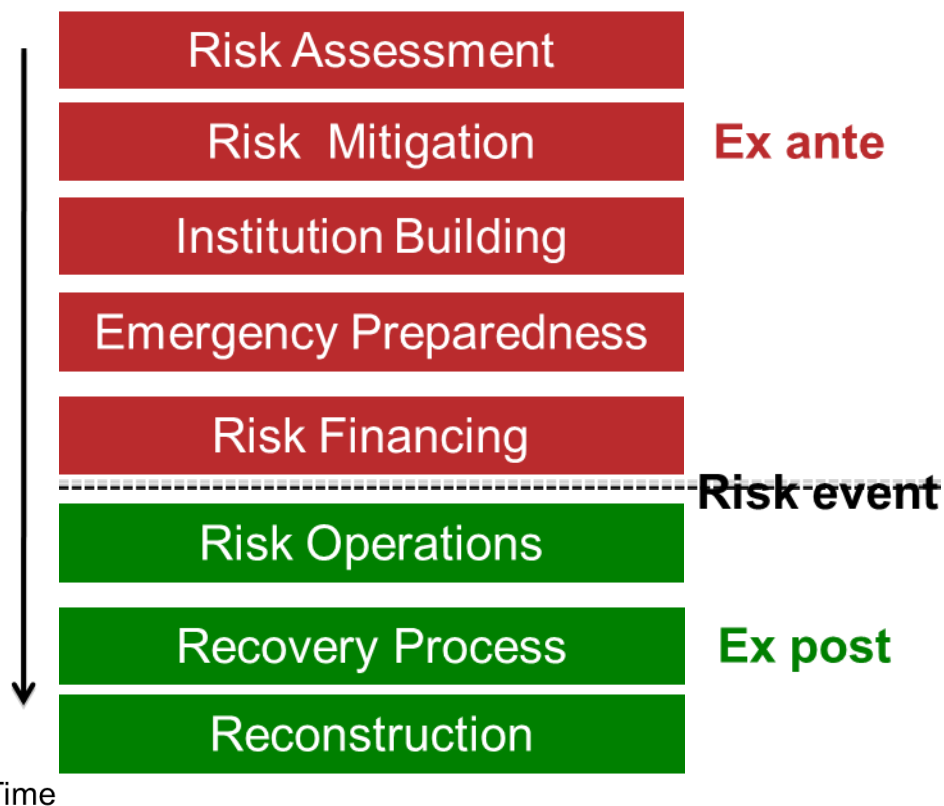
where  represents **Vulnerability**

Recovery = Finance factor

Extent of damage > Available Finance

The biggest financing challenge is availability of liquidity at the onset of a disaster

RATIONALE FOR DISASTER RISK MANAGEMENT & DISASTER RISK FINANCE



- **Ex-ante**
 - Development planning, programs and projects
 - Existing vulnerability of populations and their infrastructure
- **Ex-post**
 - Emergency response
 - Disaster recovery and reconstruction

Avoid diverting funds from budgets or from already disbursed development loans to finance post-disaster expenses

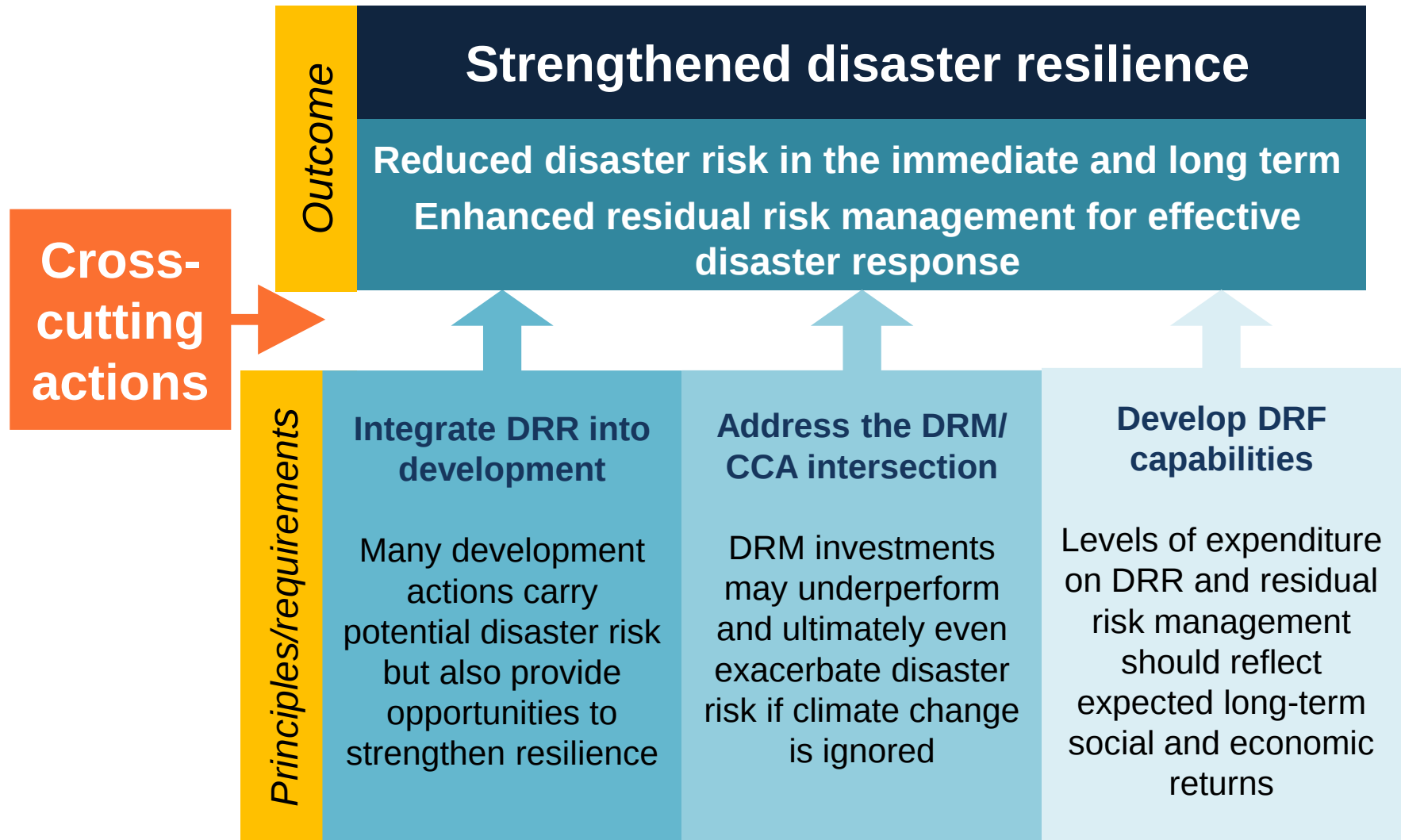
RATIONALE FOR DISASTER RISK MANAGEMENT & DISASTER RISK FINANCE

- Reconstruction of public assets and infrastructure
- Targeted financial assistance
 - clear rules regarding post-disaster financial compensation
 - promoting public confidence in country financial strategies while aligning incentives and reducing moral hazard
- Ensuring the soundness and resilience of the financial sector with respect to disaster risks
 - regulation, business continuity planning, and stress testing
- Ensuring the optimal allocation of resources for Disaster Risk Management
 - assessment of the cost-effectiveness of major public financial investments in disaster risk reduction projects

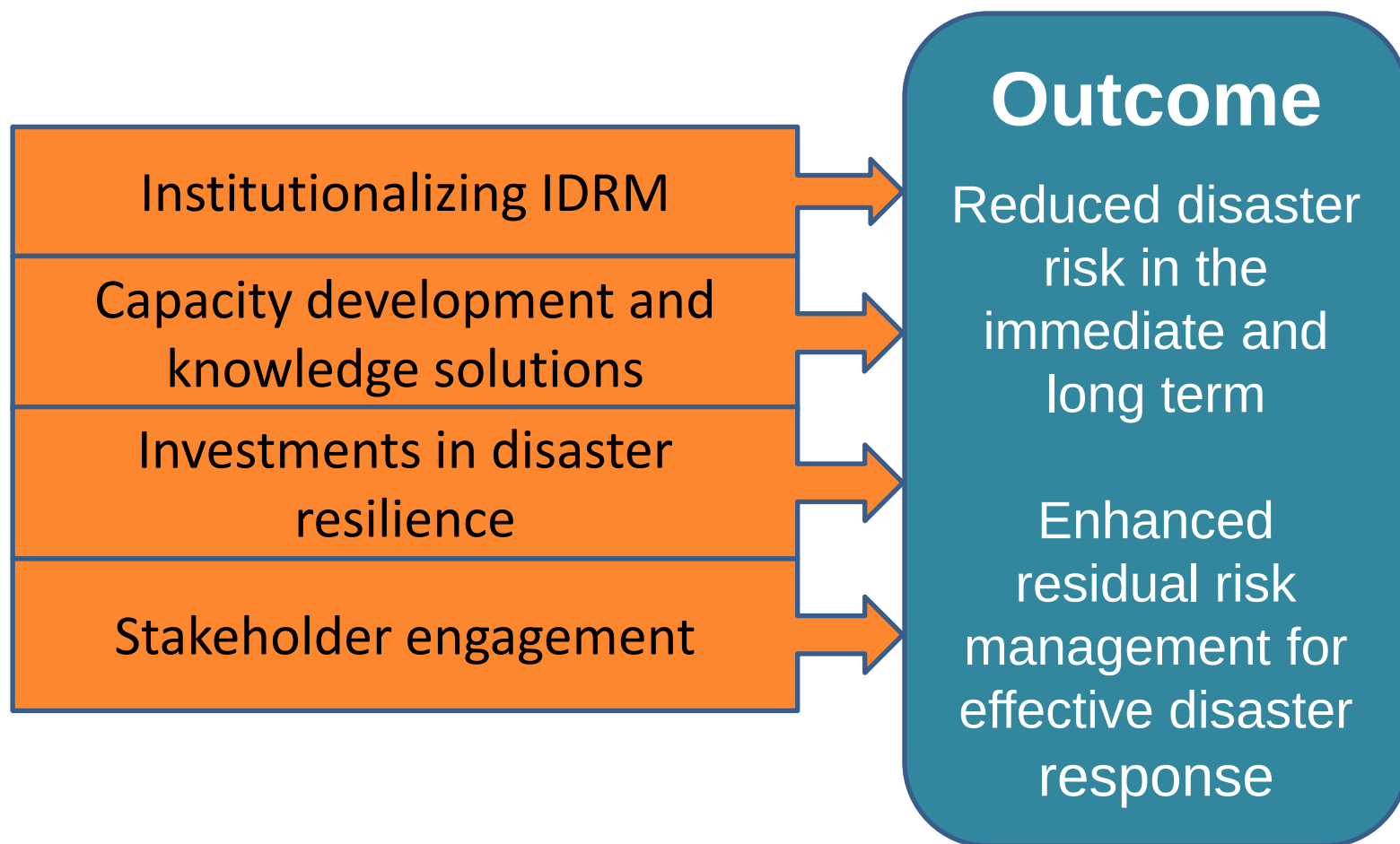
Achieving financial resilience is thus a critical component of effective Disaster Risk Management



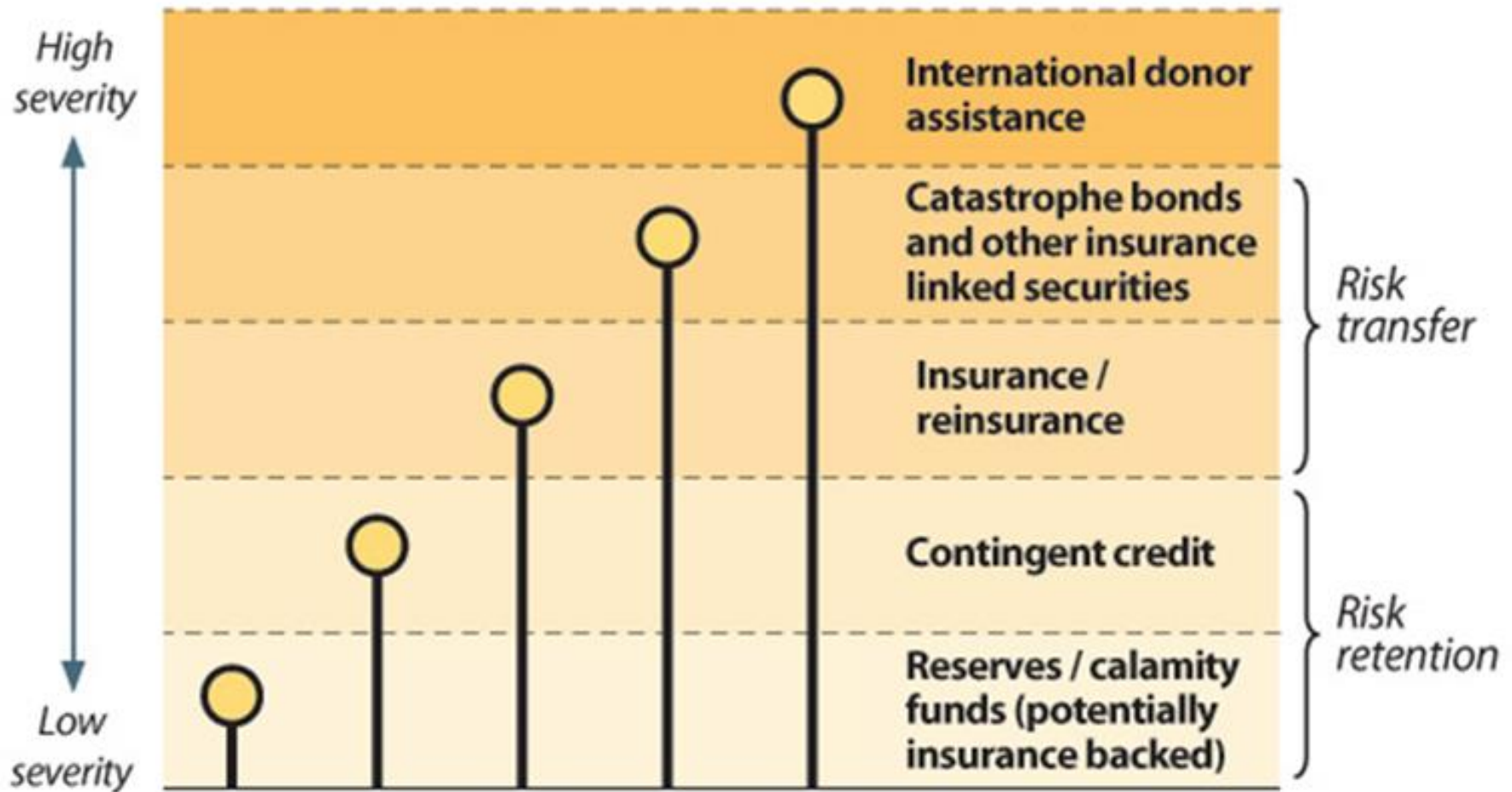
ADB's INTEGRATED DISASTER RISK MANAGEMENT APPROACH



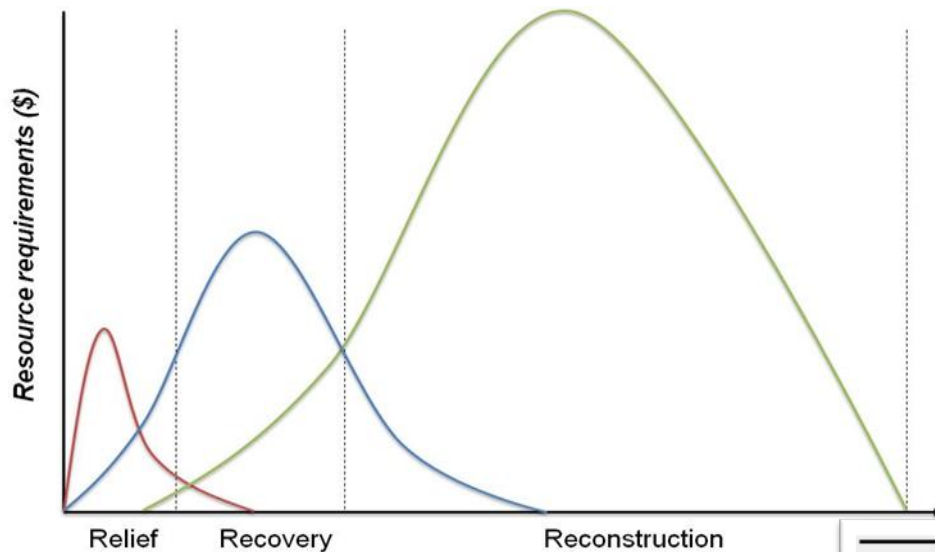
IMPLEMENTATION THROUGH CROSS - CUTTING ACTIONS



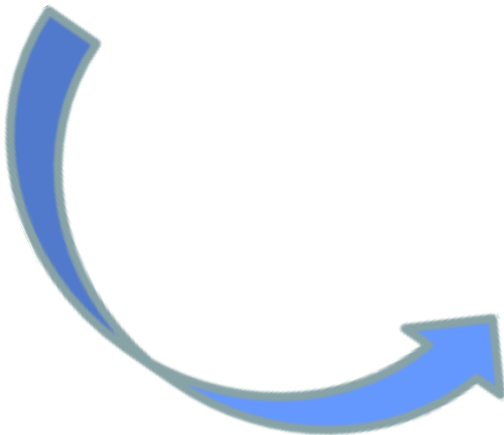
MENU OF SOLUTIONS



MATCHING FUNDING NEEDS



The challenge is how to utilize a wide range of instruments to address the costs of disasters and be sure that they are available if and when needed



	Relief phase (1-3 months)	Recovery phase (3 to 9 months)	Reconstruction phase (over 9 months)
Post-disaster financing			
Donor assistance (relief)	■	■	
Budget reallocation	■	■	■
Domestic credit		■	■
External credit		■	■
Donor ass. (reconstruction)			■
Tax increase			■
Ex-ante financing			
Budget contingencies	■	■	■
Reserve fund	■	■	■
Contingent debt facility	■	■	■
Parametric insurance	■	■	■
Catastrophe Bonds	■	■	■
Traditional insurance	■	■	■

COSTS AND BENEFITS

Instruments	Indicative Cost (multiplier)	Disbursement (months)	Amount of funds available
Donor support (relief)	0-1	1-6	Uncertain
Donor support (recovery & reconstruction)	0-2	4-9	Uncertain
Budget contingencies	1-2	0-9	Small
Reserves	1-2	0-1	Small
Budget reallocations	1-2	0-1	Small
Contingent debt facility (e.g., CAT DDO)	1-2	0-1	Medium
Domestic credit (bond issue)	1-2	3-9	Medium
External credit (e.g. emergency loans, bond issue)	1-2	3-6	Large
Parametric insurance	2 & up	1-2	Large
ART (e.g., CAT bonds, weather derivatives)	2 & up	1-2	Large

Source: Ghesquiere and Mahul (2010)

ROLE OF THE INSURANCE SECTOR

- Rationally allocate capital, in respect
- to disaster risks (at even very extreme probabilities)
- Reduce overall risk and encourage by tailoring insurance conditions and standards to risk behavior
- Requires defined resilience as a requirement of access to the contingent capital that an insurance policy represents.

ISSUES GOING FORWARD

- Inability to put in place pre-requisites for an efficient catastrophe risk financing instrument
- Undeveloped insurance sector
- Excessive reliance on the government as the reinsurer of last resort
- Lack of risk awareness at the government level and among public
- Lack of local technical knowledge and experience

ISSUES GOING FORWARD

- Insurance represents a relatively small proportion of the financial system.
 - Investments and Securities under the rules of stock exchanges and other authorities
- Financial sector beyond non-life insurance generally does not take adequate account of natural disaster risk, even in highly exposed locations.
- Natural disasters is on financial regulators radar screen but lack of financial inclusion is also seen as a major factor in increasing the levels of vulnerability to natural hazard.
- Integrating disaster risk and resilience into the financial system

ADB's ONGOING AND PLANNED ACTIVITIES

- Support for the development of enabling environments – e.g., through
 - Strengthening technical knowledge and understanding in government
 - Assessments of disaster risk, the fiscal burden posed by disasters and funding gaps
 - Analysis of demand and supply constraints to the development of market-based risk transfer instruments
- Support for the development of comprehensive DRF strategies and individual products –e.g., through support for:
 - Pilot projects
 - Establishment of risk pools and innovative risk transfer vehicles

Q&A



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