

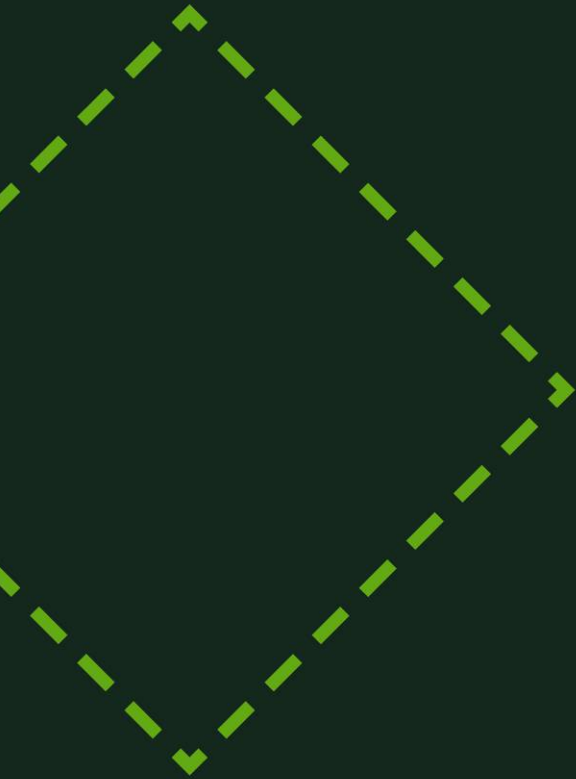
Disaster Risk Reduction - Dialogue

Views and expectations from
the stakeholders –
(Re-)Insurance World

29–30 October 2009
European Commission,
Brussels

Thomas Loster
**Munich Re
Foundation**

From Knowledge
to Action





Munich Re Foundation

Our Mozambique Flood Warning Project

Modules



Contents

- Basics
- Investments
(3 examples)
- Needs

Basics

Hurricane Katrina Losses

August 2005

Losses

US\$ 125,000,000,000 covered US\$ 65,000,000,000
1,280 dead in New Orleans

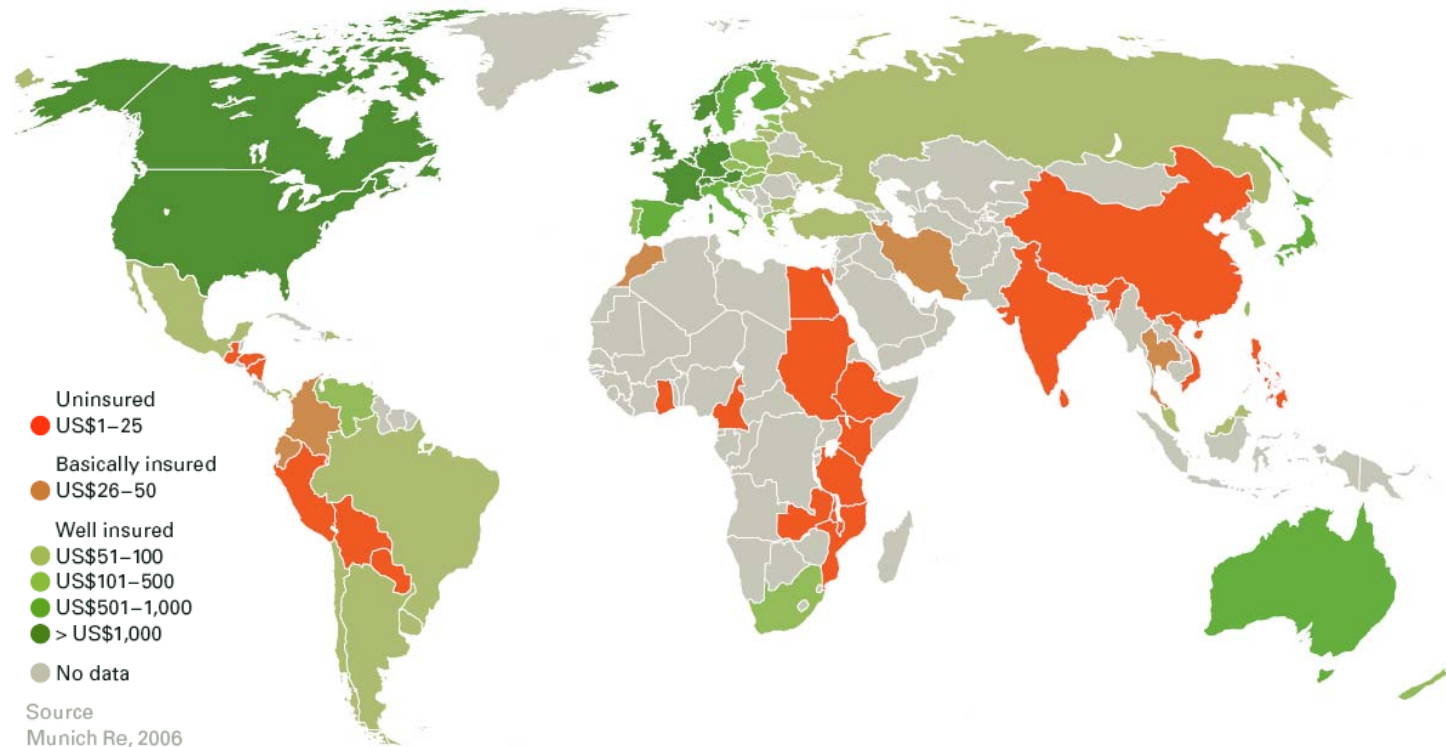
Earthquake Sichuan, China

12 May 2008

Losses

US\$ 85,000,000,000 covered US\$ 300,000,000
70,000 dead

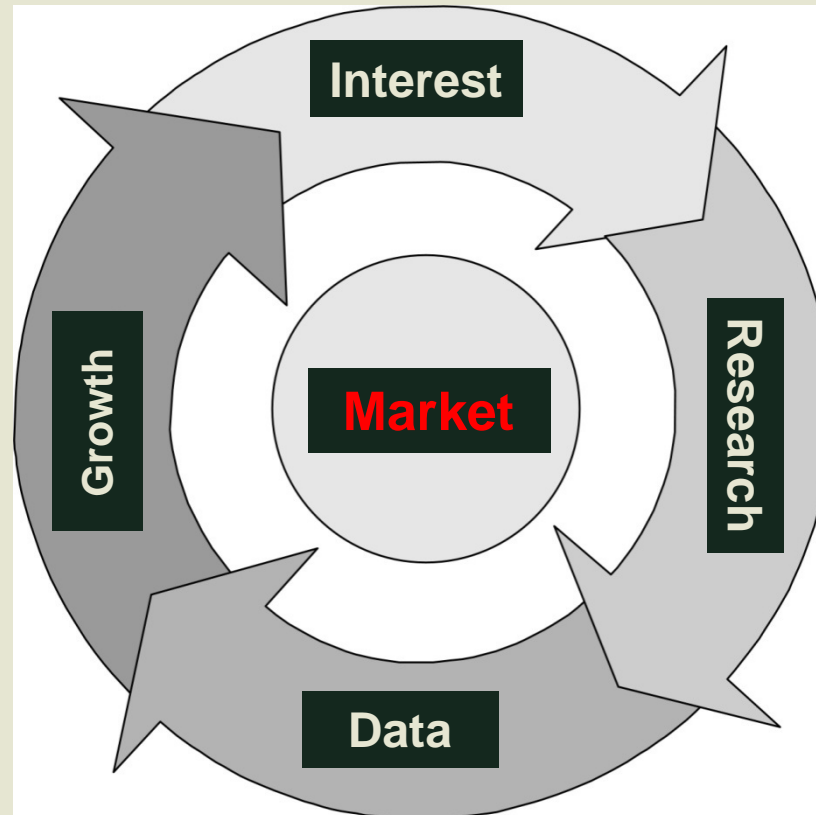
Property insurance premiums (non-life including health) per person and per year



Insurance Markets

Research, Tools and Data

“Market” or “No Market”



Natural Disasters

Disaster Risk Reduction is important

- Natural Disasters strongly affect the insurance industry
Climate change is aggravating the risk situation
- Disaster Risk Reduction has a high priority
- The issue is complex and the stakeholder expectations are immense (clients, stock markets etc.)

Disaster Risk Reduction

Three examples

High Quality Research Three Examples

- The Globe of Natural Hazards
- The Global Earthquake Model (GEM)
- The Munich Climate Insurance Initiative (MCII)

All examples are public domain
and serve Disaster Risk Reduction



Globe of Natural Hazards 2009 – Products

DVD – Globus der Naturgefahren / Globe of Natural Hazards

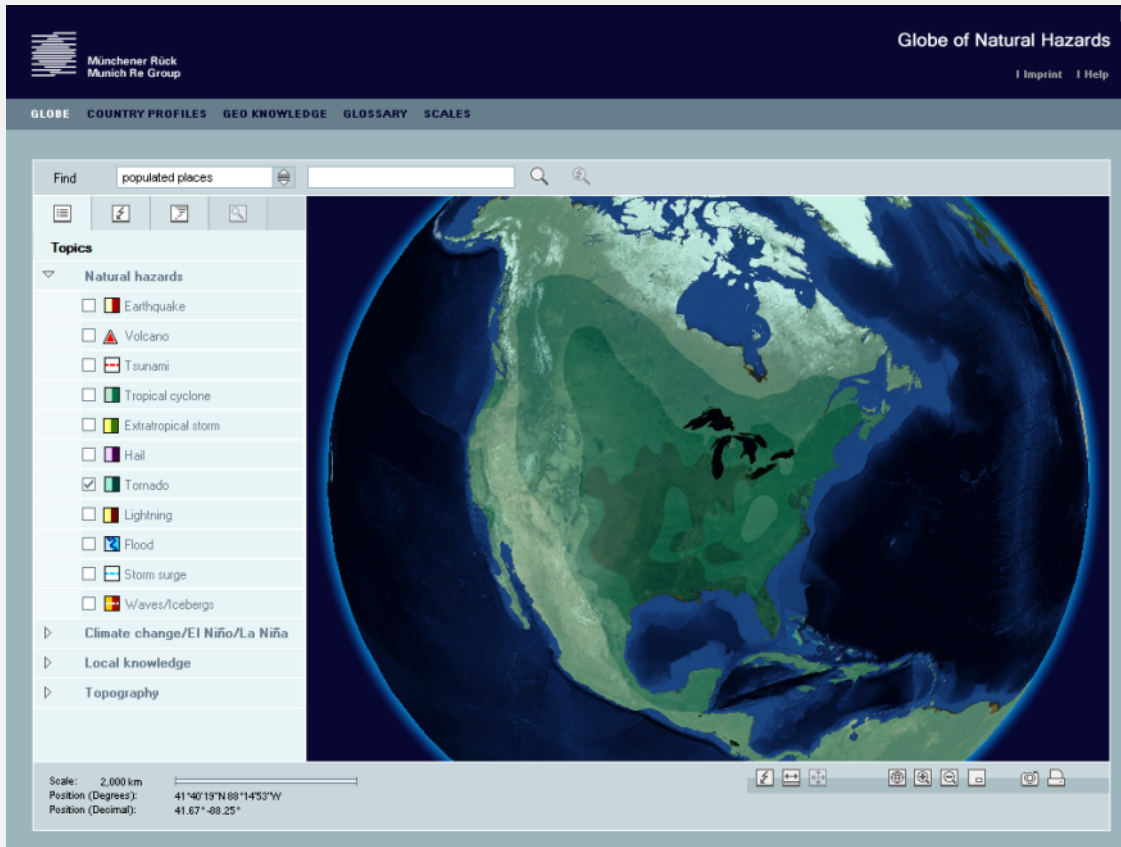


Globe of Natural Hazards 2009

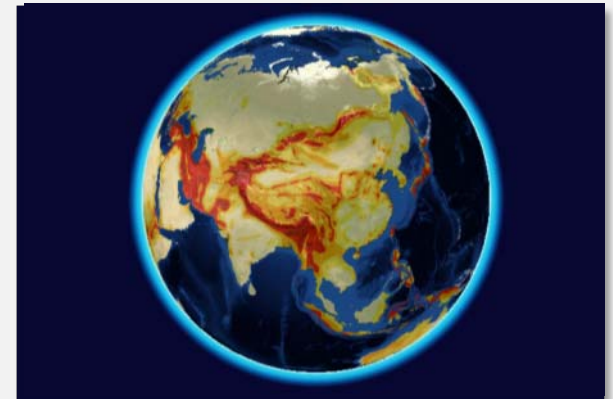
What is new?

Knowledge in a
state of flux

All global hazard maps have been updated



The screenshot shows the web application interface for the Globe of Natural Hazards. At the top left is the Münchener Rück Munich Re Group logo. The main header contains the title "Globe of Natural Hazards" and links for "Imprint" and "Help". Below the header is a navigation menu with "GLOBE", "COUNTRY PROFILES", "GEO KNOWLEDGE", "GLOSSARY", and "SCALES". A search bar is present with the text "populated places". On the left side, there is a "Topics" sidebar with a list of hazard types: Earthquake, Volcano, Tsunami, Tropical cyclone, Extratropical storm, Hail, Tornado (checked), Lightning, Flood, Storm surge, and Waves/Icebergs. Below this are expandable sections for "Climate change/El Niño/La Niña", "Local knowledge", and "Topography". The main content area displays a globe with a hazard map overlay, showing a concentration of red and orange areas in the Indian subcontinent and surrounding regions. At the bottom left, there is a scale of 2,000 km and position coordinates: "Position (Degrees): 41°40'19"N 88°14'53"W" and "Position (Decimal): 41.67° -88.25°".



Hazard pointer

Power function supplies quick information on situation regarding natural hazards and climate change for any location on earth



Globe of Natural Hazards

Münchener Rück
Munich Re Group

Imprint | Help

Find populated places

Hazard data 34°57'23"N 137°30'36"E

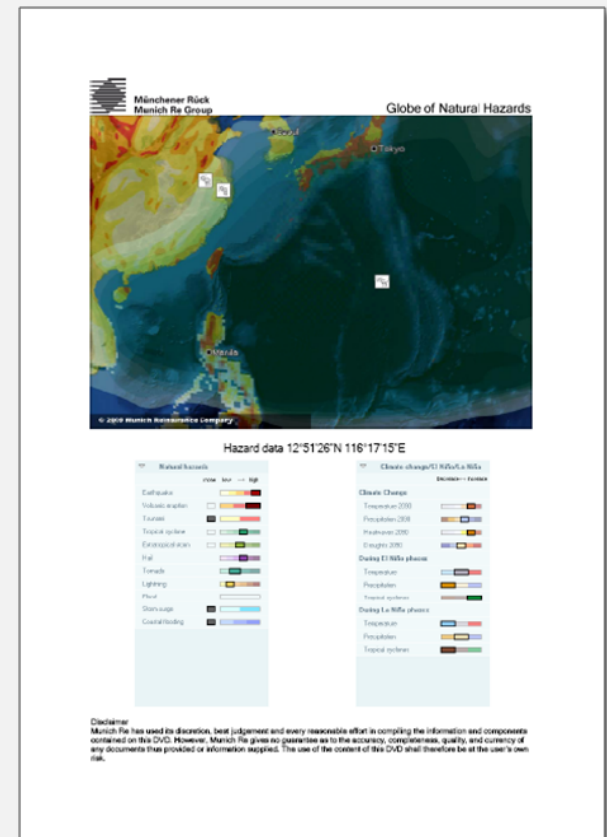
Natural hazards

	none	low	high
Earthquake	[white]	[yellow]	[red]
Volcanic eruption	[black]	[orange]	[red]
Tsunami	[white]	[yellow]	[red]
Tropical cyclone	[white]	[green]	[red]
Extratropical storm	[white]	[yellow]	[green]
Hail	[white]	[purple]	[red]
Tornado	[white]	[green]	[red]
Lightning	[white]	[yellow]	[red]
Flood	[white]	[blue]	[red]
Storm surge	[black]	[blue]	[red]
Coastal flooding	[black]	[blue]	[red]

Climate change/El Niño/La Niña

Scale: 2,500 km
 Position (Degrees): 18°26'5"N 102°2'26"E
 Position (Decimal): 18.43° 102.04°

Caution:
 Please use the keys to the graphics and the help function for a correct interpretation of the query results!



Globe of Natural Hazards

Münchener Rück
Munich Re Group

Hazard data 12°51'26"N 116°17'15"E

	none	low	high
Earthquake	[white]	[yellow]	[red]
Volcanic eruption	[black]	[orange]	[red]
Tsunami	[white]	[yellow]	[red]
Tropical cyclone	[white]	[green]	[red]
Extratropical storm	[white]	[yellow]	[green]
Hail	[white]	[purple]	[red]
Tornado	[white]	[green]	[red]
Lightning	[white]	[yellow]	[red]
Flood	[white]	[blue]	[red]
Storm surge	[black]	[blue]	[red]
Coastal flooding	[black]	[blue]	[red]

	decrease	increase
Temperature 2050	[blue]	[red]
Precipitation 2050	[blue]	[red]
Temperature 2080	[blue]	[red]
Precipitation 2080	[blue]	[red]
Temperature 2100	[blue]	[red]
Precipitation 2100	[blue]	[red]

Disclaimer:
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Target groups in dialogue

Risk communication creates risk transparency

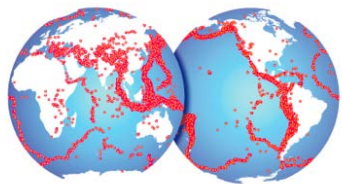


Global Earthquake Model

insurance ● noun 1 the action
2 the business of providing
3 money paid for insurance, or ac-
tion under an insurance policy. 4
viding protection against
eventuality.

insure ● verb 1 arrange for comp
the event of damage to or loss of (p
or a person), in exchange for regul
to a company. 2 secure the payme
in this way. 3 (**insure against**) p
one) against (a possible eventualit
term for **ENSURE**.

DERIVATIVES **insurable** adjective **in-**



GEM
GLOBAL EARTHQUAKE MODEL

Rui Pinho
Secretary General, GEM Foundation

The common goal is the reduction of earthquake risk worldwide, by converting knowledge into action..

- Assess and monitor risk globally, especially in less well served regions, and following a uniform approach
- Raise risk awareness
- Stimulate risk mitigation
- Save lives, reduce losses and distribute the financial burden better

An internationally sanctioned program initiated by the OECD, aiming to build an independent, open standard to calculate and communicate earthquake risk around the world

- Dynamic: an (updatable) model, not a map
- Global: cover also less developed/monitored areas (uniform standards)
- Open Access: a (transparent) tool to use for everybody
- Public-Private Partnership: combining the strengths (and objectives) of both sectors

PUBLIC FOUNDERS



GERMANY

GFZ Helmholtz Centre Potsdam



ITALY

Department of civil protection



SINGAPORE

Nanyang Technological University



SWITZERLAND

Swiss Federal Institute of Technology Zurich



TURKEY

Bogazici University



BELGIUM

Belgium Science Policy

PRIVATE FOUNDERS



5 Mill. €



3 Mill. €



1 Mill. €



1 Mill. €



1.6 Mill. €



SUBMISSION BY THE MUNICH CLIMATE INSURANCE INITIATIVE (MCII)

Insurance Instruments for Adapting to Climate Risks
A proposal for the Bali Action Plan¹, Version 2.0

30 September 2008

4th session of the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention (AWG-LCA 3). Poznan 1-13 December, 2008.

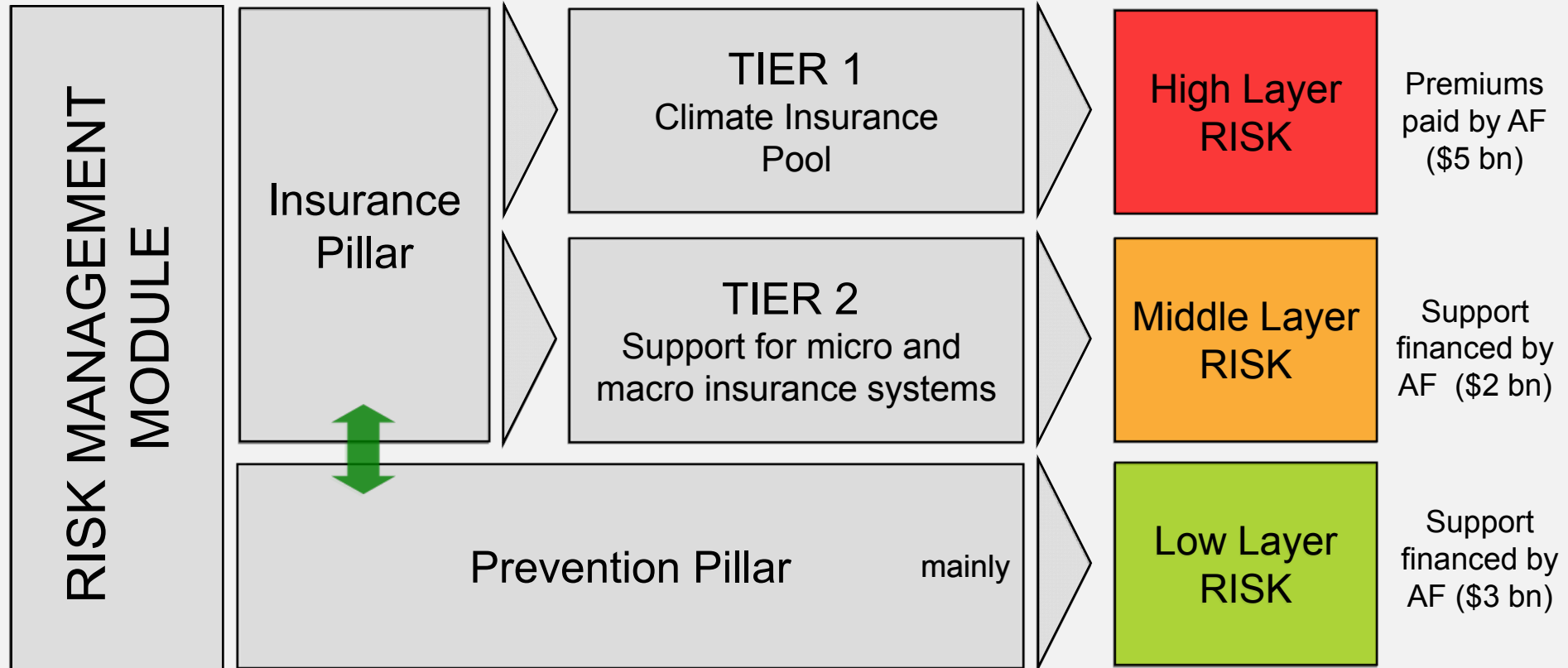
Keywords: Risk management, Insurance, climate adaptation, climate change, risk, Bali Action plan, post-2012 adaptation regime, risk reduction and prevention, risk transfer

UNFCCC post-2012 Adaptation Strategy



- 1. Risk management: A toolkit for assessing and managing climate change**
- 2. Insurance instruments, together with risk reduction, facilitate adaptation**
- 3. Insurance mechanisms can incentivize risk management, reduce longer-term indirect losses, and build resilience vis-a-vis weather-related risks**

The MCII Proposal



The two-tiered insurance pillar

- Meets the principles set out by the UNFCCC
- Provides assistance to the most vulnerable, and
- Includes private market participation.

Rough
estimated
annual costs:
\$ 10 bn

Needs

Re(Insurance) Needs

- Give disaster risk reduction a face and a home
catchwords: CSR, success stories, efficiency
- Be a strong PPP partner
catchwords: added value, coaching, longer-term engagement

Conclusions

- The global urging issues can only be solved in strong partnerships
- Make use of existing knowledge
- Offer tangible added value

Disaster Risk Reduction - Dialogue

tloster@munichre-foundation.org

THANK YOU

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From Knowledge
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