

Linking Development and Climate Change Agendas

**A proposal for a multi-donor regional reinsurance
facility**

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Linking Development and Climate Change Agendas

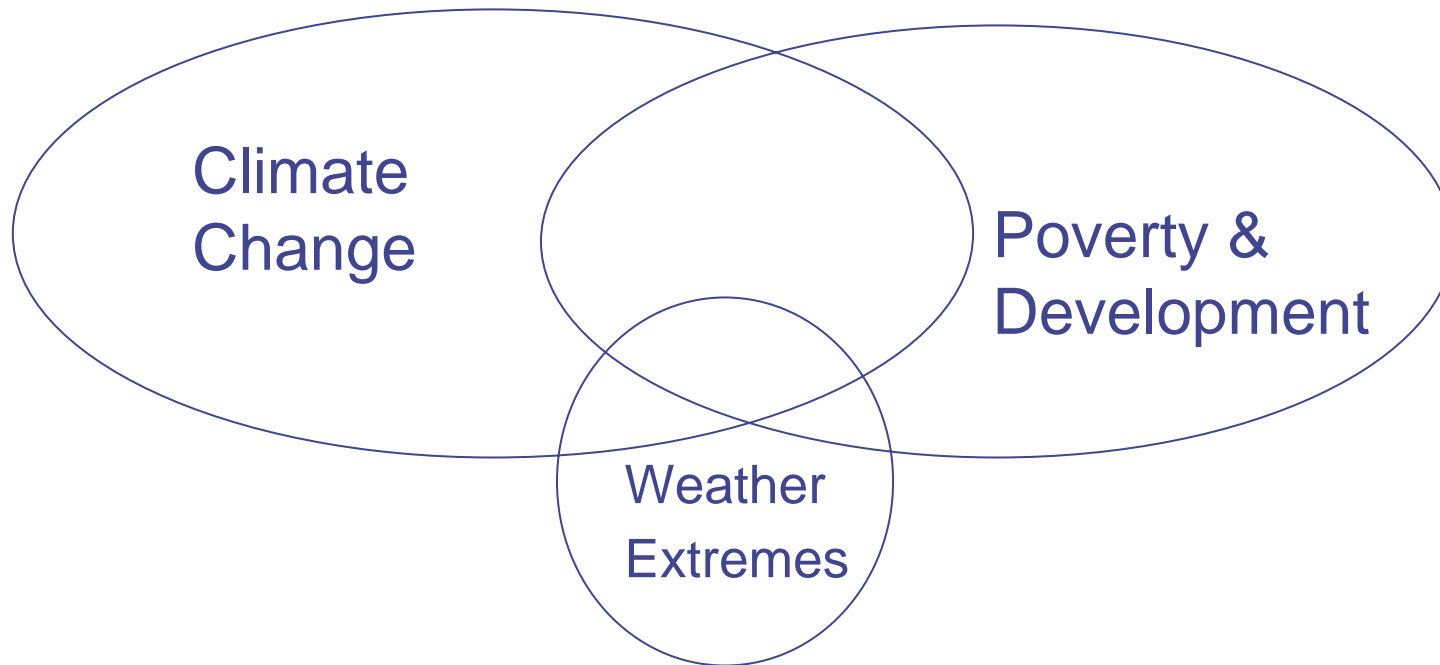
- ◆ Vision
- ◆ 2 wicked problems: development and climate change
- ◆ 3 examples toward social insurance on a global scale
- ◆ A proposal for a regional insurance facility
- ◆ Next steps

Vision

“Northern” supported catastrophe insurance for the “South” as a form of global social insurance

- Linking adaptation and development agendas

Policy context: 2 wicked problems



Climate change and weather disasters

- ◆ ... mounting evidence of a significant climate-change signal in disaster events (Schönwiese et.al, 2003; Emanuel, 2005).

The IPCC (2007) recently reported observations of long-term and widespread changes in wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones.

- ◆ Changing discourse on responsibility

Financial costs (stock effects) with moderate climate change

Table 5.2 Summary costs of extreme weather events in developed countries with moderate climate change. Costs at higher temperatures could be substantially higher.

Region	Event Type	Temperature	Costs as % GDP	Notes
Global	All extreme weather events	2°C	0.5 - 1.0% (0.1%)	Based on extrapolating and increasing current 2% rise in costs each year over and above changes in wealth
USA	Hurricane	3°C	1.3% (0.6%)	Assumes a doubling of carbon dioxide leads to a 6% increase in hurricane windspeed
	Coastal Flood	1-m sea level rise	0.01 - 0.03%	Only costs of wetland loss and protection against permanent inundation
UK	Floods	3 - 4°C	0.2 - 0.4% (0.13%)	Infrastructure damage costs assuming no change in flood management to cope with rising risk
Europe	Coastal Flood	1-m sea level rise	0.01 - 0.02%	Only costs of wetland loss and protection against permanent inundation

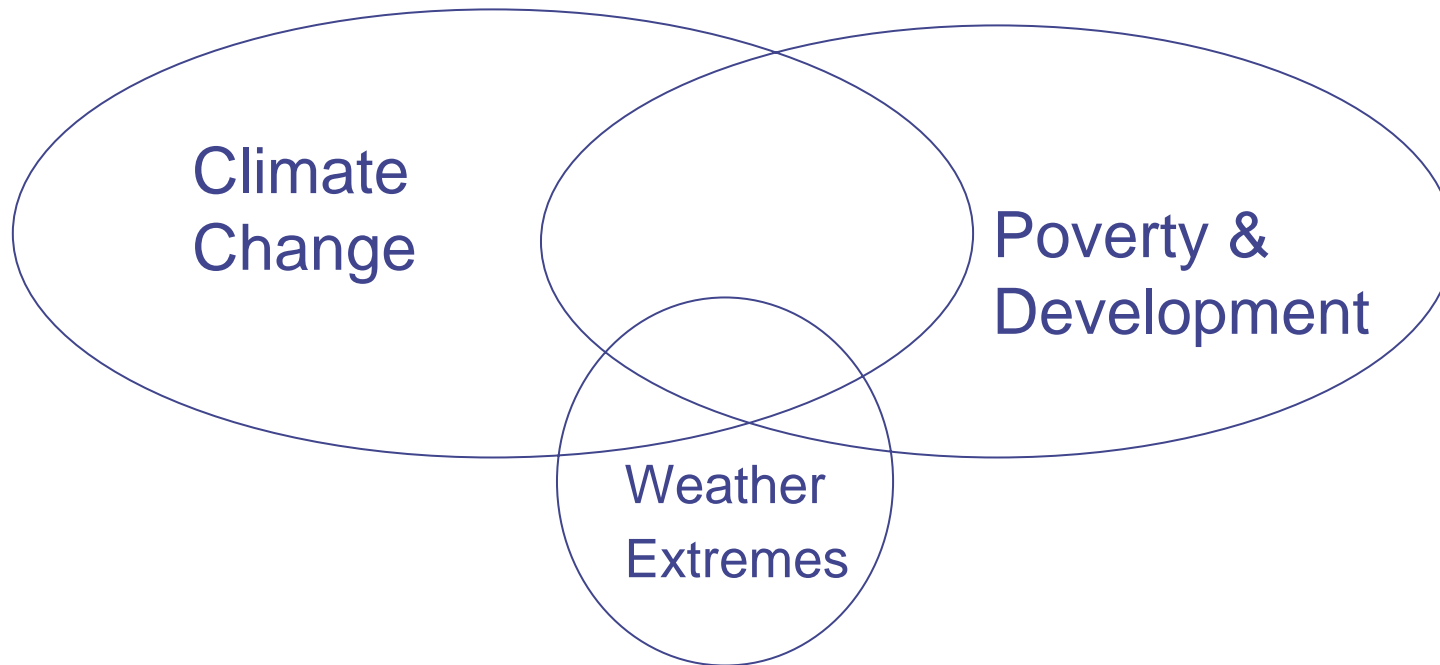
Notes: Numbers in brackets show the costs in 2005. Temperatures are global relative to pre-industrial levels. The costs are likely to rise sharply as higher temperatures lead to even more intense extreme weather events and the risk of triggering abrupt and large-scale changes. Currently, there is little robust quantitative information for the costs at even higher temperatures (4 or 5°C), which are plausible if emissions continue to grow and feedbacks amplify the original warming effect (such as release of carbon dioxide from warming soils or release of methane from thawing permafrost).

Source: Stern, 2007

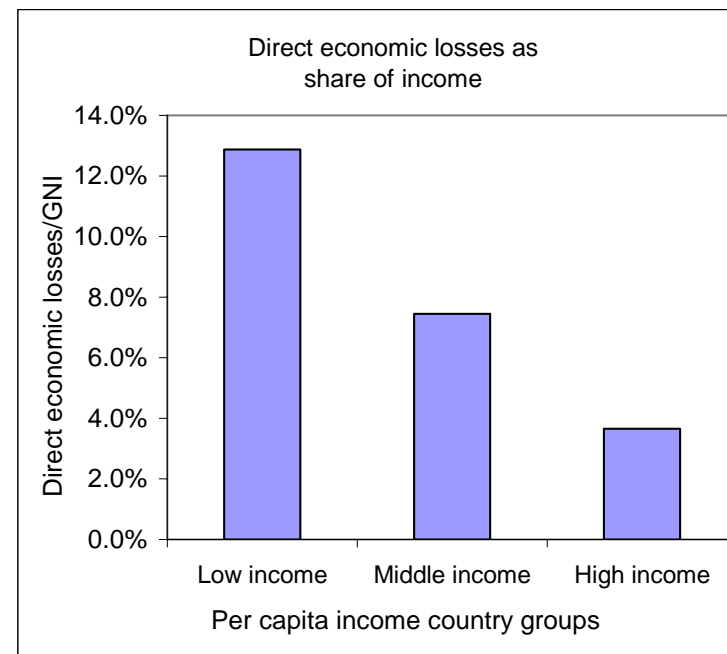
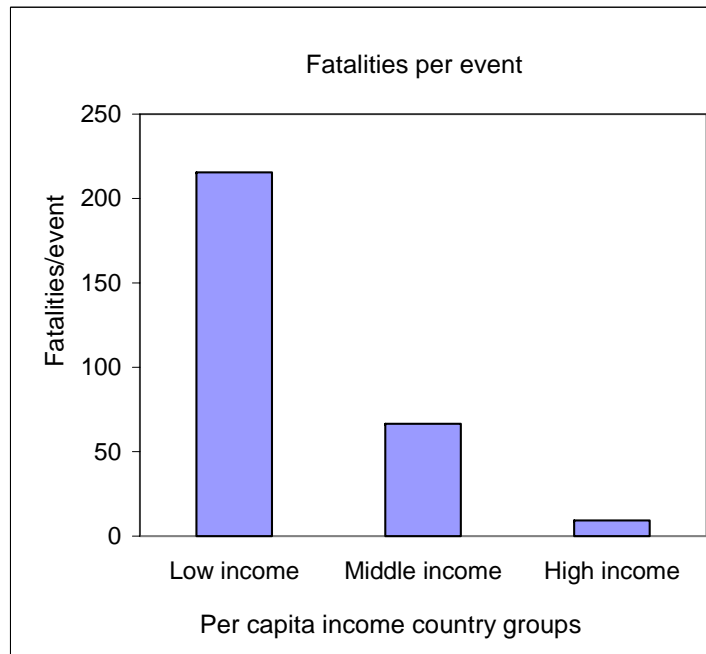
UNFCCC and insurance

Article 4.8 of the UNFCCC (and Article 3.14 of the Kyoto Protocol) calls upon Parties to consider actions, **including those related to insurance**, to meet the specific needs and concerns of developing countries with respect to the adverse impacts of climate change.

Policy context: 2 wicked problems

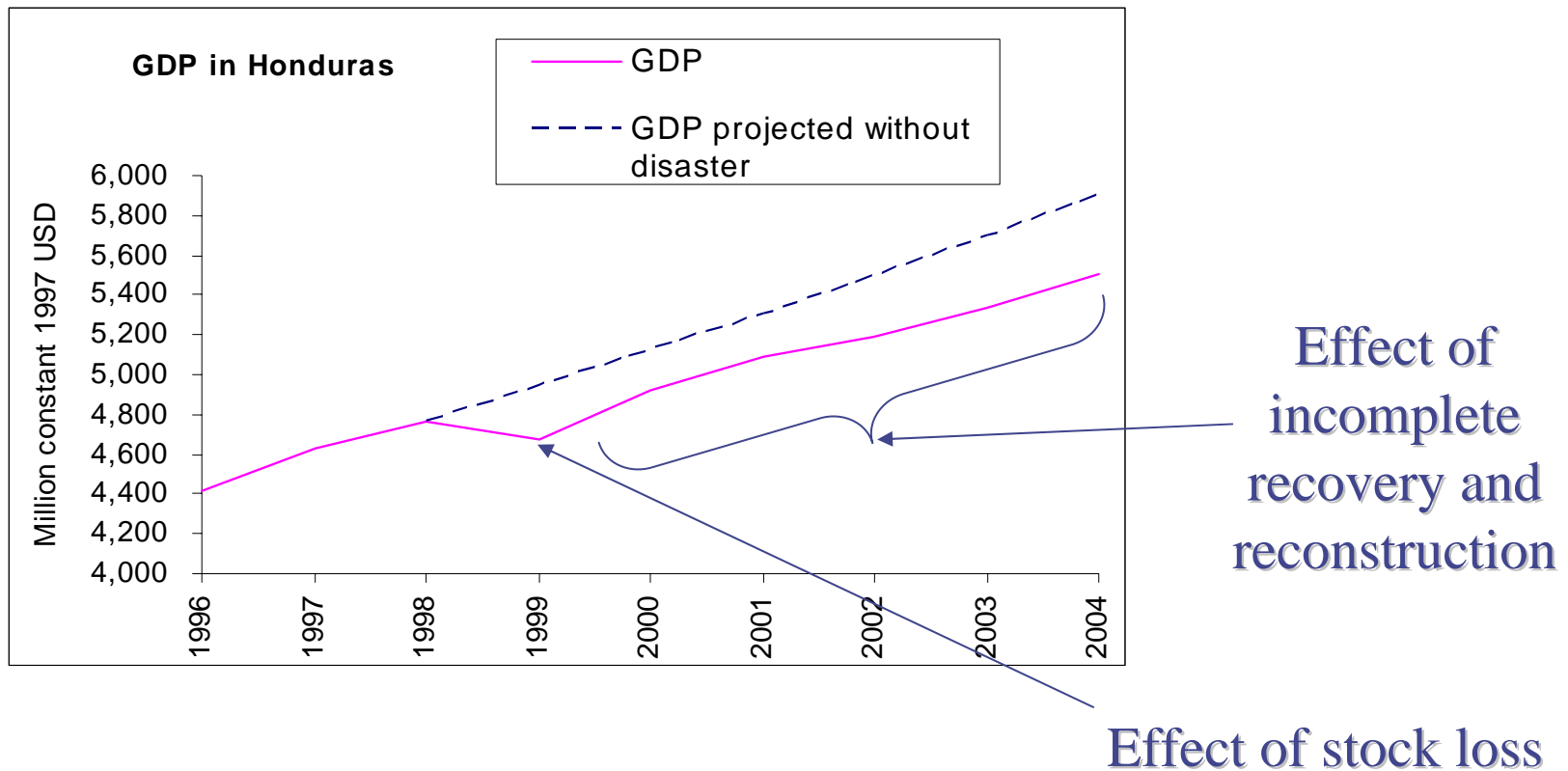


Disasters and Poverty

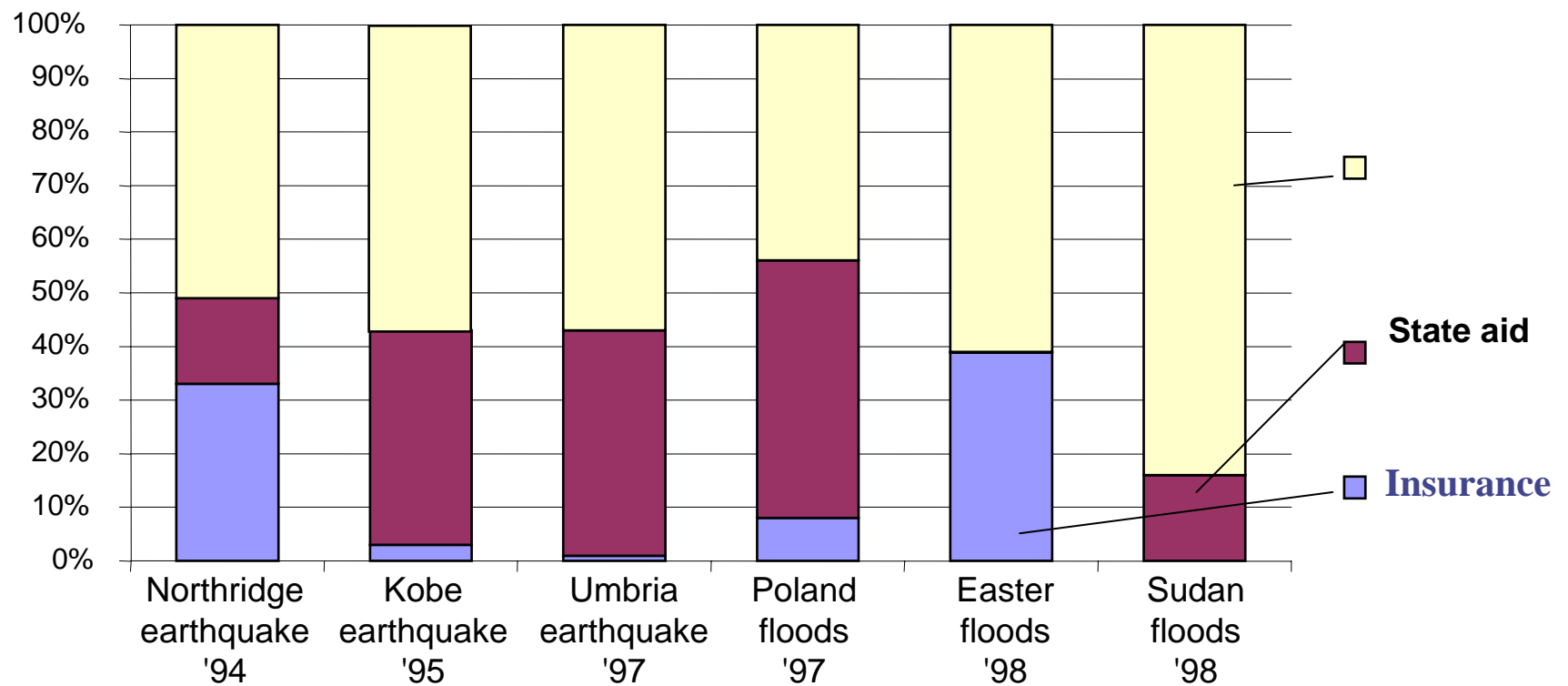


Data source: Munich Re, 2005

Economic consequences of extreme events

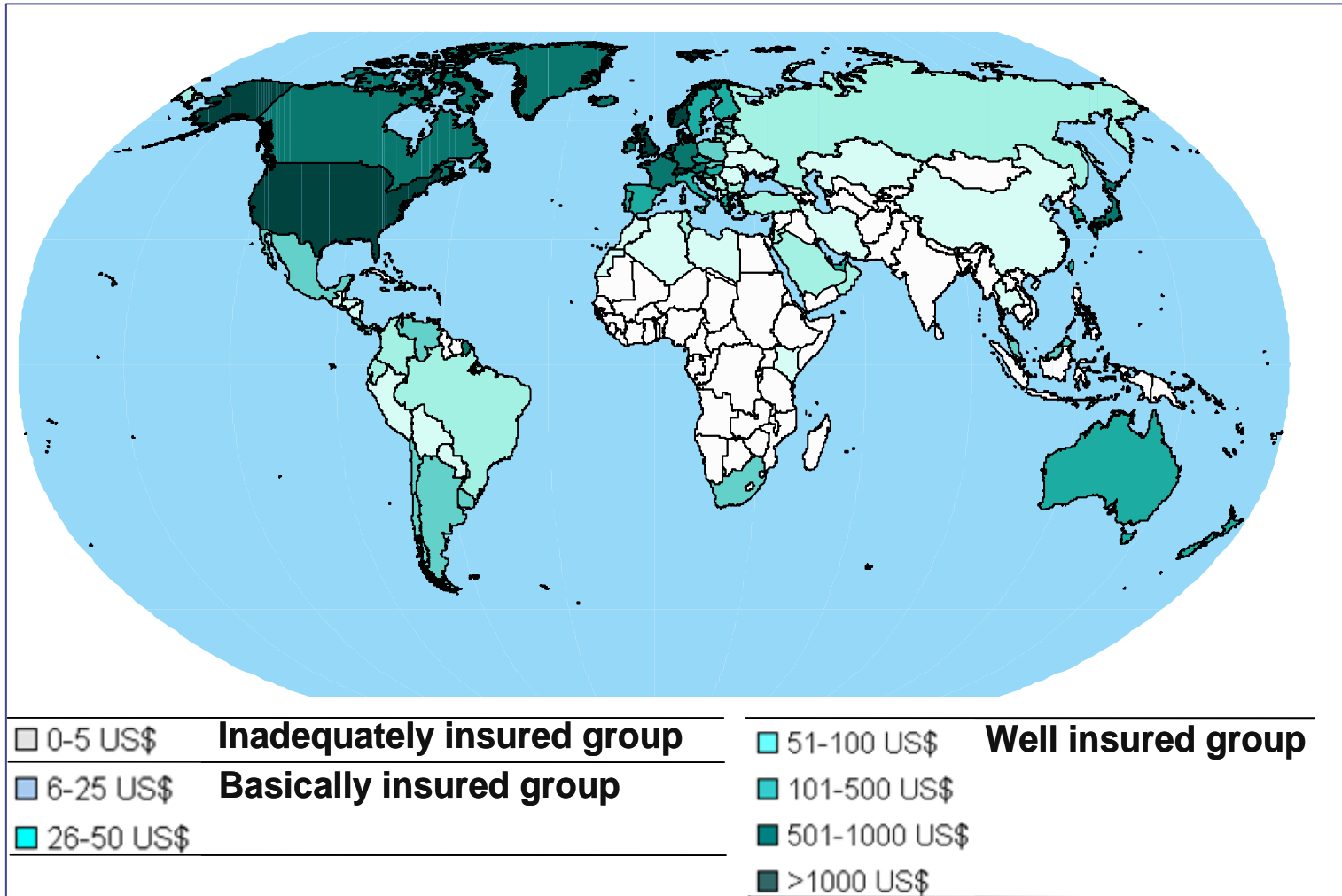


Disaster safety nets



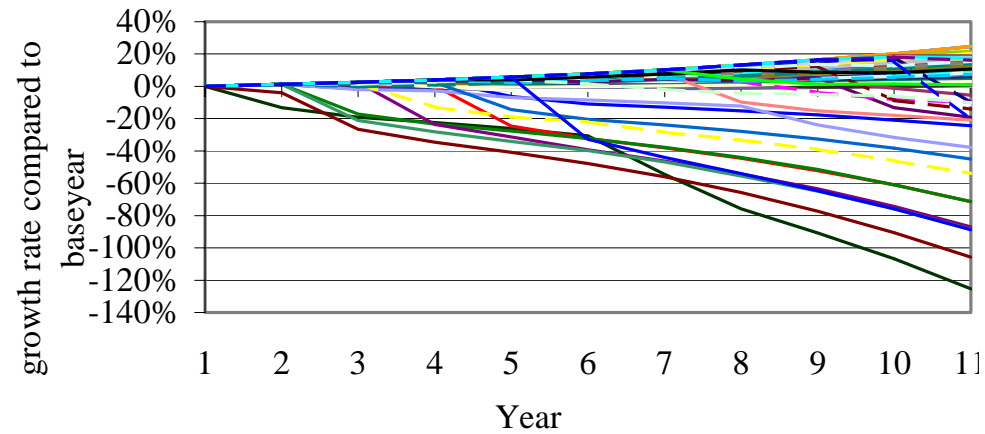
Financial vulnerability: Private sector insurance

Source: Höppe and Gurenko, Munich Re

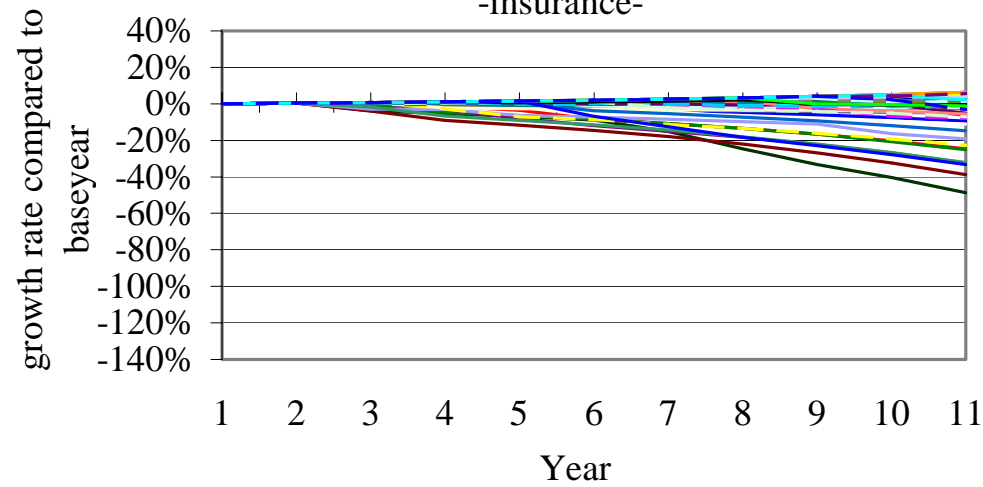


Should governments insure?

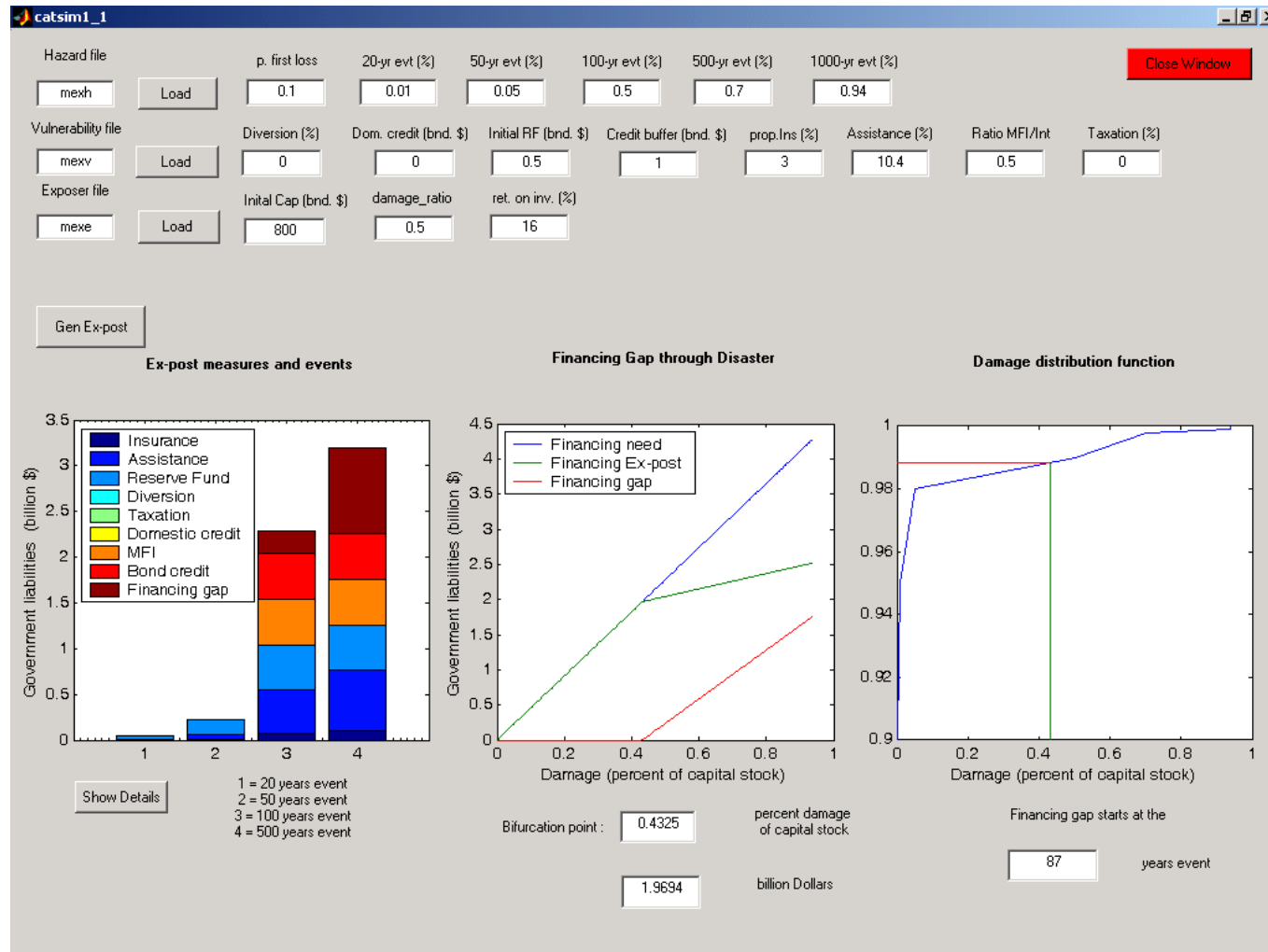
El Salvador growth paths
-no insurance-



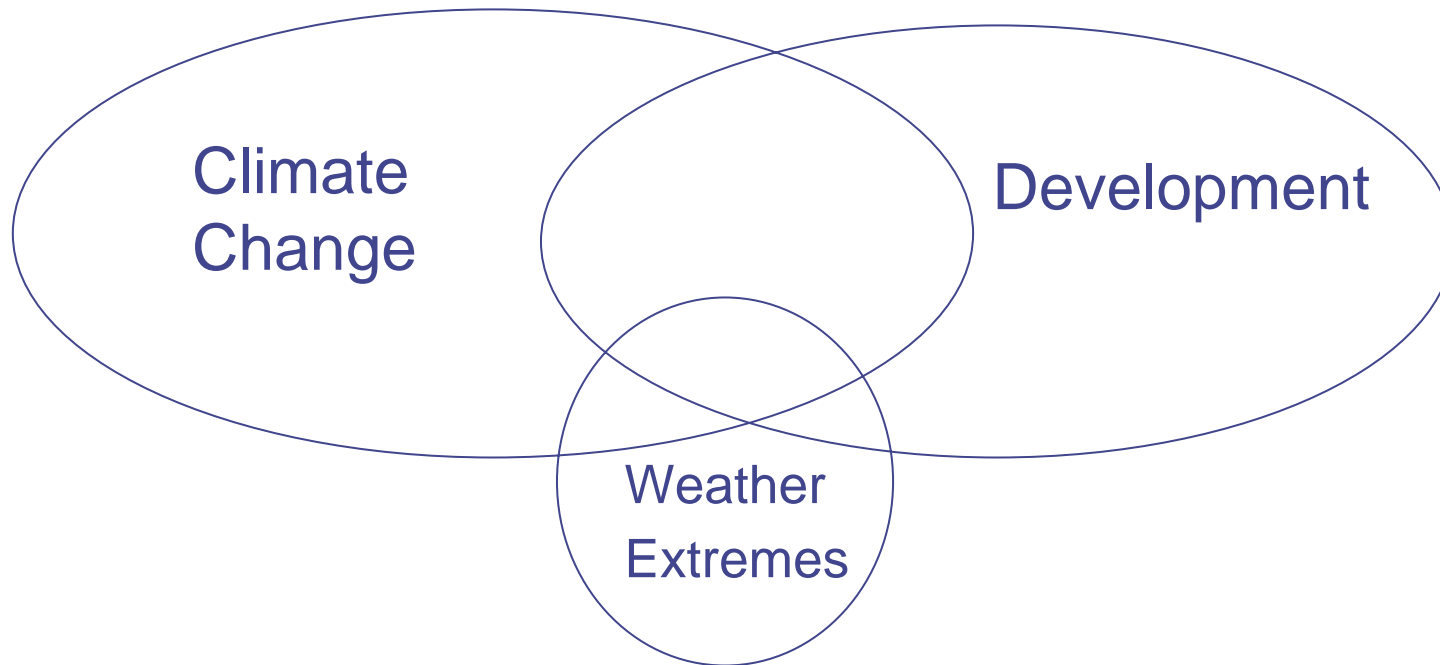
-insurance-



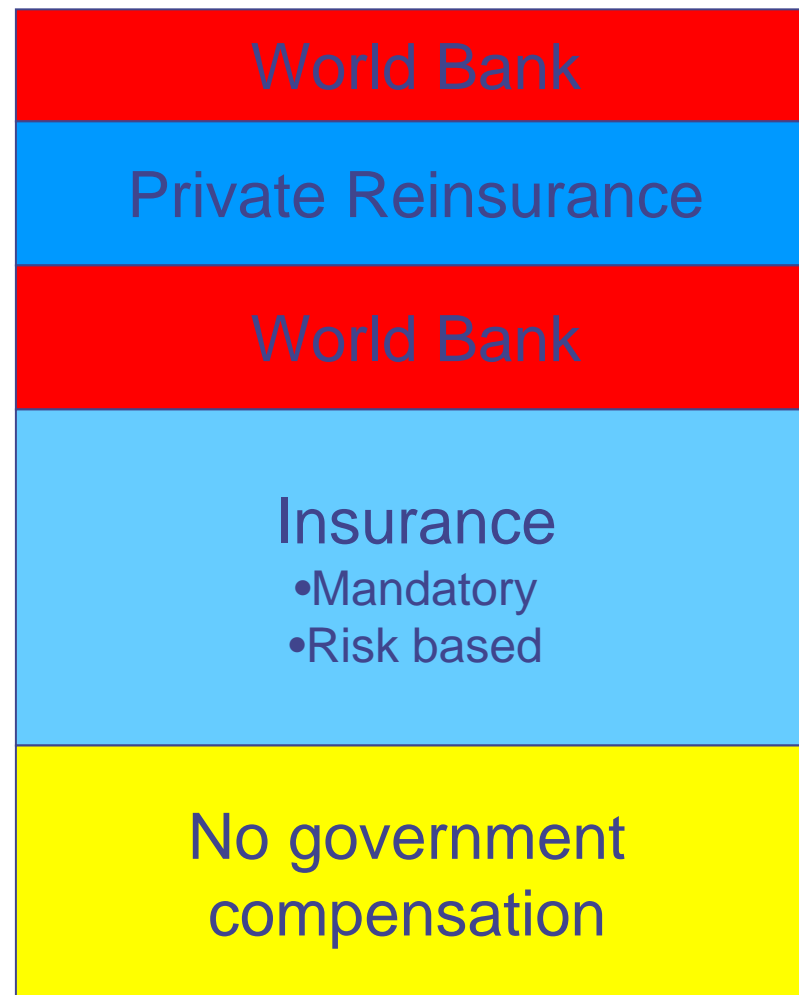
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Policy context



Turkish Catastrophe Insurance Pool



Mexican Government Risk Transfer



Catastrophe bond

- ◆ Successfully placed in the market in 2006
- ◆ Index based: linked to physical trigger
- ◆ Total of 160 million USD protection

Malawi weather insurance



- ◆ Greatly increases productivity
- ◆ Promoters claim it „moves away the big rocks – systemic drought risks – to development“
- ◆ Supported by WFP and WB

Payout if rainfall below pre-described level measured at local weather station (index)

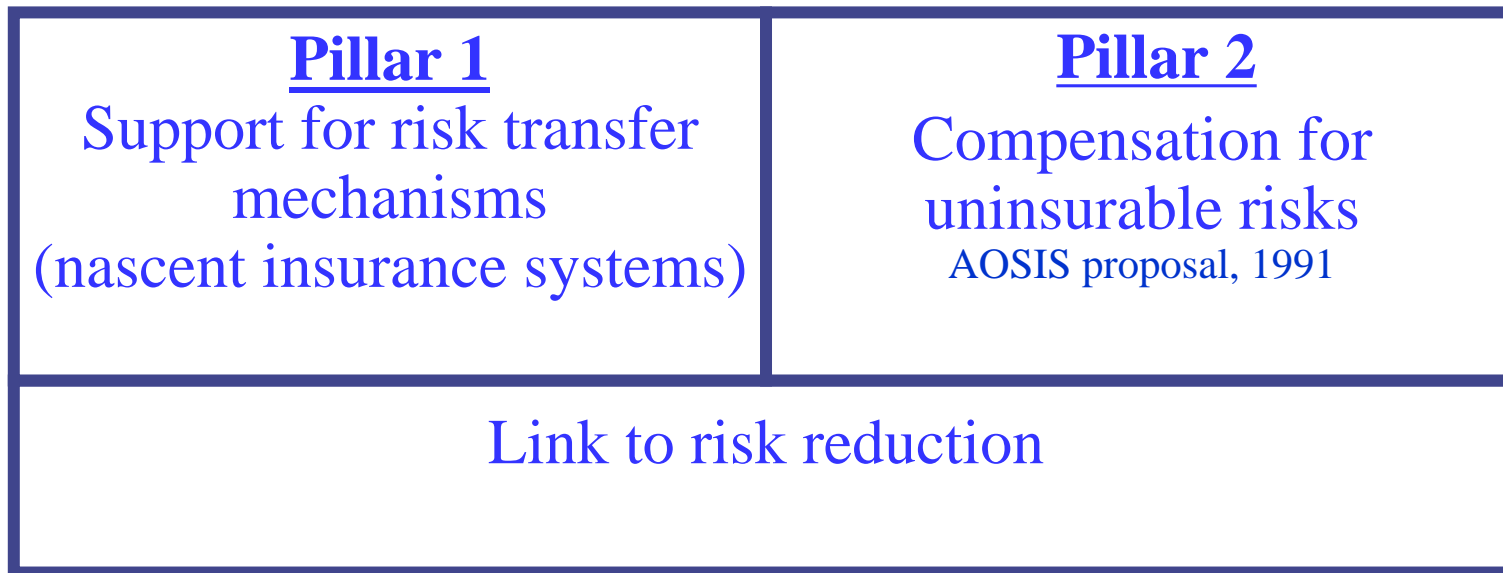
Avoids excessive transaction costs (and corruption) of traditional crop insurance

Enables farmers to access loan for hybrid seed



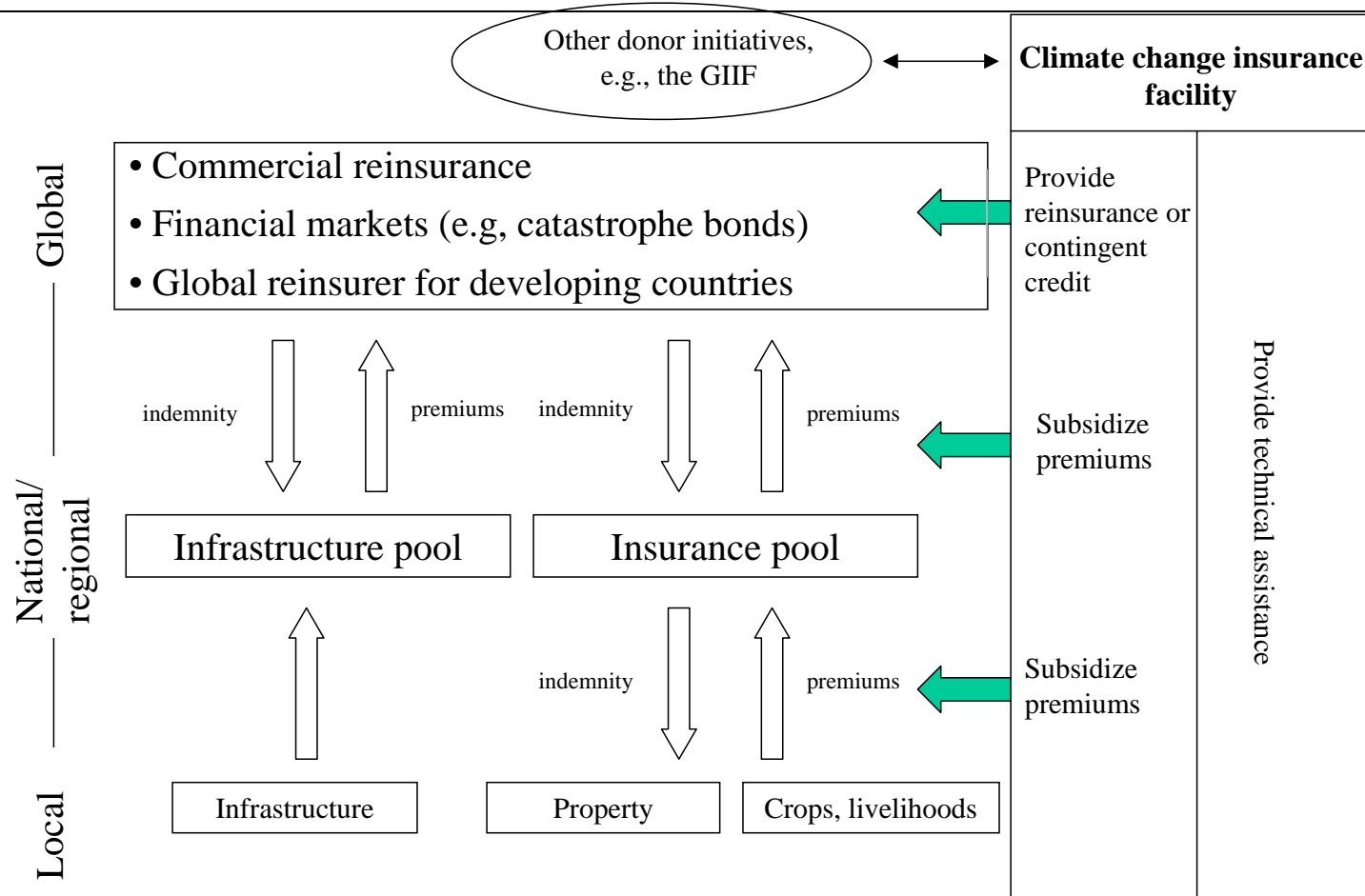
IIASA Proposal

Climate Insurance Facility





More details



Next steps

- ◆ Establish interest on the part of climate negotiators and development organizations
 - IIASA, Munich Re and GTZ organizing Sept. meeting (as part of MCII)
- ◆ Task Force on developing a multi-donor option for post-Kyoto negotiations
- ◆ Meeting planned for 2008 to reach consensus on negotiating options



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