

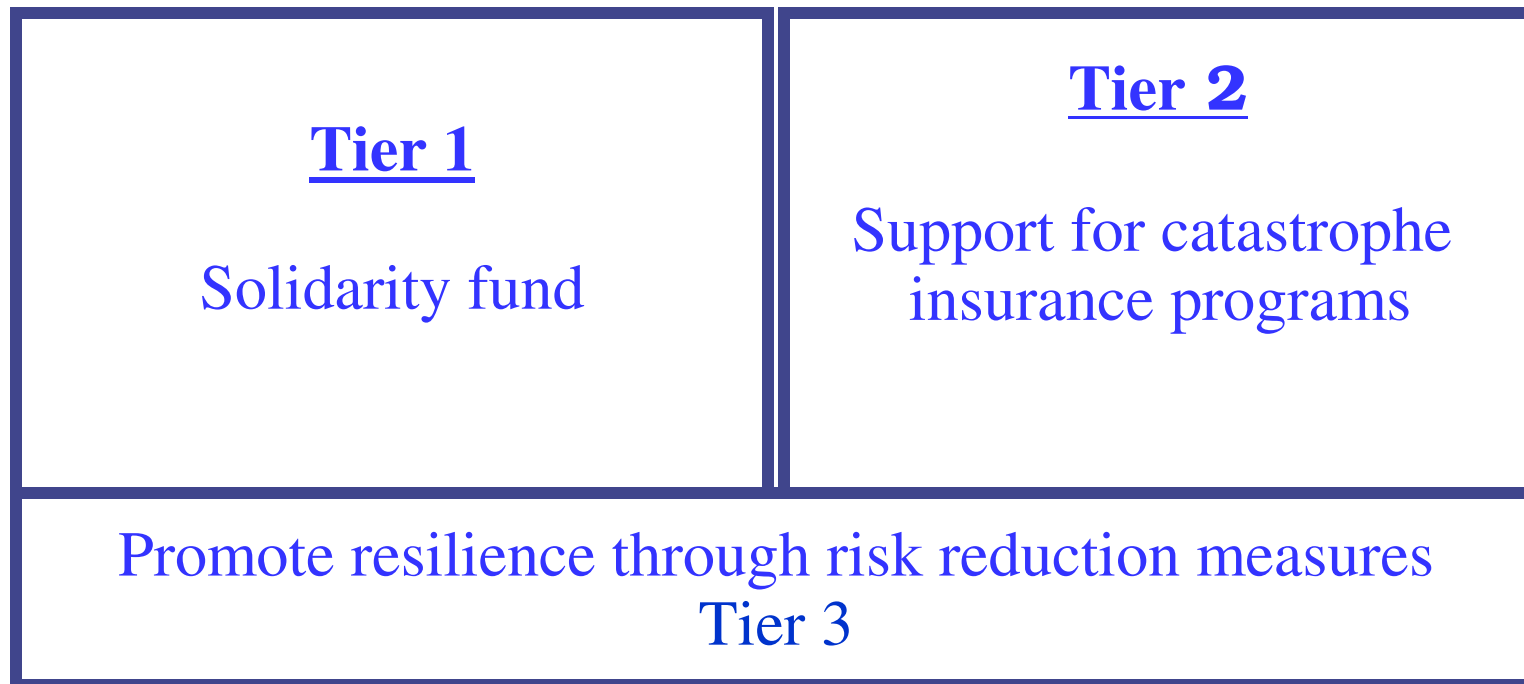
From micro-insurance to regional pooling schemes

Considerations for the Bali Roadmap

Joanne Linnerooth-Bayer and Reinhard Mechler
IIASA

**SB 28, Bonn
MCII Side Event, June 10,
2008**

Options for climate insurance in an adaptation strategy



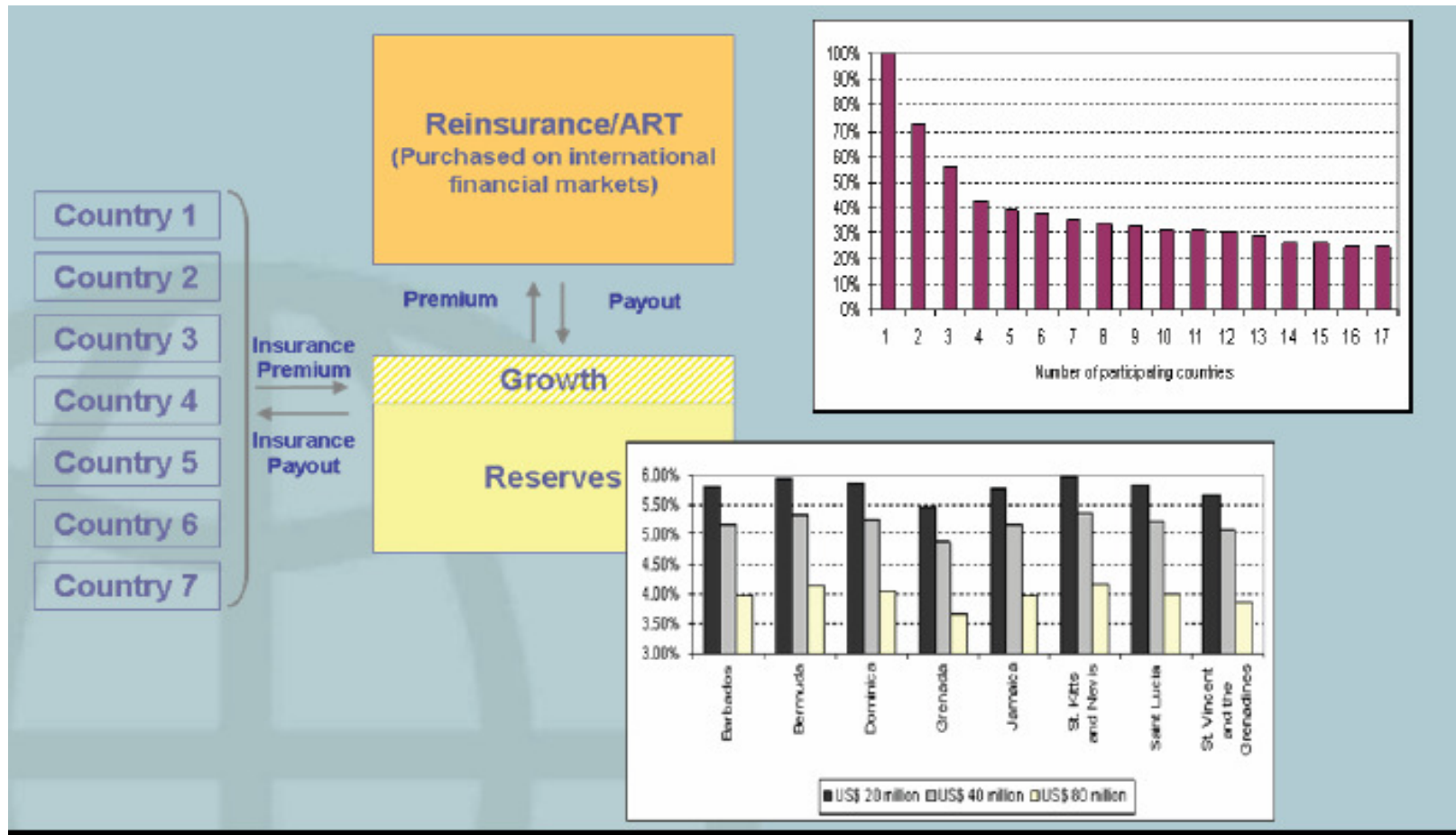
Two examples

- ◆ The Caribbean Catastrophic Risk Insurance Facility (CCRIF)
- ◆ The Malawi drought insurance scheme

Caribbean States Need for risk pooling

- ◆ High exposure to adverse natural events
- ◆ Limited capacity to spread risk
 - geographically due to their small size
 - over time due to high debt levels
- ◆ High dependence on donor support post disasters
- ◆ Limited access to insurance/reinsurance

Caribbean Catastrophic Risk Insurance Facility (CCRIF)



Malawi weather insurance



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

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



Costs & Benefits of insurance

Costs

- ◆ Expected losses + transaction costs + cost of holding capital or reinsurance

Benefits

- ◆ Provides timely post-disaster liquidity that can prevent loss of livelihoods and promote economic development – avoiding a poverty trap;
- ◆ Provides security for productive investment (also international investors).

IMPORTANT: Insurance most effective if embedded in a risk management strategy!

Scaling up?

- ◆ To serve more farmers by forming pools
 - Locally, need more weather stations
 - Nationally, can insurer cover co-variant risk?
 - Regionally, can we take advantage of negatively correlated risks (ENSO)?

- ◆ To offer greater cover
 - Can farmers afford?

Scaling up will require donor support!

Should governments and donors support these programs, and, if so, how?

- ❖ Argument 1: Outside support distorts risk price (and markets) and results in maladaptation; Should rather compensate persons directly.
- ❖ Argument 2: Direct compensation unlikely and price distortions less than with post-disaster aid; Donor support options should be chosen that are least price-distorting.

What forms of support distort prices the least?

- ◆ Direct subsidies are most price distorting, but one idea is to subsidize only the „mark up“ so agents confronted with $\text{price} = \text{expected loss}$;
- ◆ Provide technical assistance and other support to cover start up costs, e.g., weather stations;
- ◆ Provide opportunities for pooling programs and/or reinsurance, eg. the Caribbean pool.

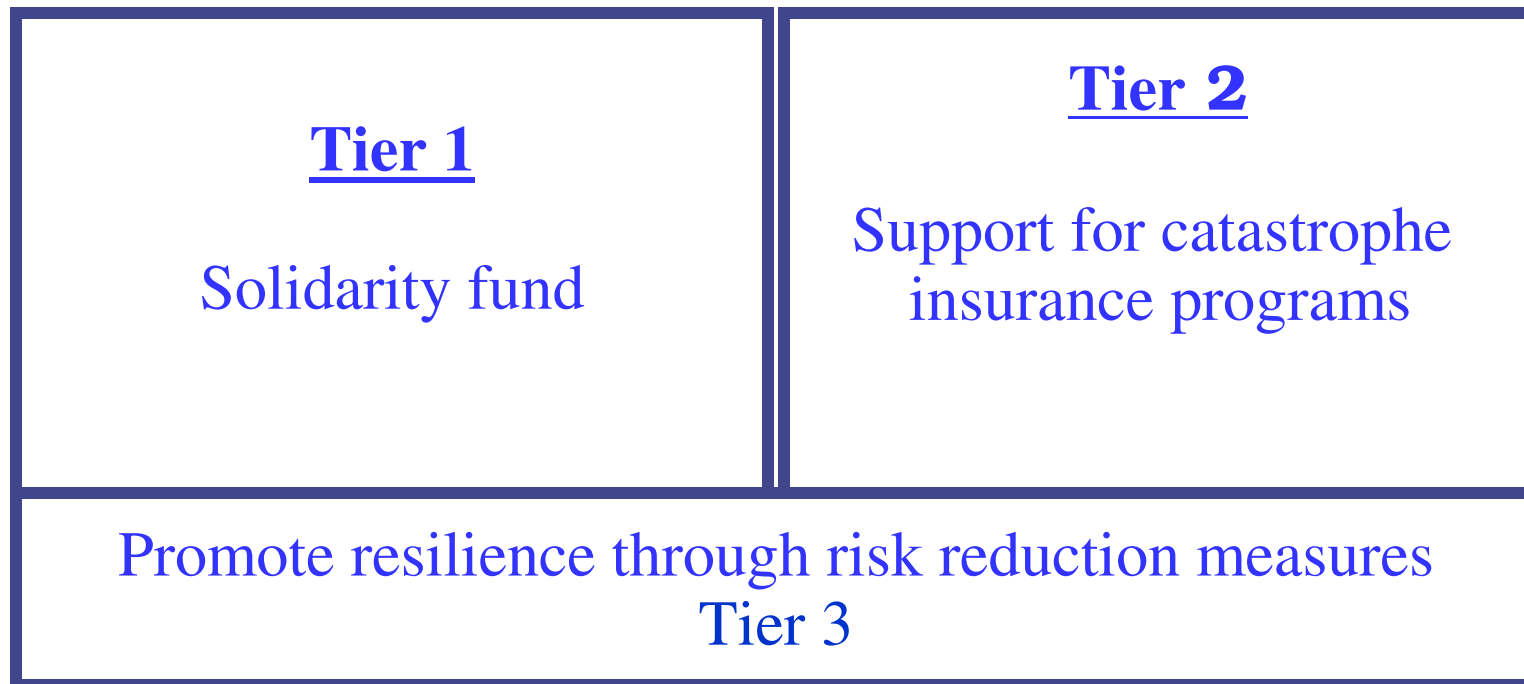
Should climate insurance play a role in an adaptation regime, and, if so, what are the options?

Agreement: Obligation of the North to support adaptation;
(Bali Action Plan specifically calls for “consideration of risk sharing and transfer mechanisms, such as insurance” as a means to address loss and damage in developing countries particularly vulnerable to climate change)

Our argument: In many contexts donor-supported insurance can be an effective instrument for adaptation.

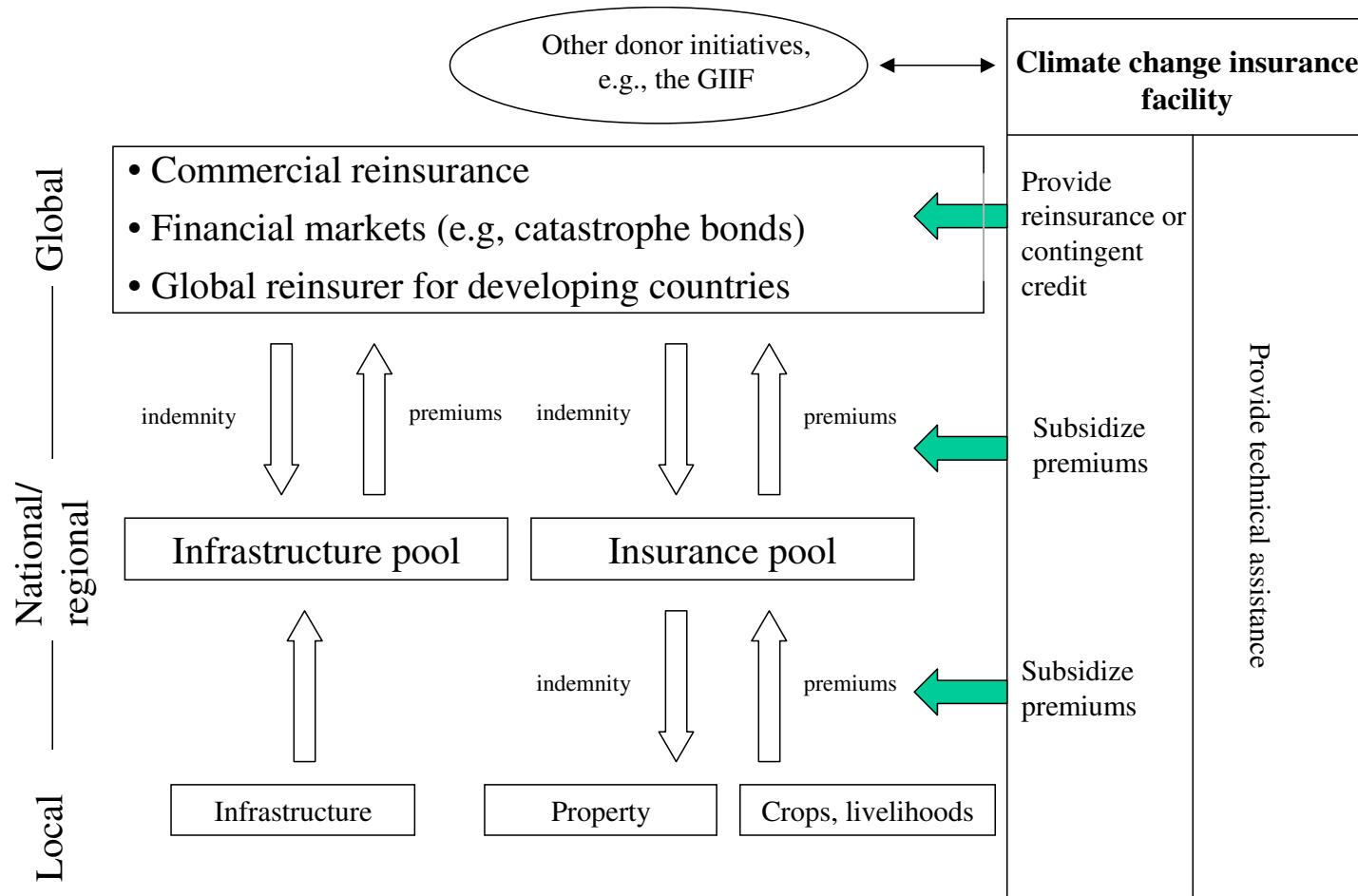
- Benefits exceed costs for agents, esp. with donor support;
- Can design systems with incentives for risk reduction;
- Options for incentive compatible donor support.

Options for climate insurance in an adaptation strategy





Option 2: Regional climate insurance facility?





[**www.iiasa.ac.at**](http://www.iiasa.ac.at)