

Insurance as part of a Climate Adaptation Strategy

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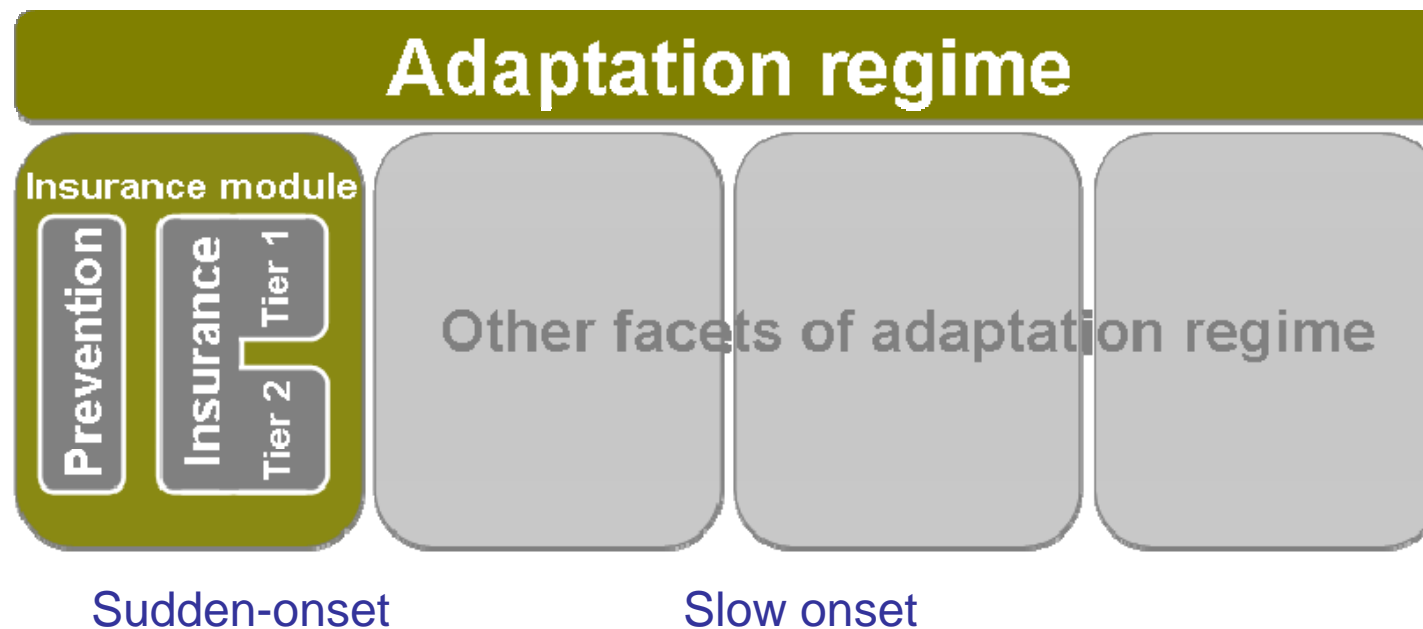
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*Scientific Challenges in Implementing Integrated Disaster Risk Management (IDRiM)
in a Changing World*

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What role might insurance instruments play in a climate-adaptation regime?

The UNFCCC Bali Action Plan calls for 'consideration of risk sharing and transfer mechanisms, such as insurance' as a means to address losses in developing countries particularly vulnerable to climate change.



Sets of questions negotiators are asking

I. Relation of Insurance, disaster risk management and climate change?

II. Scope for outside support in a climate insurance program?

III. Costs?

IV. Conclusions: what role for insurance in a post-Kyoto protocol?

Questions negotiators are asking

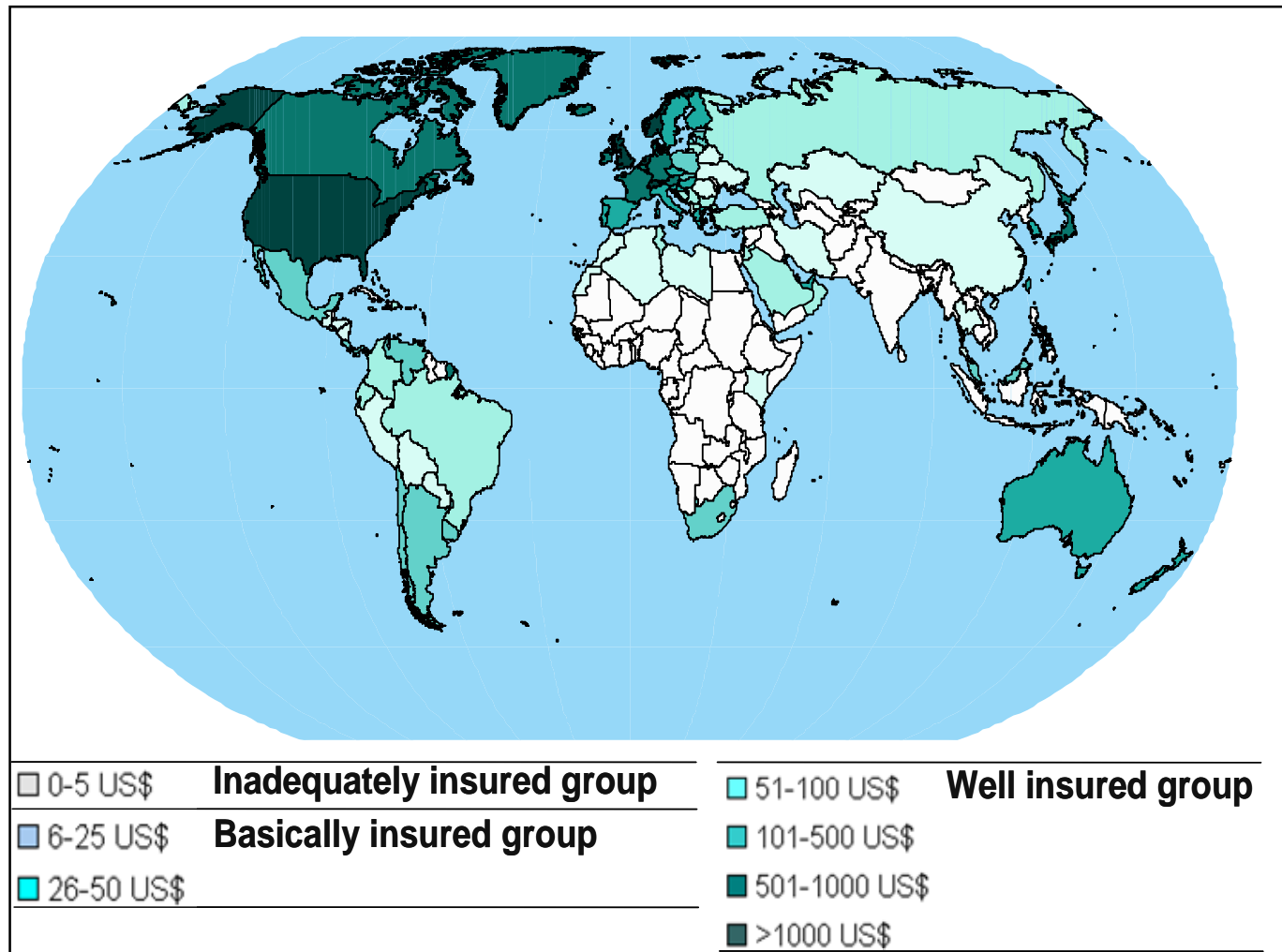
I. Insurance, disaster risk management and climate change

- How are developing countries affected by weather variability and extremes, and to what extent are the risks attributable to climate change?
- When is it advisable for low-income households, SMEs and governments to insure against weather-related risks?
- What is experience with insurance in developing countries?
- Can weather insurance be designed in a way that contributes to adaptation instead of maladaptation?

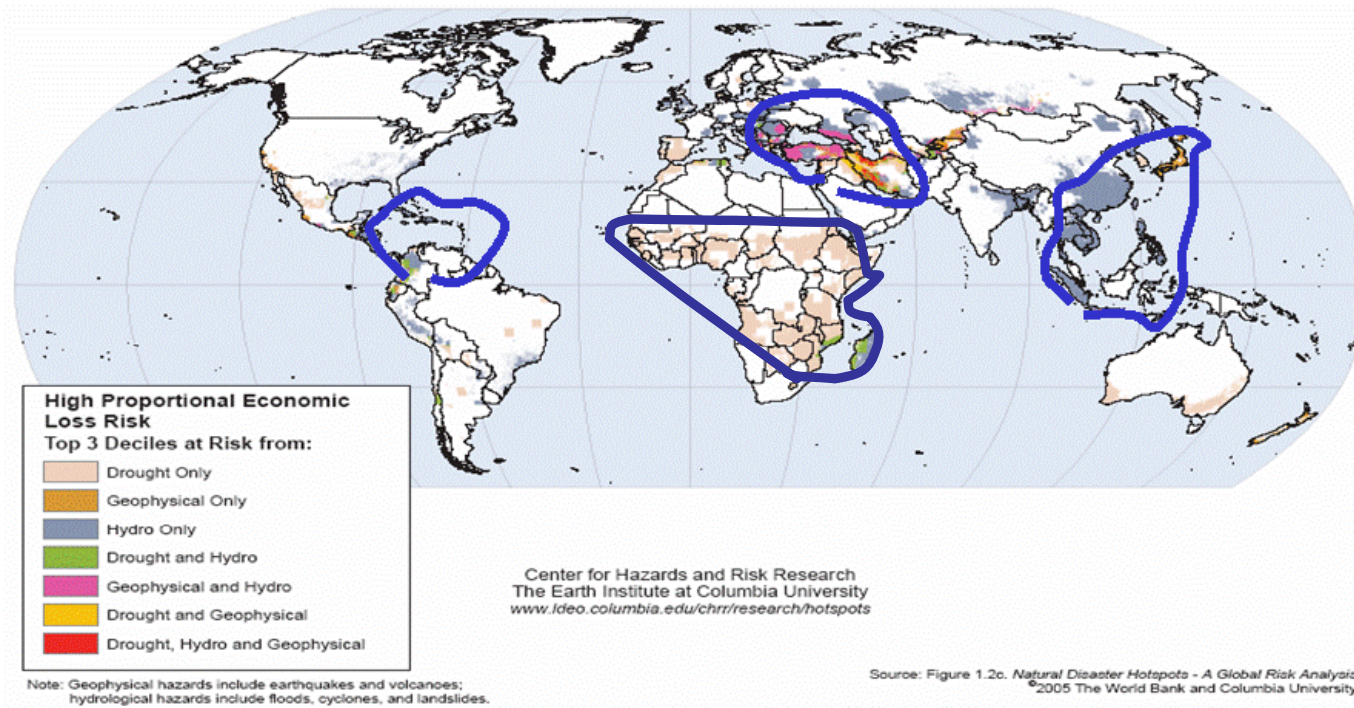
Disasters, developing countries, climate change

- Disasters with significant, disproportionate and rising human and economic losses on the developing world
- Evidence mounting that human-induced climate change is contributing to increased weather variability and extremes
- Risk-financing instruments are starting to provide security against natural disaster losses in the developing world.
- Alternative to post-disaster aid, donor-supported micro and macro insurance instruments can offer a more reliable safety net for the poor and a chance for donors to leverage limited disaster assistance budgets.

Disaster insurance density



“Hotspots”



Post vs. pre disaster assistance arrangements

Type of risk	Loss of assets -households/businesses-	Loss of crops/livestock – farms-	Relief and reconstruction Expenditure - governments-
<i>Post-disaster (ex post)</i>	emergency loans; money lenders; public assistance	sale of productive assets, food aid	diversions; loans from IFIs
<i>Pre-disaster (ex ante)</i>			
Non-market	kinship arrangements	voluntary mutual arrangements	budget item
Inter-temporal	micro-savings	food storage	catastrophe reserve funds, contingent credit
Market-based risk transfer	property and life insurance	crop and livestock insurance	Insurance or catastrophe bonds

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Risk financing
"Insurance"

Recent risk transfer experiences in dev'g countries

- Micro: Malawi and crop insurance bundled with credit (drought)
- Macro: Ethiopia and relief insurance for WFP (drought)
- Regional example: CCRIF and relief insurance pool (Hurricane, EQ)

Recent risk transfer experiences in dev'g countries

- Exist at **all scales** (serving low-income households, farmers, governments, international organizations);
- Most are in the **pilot stage**; yet, some are demonstrating potential for protecting individuals and governments against weather shocks in many different contexts.
- All receive **support** from governments, donors, IFISs, NGOs (technical assistance, product delivery, premium subsidy, reinsurance);
- **Private insurers** have important role (usually in partnership) in underwriting, product delivery and/or providing reinsurance;
- **Index-based** systems appear most promising (lower transaction costs and absence of moral hazard);
- **For scaling up** many current systems external involvement needed for supporting institutions, building risk culture, paying/subsidizing premiums;

Micro example

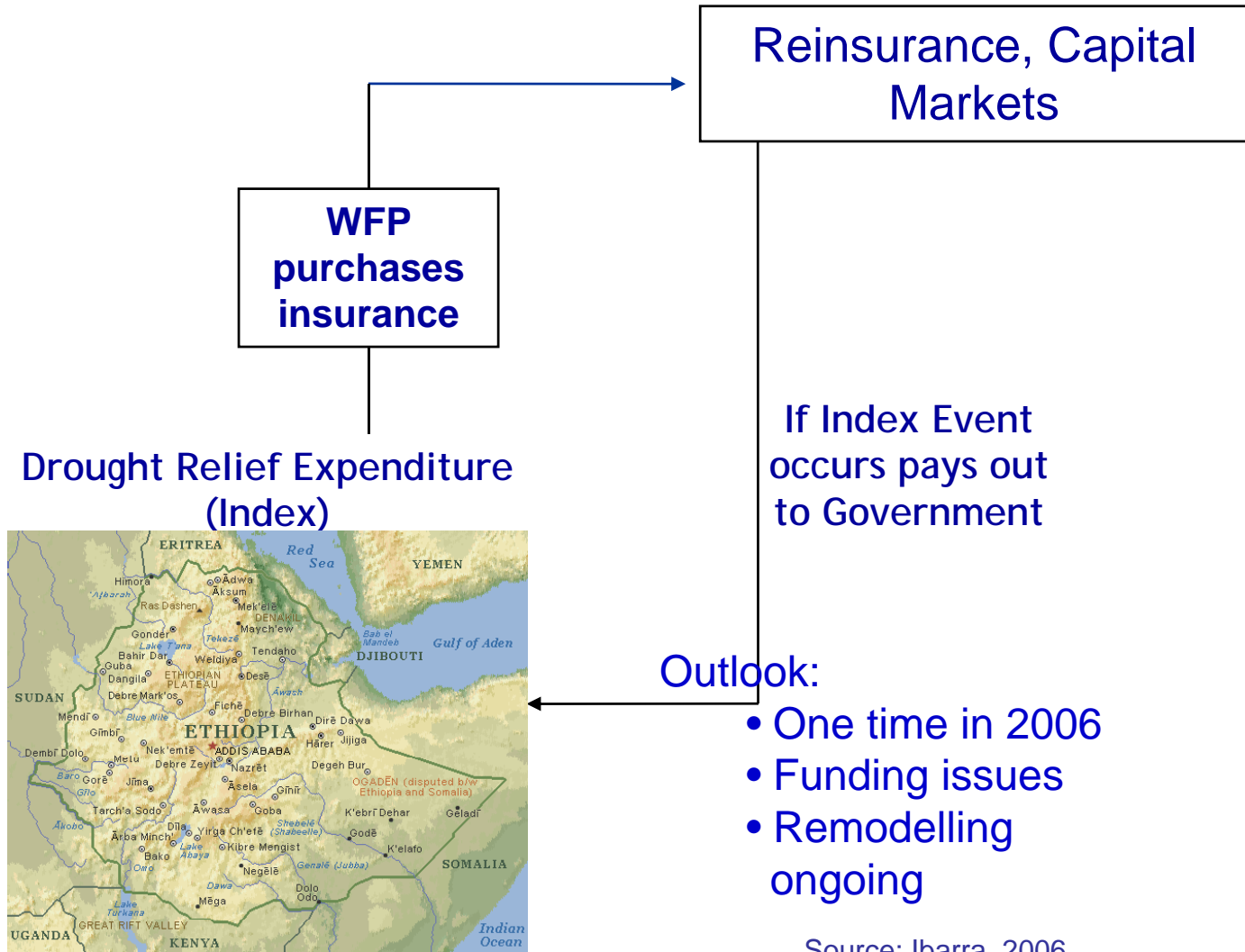
Malawi and crop insurance bundled with credit

- Area of chronic food insecurity worsened by drought
- Bundled credit and micro-insurance product:
 - Index (“parametric”) insurance for rainfall deficiency
 - Protection allows for riskier credit
 - Public-private partnership of donors, smallholder association, insurance broker, NGO, rural development bank and insurer
- Enables farmers access to credit and thus more productive seeds
- Robustness likely to be challenged by projected climate change



Macro example

Ethiopia and drought relief insurance for WFP



Regional example CCRIF and relief insurance pool



- Caribbean Catastrophe Risk Insurance Facility (CCRIF)
- **Regional pool** covering **government** post-disaster expenditure needs in 16 countries
- Index (“parametric”) for hurricanes and earthquakes
- Donor supported: backup capital by WB et al.

Insurance, risk management and adaptation

- **Compensating losses** in exchange for a premium payment *after* events
- Insurance leads to **reduced financial vulnerability** *before* events
- **Price signal** built into insurance premiums may provide incentives for better adaptation to climate variability and change
- From **bad** to **good** risks: in Malawi insurance has enabled farmers to plant riskier but higher yield crop varieties
- Insurance may promote **adaptation**, but also **mal-adaptation**

Questions negotiators are asking

I. Insurance, disaster risk management and climate change

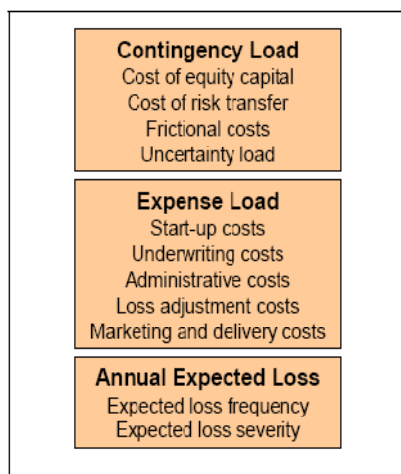
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II. Outside support in a climate insurance program

- Which principles should guide outside support for climate insurance programs?

Which principles should guide outside support for insurance programs?

- Outside support, especially premium subsidies, has a propensity to distort price signals, promote maladaptation and crowd out private insurance initiatives; yet, we argue that the market fails to provide correct signals in many contexts, namely
 - Very infrequent, high loss events (myopia, lack of capitalization,...)
 - High risk ambiguity: a market failure?
 - “Loads” can be very high on catastrophe cover. Is it “fair/efficient” to pass these loads on to the poor?

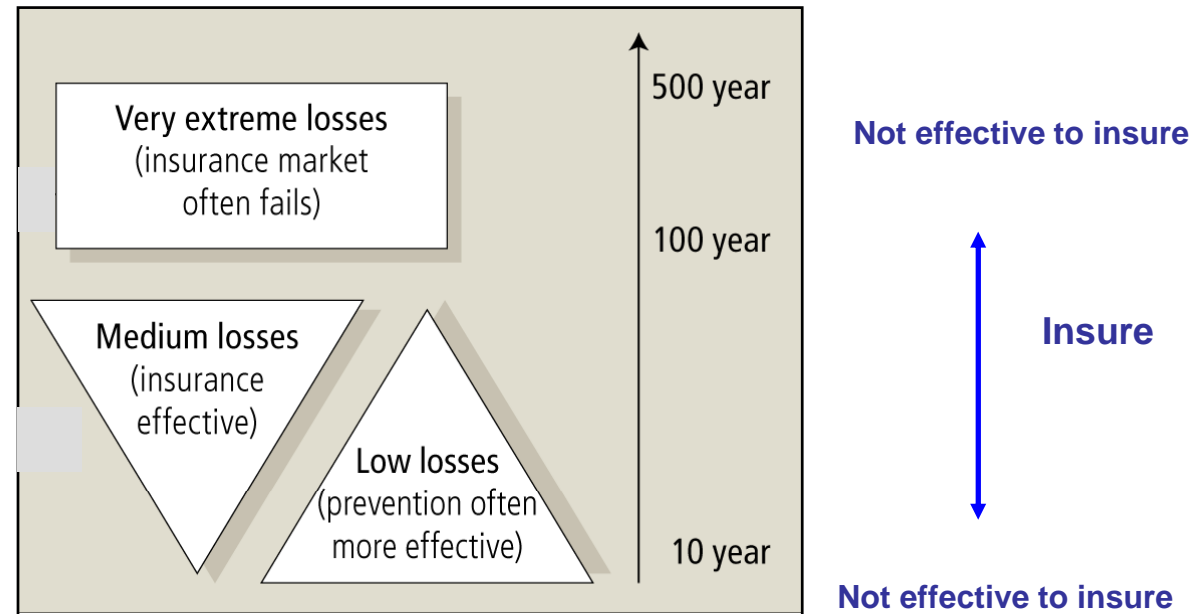


Source: Cummins and Mahul, 2008.

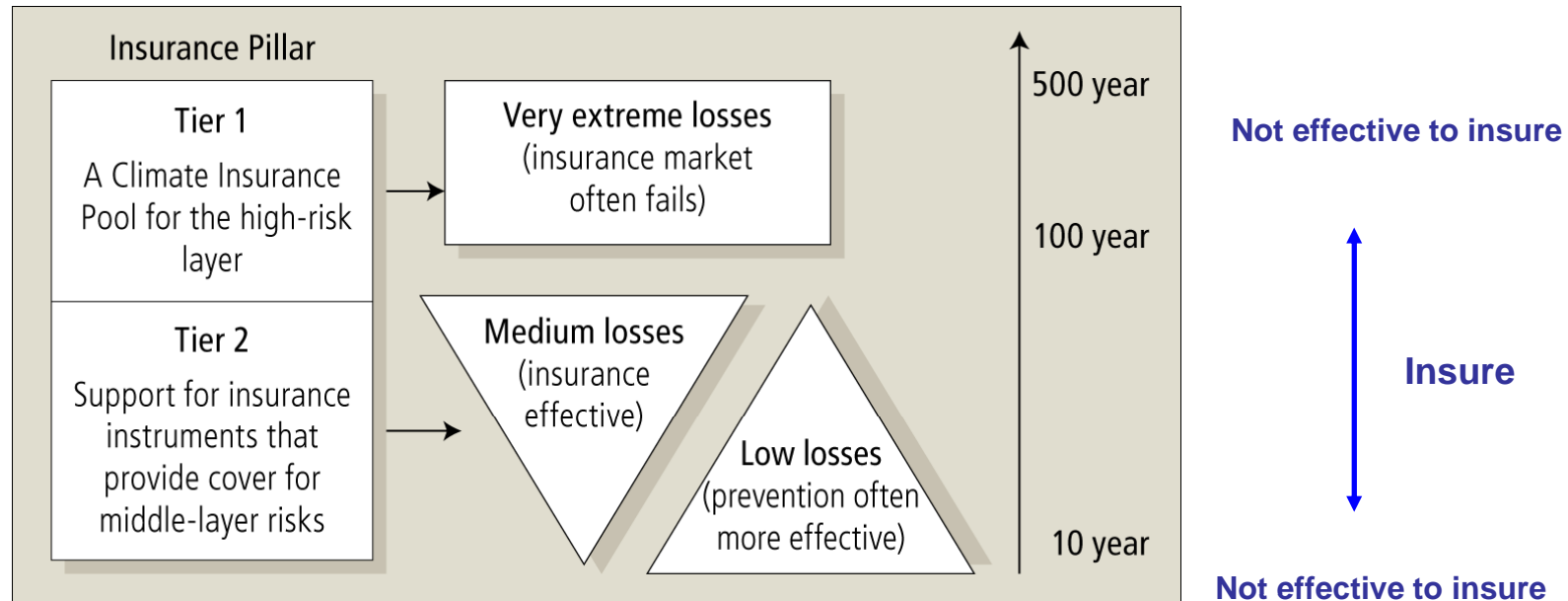
Support justified for most vulnerable

- To absorb loads
- To absorb very high-layer risks
- To absorb start-up costs
- To foster development (*ex-post* aid is in the system already, and may lead to *moral hazard*)

Which events to insure: layer principle



Supporting Climate Adaptation: MCII proposal

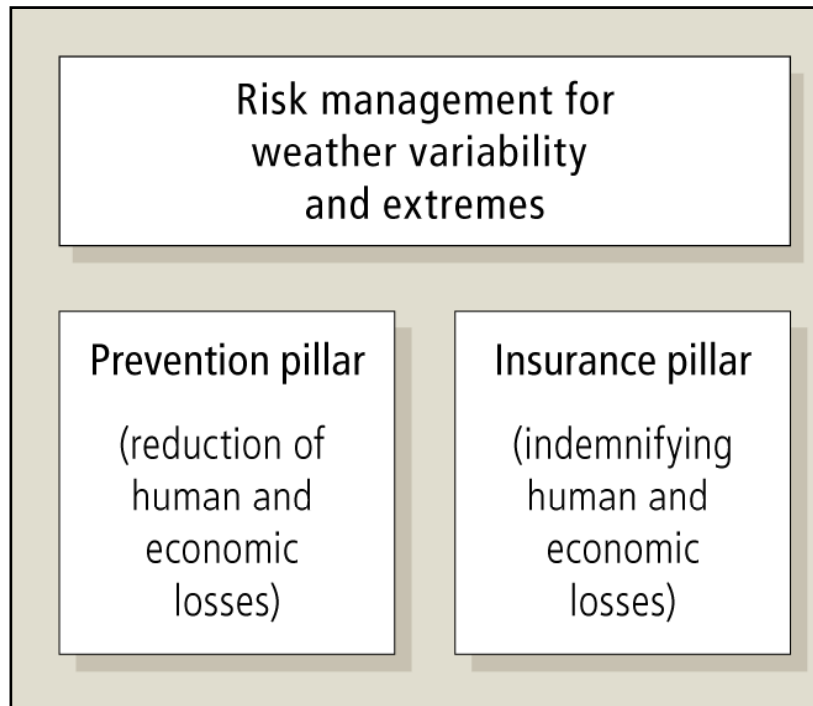


Tier 1: Compensation mechanism in form of a pool

Tier 2: Support for nascent insurance schemes

Munich Climate Insurance Initiative (MCII) proposal

Sudden onset



MCII proposed risk management module as to be supported by adaptation funding

- **Prevention pillar**
→ **develop credible risk management approach**
- **Insurance pillar**
→ **Support insurance**

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→ Stefan Hochrainer

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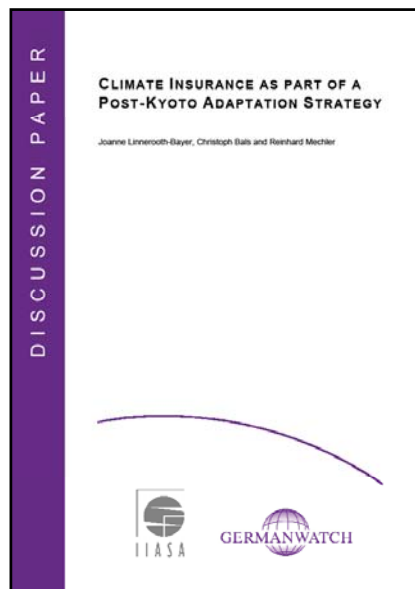
IV. Role for insurance in a post-Kyoto protocol

- What role might insurance instruments play in a climate-adaptation regime?

Role of insurance in negotiations

- Insurance mechanisms have a promising and legitimate role in an adaptation regime; and
- Practical options exist for including insurance mechanisms in the post-Kyoto adaptation strategy
- Tier 1 and 2: compensation and insurance
- Status
 - Plenary presentation of MCII proposal at COP 14
 - Special report by UNFCCC
 - Ideas being taken up by negotiators, e.g. Swiss government
 - Mentioned 75 times in Copenhagen negotiations text

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<http://www.iiasa.ac.at/Admin/PUB/policy-briefs/pb04.html>