Overview
Insurance-related actions in the context of adverse effects of climate change

Joanne Linnerooth-Bayer
IIASA
M.J. Mace
Field
Roda Verheyen
University of Hamburg

Insurance-Related Actions and Risk Assessment in the Context of the UN FCCC

- Background
- The challenge
- Risk analysis for insuring extreme weather events
- Risk transfer, collective loss sharing and public-private partnerships
- International legal responses to risk and approaches to insurance
- Opportunities, challenges and possible partners

Key Issues (case studies?)

How do (can) countries (individuals, businesses, governments) cope with the large unanticipated financial losses from disasters? (Prevention, reconstruction and loss sharing)

What is (can be) the role of insurance-related financial instruments?

What is (can be) the role of the international community?

Disaster risk management

<u>Pre-disaster</u>
- Risk assessment
- Prevention
- Emergency planning
- Financial planning

<u>Post-disaster</u>
- Emergency response
- Victim relief
- Reconstruction

Insurance-related instruments: Risk transfer and collective loss sharing

Risk Transfer: Contractual hedging instrument generally paid for by persons, enterprises or governments at risk, e.g., insurance, cat bonds. Governments, international bodies can subsidize risk-transfer systems, e.g, World Bank support of Turkish system.

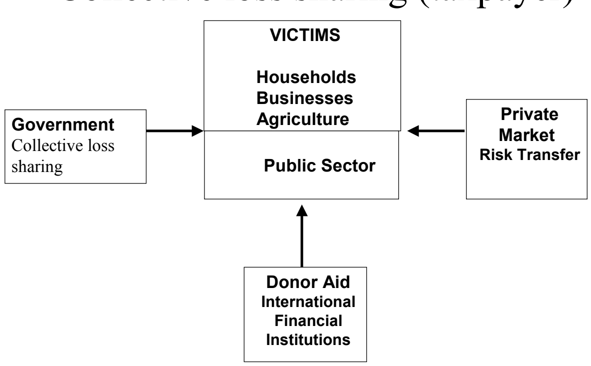
Insurance-related instruments: Risk transfer and collective loss sharing

Collective loss sharing: Non-contractual arrangement for sharing losses after a disaster. A pre-disaster instrument, e.g. fund, may be put into place. The collective can be

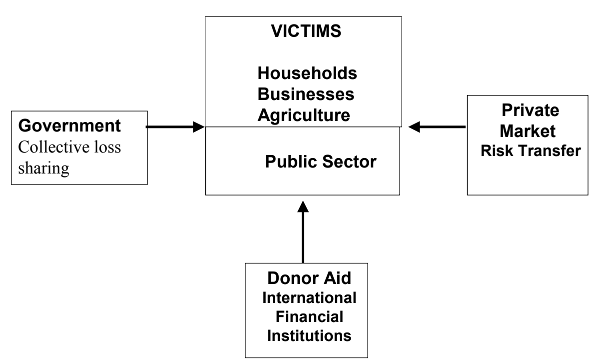
- *Taxpayers (governments) e.g, Fondem calamity fund*
- *The international community, e.g, AOSIS proposal*
- *Parties or enterprises imposing risks, e.g, nuclear power liability regime, oil pollution regime*

The collective can transfer its risk though insurance or other risk-transfer instruments, eg nuclear power operator insurance

Collective loss sharing (taxpayer)

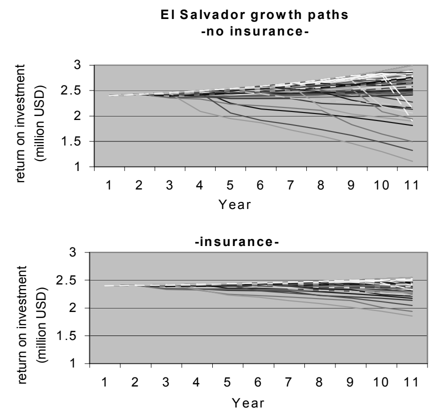


Should governments consider risk transfer?



Risk transfer for governments

- By ensuring that sufficient liquidity exists after a disaster, risk transfer can help to speed economic recovery, higher economic growth
- Pro-active
- Shift from post-disaster charity to planning
- Cost



Government financing alternatives

Post-disaster

- Borrowing (domestic and international)
- Budget diversions
- Taxes
- Donor aid
- Loan diversions

Pre-disaster

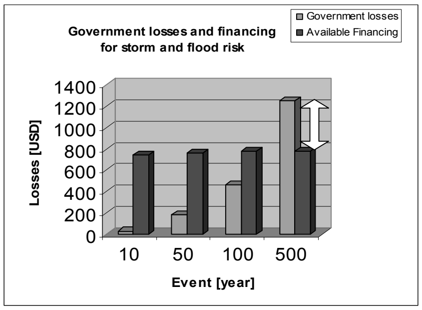
- Catastrophe fund
- Risk transfer
  - Insurance, cat bonds
- (Prevention)

Poor countries have difficulty with post-disaster financing

- Credit ratings worsen
- Diversions limited
- Citizens taxed to limit
- Therefore, dependent on international loans and donations

Honduras financing gap

(Mechler and Pflug, 2003)



Opportunity for the international community

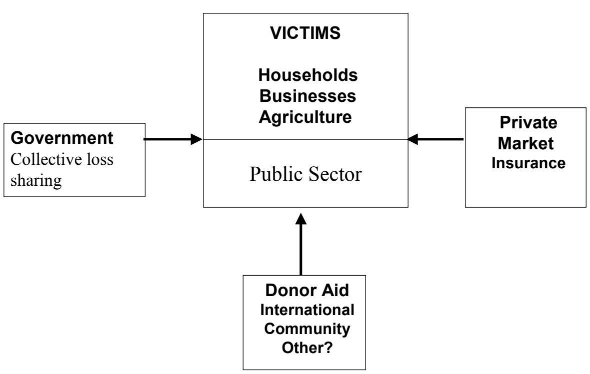
Provide pre-disaster support to developing country governments

- Contingent credit
- Subsidize risk transfer

Tie this to prevention.

(may also be private market opportunities to provide support)

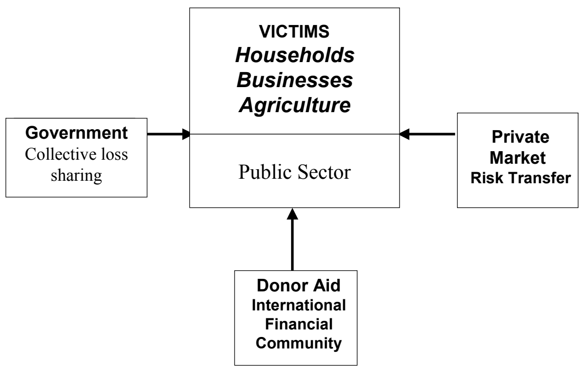
Turning to private sector insurance



Private sector insurance

- Demand: too expensive for households, businesses (Possible exceptions: micro-insurance; weather hedges)
- Supply: insurers increasingly reluctant to offer cat insurance
- Problem: Governments cannot absorb large liabilities that occur in the absence of private insurance

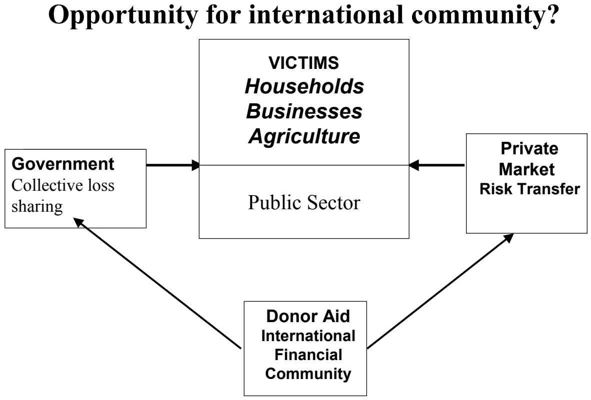
Public private partnerships



National Insurance Schemes

US National Flood Insurance Program (NFIP)	French National Insurance System	Turkish Catastrophe Insurance Fund (TCIF)
Credit from U.S. Treasury (no taxpayer support)	Taxpayer Support	World Bank
	CCR Public Reinsurance	Private Reinsurance
		World Bank
Public Insurance • Voluntary • Risk-based premiums • Community must qualify	Private Insurance • All hazards policy bundled • Flat rate premiums	Government Fund •Mandatory •Risk-based premiums

Opportunity for international community?



Opportunity for the international community

Provide support to public-private systems

- Financing of reinsurance premium
- Contingent capital

Insurance-related instruments: Risk transfer and collective loss sharing

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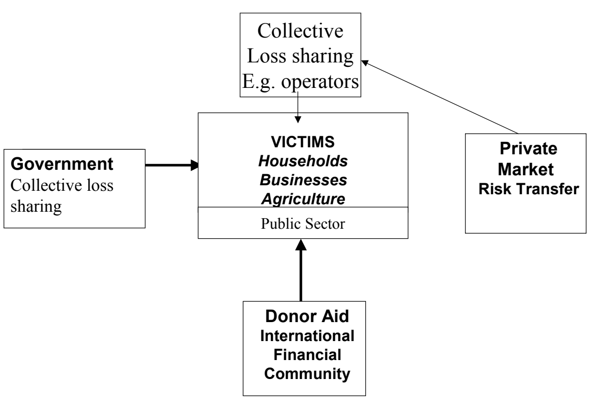
International Civil Regimes

Tier	Source of Funds		
III		*Proposed EU Fund (EU cargo interests)*	Joint State Funds (Int'l solidarity pool)
II		International cargo interests	Installation State Taxpayers
I	Operator Insurance	Operator Insurance Mutual (P&I Clubs)	Operator Insurance (national insurance pools)
Regime	**Hazardous Substance Transport**	**Marine Transport CLC/HNS**	**Nuclear**

Legal regimes for disaster loss sharing



Opportunities for the international community

- Supporting data collection and building analytical capacity
- Supporting collective loss sharing
- Supporting public-sector risk transfer
- Supporting new risk hedging instruments
- Supporting micro insurance
- Supporting public-private systems

Challenges

- How to adapt burden-sharing precedents to the climate change process?
- How to link burden-sharing arrangements to vulnerability reduction?
- What kinds of institutional arrangements?
- How to tailor insurance-related systems to individual country needs?

		Index
Probability	XL Rate	Rate/Prob.
15.0%	17.0%	1.1
5.3%	8.3%	1.6
3.5%	6.6%	1.9
2.5%	5.8%	2.3
1.5%	4.9%	3.3
1.2%	4.2%	3.5
0.8%	3.9%	5.2
0.7%	3.8%	5.4
0.4%	3.5%	10.0
0.2%	3.4%	18.9