Climate Change, SIDS and Insurance

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Issues for further consideration (c)

Is insurance the most suitable mechanism for risk transfer?

What needs to be done first in order for insurance schemes to be successful (e.g. comprehensive risk assessment)?

Need for insurance

"Well-functioning insurance markets share risk across individuals, regions, and countries, reducing the welfare effects of negative shocks of all types, whether climate-related or not. Risk-based insurance schemes can also reduce the costs of climate change by encouraging good risk-management behaviours" Stern review

- Pool risk between parties and over time
- Immediate access to predictable level of funds for disaster relief
- Incentives risk management
- Expertise in disaster mitigation and post disaster recovery
- Providing information through its measurement and pricing of climate risks

Limits of insurance for SIDS

- Expensive:
  You have to pay for risk transfer
  Volatility loading
  Expenses
  Profits
- Insurers pull-out in bad times
- Cultural constraints and unpopular
- Cyclical
- Lack of economy of scale
- Un-insureability
- Moral hazard
- Lack access

Risks to SIDS

Acute	**Chronic**
Wind storm	Sea-level rise
Storm surge	Change precipitation
Drought	Temperature rise
Flood	Change in acidity of oceans

Jamaica – Average annual cost of cyclone damage

Scenario	Total cost ($m)	Total cost (%GDP)	Cost in excess of BAU ($m)	Excess (% GDP)
Optimistic	103	1%	-	
Best estimate	210	2%	107	1%
Pessimistic	599	7%	496	6%

- Optimistic: Large catastrophes are 1 in 50 year events and smaller catastrophes are 1 in 7 year events
- Best estimate: Large catastrophes are 1 in 25 year events and smaller catastrophes are 1 in 3 year events
- Pessimistic scenario: Large catastrophes become 1 in 12 year events and small catastrophes become 1 in 2 year events, super large events, costing 100% GDP, which occur 1 in 50 years.

Types of insurance – requirements

Requirement	Presently available	Need
Poor/vulnerable citizens	Limited micro-insurance	Extend micro-insurance
Private citizens & local companies	Insurance: extensive Caribbean, limited elsewhere	Develop insurance industry Back-up fund
Post-disaster liquidity	Relief agencies	CCRIF
Post-disaster recovery	IMF & donor organisations	
Infrastructure		

Types of insurance

Parametric

- Parametric or alternative risk transfer mechanisms (ART) provide payouts based on a pre-defined event occurring
- Weather derivatives; if temperature is greater than trigger amount in time period, pay-out of X is made
- Catastrophe (cat) bond: Capital is kept if certain event occurs (e.g. earthquake in California. Usually 3-5 years

Traditional

- General insurance provides payments depending on the loss from a particular financial event
- Insurer charges premiums based on expected loss, volatility, expenses, profit margin and cost of capital

Types of insurance – advantages and disadvantages

Parametric	Traditional
•Pay-out is immediate	•Pay-outs can be slow and contentious
•Low admin costs: risk assessment is relatively easy	•Risk assessment problematic
•Might not match loss	•Pay-out matches loss
•No incentives	•Moral hazards
•No risk management	•Insure provide incentives
•No post-disaster involvement	•Insurer provide expertise

Caribbean Catastrophe Risk Insurance Facility (CCRIF)

- This is a new captive fund set up by the World Bank and with current participation of 8 Caribbean countries plus Bermuda
- Provides post-disaster liquidity
- Parametric pay-out occurs if an event exceeds a pre-defined the trigger level, for example wind-speeds in excess of a speed.
- Differences between islands are dealt with by setting a common probability of breaching the threshold
- Reinsurance is put in place with an aim of target default of the scheme of less than 1 in 250

CCRIF – *challenges*

- Limited ambitions – likely to get off ground
- Parametric so immediate pay-out
- Captive so no profit loading and politically more sustainable
- Low admin costs
- High concentration of risk: limited risk pooling
- Reinsurance and cat bonds expensive due to proximity to Florida
- Integration with local insurers
- Commitment from governments

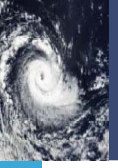
Proposal: extend to all SIDS (& other LDCs)

Micro-insurance

- Normal insurance with multiple policyholders under each policy
- Partnership between NGO and large insurer
- Provides funding for risk mitigation
- Must be combined with education
- Existing models work (e.g. Basix in India and Hurricane-resistant home improvement program in St Lucia)
- Insurance companies enthusiastic

BUT

- Lack of economies of scale
- Insurers like potentially large markets
- What happens in catastrophe?



Conclusions

- Chronic risks cannot be insured: adaptation is only strategy
- A mixture of private, public-private and public risk pooling mechanisms can provide adaptation benefits
- CCRIF is promising initiative but needs to be expanded especially geographically
- Standard SIDS micro-insurance product should be developed
- Facilitate private market
- BUT: insurance can only be at best a partial solution (less than 40% coverage in OECD)
- Threat of un-insurability