

# Challenges and opportunities in applying financial instruments to loss and damage

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IIASA, International Institute for Applied Systems Analysis

### **Guiding questions**

- How are financial measures linked to Loss and Damage?
- Which types of instruments have been used for different levels, e.g. local/community, national and regional?
- What can be said about best practice?
- What are gaps and how might existing financial instruments be combined to complement each other?

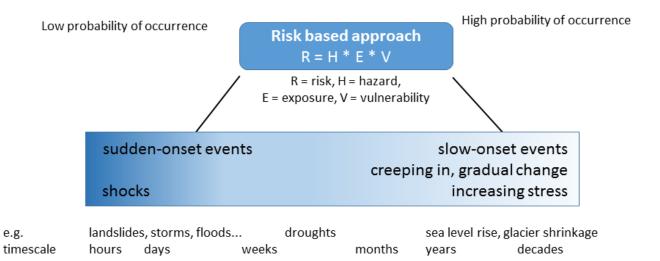


### What are the risks we are talking about and what set of measures can be used?

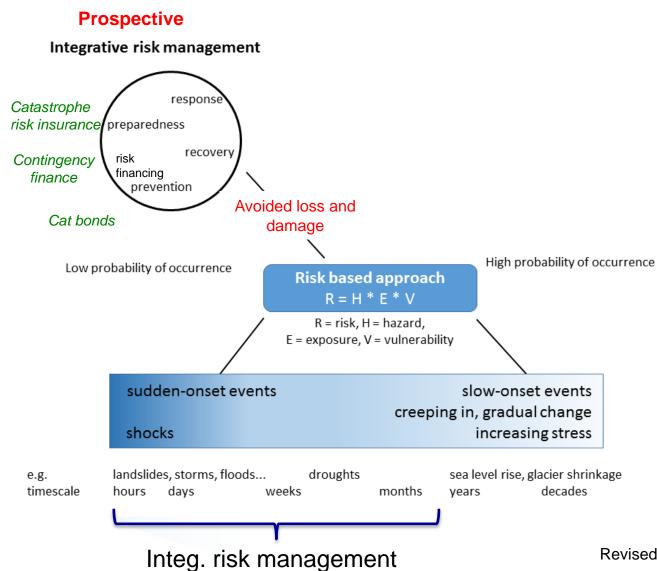
			_
Avoided	Unavoided	Unavoidable	]
Avoidable damage avoided	Avoidable damage and loss	Unavoidable damage	
_	not avoided	and loss	Source: Verheyen, 2008
→ Damage prevented through mitigation and/or adaptation measures.	→ Where the avoidance of further damage was possible through adequate mitigation and/or adaptation, but where adaptation measures were not implemented due to financial or technical constraints.	→ Damage that could not be avoided through mitigation and/or adaptation measures; e.g., coral bleaching, sea level rise, damage due to extreme events where no adaptation efforts would have helped prevent the physical damage.	
<b>Prospective measures</b>	Curative	measures	
Avoiding risks ex-ante	Dealing with u	unavoided and	
through comprehensive	unavoidable impacts <i>ex-post</i>		
disaster risk		ilpacis ex-posi	
			Mechler and Schinko, 2016
management incl. risk			
financing (insurance			

 etc.)

#### Types of climate-related risks to be covered



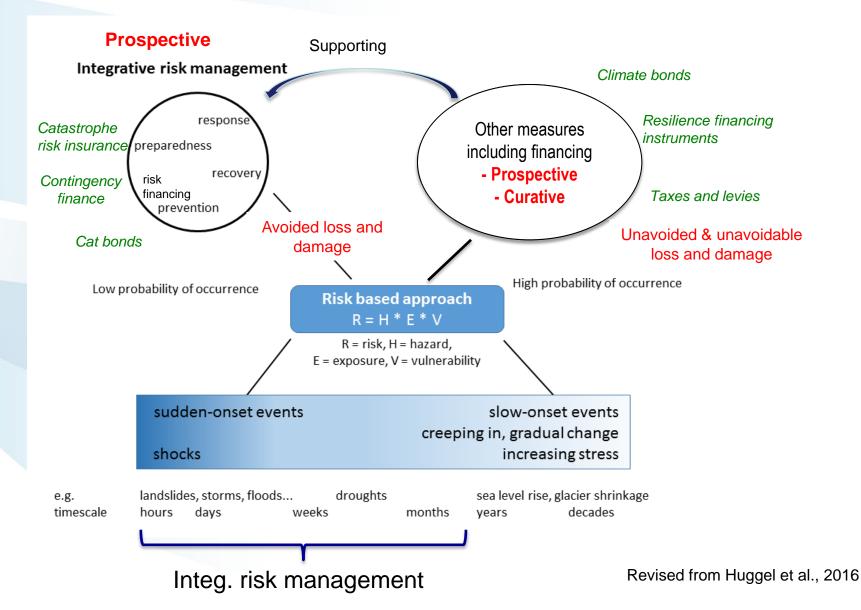
## Measures and risks - building on ExCom 2016 technical paper on financial instruments



**S** 

Revised from Huggel et al., 2016

#### Measures and risks - building on ExCom 2016 technical paper on financial instruments



Prospective measures for risk management Spectrum of formal and informal instruments for financing loss & damage

- Pooling and sharing risks to diversify risks integrated with a broader view towards comprehensive DRM and building resilience
- Innovative instruments involving Public Private Partnerships
- Risk financing mechanisms at local, national, regional, and global scales contribute to increasing resilience to climate extremes and climate variability, but involve major design challenges so as to avoid providing disincentives, causing market failure and worsening equity situations (IPCC AR5, WG II, Ch.17: Chambwera et al., 2014)



#### Prospective measures for risk management Spectrum of formal and informal instruments for financing loss & damage

	<b>Local</b> Households, Farmers, SMEs	National Governments	International Development organizations, donors, NGOs
Solidarity	Help from neighbors and local organizations	Government post-disaster assistance; government guarantees/bailouts	Bilateral and multilateral assistance, regional solidarity funds
Informal risk transfer (sharing)	Kinship and other reciprocity obligations, semi-formal micro-finance, rotating savings and credit arrangements, remittances		
Savings, credit, and storage (inter-temporal risk spreading)	Savings; micro-savings; fungible assets; food storage; money lenders; micro-credit	Reserve funds; domestic bonds	Contingent credit; emergency liquidity funds
Insurance instruments	Property insurance; crop and livestock insurance; micro-insurance	National insurance programs; sovereign risk transfer	Re-insurance; regional catastrophe insurance pools
Alternative risk transfer	Weather derivatives	Catastrophe bonds	Catastrophe bonds; risk swaps, options, and loss warranties

Yellow: risks addressed explicitly – risk financing instruments White: risks addressed implicitly/ad hoc

IPCC, 2012 (Murray et al., 2012)



#### Prospective measures for risk management Spectrum of formal and informal instruments for financing loss & damage

	International Development organizations, donors, NGOs		
Solidarity	Bilateral and multilateral assistance, regional solidarity funds		
Informal risk transfer (sharing)			
Savings, credit, and storage (inter-temporal risk spreading)	Contingent credit; emergency liquidity funds		
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Yellow: risks addressed explicitly – risk financing			

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IPCC, 2012 (Murray et al., 2012)

#### **Assessment Criteria**

#### Specific

- Comprehensive perspective on risk
   General
- Acceptability
- Pro-poor impact
- Effectiveness
- Efficiency
- Equity
- Governance

→ MCII/UNU-EHS with comprehensive assessment for InsuResilience Initiative



### **Example Local/Micro level** R4 Rural Resilience Initiative (drought)

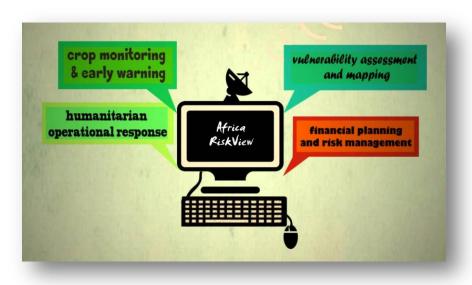
- Ethiopia, Senegal, Malawi, Zambia
- Smallholder farmers' livelihoods in drought-prone northern state of Tigray in Ethiopia exposed to weather shocks
- Integrated risk management framework
  - Improved resource management (risk reduction)
  - Individual/group savings (risk reserves)
  - Microinsurance (risk transfer)
  - Microcredit (risk taking)
- "Insurance-for-work" program on top of the government's "food and cash-for-work" Productive Safety Net Programme (PSNP)
- Work program includes projects for reducing risk and building climate resilience, such as improved irrigation or soil management.
- Index-based insurance pays for a seasonal drought and payouts are triggered automatically when rainfall drops below predetermined threshold
- Partners: farmers, local relief society, insurers, reinsurers, rural bank., university, government and donors





#### **Example National/International-Macro level** African Risk Capacity ARC (drought)

- Sovereign drought insurance pool and response mechanism linking
  - Risk reduction: pre-approved drought contingency plans
  - Risk financing: index-based payout to governments for implementing plans
  - Risk signal: Trigger additional funding if climate variability changing
  - 7 African countries with aim to reach 30 by 2020

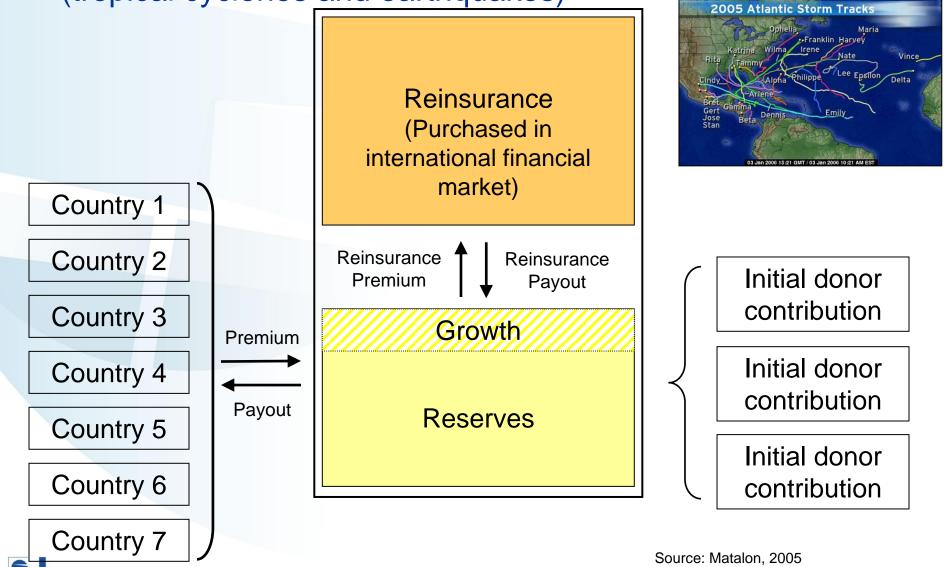


ARC, 2016



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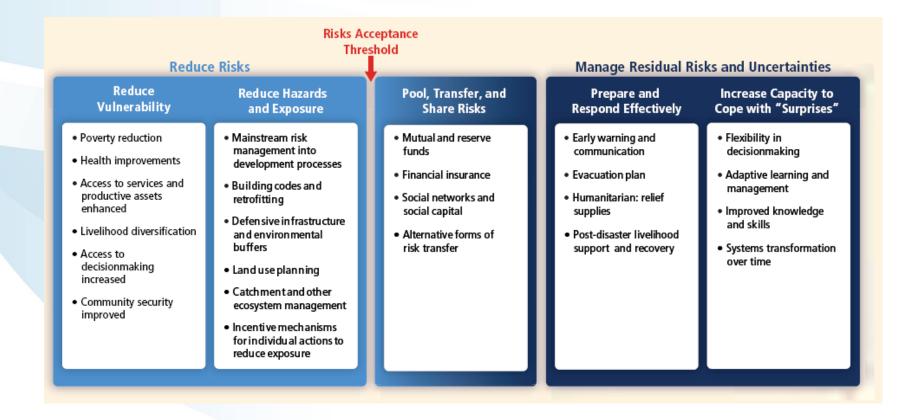
Example National/International-Macro level Caribbean Catastrophe Risk Insurance Facility (CCRIF) (tropical cyclones and earthquakes)



#### **Risk financing as part of comprehensive climate risk management**

IPCC, 2012

Effective climate risk management portfolios integrate sound risk analysis, risk reduction, risk financing, response and opportunities for learning



#### **Other measures discussed in technical paper**

- Climate bonds, resilience financing, taxes and levies etc.
  - May have a prospective function: financial support for instruments/climate risk financing for premium subsidy, reserve capital, technical assistance
  - May have a curative function: dealing with unavoided and unavoidable loss and damage
- Cover all types of risks, and loss and damage
- Not well tested for this context
- Debate and innovation necessary part. with regard to the curative function



#### Summary

- Instruments for the prospective space seeing attention across scales and can build on innovation in the DRM/adaptation domains
  - Avoiding loss and damage
  - Cover sudden-onset and some slower-onset events
  - Integrative risk perspective as best practice: risk reduction -> risk financing-> risk taking
  - Assessments exist
- Instruments for the curative space less clear as novel territory

   Unavoided and unavoidable loss and damage



#### **Loss and Damage Network**



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