

# Planning for Disasters

And the economics of disaster risk financing and insurance

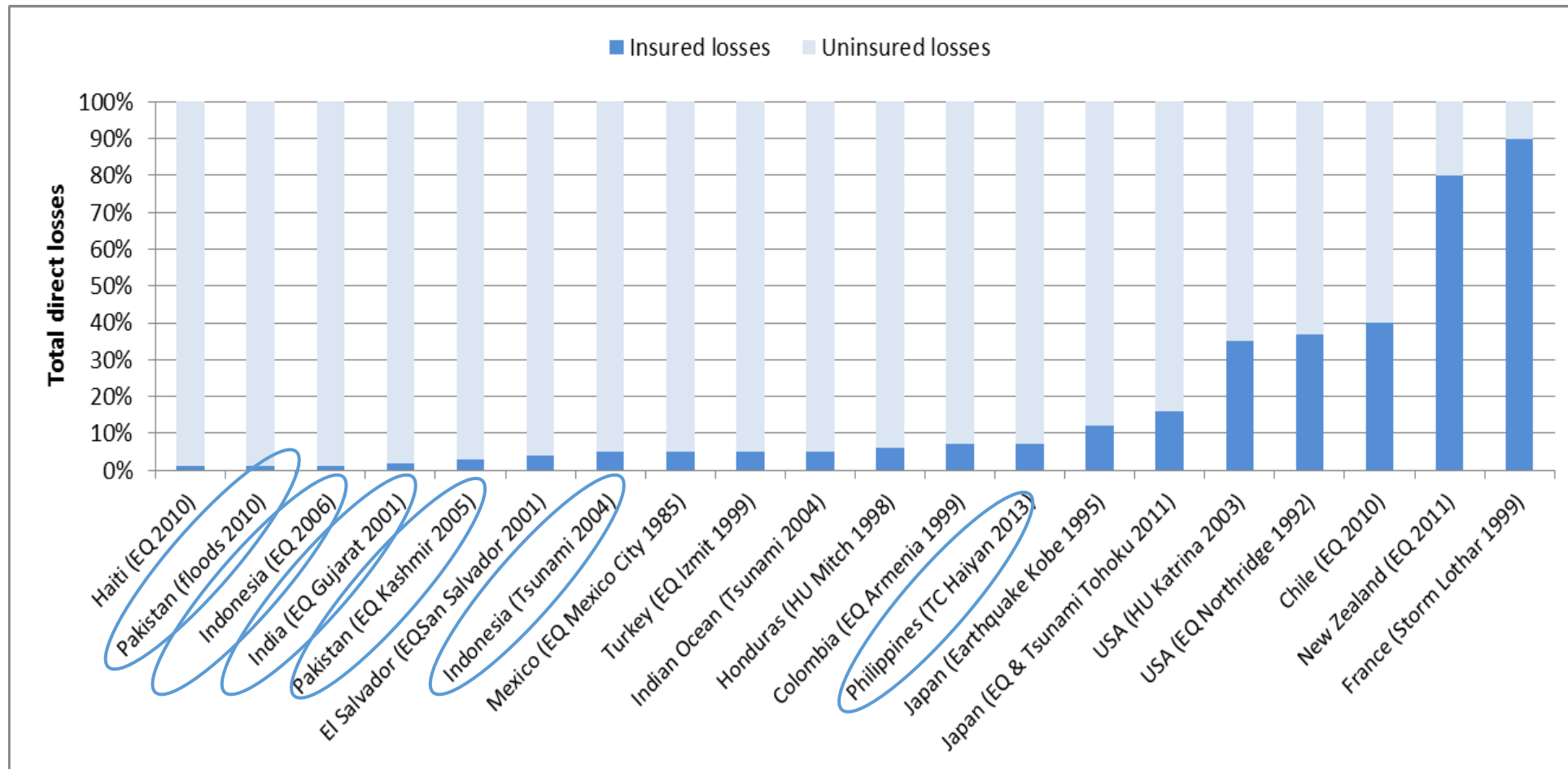
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# Background: Most people aren't as well protected against natural disasters as they should be



Source: WB-GFDRR Disaster Risk Financing and Insurance Program (2014)

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# The problem

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- There is too much strategic interaction *after* disasters between national government, subnational government, donors, and affected people, which leads to:
  - Delays in response
  - Underutilisation of scale economies in logistics
  - Overreliance on costly financing instruments, such as budget reallocations
  - Uncertainty and post-disaster underinvestment
  - Samaritan's dilemma and pre-disaster underinvestment

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# Our thesis

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- Many extreme events won't turn into disasters if we have different/better plans:
  1. Coordination
  2. Planning for outcomes
  3. Rules
  4. Risk financing

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# Coordination and planning for outcomes



# Many disaster response plans focus on the inputs, not the outcomes

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E.g.

- the people one can mobilise (army, civil defence force, etc.)
- the vehicles, trucks, the command and control structures to deploy them
- the health services that can be on stand-by
- the supplies that one can requisition

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# A plan should be a political choice, not just a technical exercise

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- Should offer joint declaration of:
  - who/what you want to protect
  - against what
  - what (if any) preconditions will there be for protection
  - how will the protection be implemented
  - who will pay

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# In many situations a clear choice has not been made

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- Who is protecting what?
  - Drought-induced food insecurity in low-income countries
    - Government or donors? Bilaterals, multilaterals, specific organisations?
  - Agricultural production losses in middle income countries
    - Government or farmers?
  - Post-disaster reconstruction of public assets in devolved countries
    - National government, subnational government, or donors?
  - Post-disaster reconstruction of private assets
    - Owner, government or donors?

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# Examples where governments/donors have made a clear choice



	Mexico's FONDEN	Kenya's Hunger Safety Net Program	India's National Crop Insurance Program
Who/what to protect?	All public infrastructure	Pastoralists in Northern Kenya	Landowning farmers
Against what?	Named natural disasters	Drought-induced food insecurity	Crop loss
Preconditions?	Lower coverage for reconstructed buildings	Registration	Farmer must pay share of premium.
How implemented?	Private construction company contracted to 'build back better'	Cash transfer to bank account	Commercial crop insurance. Compulsory for farmers with agricultural production loans. Voluntary for all other farmers.
Who will pay?	Federal and State Governments (e.g. 50%/50% split for state-owned assets)	Government and donors (DFID & AusAid)	Central Government, State Government and farmers

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# Examples where governments/donors have made a clear choice



	Mongolia's index based livestock insurance	Turkish Catastrophe Insurance Pool
Who/what to protect?	Herders	Homeowners
Against what?	Livestock mortality caused by dzud (extremely harsh winter)	Damage to property from earthquakes
Preconditions?	Herder must pay share of cost	As for normal home insurance
How implemented?	Voluntary commercial livestock insurance	Voluntary commercial earthquake insurance
Who will pay?	Insurer responsible for paying 6-30% area average mortality. Government responsible for paying >30% area average mortality.	Homeowners

Note: Choice is either

1. Agreed by all parties; or
2. Agreed by all parties except the beneficiary. The beneficiary is then given the option to opt-in or not.

# ... feeding a better humanitarian system

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- Building a system of layered but defined and credible responsibility (in terms of risk holding, what is protected, how implemented and how financed)
  - Better mechanisms for reaching people, in timely way (e.g. scalable social protection)
  - Better decision making
  - Better financing

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# Rules rule

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- Disasters offer an opportunity for political leadership.
- But in many cases better to rely on a largely automated system, based on triggers.
  - Fewer strategic delays
  - Change the default option -> less bureaucratic inaction
- Post-disaster data that feeds into rules needs to be:
  - Objective
  - Transparent
  - Resistant to ex-ante or ex-post moral hazard
- Early action, not early warning

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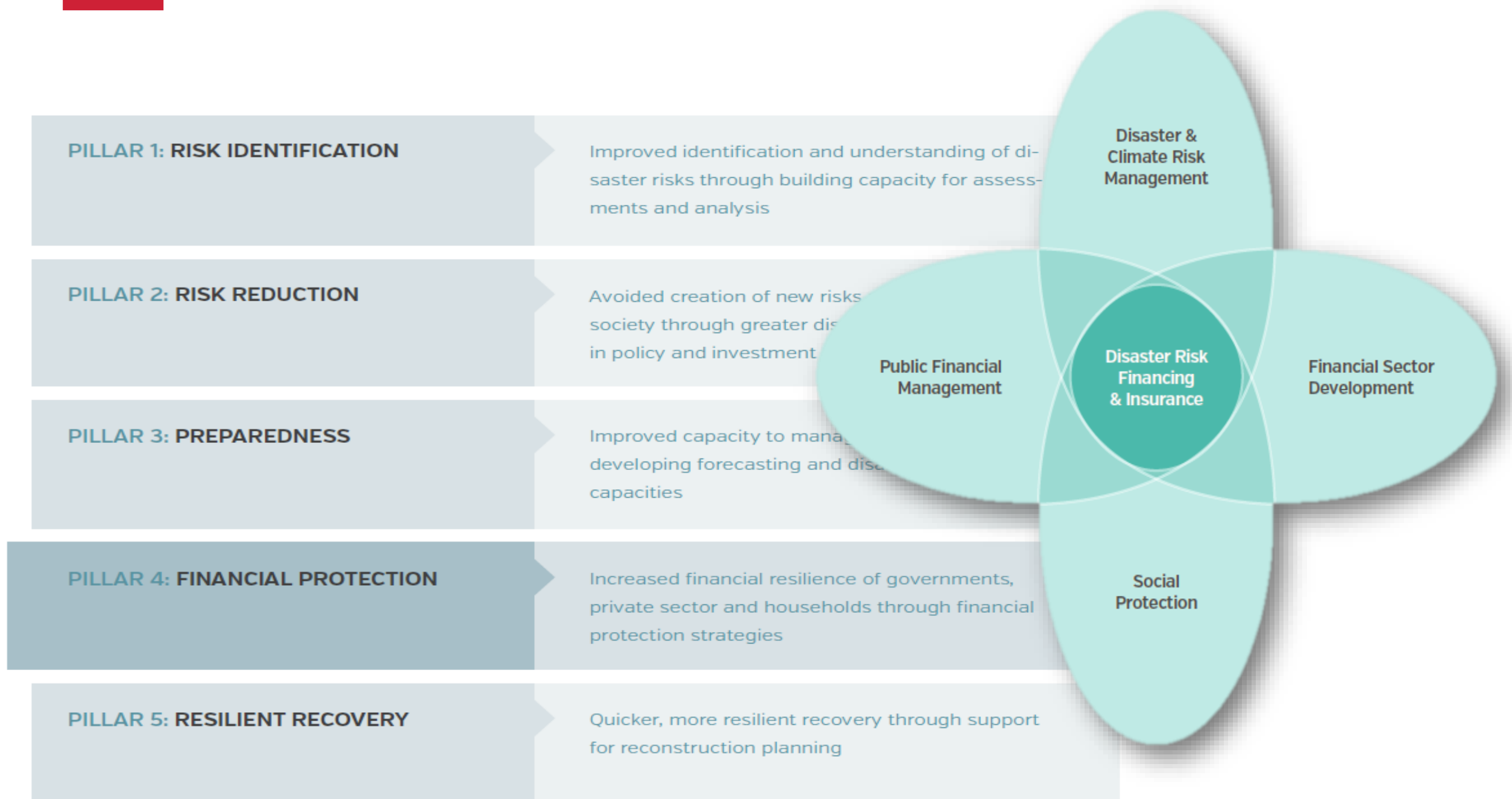
# For example...

- Drought in Ethiopia:
  - Providing cash or food early seems to be much more cost effective at reducing food insecurity than waiting until the drought is in full swing
  - (Even after allowing for probability that come in too late for some droughts and too early for others).
- Reconstruction of public assets in Mexico:
  - Government should reconstruct damaged lifeline infrastructure such as hospitals and key roads quickly after a large disaster
  - Disagreement between Central Government and States over the \$ amount of damage used to slow down reconstruction.
  - Agreeing before the disaster on an objective, transparent, independent, manipulation-resistant procedure for determining the damage has led to significantly faster reconstruction.

# Credible rules and risk financing

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# Financial protection is one key pillar of sound Disaster Risk Management



Source: GFDRR (2012), WB-GFDRR Disaster Risk Financing and Insurance Program (2014)



# But we believe that it is more than this – it binds all the pieces of a plan together and makes the plan credible

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- Disasters can unravel the most carefully laid plans quite quickly
- Plans are typically just an input into highly-charged post disaster (re)negotiations
  - Drought-induced food insecurity in low-income countries
  - Agricultural production losses in middle income countries
  - Post-disaster reconstruction of public assets in devolved countries
  - Post-disaster reconstruction of private assets
- Need very strong commitment devices if want plans to actually lock stakeholders in – disaster risk finance can be strong a commitment device

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# A disaster risk financing strategy should be the servant, not the master, of the plan

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- Easy to get seduced by individual financial instruments
  - But need to focus on the entire plan, not just one slice of it
- A good disaster risk financing strategy is the glue that holds the ex-ante plan together, makes it credible and encourages thinking through tradeoffs ex-ante:
  - Ensures money is available quickly when, and only when, it is required by the plan
  - Commits stakeholders to rules
  - Commits stakeholders to pay their share
  - Commits stakeholders to coordination on expenditures/logistics

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# Coordination will require strategic courage\*

	Mexico's FONDEN	Kenya's Hunger Safety Net Program	India's National Crop Insurance Program
Who will pay?	Federal and State Governments (e.g. 50%/50% split for state-owned assets)	Government and donors (DFID & AusAid)	Central Government, State Government and farmers
Who committed themselves to rules-based approach first, and invited others to opt-in?	<b>Federal Government</b>	<b>Government and donors jointly</b>	<b>Central Government</b>

\*a willingness to “purposefully limit the freedom of action, thereby altering the beliefs and actions of others in a direction favourable to the decision-maker” (Dixit/Nalebuff)

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# Sensible disaster risk financing can also crowd in risk reduction

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- Across developing and developed countries there is significant underinvestment in risk reduction
  - Myopic incentives given to politicians from voters
  - Governments and donors offer protection of last resort -> moral hazard
  - Well documented behavioural biases
- Credible ex-ante financial planning can clarify risk ownership, which can unlock investment in risk reduction:
  - Clarifies who is responsible for paying for the protection, and in what proportions ('risk ownership')
  - If investments in risk reduction would make the overall cost of protection cheaper these could be financed from the budget lines allocated for the protection.
  - Can move debate about risk reduction versus risk financing to a technical level

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# Governments have lessons to learn from commercial insurers

Insurer	Government / donors
<p>Underwriting:</p> <ul style="list-style-type: none"><li>• Who / what will be protected</li><li>• Against what</li><li>• Preconditions</li><li>• How protection will work</li><li>• Premium</li></ul>	<p>Social underwriting:</p> <ul style="list-style-type: none"><li>• Who / what will be protected</li><li>• Against what</li><li>• Preconditions</li><li>• How protection will work</li><li>• Principles for who will pay</li></ul>
<p>Risk financing / Asset Liability Matching</p>	<p>Disaster Risk Financing and Insurance</p>

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# Conclusions

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- A much better humanitarian and disaster risk management system is possible if we bring the difficult negotiations upfront
  - Disasters may become less sensational, but it will be worth it.
- Will need better plans with:
  1. A fast, evidence-based decision making process;
  2. A coordinated plan for post-disaster action agreed in advance; and
  3. Disaster risk financing that makes the plan credible
- And stakeholders with strategic courage, willing to coordinate and offer to commit themselves to rules-based approaches

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