



# ENHANCING THE INSURANCE SECTOR'S CONTRIBUTION TO CLIMATE ADAPTATION

OECD-ADBI-IRDAI Roundtable on Insurance  
and Retirement Savings in Asia

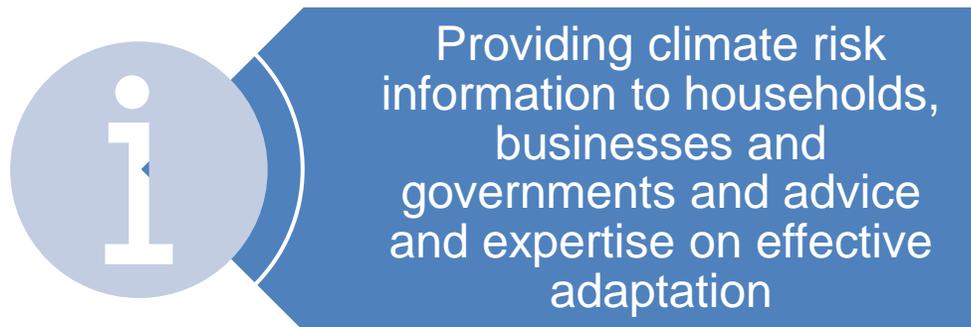
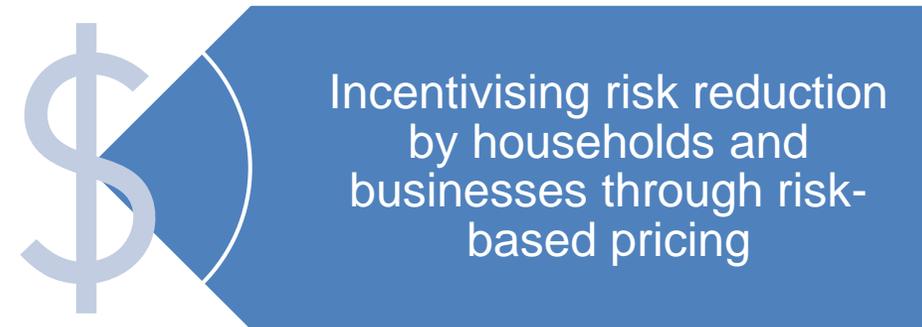
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# Potential contributions of insurance to climate adaptation

- The report examines four main areas in which the insurance sector could contribute to climate adaptation (in this context, risk reduction) – beyond its role in providing financial protection:





## Developing climate risk analytics

- The insurance sector's risk analytics capacity (e.g. catastrophe models) can provide an important basis for climate risk assessment
- Catastrophe models can be “climate-conditioned” by adjusting hazard catalogue and accounting for changes in exposure and vulnerability

### Challenges:

- Uncertainty (future emissions, future adaptation, climate change impacts)
- Short-term contracts may limit demand for longer-term climate perspective
- Regulatory constraints may limit incentives for applying new technologies or assessment approaches

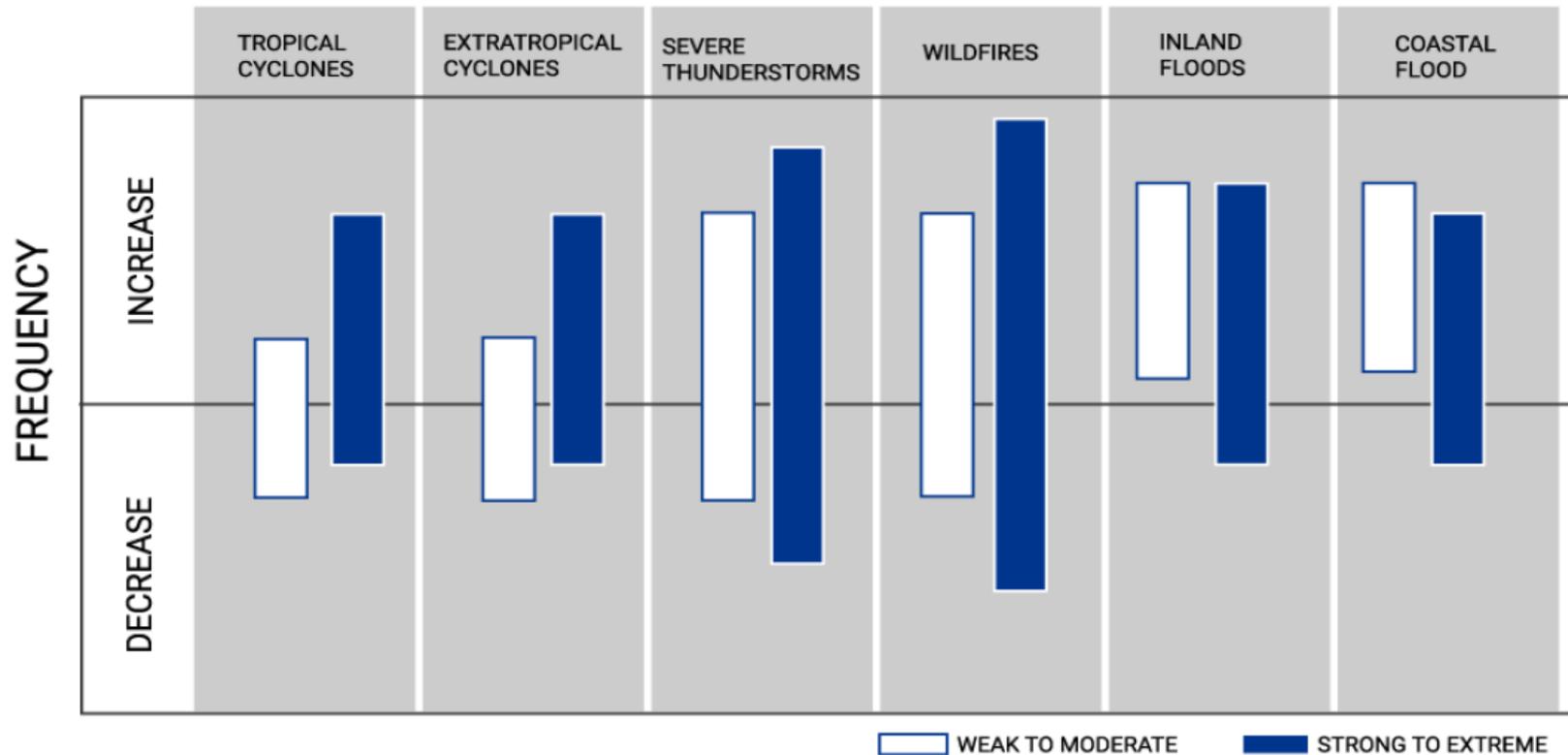
### Potential opportunities:

- Require longer-term climate risk analyses by insurers (e.g. ORSA, stress testing)
- Re-examine any regulatory constraints to the use of advanced analytics



# Uncertainty in risk assessment

- The impact of changing climate conditions on future extreme event frequency and severity



Note: The length of the bars illustrates the level of uncertainty related to expected changes in frequency.  
Source: (Grenier, 2022<sup>[8]</sup>)



## Providing risk and risk reduction advice or services

- The insurance sector's risk knowledge can be provided to policyholders (as well as governments) to support risk awareness and risk reduction – with many examples:
  - Contributions to risk mapping
  - Modelling of flood protection investments, forest management practices or protection provided by building codes
  - Establishment of research programmes on structural resilience

### Challenges:

- Some evidence that policyholders are not receiving (or absorbing) information on risk reduction options
- Tailored adaptation advice may not be cost-effective for retail policyholders
- Some potential regulatory constraints to risk mitigation services

### Potential opportunities:

- Re-examine any regulatory constraints (e.g. services)
- Encourage insurers to communicate longer-term risk information and risk reduction options to policyholders



## Incentivising policyholder risk reduction

- Risk-based pricing should provide some incentive for risk reduction by policyholders (some evidence that policyholders are willing to reduce risk for premium discounts)

### Challenges:

- Policy, regulatory and business constraints to full risk-based pricing
- Limited policyholder awareness of risk reduction options, benefits or cost
- Insurers may not be confident in effectiveness of measures implemented by policyholders
- Short-term outlook in property insurance coverage may dampen price signal and reduce incentives for adaptation
- Most effective adaptation investments may need to be made at community-level

### Potential opportunities:

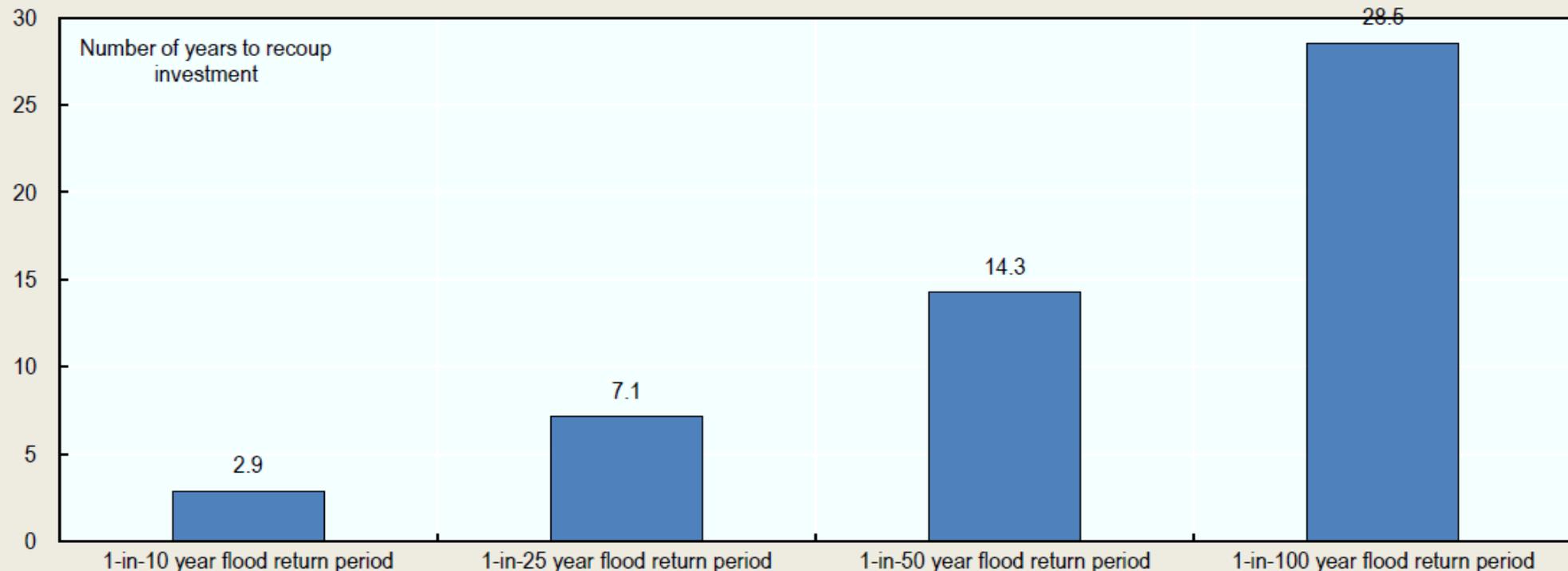
- Re-examine any regulatory constraints on pricing/discounts
- Encourage insurers to communicate indicative risk-based premium or longer-term climate-conditioned premium (where pricing constrained)
- Encourage insurers to provide policyholders with information on adaptation options, available premium discounts, potential funding/financing support
- Community-based insurance?
- Long-term contracts?



## Illustrative payback periods for flood risk reduction investment

- Some adaptation measures would require premium discounts for many years to recoup the investment cost

Figure 3.1. Illustrative payback period for investment in dry flood-proofing





## Supporting resilient reinstatement

- Reinstatement provides a cost-effective opportunity to enhance policyholder resilience against future risk (and insurers have the risk knowledge to support build back better)
- Insurance sector recognises need/opportunity to build resilience – some examples:
  - UK *Build Back Better* scheme
  - Canadian insurer *Stronger Home* coverage
  - Catastrophe risk insurance programme investments

### Challenges:

- Insurers only required to reinstate as before
- Few incentives for insurers to take-on additional cost of more resilient reinstatement
- Some (very limited) regulatory constraints (claims payments cannot exceed loss incurred)

### Potential opportunities:

- Encouraging insurers to offer additional/optional coverage for resilient reinstatement
- Government funding programmes that complement insurance claims payments



## OECD report on *Enhancing the insurance sector's contribution to climate adaptation*

Enhancing the insurance sector's  
contribution to climate adaptation



<https://www.oecd.org/publications/enhancing-the-insurance-sector-s-contribution-to-climate-adaptation-0951dfcd-en.htm>