

4th CAREC Working Group on Climate Change Meeting

# Integration of Disaster and Climate Change Resilience and Adaptation in CAREC Projects

Bishkek, Kyrgyz Republic

7 April 2025



# 22<sup>nd</sup> CAREC Ministerial Conference November 2023

- **Natural hazard risk and vulnerability expected to increase** due to economic growth and climate change throughout the region, stretching countries' fiscal capacities to cope with the impacts of disaster events.
- **CAREC Climate Change Vision:**
  - *“CAREC can serve as a platform to support the implementation of complementary regional **disaster risk management and disaster risk financing** initiatives”.*
- Endorsement of **Joint Ministerial Statement** requesting:
  - Continued support to implement **comprehensive disaster risk management and Financing**
  - Further advance the design and implementation of the proposed **CAREC disaster risk transfer facility**.

# Comprehensive Disaster Risk Management Approach

## INTEGRATED RISK MANAGEMENT

### Risk Informed Decisions

#### **RISK QUANTIFICATION**

*Opensource stochastic multi-hazard probability modeling tools accessible for the public sector*

#### **RISK PROFILES**

*Analyze the socio-economic impact of disaster risk considering future exposure growth and climate change*

#### **COST-BENEFIT ANALYSIS**

*Identify economically most efficient priority measures and investments to manage disaster risks*

### Risk Adaptation Measures

#### **DISASTER RISK REDUCTION**

*Proactive approach to encourage investments in developments that are sensitive to the risks*

#### **RECOVERY AND BUILD BACK BETTER**

*Incorporate current and future disaster and climate risk in planning, design, and implementation of recovery and reconstruction*

#### **DISASTER RISK FINANCING**

*Quickly provide needed liquidity when disaster event strikes or predefined parametric thresholds are breached*

### **Leveraging Research, Technology and Innovation**

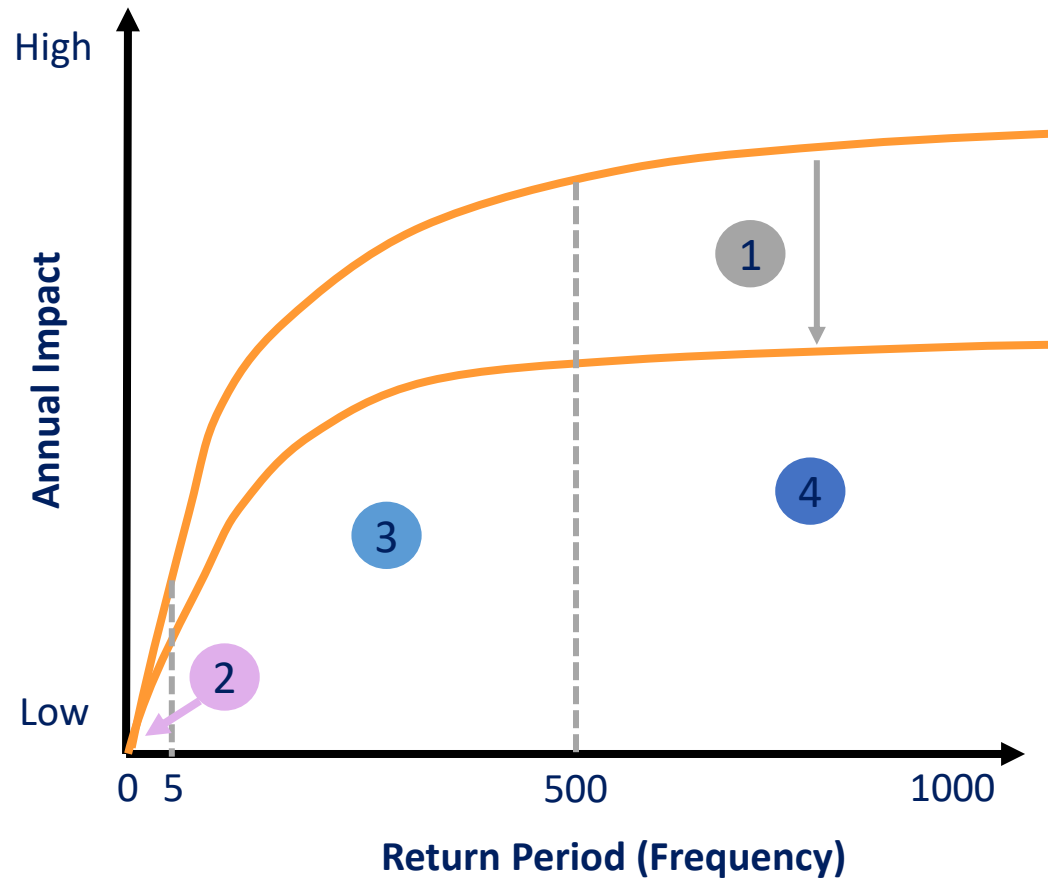
*new data sources, improved data analysis, and more effective communication tools*

### **Enhancement of the Enabling Environment**

*To successfully be able to implement disaster risk reduction and financing solutions*

# Disaster Risk Financing - Principles

Disaster Risk Management including **Disaster Risk Reduction and Financing** can modify the risk profile



1



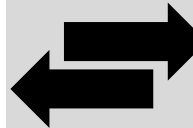
Risk reduction

2



Risk retention

3



Risk transfer

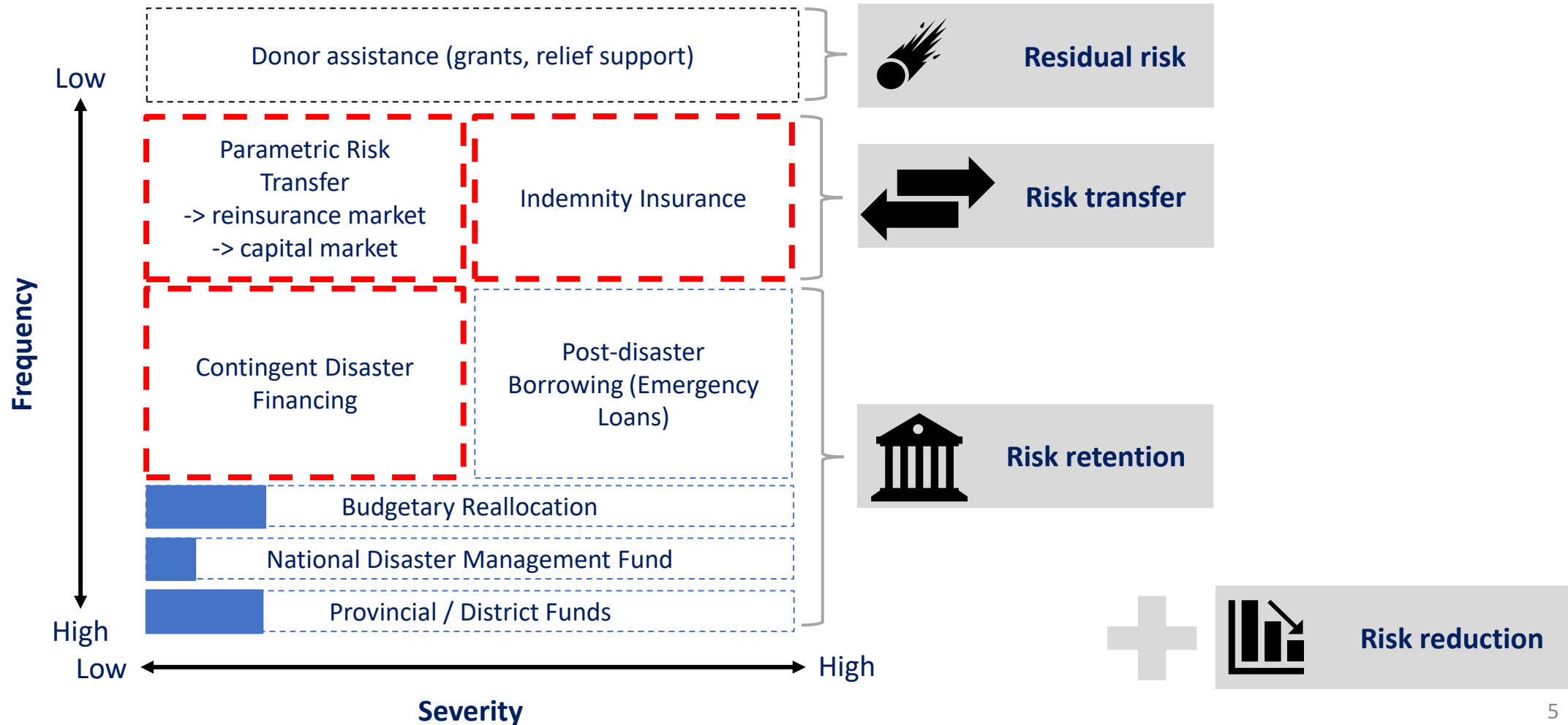
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Residual risk

# Disaster Risk Finance Instruments - Risk Layering Approach

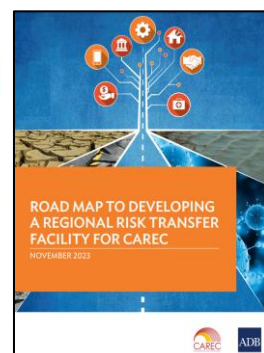
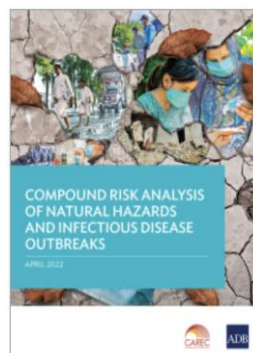
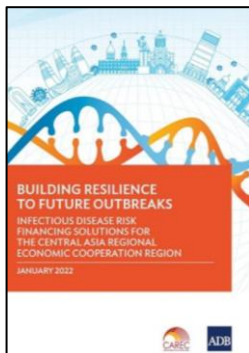
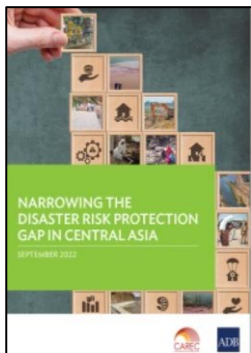
A **risk layered approach** to disaster risk financing provides different instruments according to frequency / severity / response time



# Developing a Disaster Risk Transfer Facility in the CAREC

- ADB-funded TA on “**Developing a Disaster Risk Transfer Facility in the CAREC Region**” (\$2.75 million, Nov 2020–Feb 2024)

- ❑ Country Disaster Risk Profile
- ❑ Protection Gap Assessment
- ❑ Building Resilience to Future Outbreaks
- ❑ Compound Risk Analysis
- ❑ Road Map to Developing a Disaster Risk Transfer Facility for CAREC



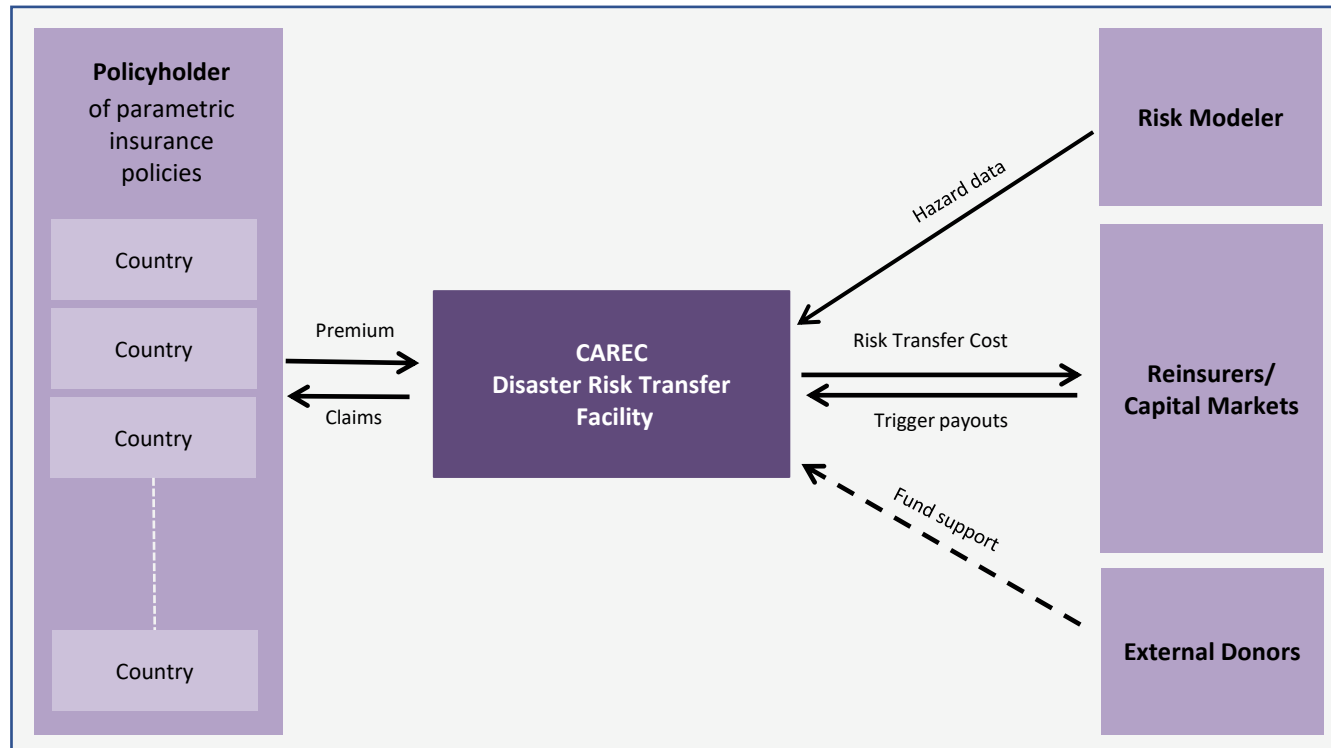
## Developing a Disaster and Climate Risk Transfer Facility for the CAREC Region (Phase 2)

Coverage	All CAREC countries*
Outputs	<ol style="list-style-type: none"> <li>1. Advancing the <b>implementation of the road map</b> to developing a CAREC disaster risk transfer facility</li> <li>2. <b>Piloting</b> an ADB-issued <b>disaster relief bond</b> for selected CAREC countries</li> <li>3. Providing <b>capacity building and knowledge support</b> on disaster risk management and financing on a <b>demand-driven basis</b></li> </ol>
TA period	November 2024 – October 2027
Estimated funding	\$3.14 million

\* ADB placed its regular assistance to Afghanistan on hold effective 15 August 2021. The initial focus of the pilot disaster relief bond will be selected countries (most likely group A countries eligible to receive Asian Development Fund support), although all CAREC countries will be observers to the pilot issuance process. Other countries may be considered subject to availability of resources for premium payments and country's readiness and ownership.

# CAREC - DISASTER RISK TRANSFER FACILITY

A Longer-Term Goal for Risk Transfer and Regional Cooperation



Lower premiums  
and operational  
expenses

Segregation of  
risk and no cross-  
subsidization

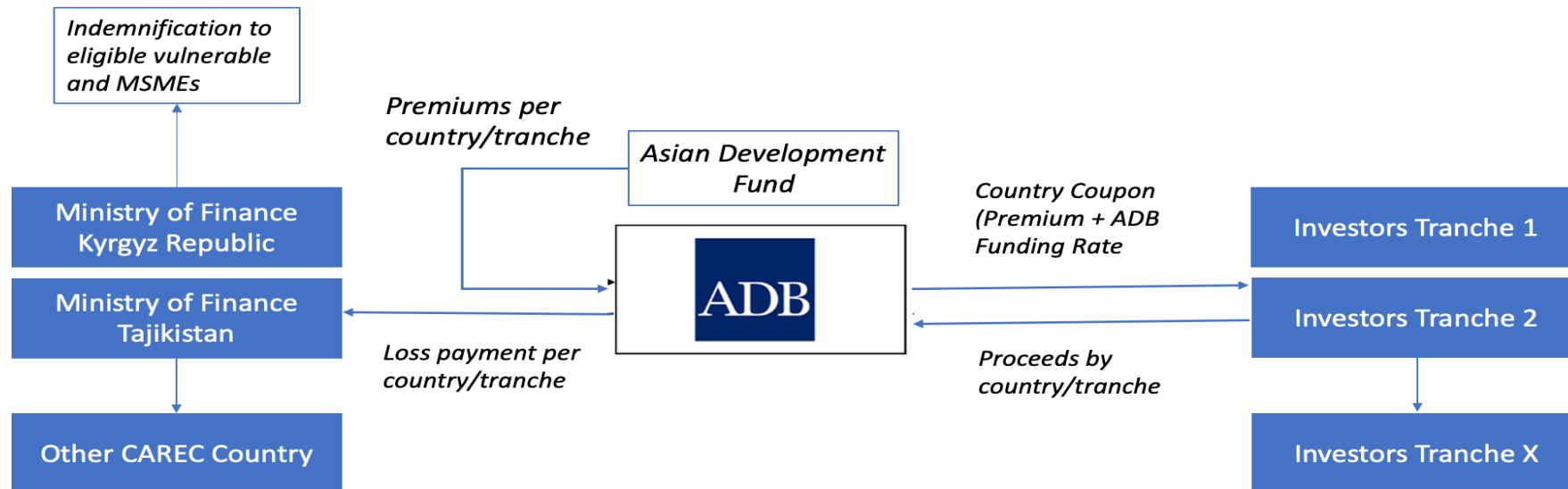
Access to  
reinsurance and  
capital markets on  
competitive terms

Improved risk  
analysis and  
information sharing

Regional  
Cohesion

# CAREC - Disaster Relief (Cat) Bond

Novel **risk transfer product** that builds on the well-established cat bond but requires that proceeds from a triggered bond pay-out be used to implement **relief, rehabilitation and recovery measures**



- ❑ **Immediate and effective disaster response** after a damaging event, minimising long-term human and economic cost. The Disaster Relief Bond will be designed to address the needs of **vulnerable groups and SMEs**.
- ❑ **A complementary solution**, part of a broader risk financing strategy and accompanied by **country-specific plans** outlining the use of potential pay-outs
- ❑ Requires a **commitment** from countries to **invest in risk reduction** and **climate change adaptation** interventions

**A DRB supports the financing of projects that promote SDGs and the Paris Agreement**



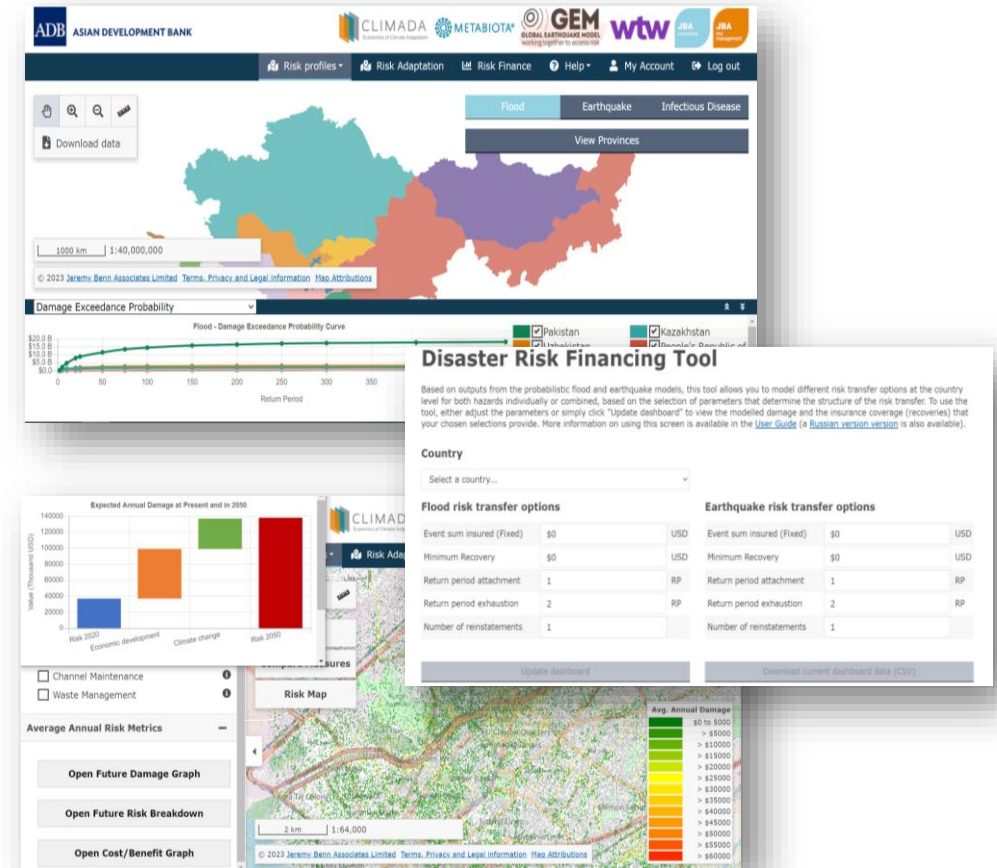
# CAREC – Disaster Risk Modeling Interface

## ■ Risk Profiles

- Probabilistic: map-based view of economic losses, number of people affected and fatalities from catastrophe modelling of flood, earthquake and infectious disease
- Deterministic Scenarios: map-based view of historic earthquake and flood events, and infectious disease outbreaks
- Exposure Risk Calculator: tool to enable adjustments to the exposure component of the probabilistic risk assessments

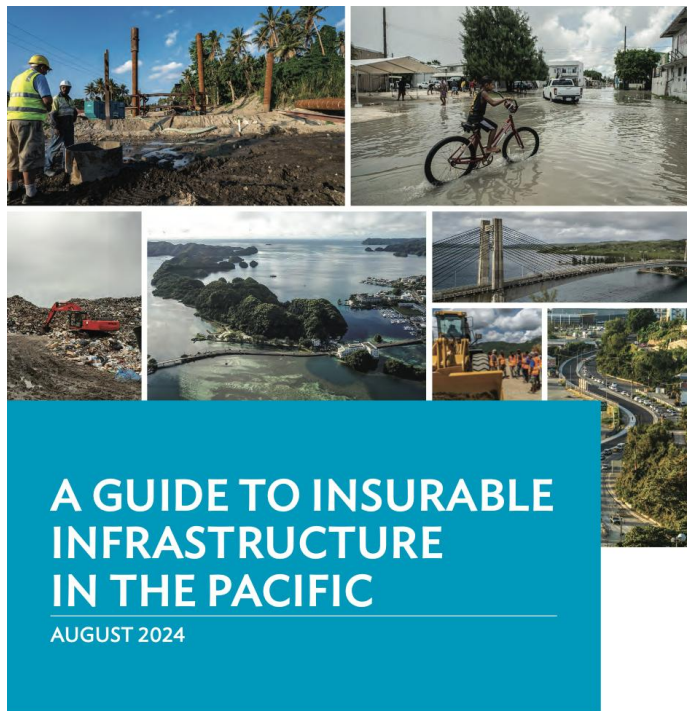
- **Risk Adaptation**: potential cost and benefits of implementing different risk reduction and adaptation measures, including under different climate and economic growth scenarios

- **Risk Finance**: tool to enable testing of different key risk financing parameters



# The Role of Insurance to promote Resilience and Adaptation

## Insurable Projects mean Investable Projects



ASIAN DEVELOPMENT BANK



## Insurers bring sustainable projects to Investors



ASIAN DEVELOPMENT BANK



# CAREC - Resilient Infrastructure Finance and Insurance Facility

**Public Private Partnership – Risk pooling CAREC projects into well-diversified risk portfolios across countries, sectors and financial risk management products**

<b>Risk Advisory</b> Early involvement in Risk Engineering Services and Disaster & Climate Risk Modeling <ul style="list-style-type: none"><li>▪ Multi-hazard Disaster and Climate Risk Modeling including cost benefit analyses of adaptation investments</li><li>▪ Detailed check list of all risks across the infrastructure project live cycle</li></ul>	<b>De-Risking</b> Risk Sharing & Risk Transfer solutions for sustainable infrastructure projects <ul style="list-style-type: none"><li>• Comprehensive ‘one-stop shop’ insurance product offerings across infrastructure project live cycle</li><li>• Guarantees and first-loss protection structures for credit enhancement</li></ul>	<b>Quality Infrastructure Investment</b> Mobilizing private sector Co-Financing <ul style="list-style-type: none"><li>• Accelerated sovereign / non-sovereign mitigation and adaptation investments in line with the Paris Agreement objectives</li><li>• Development of an asset class through digitalization of project preparation</li></ul>
<ul style="list-style-type: none"><li>➤ Project Design improvement</li><li>➤ Project Pipeline development</li></ul>	<ul style="list-style-type: none"><li>➤ Lead Re/Insurer with follower market capacity</li><li>➤ MDB capital allocation</li></ul>	<ul style="list-style-type: none"><li>➤ Investment opportunities for ESG and Impact investors</li><li>➤ Catalytic funding by donors and through IFIs</li></ul>

**Establish a regional regulatory framework enabling the effective access to market-based financial risk management products and private sector financing**

# Questions and Answers

**Many thanks**