



# TA-9878: Developing a Disaster Risk Transfer Facility in the CAREC Region

2<sup>nd</sup> CAREC Disaster Risk Engagement Workshop

18-19 July 2023

Islamabad, Pakistan



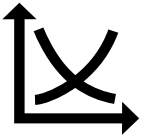
# 1. Overview

## Project Objectives

ADB-funded Regional Technical Assistance Project (\$2.75 mill) approved in 2020



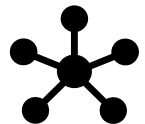
1. Identify and quantify flood, earthquake and infectious disease risk.



2. Assess and quantify the financial disaster risk protection gap



3. Provide access to modelling and capacity to assess the cost-benefit of adaptation investments



4. Investigate options for regional disaster risk financing to improve financial resilience and collaboration



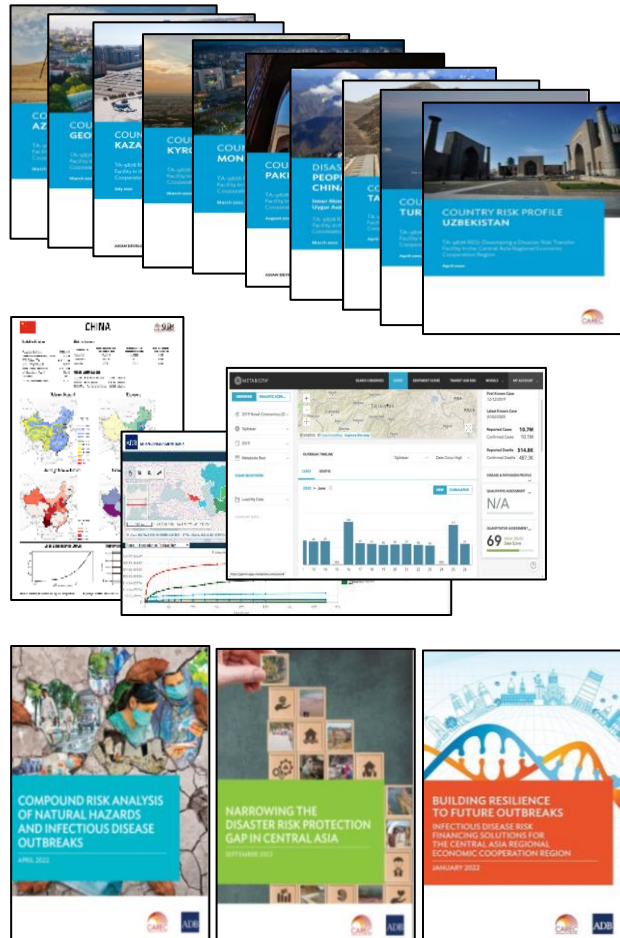
# 1. Overview

## Project Timeline



## 2. What has been done?

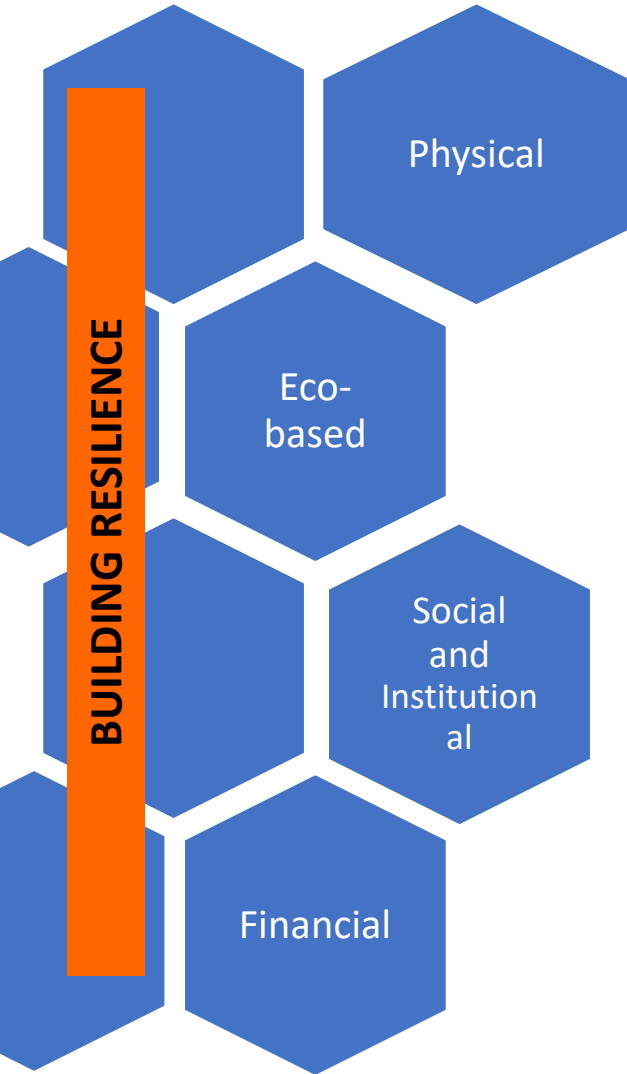
### Key Milestones Achieved



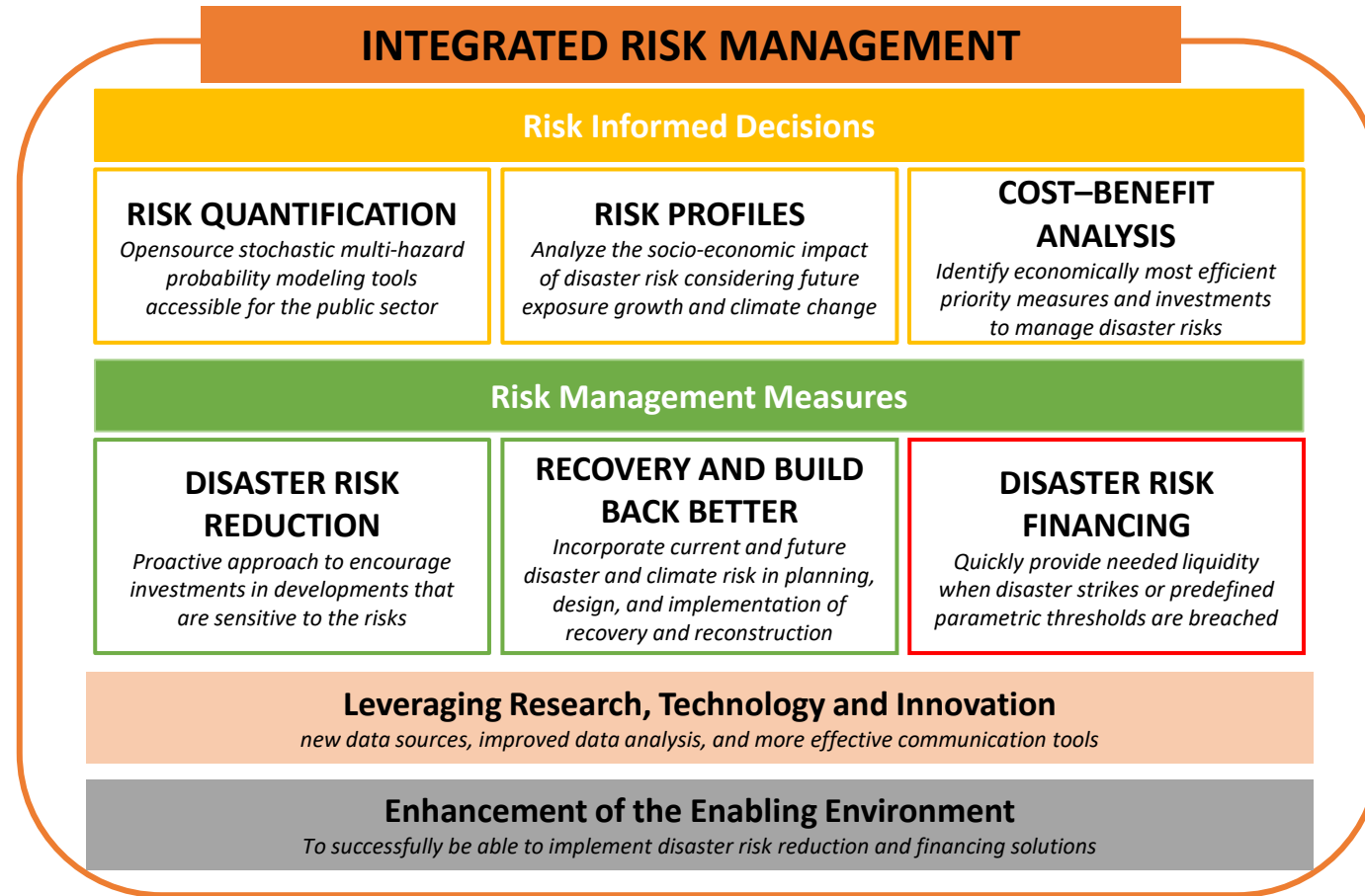
- ❑ **Disaster Risk Profiles for each CAREC country** on flood, earthquake and infectious disease risks
- ❑ **Protection Gap Assessment**, quantifying the difference between the estimated losses from earthquake and flood risk and the existing ex-ante financing tools in CAREC countries
- ❑ **Infectious Disease Risk Report**, identifying three potential risk financing solutions to help build CAREC countries' financial resilience to future outbreaks
- ❑ **Compound Risk Analysis** on potential joint impacts from disaster events and infectious disease outbreaks
- ❑ **Disaster Risk Modeling Interface (DRMI)**, allowing stakeholders to visualize the risk profiles, perform high-level cost-benefit analysis of implementing disaster risk reduction and adaptation measures; and quantify risk transfer costs for earthquake and flood parametric insurance structures
- ❑ A total of 6 regional / sub-regional **Capacity Building and Engagement Workshops** with over 125 participants (27% women) and 20 **bilateral consultations**



# 3. What is next?



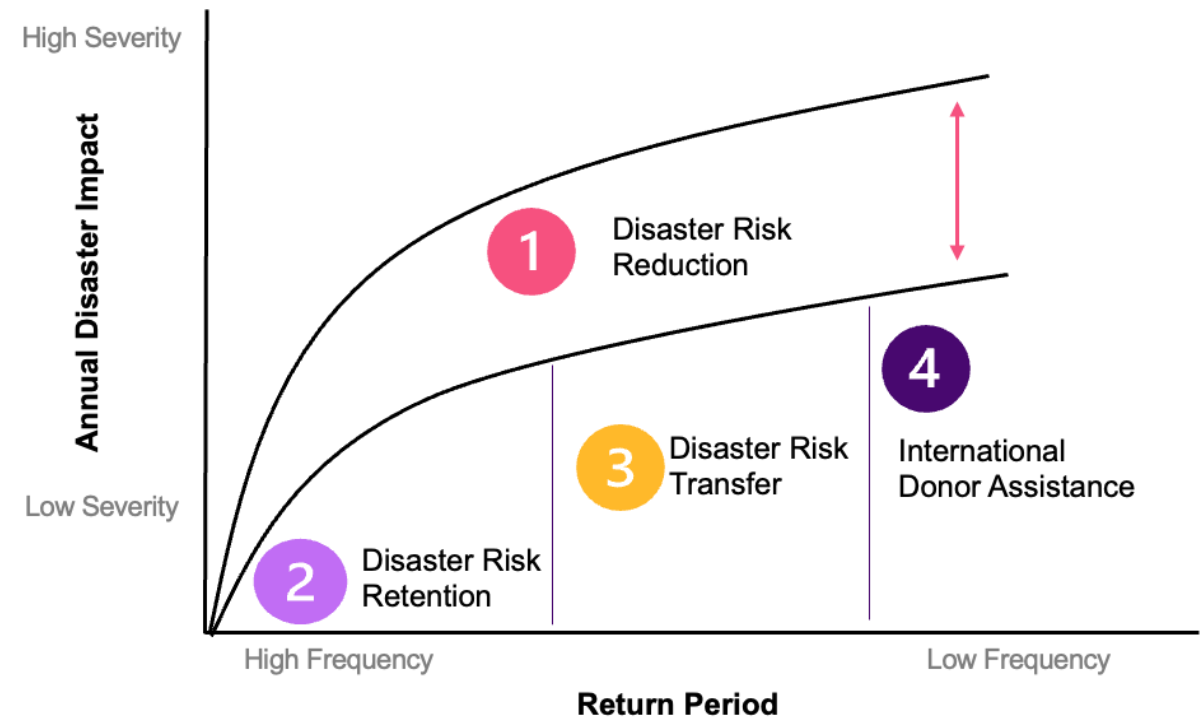
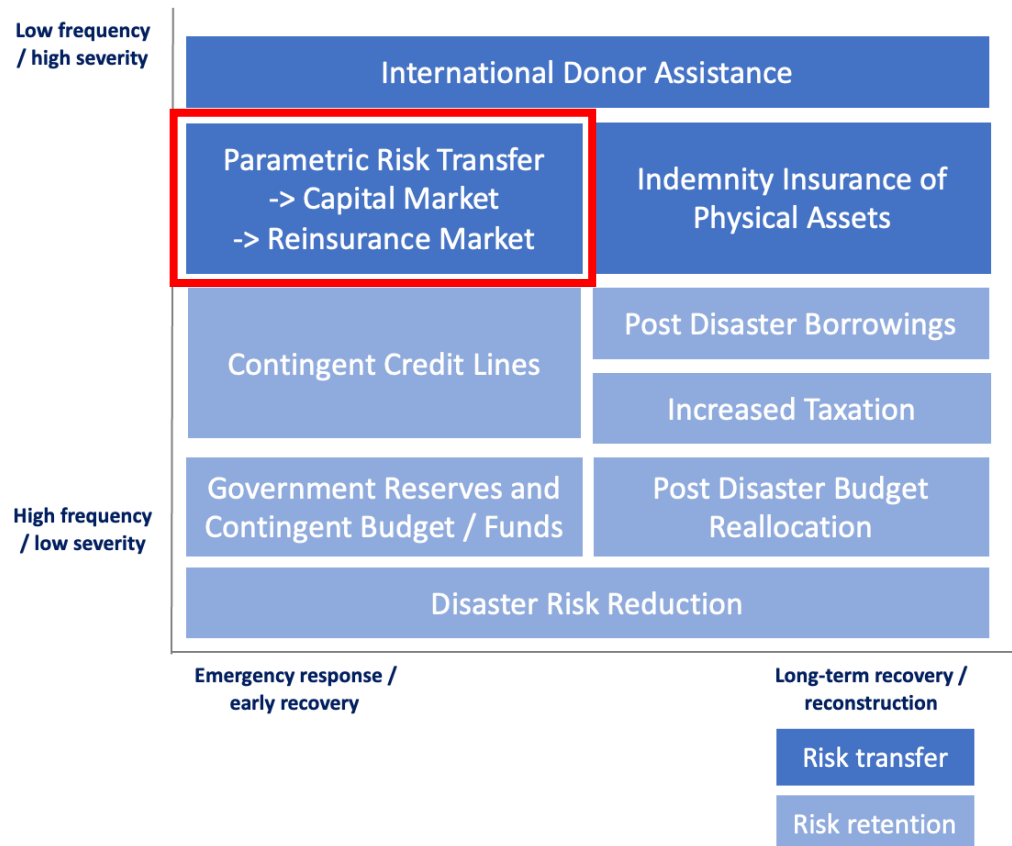
## Building Resilience in Asia and the Pacific



# 3. What is next?

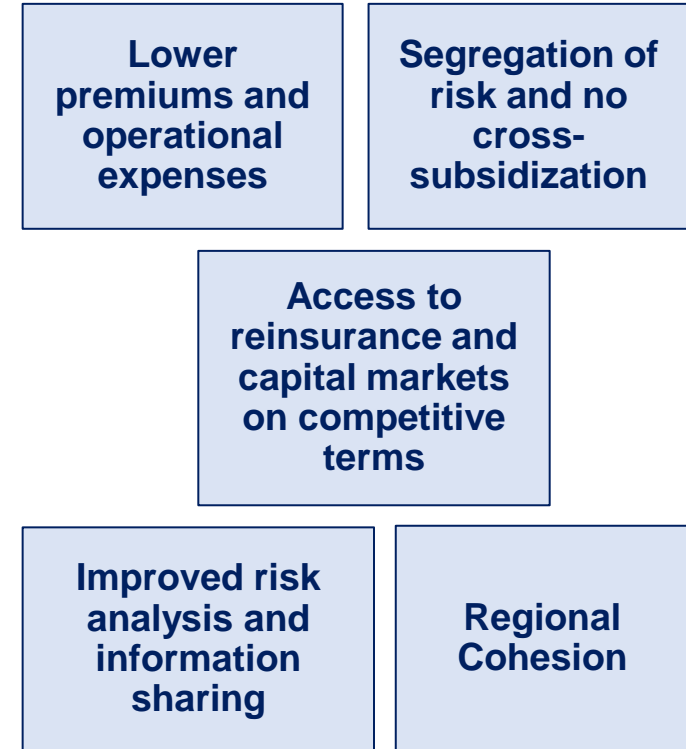
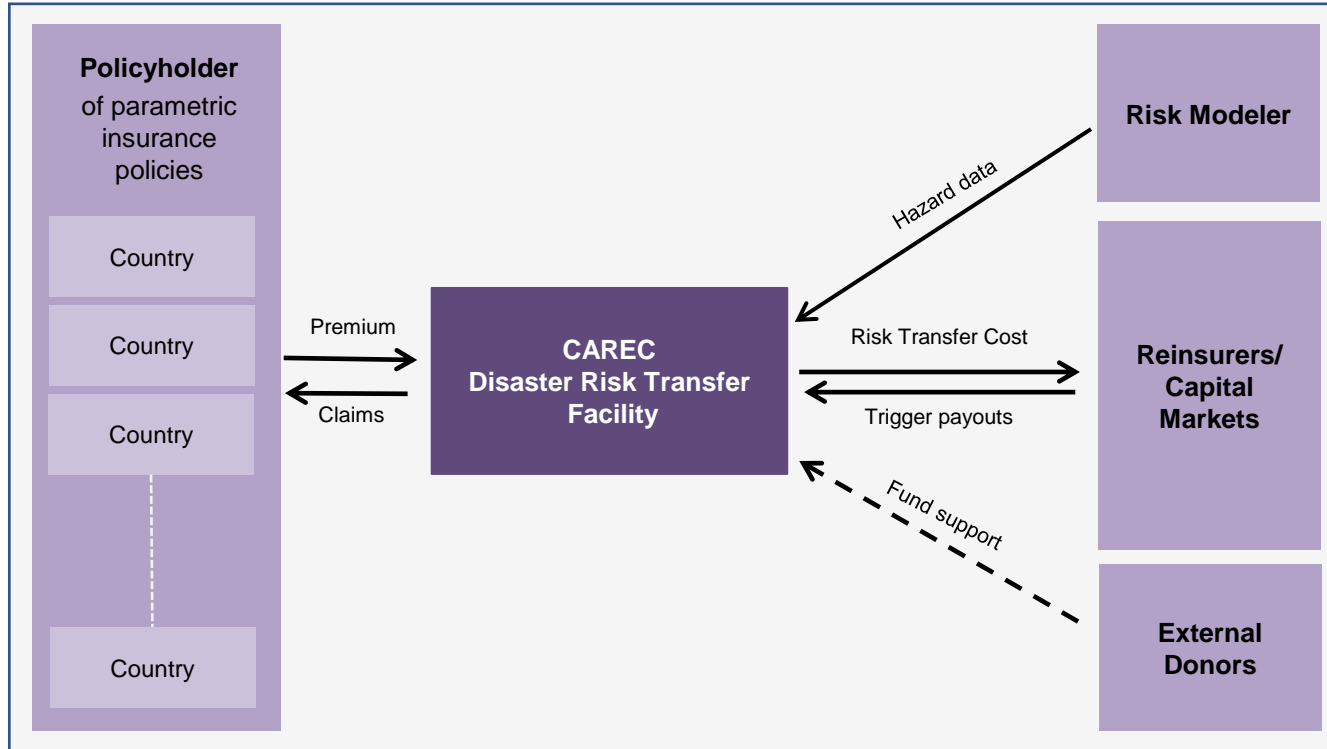
## Disaster Risk Financing – A Toolbox of complementing financial instruments

A risk layered approach to disaster risk financing providing different instruments according to frequency / severity of the event and different response time



# 3. What is next?

## CAREC Risk Facility: A Longer-Term Goal for Risk Transfer and Regional Cooperation



# 3. What is next?

## Disaster Relief Bond: Bridging the Protection Gap in the Shorter to Medium-Term



Novel risk transfer product that builds on the well-established cat bond but requires that proceeds from a 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. It can be designed to address the needs of **vulnerable groups**
- ❑ **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**





# 3. What is next?

## Disaster Risk Management 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 screenshot displays the Disaster Risk Management Interface. At the top, it features logos for ADB (Asian Development Bank), CLIMADA, METABIOTA, GEM (Global Earthquake Model), and wtw. The main interface includes a navigation menu with options like 'Risk profiles', 'Risk Adaptation', 'Risk Finance', 'Help', 'My Account', and 'Log out'. A central map shows a region with color-coded areas for 'Flood', 'Earthquake', and 'Infectious Disease'. Below the map, there's a 'Damage Exceedance Probability' graph showing 'Flood - Damage Exceedance Probability Curve' with 'Return Period' on the x-axis and 'Value (Thousand USD)' on the y-axis. A 'Disaster Risk Financing Tool' overlay is prominent, allowing users to select a country (Pakistan, Kazakhstan, etc.) and configure 'Flood risk transfer options' and 'Earthquake risk transfer options' such as 'Event sum insured', 'Minimum Recovery', 'Return period attachment', and 'Number of reinstatements'. Other elements include an 'Expected Annual Damage at Present and in 2050' bar chart, a 'Risk Map' with a legend for 'Avg. Annual Damage' ranging from \$0 to \$60,000, and buttons for 'Open Future Damage Graph', 'Open Future Risk Breakdown', and 'Open Cost/Benefit Graph'.



# 3. What is next?

## Planned Deliverables and Activities 2023

- ❑ **Roadmap for the establishment of a regional risk transfer facility** for CAREC countries based on international best practices, including facility function(s), operational and financial framework, legal and regulatory requirements.
- ❑ **Feasibility assessment on the issuance of a Disaster Relief Bond (DRB)** for CAREC countries, including financial, modeling, structural, legal and documentation requirements.
- ❑ **Refined DRMI**, including technical manual for handover of the tool for further management and maintenance.



- ❑ Regional capacity building and **TA completion workshop** (July 2023, Pakistan)
- ❑ Coordination with donors and other disaster risk management and financing initiatives in the region



**Consensus** on further actions for the establishment of the proposed Regional Disaster Risk Transfer Facility, to be presented at the **CAREC Ministerial Conference in November 2023**

