Training on Financing for Disaster Risk Management

Session 2.2 Global and Regional Disaster Risk Financing and Insurance (DRFI) Facilities

Session Objectives

adpc

At the end of this session, participants should be able to:

- Explain the global disaster risk financing and insurance tools for financing protection
- Explain the Disaster Risk Financing Transfer Facility in the Central Asia Regional Economic Cooperation (CAREC) region

Outline

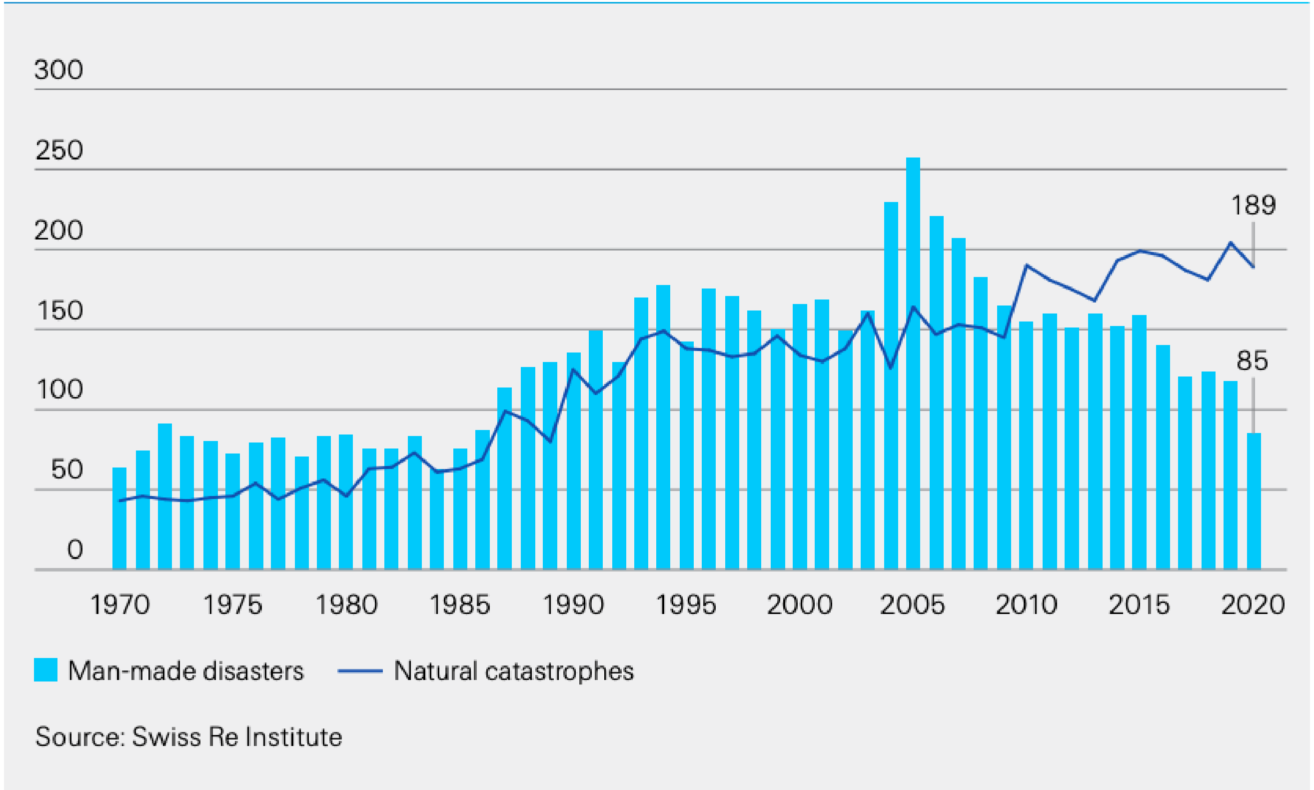
- What are the global disaster risk financing and insurance tools for financing protection?
- What are the main issues related to physical and financial vulnerability to natural hazards in Central Asia
  - Central Asia Regional Economic Cooperation (CAREC)?
- Technical Assistance: Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region
  - Impact and Outcome
  - Outputs and Activities
  - Implementation Arrangements

Context

adpc

Increasing trends of natural catastrophic events!

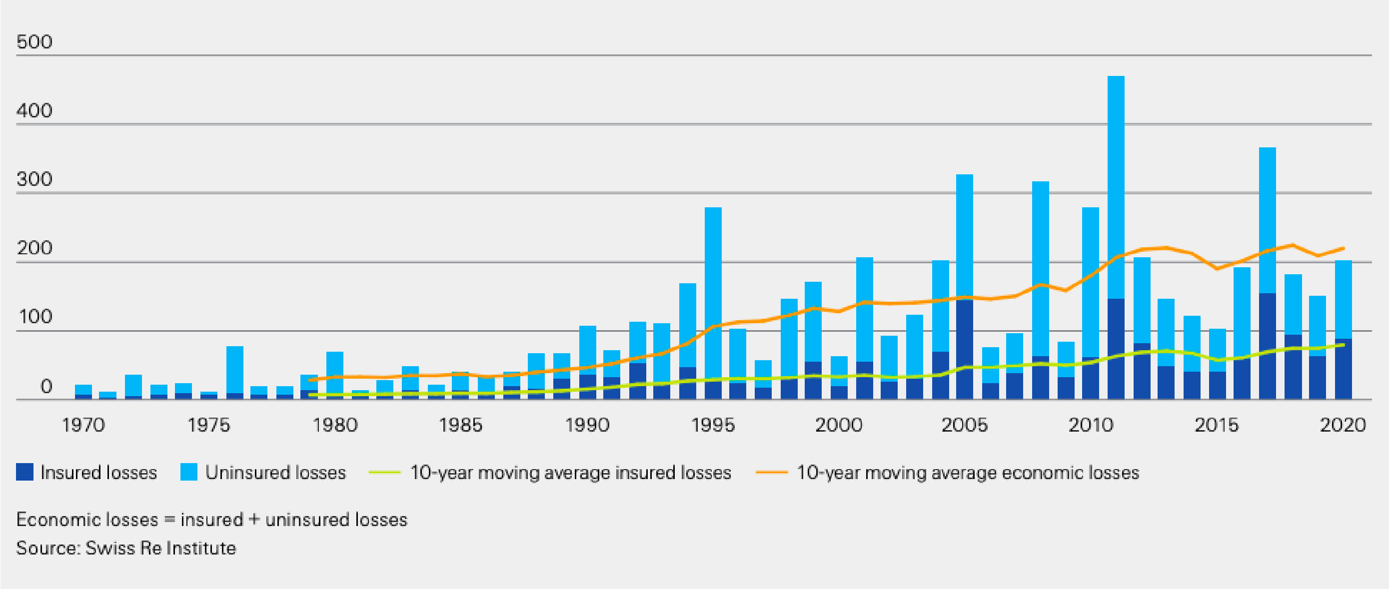
Number of catastrophic events, 1970–2020



Context (ii)

Increased insurance protection gaps!

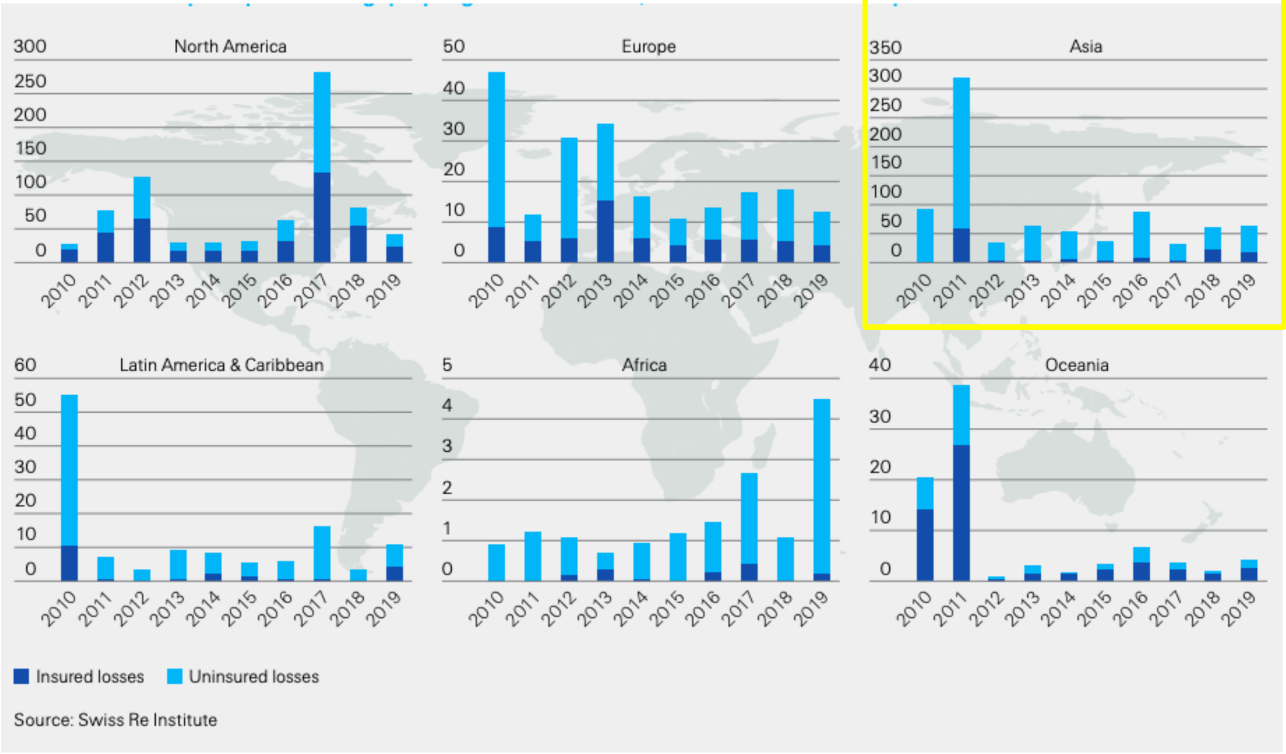
Insured vs uninsured losses, 1970–2020, in USD billion at 2020 prices



Context (iii)

Insurance protection gaps - Region wise

Natural catastrophes protection gap by region 2010–2020, in USD billion at 2020 prices



Context (iv)

adpc

Financial impacts of disasters (triggered by natural hazards and climate change) on governments

Direct impact

- Emergency **response** and **recovery expenditures**
- **Reconstruction expenditures** for uninsured/ underinsured public infrastructure, public buildings, and often low-income housing
- **Costs** for **improvements** of reconstructed infrastructure, as well as for **relocation** of at-risk population
- **Expenditure** on **social** and **economic recovery** support programmes
- Realization of **contingent liabilities** to state-owned enterprises to firms that are critical to economic recovery

Indirect impact

- **Decreased tax revenue** due to economic disruption and declines in GDP growth
- **Opportunity cost** of diverting funds from development and social programs to disaster response and reconstruction
- **Increased expenditures** for **social support programs** [safety nets]
- **Migration** due to disaster impact [loss of livelihoods]

Supporting countries to develop Disaster Risk Financing and Insurance as an integral part of GFDRR DRM framework

adpc

Disaster Risk Management Framework (World Bank - GFDRR)

Pillar 1: Risk Identification

Improved identification and understanding of disaster risks through building capacity for assessments and analysis

Pillar 2: Risk Reduction

Avoided creation of new risks and reduced risks in society through greater disaster risk consideration in policy and investment

Pillar 3: Preparedness

Improved capacity to manage crisis through developing forecasting and disaster management capacity

Pillar 4: Financial Protection

Increased financial resilience of governments, private sector and households through financial protection strategies

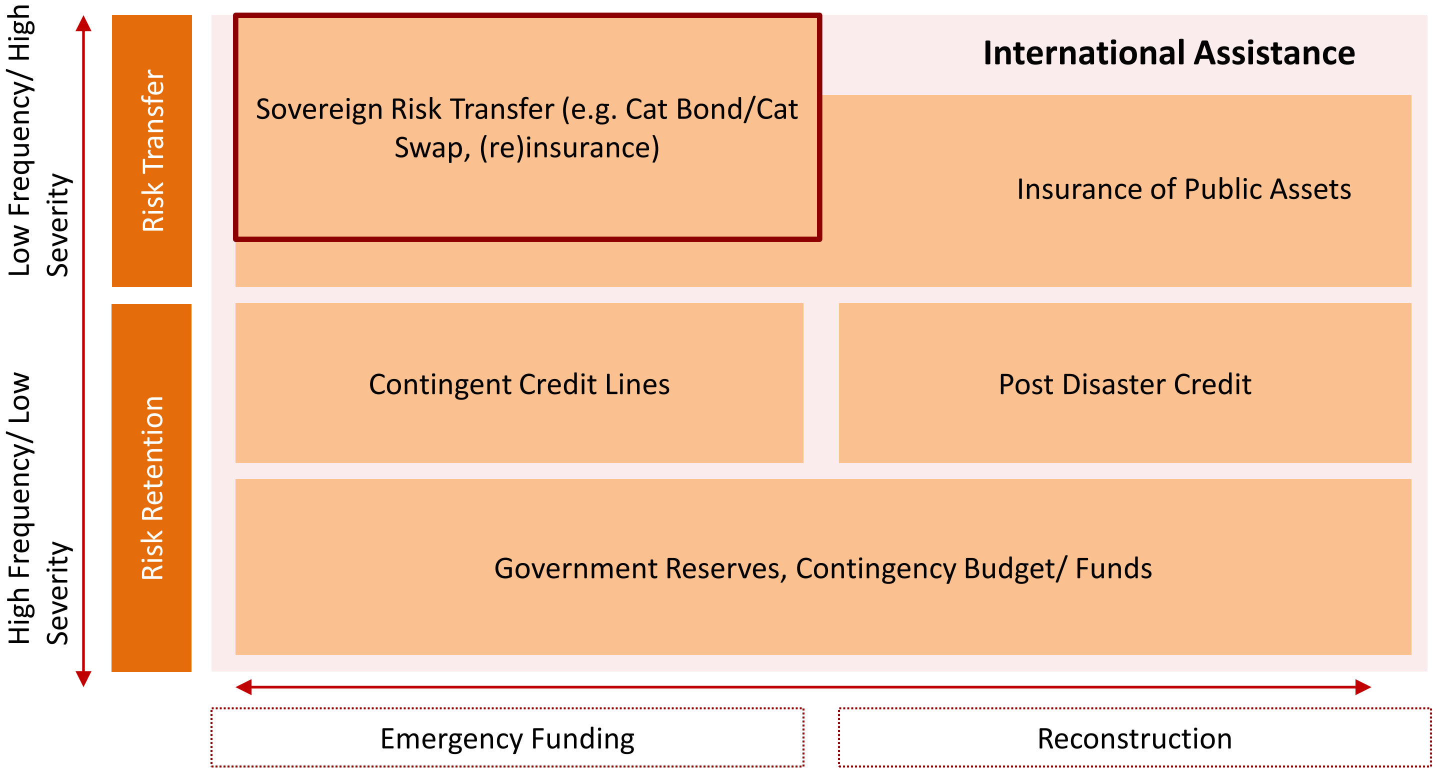
Pillar 5: Resilient Recovery

Quicker, more resilient recovery through support for reconstruction planning

Source: World Bank, 2014

Disaster Risk Financing and Insurance

Three-tiered risk layering strategy for governments



Source: Ghesquiere and Mahul (2010) as citied in World Bank, 2014

Disaster risk financing and insurance

Strategies

- **Sovereign disaster risk financing** aims to increase the capacity of national and subnational governments to provide **immediate emergency funding** and **long-term funding** for **reconstruction** and **development**. Examples - Contingent credit (World Bank's Catastrophe Deferred Drawdown Option (CAT-DDO). Beneficiaries: Government
- **Property catastrophe risk insurance** aims to protect homeowners and SMEs against **loss** arising from **property damage**. Examples - Turkish Catastrophe Insurance Pool (TCIP). Beneficiaries: Homeowners & SMEs

Disaster risk financing and insurance

Strategies

- **Agricultural insurance** aims to protect farmers, herders, and fishermen from **loss** arising from **damage** to their **productive assets**. Examples – India's National Crop Insurance Program (market-based crop insurance program). Beneficiaries: Farmers
- **Disaster-linked social protection** aims **strengthen** the **resilience** of the poorest and most vulnerable to the debilitating effects of natural disasters. Examples – Ethiopia's Productive Safety Net Program. Beneficiaries: The Poorest

Disaster risk financing and insurance

What are the benefits of sovereign disaster risk financing?

- Increases **financial response** and **reconstruction capacity** through improvements to:
  - **Resource mobilization**, **allocation**, and **execution**;
  - **Insurance** of **public assets**
  - **Social safety net** financing
- Smooth **public expenditure** across years by reducing the volatility of the cost of disasters, and hence protects the stability of **public finances**
- Clarifies **contingent liability** arising through disaster exposure of public assets, the private sector and state-owned enterprises, and the poor
- Provide **incentives** for investment in risk reduction

Disaster risk financing and insurance

Characteristics that build financial resilience

1. Cost of capital
2. Appropriate risk information
3. Ownership of risk
4. Discipline
5. Timeliness of post-disaster financing

Outline

- What are the global disaster risk financing and insurance tools for financing protection?
- What are the main issues related to physical and financial vulnerability to natural hazards in Central Asia
  - Central Asia Regional Economic Cooperation (CAREC)?
- Technical Assistance: Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region
  - Impact and Outcome
  - Outputs and Activities
  - Implementation Arrangements

Main issues related to physical and financial vulnerability

adpc

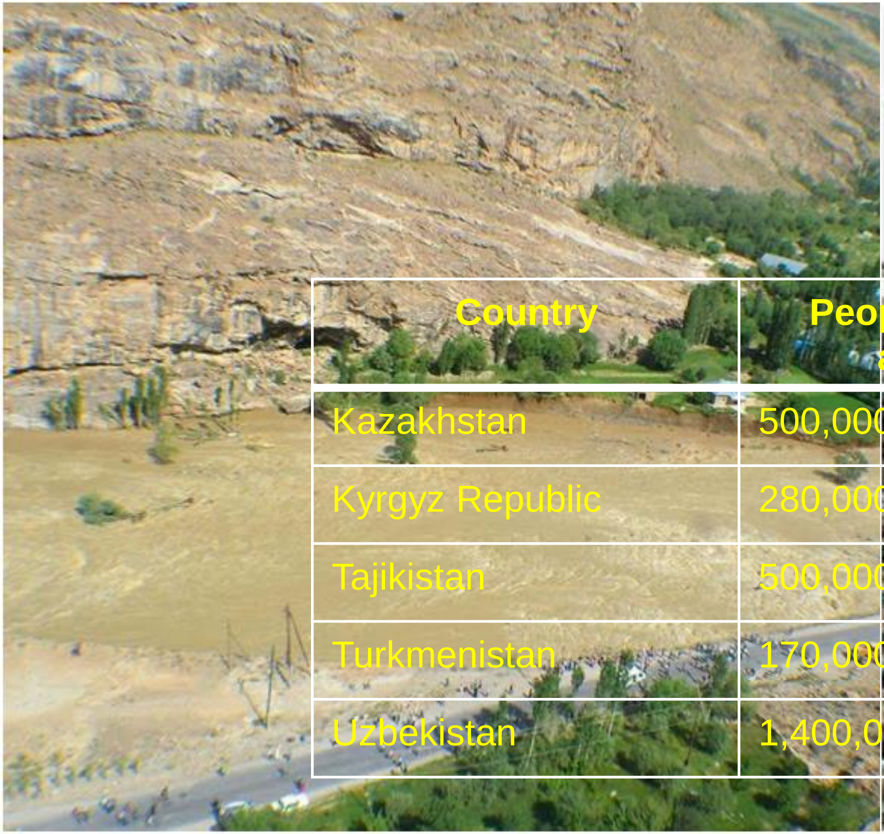
Central Asia

Photo: Blocked mountain road, Tajikistan

Source: Burunciuc, 2020

Main issues related to physical and financial vulnerability

Central Asia - Consequences of floods and earthquakes



Country	People affected, annually	Economic losses, annually
Kazakhstan	500,000	$4,000 million
Kyrgyz Republic	280,000	$270 million
Tajikistan	500,000	$400 million
Turkmenistan	170,000	$2,700 million
Uzbekistan	1,400,000	$2,800 million

Source: GFDRR

https://blogs.worldbank.o
/europeandcentralasia/na
ral-disasters-cost-central-
asia-10-billion-year-are-we
doing-enough

What is CAREC?

adpc

- Started in 2001, the Central Asia Regional Economic Cooperation (CAREC) Program is a partnership of **11 countries** and development partners working together **to promote development through cooperation, leading to accelerated economic growth and poverty reduction**
- Guided by the overarching vision of **"Good Neighbors, Good Partners, and Good Prospects"**
- Aims to emerge as a **center for trade and commerce**, to achieve higher levels of economic growth, and to reduce poverty
- Important project: **CAREC corridors** improve access to essential services and job opportunities – transport, energy, trade, and economic corridors development

What is CAREC?

Members – (i)

Afghanistan

Azerbaijan

People's Republic of China

Georgia

Kazakhstan

Kyrgyz Republic

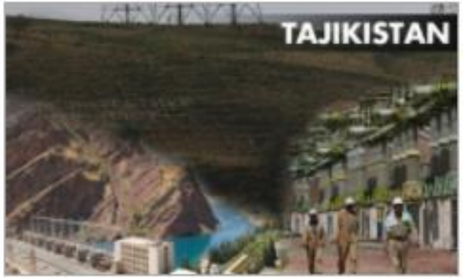
Source: https://www.carecprogram.org/?page_id=31

What is CAREC?

Members – (ii)

Mongolia

Pakistan



Tajikistan

Turkmenistan

Uzbekistan

Source: https://www.carecprogram.org/?page_id=31

Main issues related to physical and financial vulnerability

CAREC region

- Not yet fully developed or implemented **comprehensive disaster risk management (DRM) strategies** that efficiently tackle protection
- Limited availability of **reliable data** on hazards, exposure, and vulnerability
- Weak **analytics and modeling capacities** that make it very difficult to understand and comprehensively manage disaster risks

Main issues related to physical and financial vulnerability

CAREC region

- Low capacity to generate **data and information** to decide whether the benefits of undertaking DRR measures will outweigh their costs
- **Integration of DRR measures** into the overall development planning and budgeting processes is still inadequate
- **Legal and regulatory environment** in CAREC countries needs to be strengthened to attract the required financing for DRR projects and promote private sector investments
- Development, access, and use of **ex-ante DRF instruments** for post-disaster response are still in their infancy in the CAREC countries

Main issues related to physical and financial vulnerability adpc

CAREC region

- **Public contingent finance** resources allocated for ex-ante DRF are limited
- **Insurance penetration** ratio in CAREC countries, excluding the People’s Republic of China, is very low at 0.6% on average in 2018
- Need to strengthen the **enabling legal and regulatory environment** to foster a sustainable insurance market that offers innovative and affordable risk transfer solutions

Outline

- What are the global disaster risk financing and insurance tools for financing protection?
- What are the main issues related to physical and financial vulnerability to natural hazards in Central Asia
  - Central Asia Regional Economic Cooperation (CAREC)?
- Technical Assistance: Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region
  - Impact and Outcome
  - Outputs and Activities
  - Implementation Arrangements

Developing a Regional Disaster Risk Transfer Facility

Needs for a Regional Strategy

A **regional DRF facility** complementing national DRM initiatives can provide additional value in various forms:

- allows for **broader risk diversification** across several countries with different risk profiles, leading to lower premiums and operational costs, and increasing affordability, especially for disaster risk protection structures against low-frequency, high-severity events
- creates a platform for taking a **coordinated approach** to disaster risk analysis and improving risk information sharing, since disasters often know no boundaries
- provides an opportunity for participating countries to jointly access **international reinsurance and capital market solutions** that might not be accessible or affordable for individual countries with small population sizes

Outline

- What are the global disaster risk financing and insurance tools for financing protection?
- What are the main issues related to physical and financial vulnerability to natural hazards in Central Asia
  - Central Asia Regional Economic Cooperation (CAREC)?
- Technical Assistance: Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region
  - Impact and Outcome
  - Outputs and Activities
  - Implementation Arrangements

Developing a Regional Disaster Risk Transfer Facility

Impact and Outcome

Impact:

- **Macroeconomic resilience** to disaster risks in the CAREC region increased

Outcome:

- **Collaboration** between CAREC countries in **disaster risk financing, including insurance**, increased

Outline

adpc

- What are the global disaster risk financing and insurance tools for financing protection?
- What are the main issues related to physical and financial vulnerability to natural hazards in Central Asia
  - Central Asia Regional Economic Cooperation (CAREC)?
- Technical Assistance: Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region
  - Impact and Outcome
  - Outputs and Activities
  - Implementation Arrangements

Developing a Regional Disaster Risk Transfer Facility

adpc

Activities and milestones

Output 1: **Disaster risk assessments** and **modeling** in CAREC countries produced

- **Collect data**, review existing literature and **risk assessments** as well as existing **disaster risk financing** mechanisms in CAREC countries, and conduct **consultations** with key stakeholders (Q1 2020)
- Produce **disaster risk profiles** for all CAREC countries, including identification of assets at risk, and specific social and gender vulnerabilities (Q1–Q4 2020)

Developing a Regional Disaster Risk Transfer Facility

adpc

Activities and milestones

Output 1: Disaster risk assessments and modeling in CAREC countries produced

- Conduct stochastic **risk modeling analysis** and produce aggregated exceedance probability curves (Q1–Q2 2020)
- Quantify the **protection gap** and develop the capability to conduct **cost–benefit analyses** of disaster risk retention, reduction, and transfer measures (Q2–Q4 2020)
- Develop a user-friendly **graphic interface** (Q2–Q4 2020)

Developing a Regional Disaster Risk Transfer Facility

Activities and milestones

Output 2: Regional **disaster risk transfer solution** designed

- Review the disaster risk assessments conducted under output 1 and identify criteria for selecting at least three CAREC countries for designing a regional **disaster risk transfer scheme** (Q1–Q2 2021)
- Determine the **optimized level of disaster risk retention** versus **disaster risk transfer** in the selected countries (Q2–Q3 2021)
- Conduct **consultations** with key public and private stakeholders in CAREC countries (Q3 2021– Q1 2022)

Developing a Regional Disaster Risk Transfer Facility

adpc

Activities and milestones

Output 2: Regional disaster risk transfer solution designed

- Prepare a detailed **operational and financial framework** for the regional disaster risk transfer pilot scheme (Q4 2021–Q2 2022)
- Analyze selected countries' regulations, laws, and institutional structures related to disaster risk financing, including insurance, and provide **recommendations on policy and regulatory reforms** required in the selected countries (Q1–Q2 2022)
- Determine the most **effective and suitable option** for a regional **disaster risk transfer mechanism** in the CAREC region (Q3–Q4 2022)

Developing a Regional Disaster Risk Transfer Facility

adpc

Activities and milestones

Output 3: **Capacity** for disaster risk financing, including insurance, enhanced

- Identify the **training needs** of government agencies on disaster risk financing (Q1 2020)
- Conduct national and regional **capacity building training** and **workshops** for government officials (Q2 2020–Q1 2022)
- Present and disseminate the **disaster risk profiles** developed under Output 1 at CAREC level (Q1 2021–Q1 2022)
- Present and disseminate the **operational plan** of the regional disaster risk transfer pilot scheme for selected CAREC countries (Q1–Q4 2022)

Outline

- What are the global disaster risk financing and insurance tools for financing protection?
- What are the main issues related to physical and financial vulnerability to natural hazards in Central Asia
  - Central Asia Regional Economic Cooperation (CAREC)?
- Technical Assistance: Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region
  - Impact and Outcome
  - Outputs and Activities
  - Implementation Arrangements

Developing a Regional Disaster Risk Transfer Facility

adpc

Implementation arrangements

Aspects	Arrangements		
Indicative implementation period	November 2019–October 2022		
Executing agency	ADB		
Implementing agencies	Joint leadership of CWRC and SDSC-FIN under the "One ADB" approach		
Consultants	To be selected and engaged by ADB		
	QCBS (90:10)	Consulting firm to manage an interdisciplinary team of international experts (64 person-months) and national experts (51 person-months)	$1,850,391
	Individual selection	Resource persons	$35,000
Advance contracting	To expedite consultant mobilization and ensure timely implementation of the TA, selection of the consulting firm will commence through advance contracting following ADB's project administration instructions.[a] Negotiations and signing of the consulting contract will only occur after the TA becomes effective.		
Design of pilot testing of project approach	A regional disaster risk transfer pilot scheme will be designed for a subset of CAREC countries (output 2).		
Disbursement	The TA resources will be disbursed following ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). Disbursement will be done on a pro rata basis.		

ADB = Asian Development Bank; CAREC = Central Asia Regional Economic Cooperation; CWRC = Regional Cooperation and Operations Coordination Division of the Central and West Asia Department; QCBS = quality- and cost-based selection; SDSC-FIN = Finance Sector Group of the Sustainable Development and Climate Change Department; TA = technical assistance.

[a] ADB. 2013. Specific Requirements for Recruiting Consultants by ADB. *Project Administration Instructions*. PAI 2.04. Manila.

Source: Asian Development Bank.

Outline

- What are the global disaster risk financing and insurance tools for financing protection?
- What are the main issues related to physical and financial vulnerability to natural hazards in Central Asia
  - Central Asia Regional Economic Cooperation (CAREC)?
- Technical Assistance: Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region
  - Impact and Outcome
  - Outputs and Activities
  - Implementation Arrangements

References

- Asian Development Bank (ADB). (2019). *Developing a Disaster Risk Transfer Facility in the Central Asia Regional Economic Cooperation Region.* Technical Assistance Report. Retrieved from: https://www.adb.org/sites/default/files/project-documents/53198/53198-001-tar-en.pdf
- Burunciuc, L. (2020). Natural disasters cost Central Asia $10 billion a year – Are we doing enough to prevent them? Retrieved from: https://blogs.worldbank.org/europeandcentralasia/natural-disasters-cost-central-asia-10-billion-year-are-we-doing-enough
- CAREC Program. Retrieved from https://www.carecprogram.org/?page_id=31
- World Bank. (2014). Financial Protection Against Natural Disasters. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/21725/949880WP0Box380st0Natural0Disasters.pdf?sequence=1&isAllowed=y
- Swiss Re Institute. (2021). Sigma: Natural catastrophes in 2020: secondary perils in the spotlight , but don't forget primary-peril risk.

THANK YOU

FOR YOUR ATTENTION

www.adpc.net

@ADPCnet

Asian Disaster Preparedness Center - ADPC

Asian Disaster Preparedness Center (ADPC)