Training on Financing for Disaster Risk Management
Session 2.2 Global and Regional Disaster Risk Financing and Insurance (DRFI) Facilities
Session Objectives

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

*Increasing trends of natural catastrophic events!*

Number of catastrophic events, 1970–2020

Source: Swiss Re Institute
Context (ii)

*Increased insurance protection gaps!*

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

- Insured losses
- Uninsured losses
- 10-year moving average insured losses
- 10-year moving average economic losses

Economic losses = Insured + Uninsured losses

Source: Swiss Re Institute
Context (iii)

*Insurance protection gaps - Region wise*

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

Source: Swiss Re Institute
Context (iv)

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

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

- Government Reserves, Contingency Budget/ Funds
- Contingent Credit Lines
- Sovereign Risk Transfer (e.g. Cat Bond/Cat Swap, (re)insurance)

International Assistance

- Insurance of Public Assets
- Post Disaster Credit
- Emergency Funding
- Reconstruction

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
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Main issues related to physical and financial vulnerability

Central Asia

Economic losses

Natural hazard induced disasters cost Central Asia $10 billion a year

Photo: Blocked mountain road, Tajikistan

Source: Burunciuc, 2020
## Main issues related to physical and financial vulnerability

### Central Asia - Consequences of floods and earthquakes

<table>
<thead>
<tr>
<th>Country</th>
<th>People affected, annually</th>
<th>Economic losses, annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>500,000</td>
<td>$4,000 million</td>
</tr>
<tr>
<td>Kyrgyz Republic</td>
<td>280,000</td>
<td>$270 million</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>500,000</td>
<td>$400 million</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>170,000</td>
<td>$2,700 million</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>1,400,000</td>
<td>$2,800 million</td>
</tr>
</tbody>
</table>

Source: GFDRR
What is CAREC?

- 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 in the 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.
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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
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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
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Developing a Regional Disaster Risk Transfer Facility

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

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

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

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)
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## Implementation arrangements

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative implementation period</td>
<td>November 2019–October 2022</td>
</tr>
<tr>
<td>Executing agency</td>
<td>ADB</td>
</tr>
<tr>
<td>Implementing agencies</td>
<td>Joint leadership of CWRC and SDSC-FIN under the “One ADB” approach</td>
</tr>
<tr>
<td>Consultants</td>
<td>To be selected and engaged by ADB</td>
</tr>
<tr>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>Individual selection Resource persons $35,000</td>
</tr>
<tr>
<td>Advance contracting</td>
<td>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. Negotiations and signing of the consulting contract will only occur after the TA becomes effective.</td>
</tr>
<tr>
<td>Design of pilot testing of project approach</td>
<td>A regional disaster risk transfer pilot scheme will be designed for a subset of CAREC countries (output 2).</td>
</tr>
<tr>
<td>Disbursement</td>
<td>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.</td>
</tr>
</tbody>
</table>

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.

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

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