Boosting Financial Resilience to Disaster Shocks
Good Practices and New Frontiers

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Disasters threaten public finances and poverty reduction

Global economic losses from disasters are on average more than **US$300 billion** a year.

This increases by 60% to **US$520 billion** when estimating **global consumption loss**.

Disasters force **26 million people** into poverty every year.

Australia: $5bn+
2010/11 Queensland Floods (infrastructure)

China: $130bn+
2008 Sichuan Earthquake

Japan: $300bn+
2011 Tohoku Earthquake and Tsunami

US: $125bn+
2005 Hurricane Katrina

Mexico: $2bn+
2017 Earthquake

US: $125bn+
2017 Hurricane Harvey

Indonesia: $1bn+
2018 Earthquake & Tsunami

New Zealand: 20%GDP
2010 Earthquake

Chile: 20%GDP
2010 Earthquake

Mexico: $2bn+
2017 Earthquake

Indonesia: $1bn+
2018 Earthquake & Tsunami

New Zealand: 20%GDP
2010 Earthquake

Australia: $5bn+
2010/11 Queensland Floods (infrastructure)
Building a comprehensive approach to resilience

Physical Resilience

- Reduce risk and prevent disasters
  - e.g. quality infrastructure

Social Resilience

- Help households and society cope with shocks
  - e.g. shock responsive social safety nets

Financial Resilience

Core Mandate of Finance Ministers

- Pre-arranged predictable funding when disasters strike to protect the fiscal balance, subnational governments, households, and businesses
DRF Core Principles – Lessons from international experiences

**Timeliness of Funding**

Speed matters but not all resources are needed at once.

**Disbursement of Funds**

How money reaches beneficiaries is as important as where it comes from.

**Disaster Risk Layering**

No single financial instrument can address all risk.

**Data & Analytics**

Sound financial decisions require the right financial information and data.
Good Practice in national DRF strategies – Three-tiered approach

Protecting society across three layers

**National government**
*Mexico*: Protecting the federal budget and public assets - Natural Disaster Fund (FONDEN)

**Subnational governments**
*Australia*: Enhancing the financial resilience of subnational governments - Natural Disaster Relief and Recovery Arrangements (NDRRA)

**Individuals** (Households and Businesses)
*Japan*: Protecting homeowners against earthquakes – Earthquake Insurance Program

Leadership of Finance Ministries  
Integrate risk finance into macro-fiscal planning
Good practice in regional collaboration - Sovereign cat risk pools

3 existing regional sovereign catastrophe risk pools
1 being established

Good practice in regional collaboration - Sovereign cat risk pools

3 key lessons for Success

- **Political Commitment**
  by participating countries

- **Operational Design**
  to minimize operating costs and create public goods

- **Financial Sustainability**
  to provide access to cost-effective financial solutions

What’s next?
Disaster Risk Finance 2.0

Three key innovations

1. **Cat risk pools - sharing more than risk**
   Full service regional risk financing
   Platforms addressing specific DRF needs for more countries

2. **Better targeted financial solutions**
   for specific drivers of contingent liabilities

3. **Increasing use of technology**
   such as Innovation in Earth Observation Data, Financial Technology, Big Data and Artificial Intelligence
1. Cat Risk pools—sharing more than risk

**PCRAFI**—Private Sector Window
helping domestic insurers access international reinsurance markets

**ARC**—Replica Coverage
cat risk insurance policies offered to UN agencies and other humanitarian actors to match ARC country insurance policies.

**CCRIF**—New Insurance Products
excess rainfall insurance, fisheries insurance
1. Cat Risk pools—sharing more than risk

A DRF Platform for ASEAN Countries. Tailored to diverse perils, size, income level

www.seadrif.org
Targeted risk financing solutions to better match government liabilities for efficient portfolio risk management

- Identify sources of contingent liabilities
- Quantify contingent liabilities
- Developing targeted financial instruments

Public Assets
National-Subnational Cost-Sharing
Social Assistance (shock responsive safety net)
Technology and innovation for disaster risk financing

**Earth Observation Data**
Mapping assets, assessing risks, and near-real-time impact monitoring.

- *Southeast Disaster Risk Insurance Facility (SEADRIF):* Flood Risk Assessment Tool
- *Japan Earthquake Insurance Program:* Claims settlement after earthquake

**Financial Technology**
Digital payment systems to improve accessibility and effectiveness in providing financial assistance.

- *Kenya Livestock Insurance Program:* Insurance payment to farmers through mobile money services

**Big Data and AI**
Nascent, but potential to transform disaster risk financing e.g., claims assessment and triggers.

- *Southeast Disaster Risk Insurance Facility (SEADRIF):* Testing of social media inputs for risk assessment
- *UK Digital National Asset Register:* Upgrading the management of the government estate.
New Frontiers in DRF

Integration of disaster risks in core macro fiscal frameworks

Expand to new sources of risks

Financial management of interconnected risks

- Natural Disaster
- Extreme weather events
- Pandemics
- Displacement
- Conflict
- Cyber risk
World Bank - Growing Support on DRF
to help MOF integrate risk finance in their macro-fiscal policy

Over **60 countries** supported

Over **$3.8 billion** transferred to financial markets

**15 Cat DDOs worth over $3 billion** in contingent lines of credit for disaster response

**Over 60 countries supported**

- Pacific Alliance: Chile, Colombia, Mexico, Peru
- Mexico (3)
- Guatemala
- Costa Rica
- El Salvador
- Panama
- Colombia (2)
- Peru (2)
- Uruguay
- CCRIF (8)

**Global Pandemic**

**15 Cat DDOs**

- Serbia
- Romania
- Sri Lanka
- Kenya
- Seychelles
- Malawi
- Philippines (2)
- PCRAFI (5)
- SEADRIF
- CCRIF (8)
- Uruguay

**Market Transaction**

(##) – Number operations / transactions
Enabling early action after climate shocks, disasters, and crises by setting up financing ahead of time and connecting this to pre-agreed interventions.

Launched at the 2018 World Bank-IMF Annual Meetings. Expected donor contributions of over US$145M to invest in establishing and scaling up pre-arranged crisis risk financing instruments, including market-based instruments, and the systems that enable better response.

Over time the GRiF will test and scale up new financial solutions to cover a wider range of crises, including in support of the World Bank’s Global Crisis Risk Platform.
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