Financial Protection of Public Assets:

A PRIMER FOR PUBLIC OFFICIALS

Disaster Risk Financing
& Insurance Program

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Impact of Disasters and Climate Shocks on Public Assets

Disasters caused by natural hazards can lead to widespread damage and losses to infrastructure assets and disrupt the provision of their services.

These disruptions impede the smooth functioning of economies and societies, and are estimated to cost households and firms more than US$400 billion annually across low- and middle-income countries.[1] Damages to power generation and distribution and to transport infrastructure alone cost about US$18 billion a year in low- and middle-income countries.[2]

These impacts are expected to increase as a result of climate change.

Governments often assume a significant proportion of infrastructure's recovery and reconstruction costs, particularly for uninsured publicly owned assets — one type of contingent liabilities for the government. They also face reduced revenues caused by disruption of economic activities including from their own revenue-generating public assets. These can be called “consequential damages” or “consequential losses”. The revenue reduction can create a significantly adverse fiscal impact. Disasters often disproportionately impact the poor and most vulnerable in terms of loss of property and income, leading to the need for further government support.

1 - Stephane Hallegatte, Jun Rentschler, and Julie Rozenberg, “Lifelines: The Resilient Infrastructure Opportunity,” Sustainable Infrastructure (Washington, DC: World Bank, 2019). See Click Here License: CC BY 3.0 IGO.

2 - Hallegatte, Rentschler, and Rozenberg. “Lifelines.”

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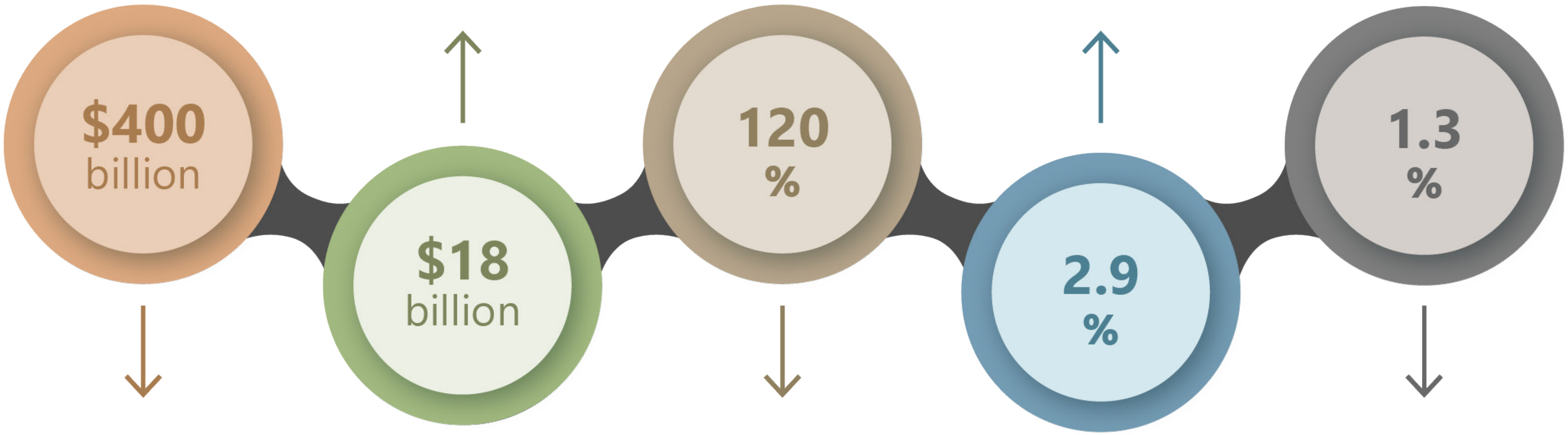
"Public asset" is a term used to describe assets across a wider range of services and functions of government, including education, administration, and health. Often, this term expands to include critical infrastructure and other assets owned through public-private partnerships.

Many countries, particularly those in Southeast Asia, have made significant advances in establishing policies and measures toward improved financial protection of public assets.

Damages to power generation and distribution and to transport infrastructure alone cost about US$18 billion a year.

Middle-income countries face the highest relative economic impact, with an average annual direct loss estimated at 2.9 percent of GDP.



Disruptions caused by natural disasters cost households and firms more than US$400 billion per year across low- and middle-income countries.

The International Monetary Fund estimates that nonfinancial public assets such as buildings, infrastructure, and land are valued at 120 percent of GDP in some countries.

Low-income countries experience an average annual direct loss of 1.3 percent of GDP.

Why Do We Protect Public Assets?

Disasters cause damage and disruption to a wide range of infrastructure systems and services.

To protect populations and firms that are highly reliant on public assets and services.

Governments often bear the brunt of the costs of disasters.[3]

There are growing risks associated with climate change and strained finances.

Strengthening the resilience of infrastructure systems and services is at the heart of efforts to meet the Sustainable Development Goals (SDGs).

For speedy recovery and reconstruction.

To support plans and systems that will quickly restore service delivery to the population.

3 - Organisation for Economic Co-operation and Development (OECD), Disaster Risk Assessment and Risk Financing. A G20 / OECD Methodological Framework, (Paris: OECD, 2012)

PHOTO BY: TEJJ, UNSPLASH

What is a Public Assets Disaster Risk Finance (DRF) Program?

A public assets DRF program is a coordinated, pre-arranged strategy (often a component of a national DRF strategy) for funding the financial consequences of disaster impacts on public assets. It establishes the principles, objectives, and methods for financing the response and recovery costs associated with damage-causing events. Different potential funding options exist: from **internal sources such as budget reserves or contingency funds (also called risk-retention instruments), or from external sources, such as risk-transfer insurance or sovereign borrowing.**

Depending on the level of risk, a public assets DRF strategy could involve the following:

A split between risk retention and transfer.

Different risk-financing instruments so that funding is diverse and is not subject to a single point of failure.

The most effective split between risk retention and risk transfer will differ for each situation, but generally the split is informed by:

Internal influences such as the government's ability to bear financial risk and raise capital and the longer-term fiscal objectives, as well as contingent liability obligations beyond public asset risk.

External influences such as the availability of external risk-financing capital (insurer's capacity and market participation), as well as the cost of external risk-financing capital versus self-retention.

Public Assets DRF Programs:

- Contribute to financial management of governments' disaster-related contingent liabilities
- Reflect public service delivery priorities
- Reflect public asset criticalities
- Complement disaster risk management, disaster risk reduction, and asset management policy agendas

What are the Fundamental Principles of a DRF Program?

Timeliness

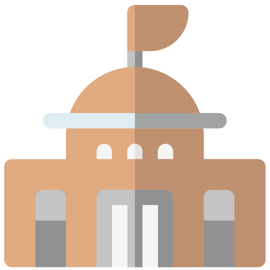
DRF delivers funds when they are needed. Speed matters but not all resources are needed at once.

Targeted

DRF responds to the right hazards. Funding targets the recognized perils.

Directed

DRF funds are allocated to the right beneficiaries. How money reaches beneficiaries is as important as where it comes from. Governments require dedicated mechanisms to effectively allocate, disburse, and monitor recovery and reconstruction funds.



Diverse

DRF is an effective combination of complementary instruments. Governments should ideally combine different instruments to protect against events of different frequency and severity.

PHOTO BY: COLIN LLOYD, UNSPLASH

Targeted Funding Aligned with Geographic, Topographic, and Demographic Factors

Different disaster events have different impacts.

Geography and topography often dictate the types of disasters a nation can face.

Concentrated populations may increase the severity of impact of disaster events.

DRF needs to account for a nation's disaster risk profile.

Timeliness of Funding

Immediate liquidity is crucial to support relief and early recovery operations.

As the majority of cash is needed for reconstruction, governments have some flexibility to mobilize larger resources for reconstruction.

This staged approach to expenditure has implications on the design of strategic and cost-effective DRF strategies.

Funding Needs to Be Well-Directed

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

Governments require dedicated mechanisms to effectively allocate, disburse, and monitor recovery and reconstruction funds.

Strong collaboration between the ministry of finance and the public entity tasked with spending post-disaster funds — such as local governments or agencies that maintain public infrastructure — is crucial.

The disbursement system must balance policymakers' concern for fast disbursement with the transparency and accountability required by the public and donors.

Funding Source Diversity and Layering

No single financial instrument can address all risks.

International experience has shown that governments ideally combine different instruments to protect against events of different frequency and severity.

This approach, known as risk layering, is part of a comprehensive financial protection strategy that mobilizes different instruments, before or after a disaster strikes, to address the evolving need for funds.

Risk layering ensures that cheaper sources of money are used first and that the most expensive instruments are used only in exceptional circumstances.

Public Asset Financial Protection Program Roadmap

01 Strategic Alignment
Agree on principles and align with government's overall risk management objectives.

02 Legitimacy
Develop and support mandate through policy and legislative frameworks and direct ministerial ownership and accountability.

03 Budget Planning
Set the appropriate financial budget to cover costs of the program.

04 Evidence Gathering
Develop understanding of the possible losses arising from the catastrophic exposure of public assets and existing financial protection arrangements.

05 Options Assessment
Identify and assess options that balance trade-offs between risk retention versus risk transfer.

06 Decision-making
Select the preferred option for delivery.

07 Set Up of Risk Transfer Solutions
Establish the risk-funding mechanism, including procurement of the risk transfer solutions.

08 Preparations and Operationalization
Undertake recruitment procurement set-up of operational governance, IT systems, communications and training.

09 Annual Service Cycle
Planning review, and preparations for renewal.

10 Continuous Improvement
Use ongoing monitoring and reporting to inform opportunities for improvement.

Stages in the Preparation and Implementation of a Financial Protection Strategy for Public Assets

Design

The creation of a business strategy and objectives for the financial protection of public assets in line with government policy vis-à-vis asset management.

Development

The assessment of risk and the establishment of an effective and sustainable financial protection program to achieve the strategic objectives in line with the risk appetite.

Implementation

Implementing the insurance/disaster risk-financing program with clear procedures to ensure efficient payout of claims and transparent accounting, in accordance with policy terms and conditions.

Renewal

Regularly assessing, adapting, and sustaining the objectives of the program to address evolving exposure, risk, and market trends while maintaining cost-effectiveness and long-term viability.

Design

Before a program of public assets financial protection is implemented, it must have an established purpose that aligns with the government's common-good agendas and has the authority to act and use public funds. This stage sets the boundaries and scale for potential solutions, thereby assisting development teams to determine relevant and sustainable options. Officials should fully define what the program is intended to protect. A public assets financial protection program must also have a mandate that is embedded in legislation and regulation. A sound legislative basis can support a long-term approach even if governments change.

Key Activities in This Stage

Strategic Alignment

- Reach an agreement on the principles.
- Define the intended benefits.

Legitimacy

- Affirm the mandate.
- Develop a legislative/regulatory instrument.
- Agree on the operational base.
- Develop a strategic governance process.

Budget Planning

- Establish the core financial strategies.

PHOTO BY: DOUG LINSTEDT, UNSPLASH

Development

In this stage, officials quantify and qualify the financial protection needed and identify the most effective and efficient means of protection. A comprehensive, logical, and tried-and-tested approach is employed in decision-making, including an options assessment. Data gaps, political urgency, and other factors may mean that governments do not have the luxury to complete all the steps listed in this stage. Despite this, governments can gather evidence and assess options to allow for continuous improvement and adapting of solutions over time.

Key Activities in This Stage

Evidence Gathering

- Identifying the preferred option of delivery.
- Obtaining the required sign-off and authorizations.

Options Assessment

- Conducting assessment of drivers.
- Assessing the degree of risk retention vs risk transfer.
- Defining financial services, roles, and responsibilities.
- Assessing costs and contribution arrangements.

Decision Making and Authorisation

- Conducting assessment of financing options and drivers.
- Identifying the preferred option of delivery.
- Obtaining the required sign-off and authorizations.

PHOTO BY: CHUTTERSNAP, UNSPLASH

Implementation

The implementation stage turns plans and expectations into reality. Some costs may have been tentative in previous stages, but they must become fixed in this stage. Service delivery must be embedded as much as possible before the program commences. Moreover, the program must be prepared for the possibility that a loss event could occur on the first day of operation.

Key Activities in This Stage

Instituting the Risk-Financing Solution:

- Establish the risk retention and risk transfer solutions.

Peparing for and Launching the Program:

- Establish the operational governance.
- Establish the structure.
- Establish the external engagement procedures including communications and the inclusion of agencies.

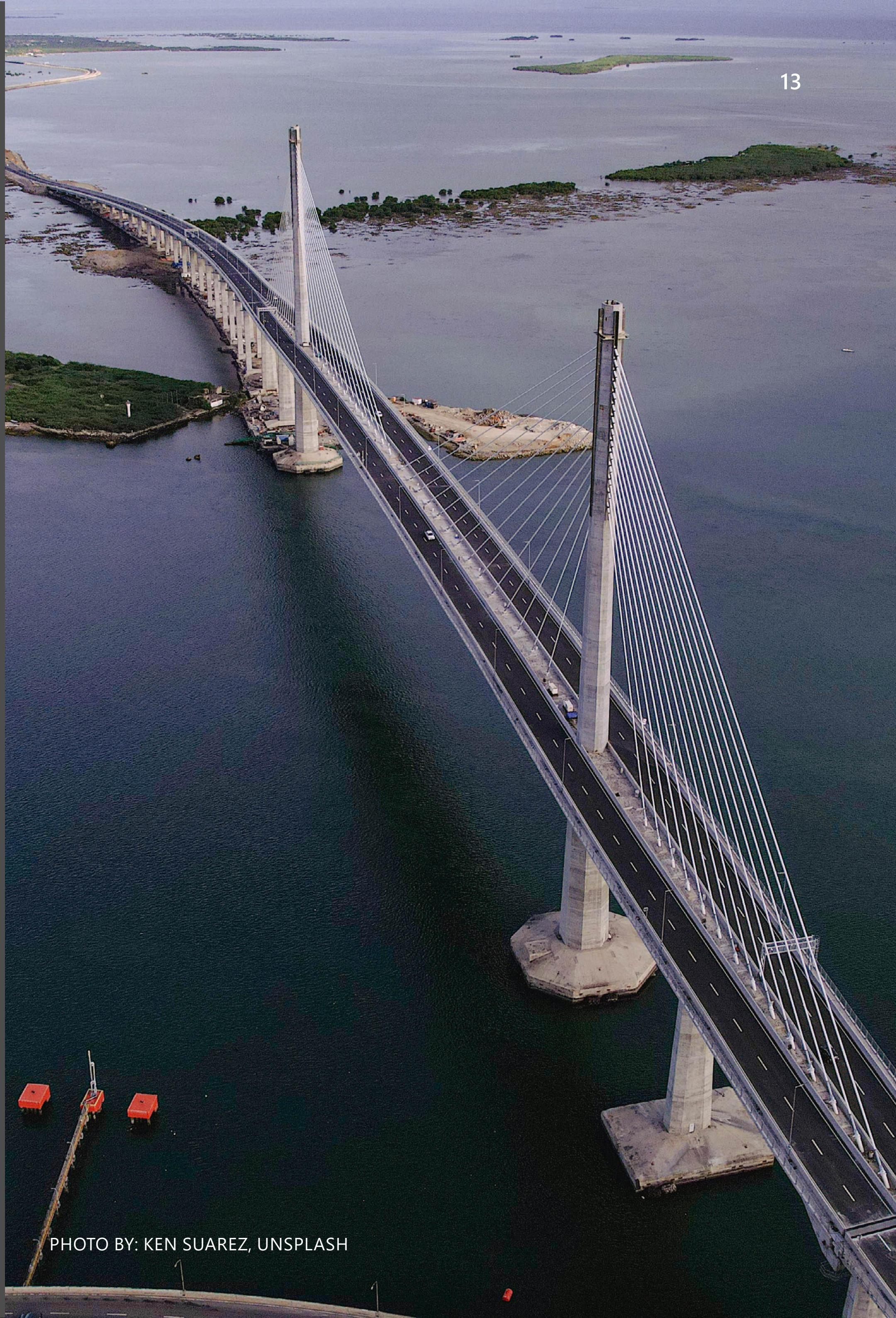
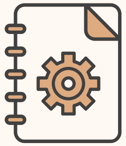


PHOTO BY: KEN SUAREZ, UNSPLASH

Renewal

Operating environments are fluid. Priorities change, risks evolve, and the systems and technologies that deal with them continue to advance. In addition, risk-transfer instruments are timebound. This stage is important because financial protection needs to be continuous, and it needs to constantly reflect any lessons learned, changing risk characteristics, and ways to evolve in line with the strategic and operational environment. Most importantly, it needs to evaluate the degree to which the objectives outlined at the outset have been attained.

Key Activities in This Stage



Annual Service Cycle:

- Manage risk-financing cycle.
- Manage service and administrative cycle.

Continuous Improvement:

- Monitor and report on benefits.
- Manage ongoing risks.
- Develop lessons learned.
- Manage ongoing stakeholder engagements.

PHOTO BY: TOMAS WILLIAMS, UNSPLASH

Tailoring a Public Assets DRF Program

- Understand the existing institutional, data, operational, and insurance market settings (i.e., the 4 Pillars).
- Select fit-for-purpose DRF instruments that align with the current settings and the asset types to be protected under the program.

Pillar 1

Institutional Readiness
Strategic Alignment
Policy & Legislation
Funding & Financial Settings
Governance Pillar

Pillar 2

Data Readiness
Data Definition & Availability
Data Management
Risk Assessment
Risk Models

Pillar 3

Operational Readiness
Stakeholder Engagement Communications & Support
Capacity & Capability Building
Establishing Functional Architecture
Insurance Program Activation
Insurance Program Maintenance
Fund Disbursement
Claims Management

Pillar 4

Insurance Market Readiness
Options Assessment & Selection
Market Development
Market Management

Information Requirements for Public Asset Disaster Risk Financing and Insurance

Data and information are integral to a successful public assets risk financing program. Any journey toward an effective and efficient risk-financing program must account for building data capture and analysis capability.

The rewards for doing so include greater certainty that you are focusing on the right priorities and that you are making cost-effective and defensible choices about what risk to retain and what to transfer.

Better data also will incentivize stronger early warning and risk management of public assets.

Obtaining and using the right data and information for a risk-financing program is often challenging and costly. Data capture frequently requires sophisticated analytical platforms, and information can sometimes be hard to gather consistently and effectively to meet insurer needs. There may also be subtle differences in the data requirements from insurers between indemnity and parametric insurance solutions.

Parametric solutions place emphasis on measuring the likelihood and scale of well-defined disaster scenarios, while **indemnity insurance** places focus on the assets exposed to risk and the assets' values. Both, however, will require robust analysis of the entire pathway of impacts of disaster scenarios upon assets and the economy.

The World Bank's Disaster Risk Financing and Insurance Program (DRFIP) helps developing countries manage the potentially high cost of disasters and climate shocks. DRFIP provides analytical and advisory services, convening services, and financial services to more than 60 countries worldwide to support developing and implementing comprehensive financial protection strategies against climate and disaster risks.

This publication summarizes in-depth information provided in *Financial Protection of Public Assets: A Practitioner's Guide for Public Officials.*

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