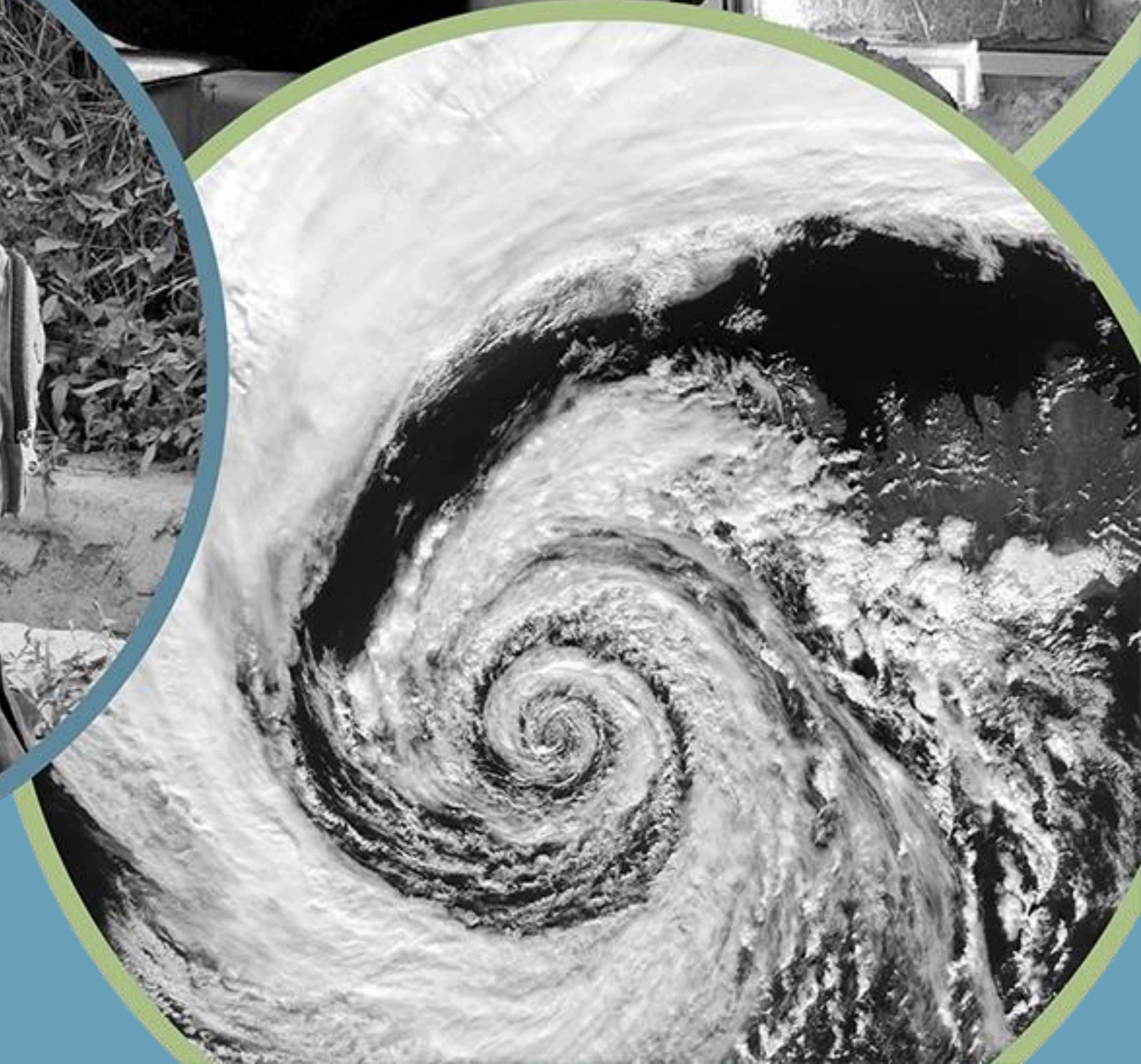
Knowledge Exchange Series on Building Sovereign Financial Resilience in Middle Income Countries

Managing Disaster-Related Contingent Liabilities

April 27, 2021



Disaster Risk Financing & Insurance Program

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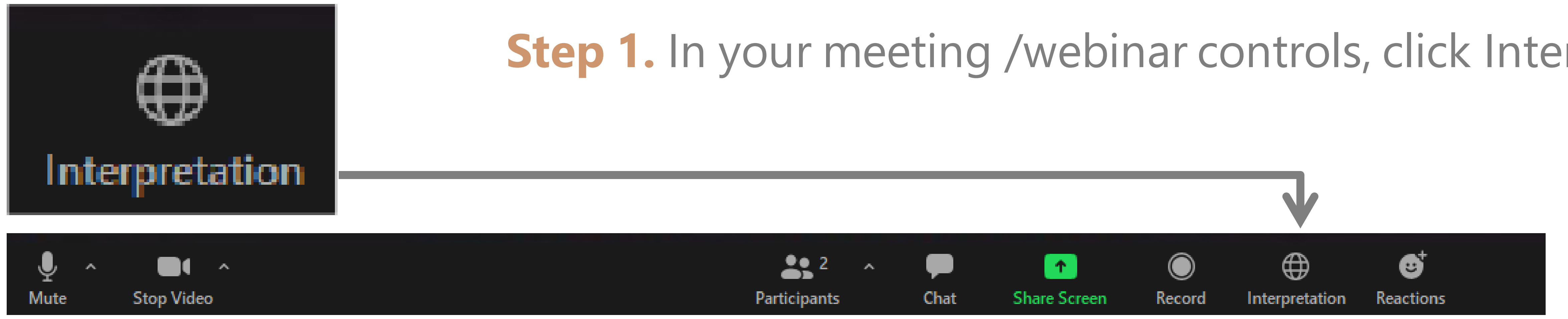

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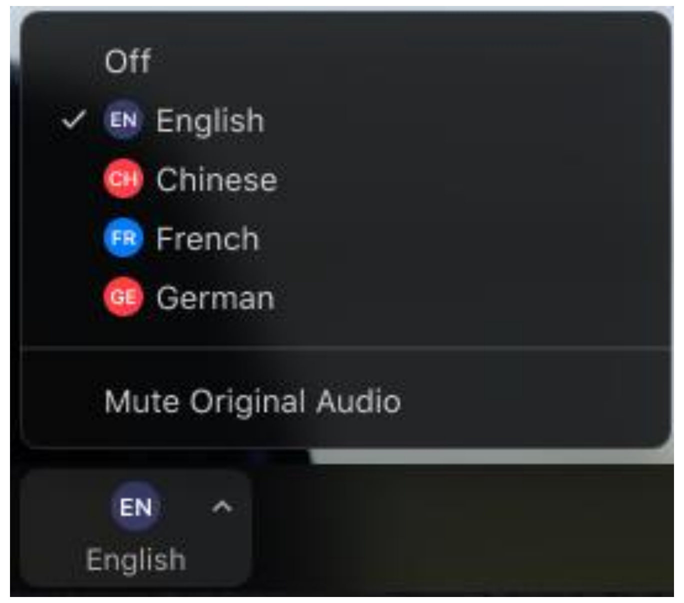

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Opening Remarks

Olivier Mahul

Practice Manager, Crisis and Disaster Risk Finance, Competitiveness and Innovation Global Practice, World Bank Group

Opening Remarks

Martin Saladin

Head of Operations, Economic Cooperation and Development Division, Switzerland's State Secretariat for Economic Affairs (SECO)

Overview

Middle-income countries face fiscal challenges in effectively responding to disasters, with many governments primarily relying on (short term) international support to fund disaster response.

Since 2012, Switzerland's State Secretariat for Economic Affairs (SECO) and the World Bank's Disaster Risk Financing and Insurance Program (DRFIP) have developed a joint program to support middle-income countries (MICs) in building their financial resilience against natural disasters. The Sovereign Disaster Risk Financing and Insurance Program for Middle-Income Countries (the Program) is one component of a broader WB-SECO partnership on fiscal risk management for MICs.

This webinar series, as part of the Program, aims to: assist governments with developing and implementing more effective and cost-efficient financial protection strategies to better manage government disaster related contingent liabilities; and bring countries together to share knowledge, experiences and good practices on disaster risk financing.

Webinar Series

1-2 Policies and frameworks for managing disaster related contingent liabilities

Webinar 1: Managing disaster related contingent liabilities

Webinar 2: Fiscal & financial resilience for subnational governments

3-5 Instruments for financial management of disasters

Webinar 3: Disaster reserve funds

Webinar 4: Sovereign disaster risk insurance

Webinar 5: Catastrophe bonds

6 Market development for disaster risks

Webinar 6: Catastrophe risk insurance markets development

7-8 Data, information and analytics for sovereign risk financing

Webinar 7: Data and information for sovereign DRF

Webinar 8: DRF analytics training

Webinar Road Map

FACT SHEET 1-2

01 **Managing Disaster-Related Contingent Liabilities**

02 Fiscal and Financial Resilience for Sub-national Governments

FACT SHEET 3-5

03 Disaster Reserve Funds

04 Sovereign Disaster Risk Insurance

05 Catastrophe Bonds

FACT SHEET 6

06 Catastrophe Risk Insurance Market Development

FACT SHEET 7-8

07 Data and Information for Sovereign Disaster Risk Financing

08 Disaster Risk Financing Analytics Training

Structure of Webinars

Total of 8 Fact Sheets & 8 webinars

Different guest speakers

Live audience polls: Please participate

Q&A: Please share your questions via chat box (If possible, please indicate which speaker(s) to address your question(s))

Simultaneous interpretation: French and Spanish

Certificate of Participation

Certificate of Participation

Participants will have an opportunity to obtain certificate(s) on successful completion of following criteria:

Certificate of Participation: Participants need to attend 4 out of 8 webinars and complete a short survey

Certificate of Completion: Participants need to attend 7 out of 8 webinars and complete a short survey

Managing the financial impact of disasters – Why is it important?

Government fiscal frameworks often do not account for disaster-related expenditure in the same way as planned recurrent expenditure (infrastructure, housing, education and other social services), and treat disaster-related expenditure as unquantified contingent liabilities in the national accounts.

Challenges

Disasters cause sudden and very significant:

increases in public **expenditure**;

decreases in **revenue**;
Potentially increases in public debt and escalating borrowing costs.

More recent complicating factors include:

demographic changes (older workforce, less tax, increased welfare and medical costs) depleting government reserves;

increasingly complex and connected risks.

Benefits

Integrate climate / disaster risk in medium to long term fiscal planning

Secure ready access to funding sources

Minimize opportunity cost of withholding disaster-related funds or budget re-allocations

Manage uncertainty in the timing and extent of disaster-related expenditure

Disaster-related contingent liabilities

Explicit Liabilities:

- Payment obligations based on contracts, laws, and/or clearly articulated government policies.
- E.g. cost-sharing arrangements with subnational governments, recovery and reconstruction of damaged public assets, government guarantees for public corporations or PPPs, and other legal or policy commitments to compensate losses to private assets, farmers, or the wider community.

Implicit Liabilities:

- Government expenditure based on moral or political expectations to provide support and/or to avoid the increased risk of prolonged economic downturn
- E.g. unplanned disaster relief and recovery assistance to affected households and business, tax relief and economic stimulus measures.

Putting a 'price tag' on government liabilities

Why?

- Assist quantification of disaster response policy options and potential costs/benefits.
- Support risk ownership in clarifying who pays for what in the event of a disaster.
- Incorporate disaster-related fiscal risks into macro-fiscal planning and national budgets.
- Inform mitigation of fiscal risk (clarify liabilities) and provision for residual risk (Disaster Risk Financing Policies and instruments).

How to think about this?

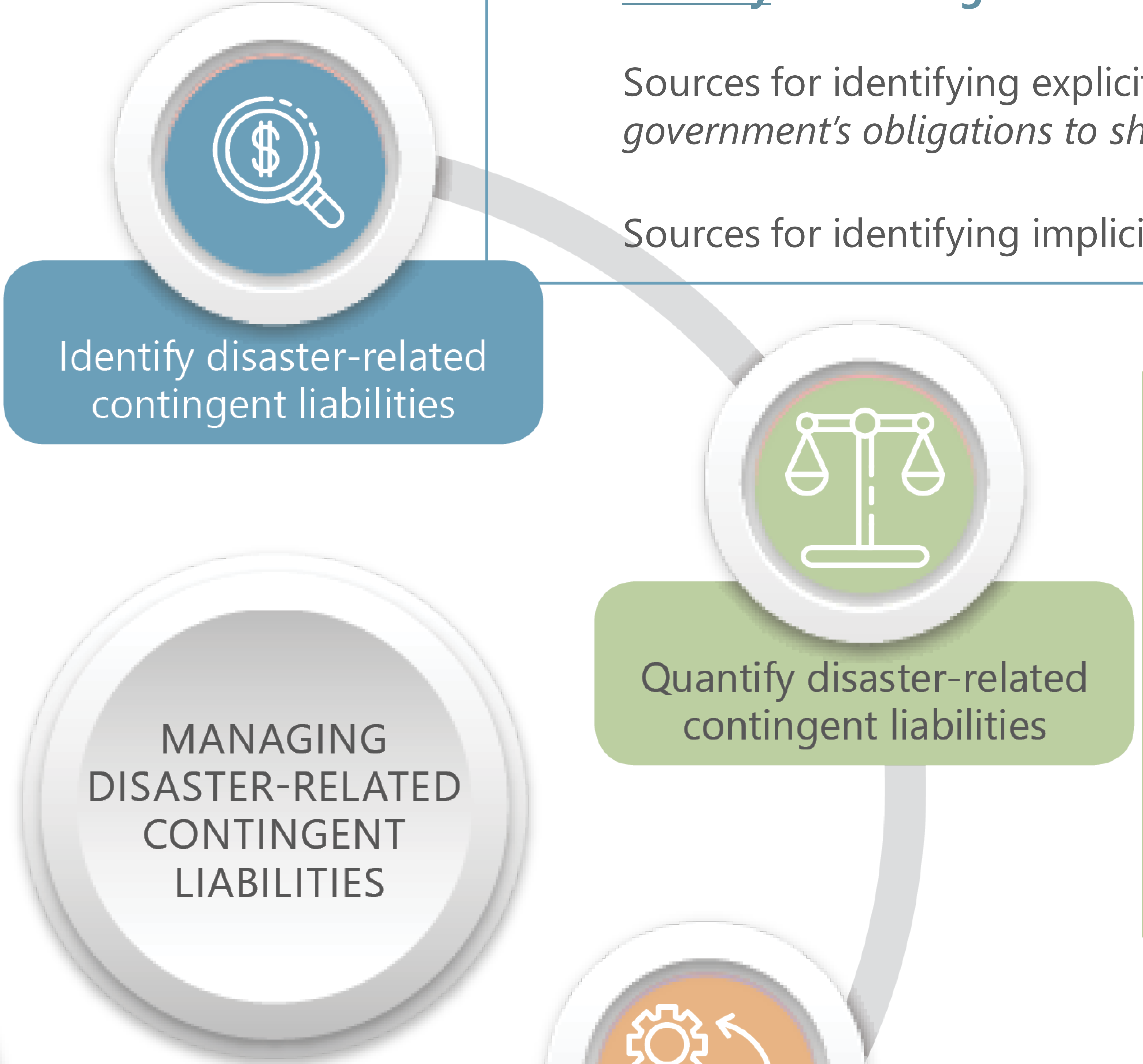
Putting a 'price tag' on government liabilities

Support planning and preparedness by acknowledging and planning for liabilities

<u>Identify</u> what the government pays for following shocks

Sources for identifying explicit liabilities: *legal and policy framework that determine a (central and subnational) government's obligations to shoulder post-disaster costs.*

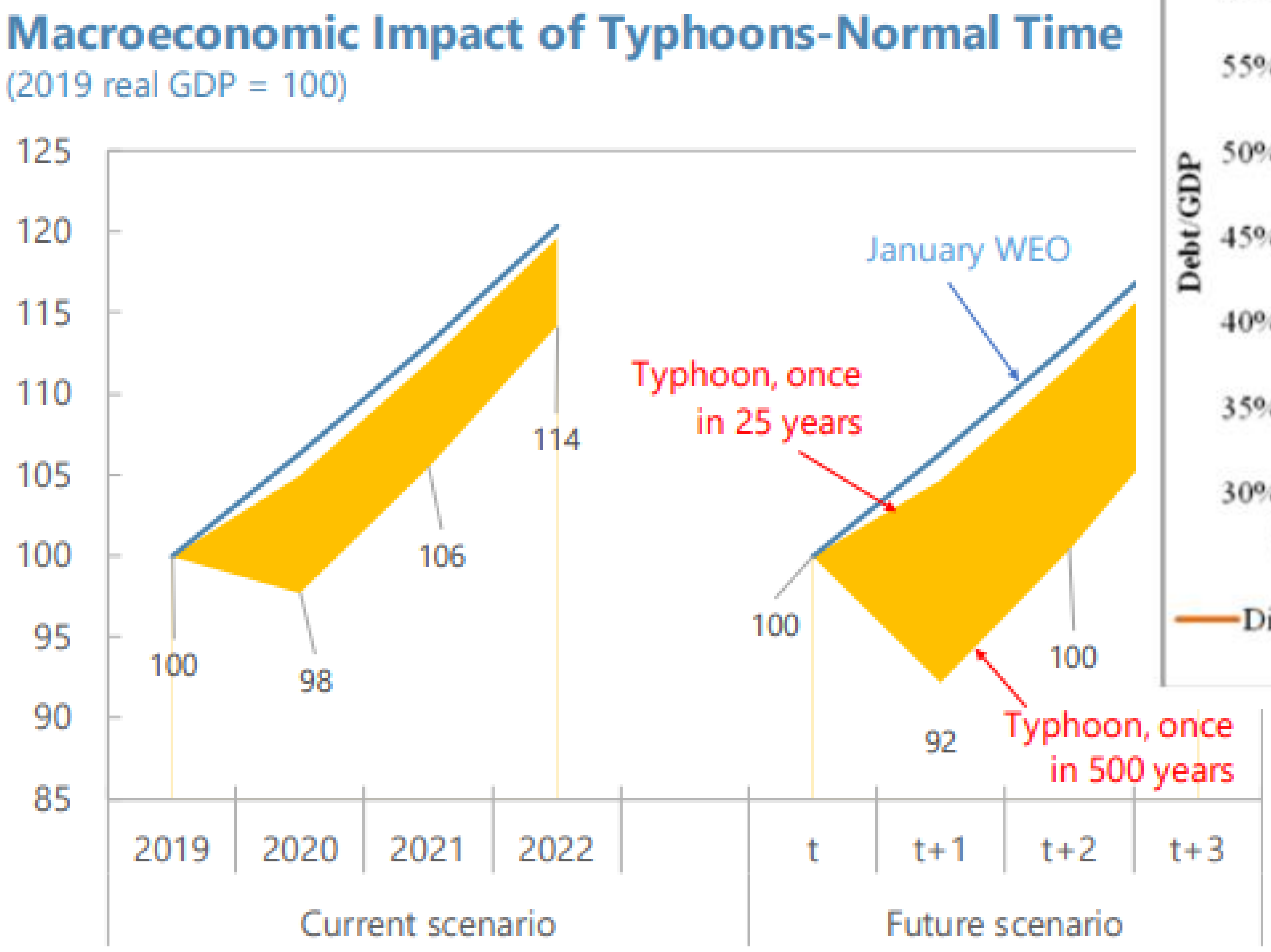
Sources for identifying implicit liabilities: *past practice, de-facto policy, implied statements of support.*

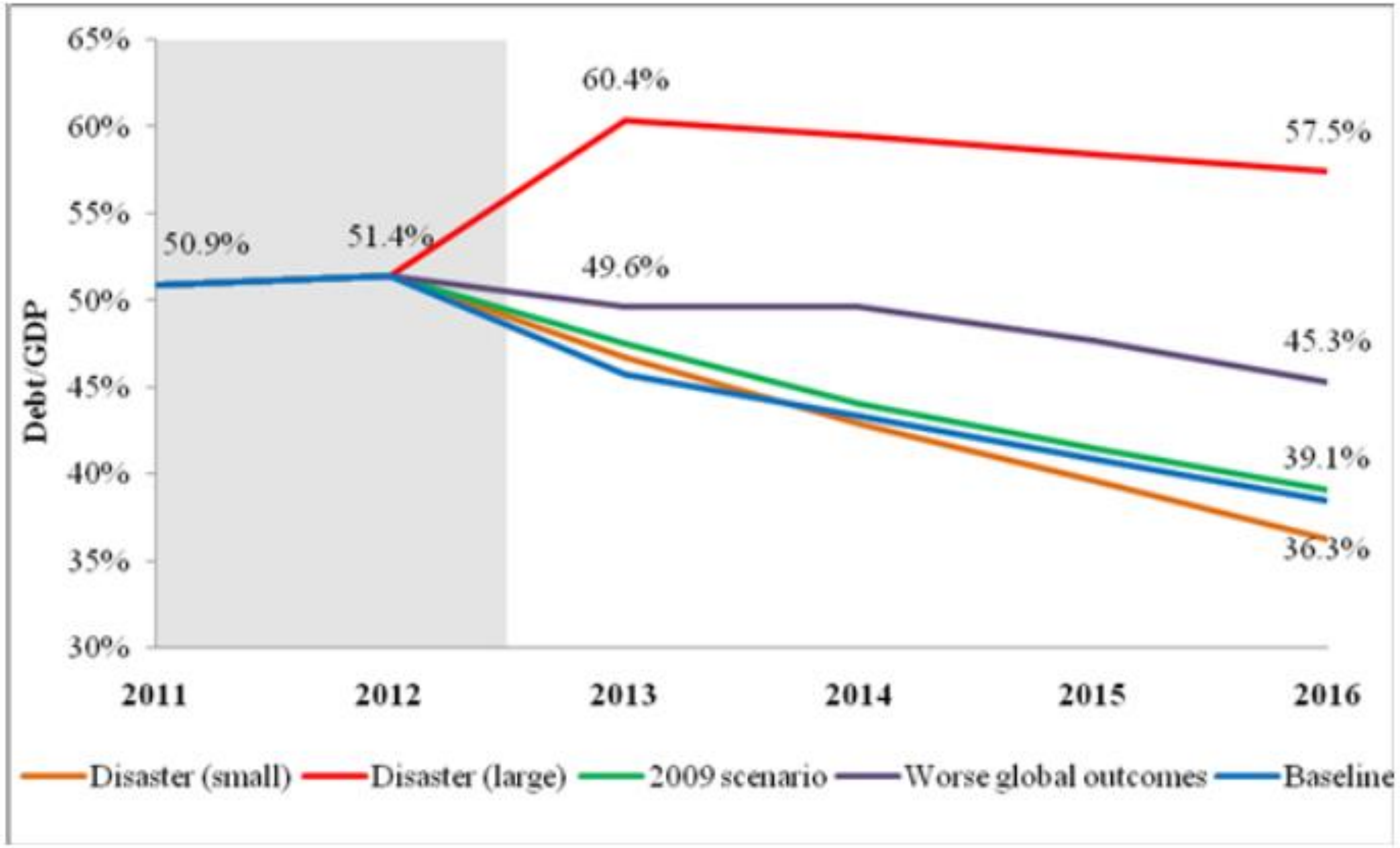


Historical:
Past data on government expenditures. government-backed insurance claim payments and government guarantees for public (or public-private) corporations that materialized.

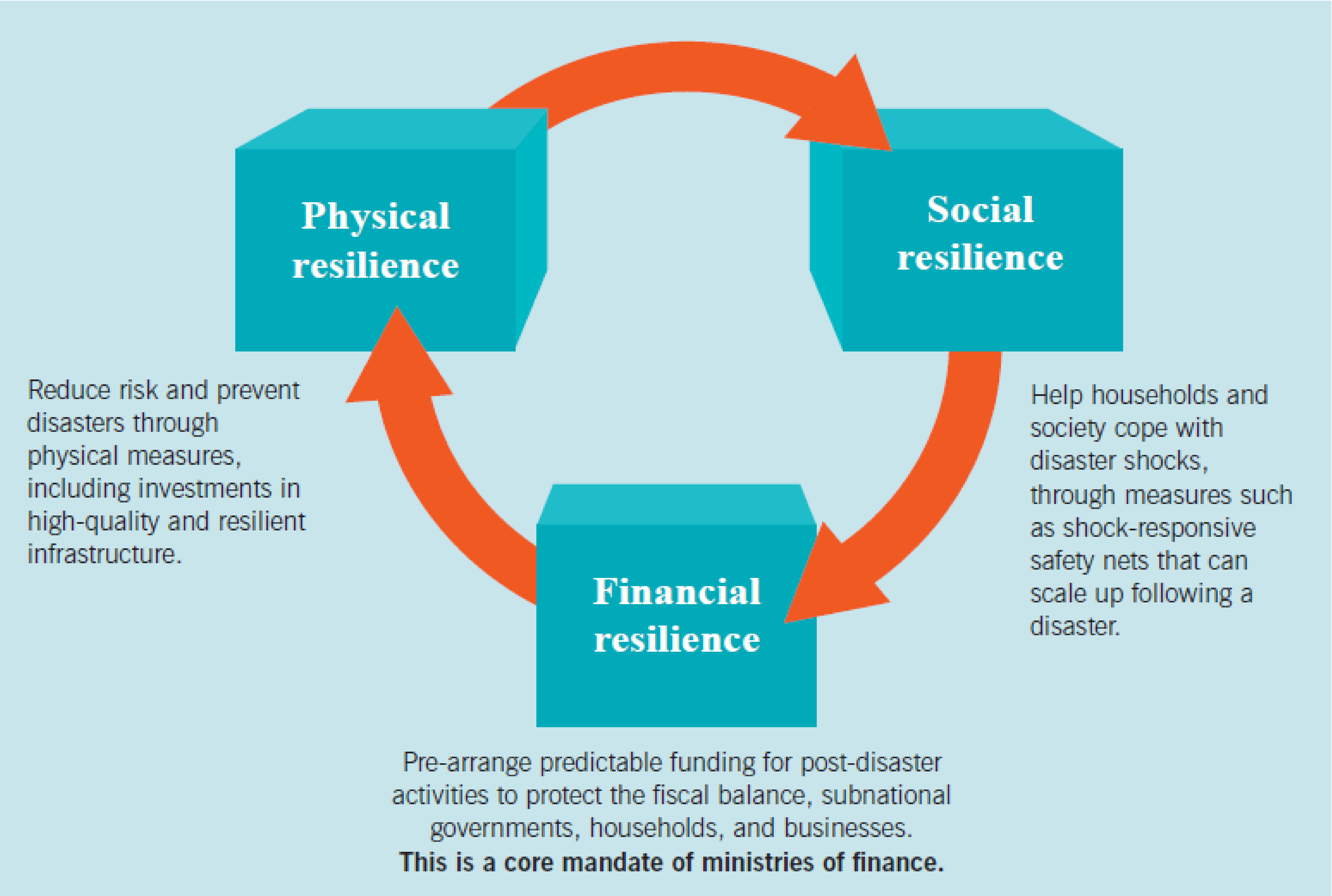
Probabilistic:
Probabilistic modelling can complement historical data and can also estimate liabilities that could arise during more extreme events that are possible but not part of the historical record.

Informing fiscal risk management and forecasting





Mitigate liabilities and provision for residual risk



- **Clarify and Control Contingent Liabilities**
- **Reduce Moral Hazard**
- **Build resilience**
- **Provision for Residual Risk**

Mitigate liabilities and provision for residual risk

HAZARD TYPE	FINANCING INSTRUMENT		
Low Frequency/ **High** Severity	Market-Based Instruments	**Risk Transfer**	Risk transfer for *assets* such as property insurance or agricultural insurance and risk transfer for *budget management* like paramedic insurance, cat bonds/swaps
	Contingent Financing	**Contingent Credit**	Financial instruments that provide liquidity immediately after a shock
High Frequency/ **Low** Severity	Budgetary Instruments	**Budget Reserves/ Reallocations**	Reserve funds specifically designated for financing disaster related expenditures, general contingency budgets, or diverted spending from other programs

International Assistance (uncertain)

Mitigate liabilities and provision for residual risk

Ex-ante

- Dedicated multi-year disaster reserve fund.
- Contingency budget line drawn down in the event of a disaster.
- Contingent loans arranged in advance that trigger upon a predetermined event.
- (Sovereign) risk transfer instruments: Insurance, catastrophe bonds etc.
- International aid: pre-arranged funding mechanisms through international donors.

Ex-post

- Budget reallocation of funds from existing programs
- Borrowing (bonds or loans)
- Tax increases
- Emergency International aid

Examples

Colombia, Chile, Mexico, and Peru: In 2018, the World Bank issued a joint cat bond providing total earthquake coverage of US$1.36 billion. The issuance consists of five classes of bonds to cover earthquake risks: one each for Chile, Colombia, and Peru, and two classes for Mexico.

Indonesia: Government of Indonesia (GoI) in 2019 initiated a program for the insurance of public assets, covering 2000 buildings of 21 Ministries / agencies by early 2021. The GoI is looking to scale up this program to include all agencies' and eventually other types of assets.

Japan: Japan's Ministry of Finance has developed a public-private earthquake insurance program for residential assets based on risk sharing between the private insurance sector and the government-backed Japan Earthquake Reinsurance Co. (JER). The Great East Japan Earthquake in 2011 resulted in total payouts of around US$11.4 billion, with 60 percent of claims paid within two months and 90 percent within five months.

In Summary

Benefits of identifying, disclosing and integrating disaster-related fiscal risks into macro-fiscal planning:

Inform fiscal decision on disaster and climate shock management to mitigate and/or prevent far more significant expenditure and social costs after events.

Increased focus on the social and wellbeing benefits of protecting more citizens from falling into poverty after a disaster.

Provides strong risk-based signals into fiscal policy, which can drive improved risk management across all government spending, and improved risk allocation / ownership.

Stronger risk finance frameworks, by integrating disasters in key fiscal planning tools such as macro-models, fiscal risk statements, debt sustainability analyses, public expenditure reviews, and public investment and poverty diagnostics.

Word Cloud: Where are you currently based?

Option 01

Go to www.menti.com

Option 02

Scan the QR Code →

Use Code: **6227 4502**

Quiz 1

What percentage of government expenditure related to disaster resilience and response is funded as a contingent liability on the government's balance sheet? (Select one)

- 0 – 25 percent
- 25 – 50 percent
- 50 – 75 percent
- 75 – 100 percent

Option 01 –
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Use Code: **6227 4502**

Quiz 2

What types of pre-planned disaster financing instruments are used in your country? (choose one or more options)

- Disaster reserve fund
- Contingency budget
- Contingent credit
- Sovereign risk transfer instruments
- Pre-arranged international aid

Option 01 –
Go to www.menti.com

Option 02 –
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Use Code: **6227 4502**

Quiz 3

What types of disaster financing instruments are used after an event in your country? (choose one or more options)

- Budget reallocation
- Borrowing
- Tax increase
- International aid

Option 01 –

Go to www.menti.com

Option 02 –

Scan the QR Code

Use Code: **6227 4502**

Managing Disaster-related Contingent Liabilities

Colombia

April 27, 2021

Alejandra Barragan
Coordinator, Comprehensive Risk Management Group, Ministry of Finance, Colombia

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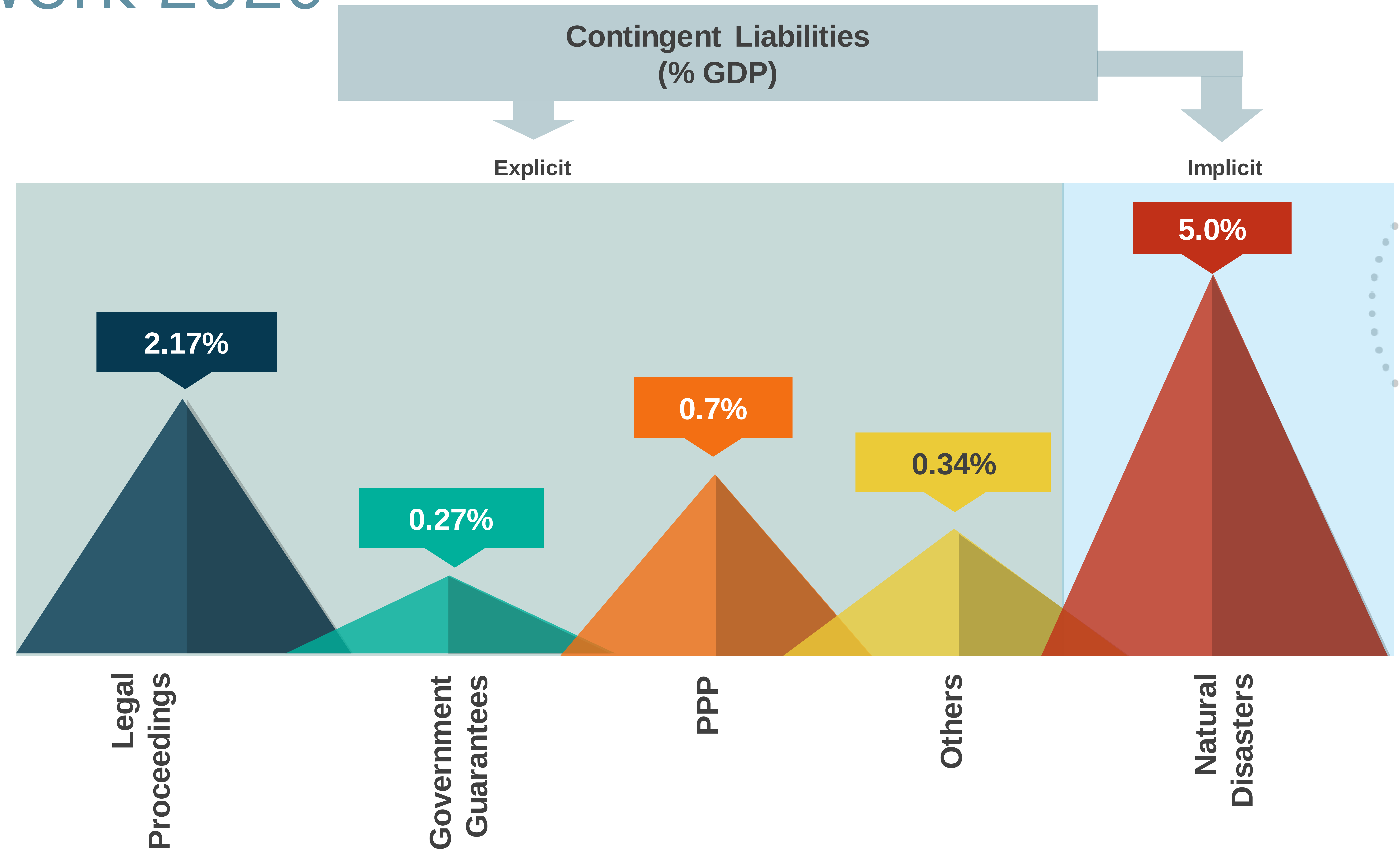
Contingent liabilities in the Medium-Term Fiscal Framework 2020



Management of contingent liabilities

Public-Private Partnerships

Estimative	Mitigation
0,55% GDP **Infrastructure Contracts**	• Contingency Fund • Insurance • Risk Matrix

Legal Proceedings

Estimative	Mitigation
2,08% GDP **Entities at General Budget of the Nation**	• Contingency Fund • National Agency for the Legal Defense of the State

Government Guarantees

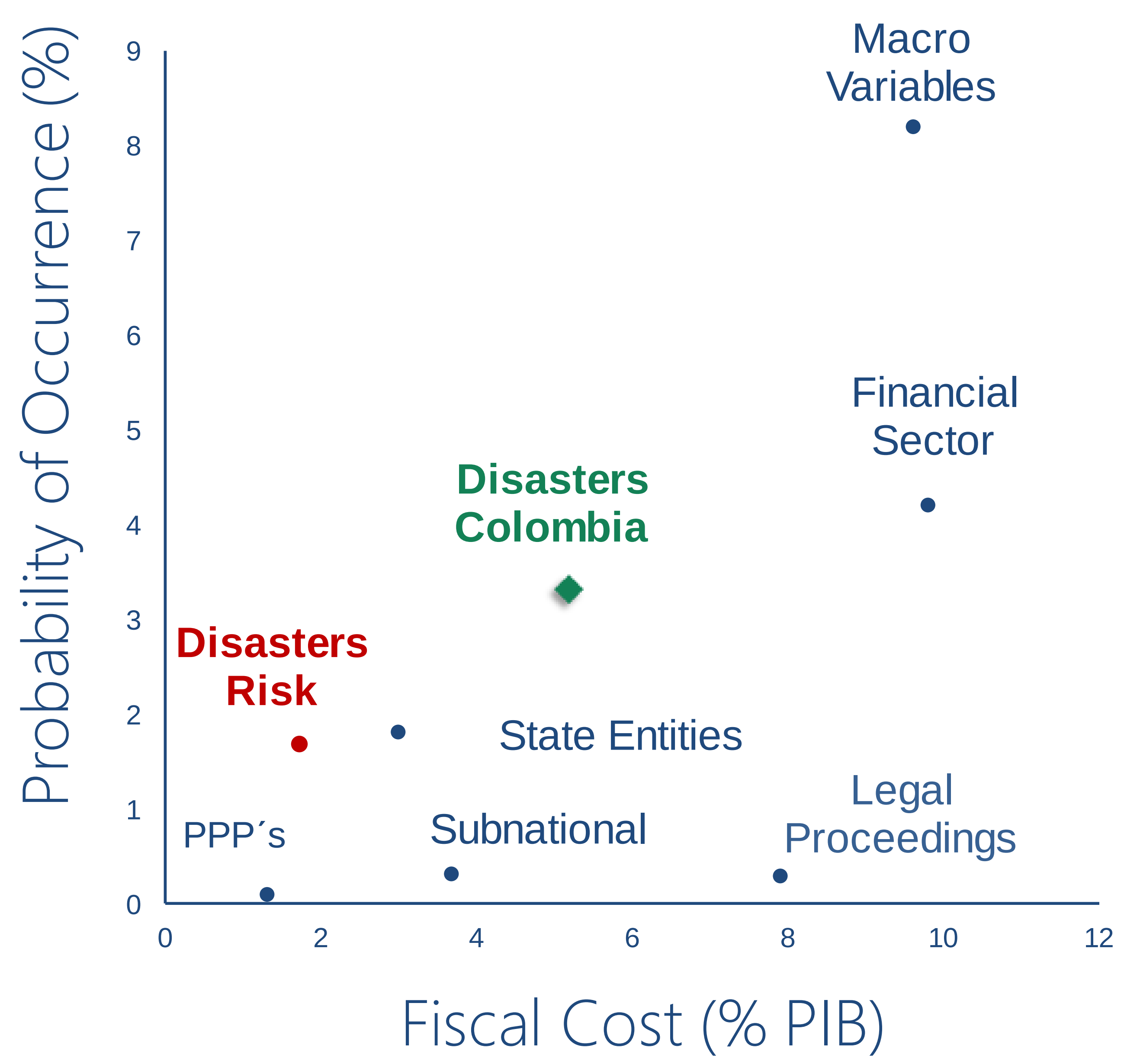
Estimative	Mitigation
0,21% GDP **Guarantees granted by the Nation**	• Contingency Fund • Counter-guarantees

Disaster Risk

Estimative	Mitigation	Mitigation
5% GDP **Niña Phenomenon and Earthquake**	• CAT Bonds • Insurance of public property and PPP • Contingent loan	• National Fund • Agricultural Insurance • Financial protection strategy

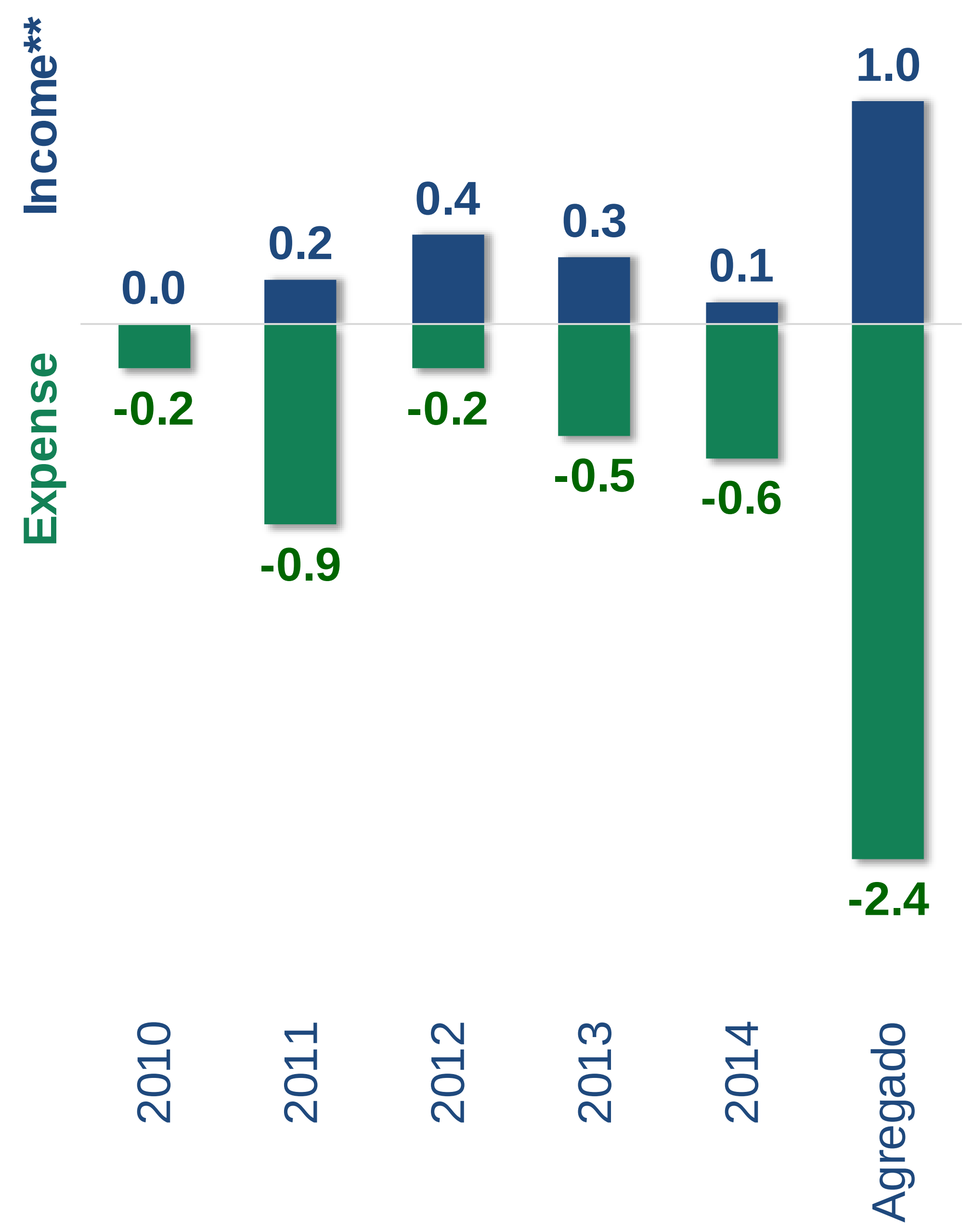
Sources of fiscal risks / contingent liabilities

Cost and frequency - Materialization of Fiscal Risks*



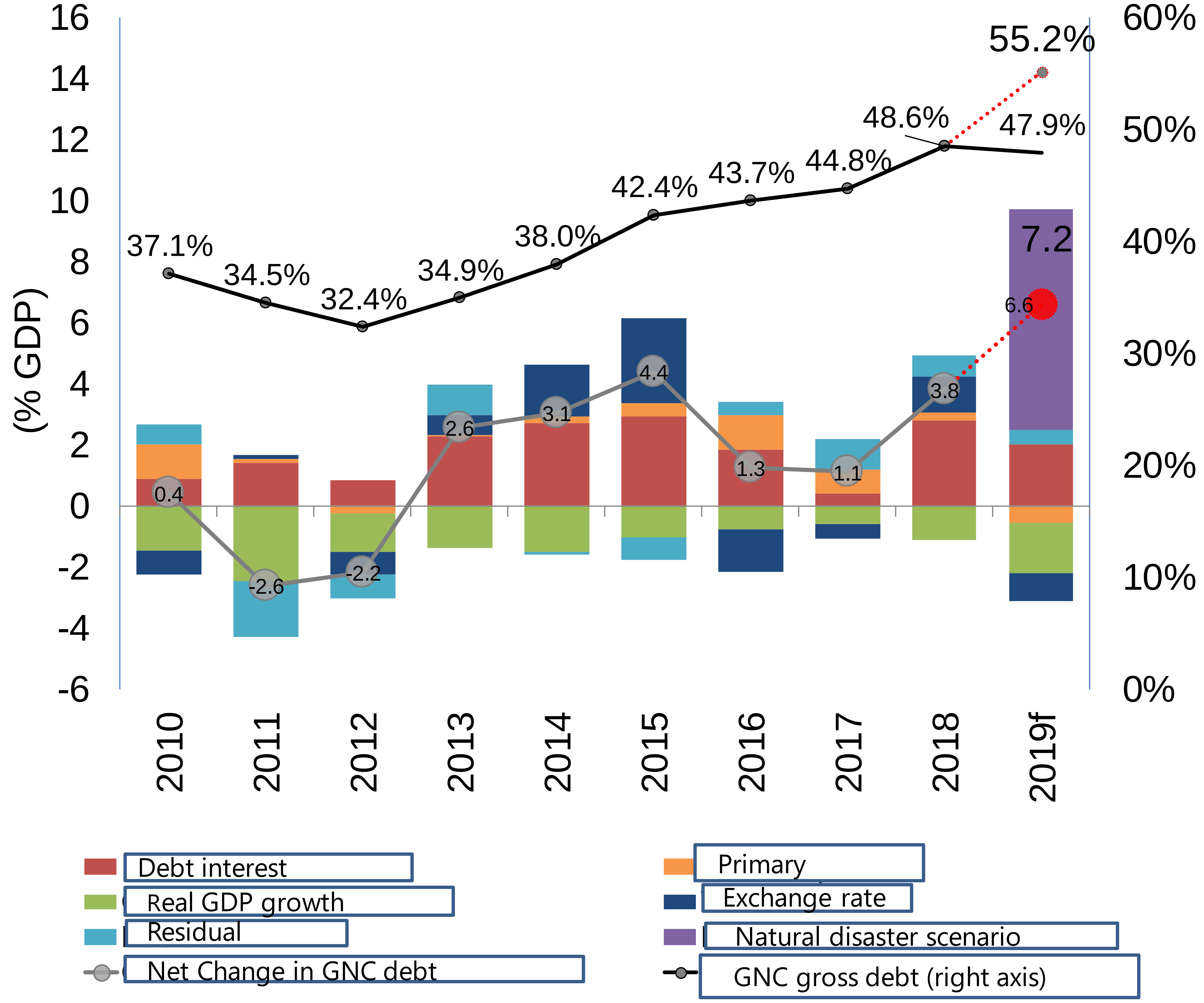
Source: World Bank, 2019

Income and expenses - Rainy Emergency Colombia (% GDP)



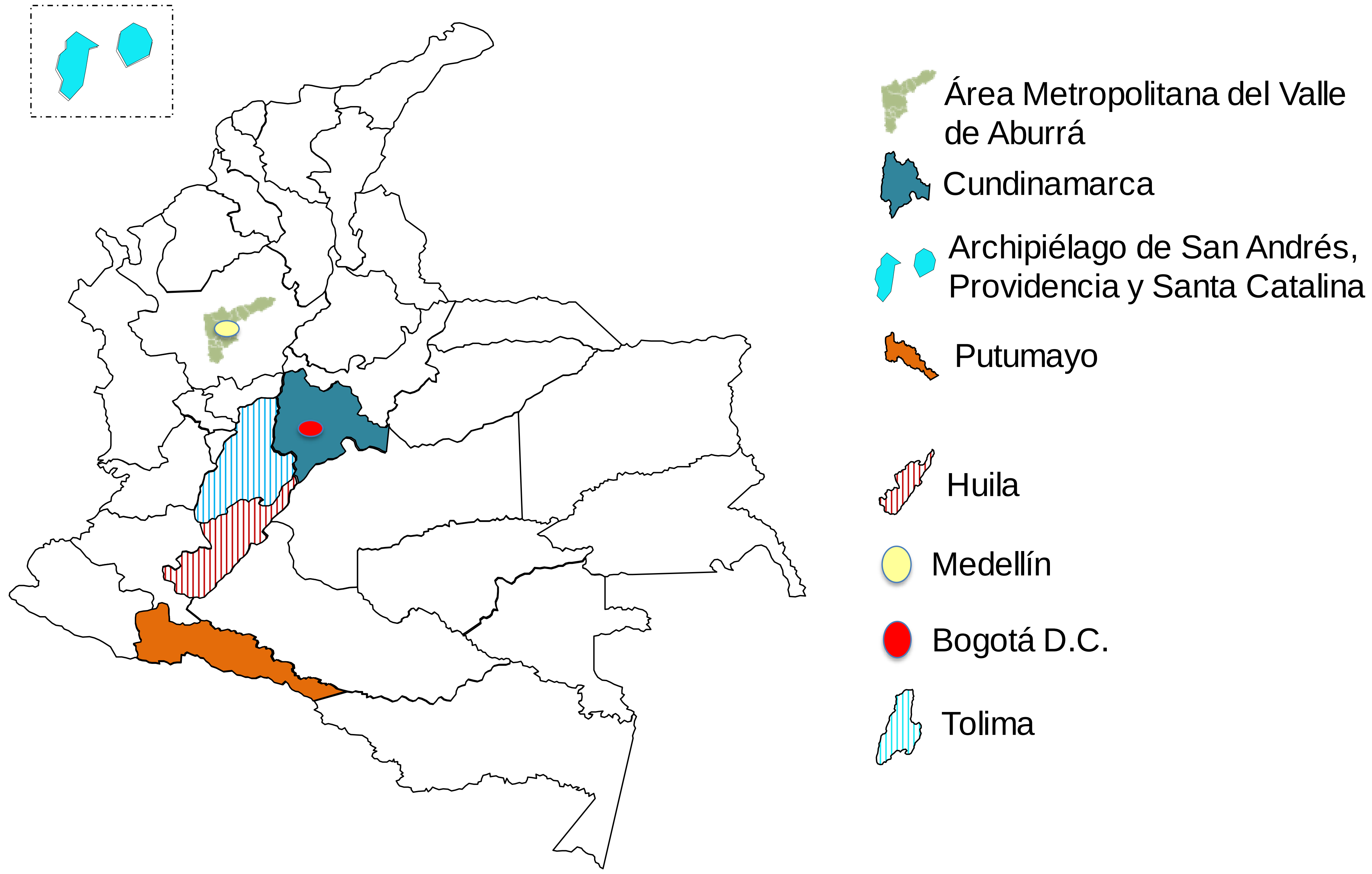
Source: Ministry of Finance, 2020

Breakdown of Debt Dynamics



* Survey conducted by the World Bank in 2013. It includes 31 OCDE countries and 2 non-OCDE countries (Brazil and South Africa)
** The income corresponds to the allocation of a quarter of the 4x1000 tax to attend the effects of the rainy season

Progress in DRF, including DRF at sub-national level

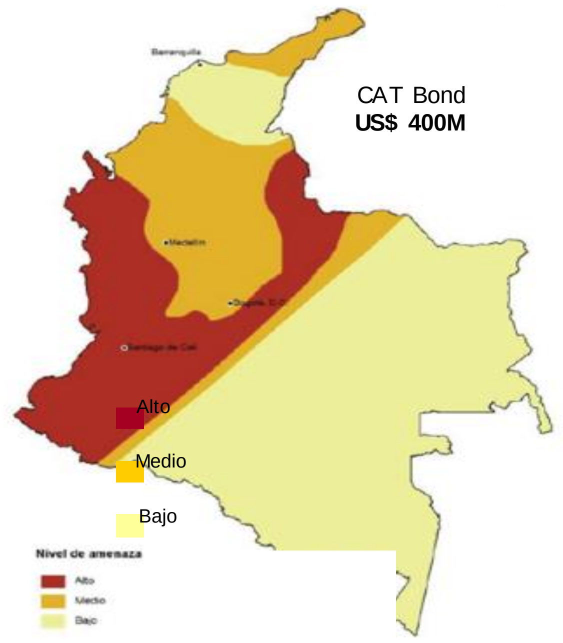


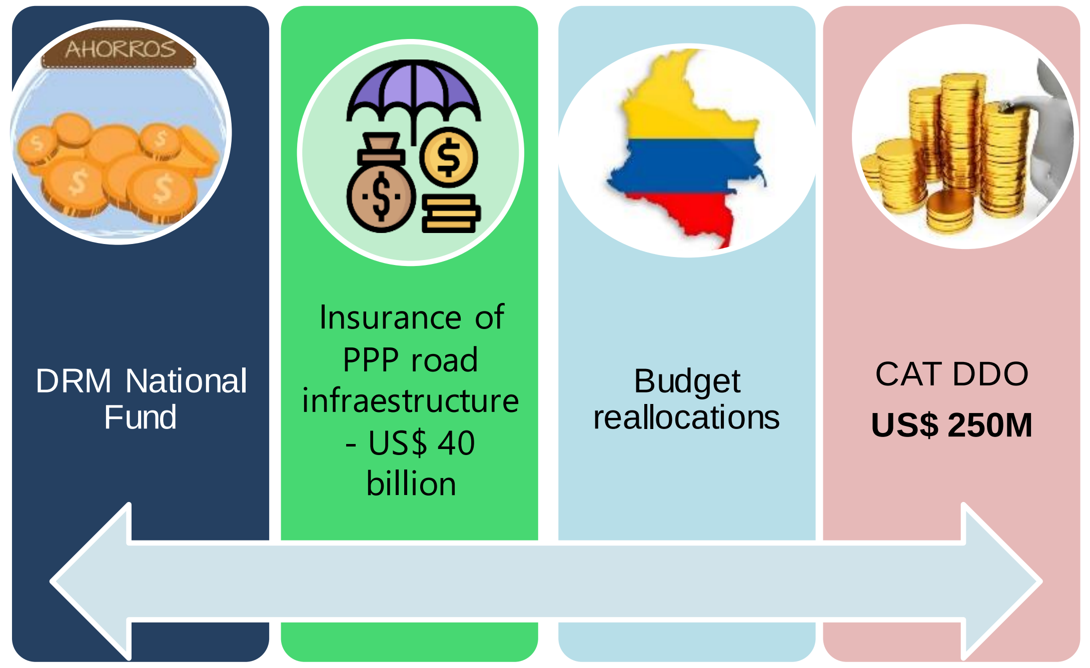
Colombia Compra Eficiente

Acuerdos Marco

Financial Instruments

Seismic Risk





Managing Disaster-related Contingent Liabilities

Albania

April 27, 2021

Majlinda Demko,
Advisor to the Minister of Finance and Economy, Albania

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Albania’s steps to manage contingent liabilities

Understanding the size of contingent liabilities: the government works on assessing risks originating from PPPs, SOEs (energy, etc.) and exploring disaster risks

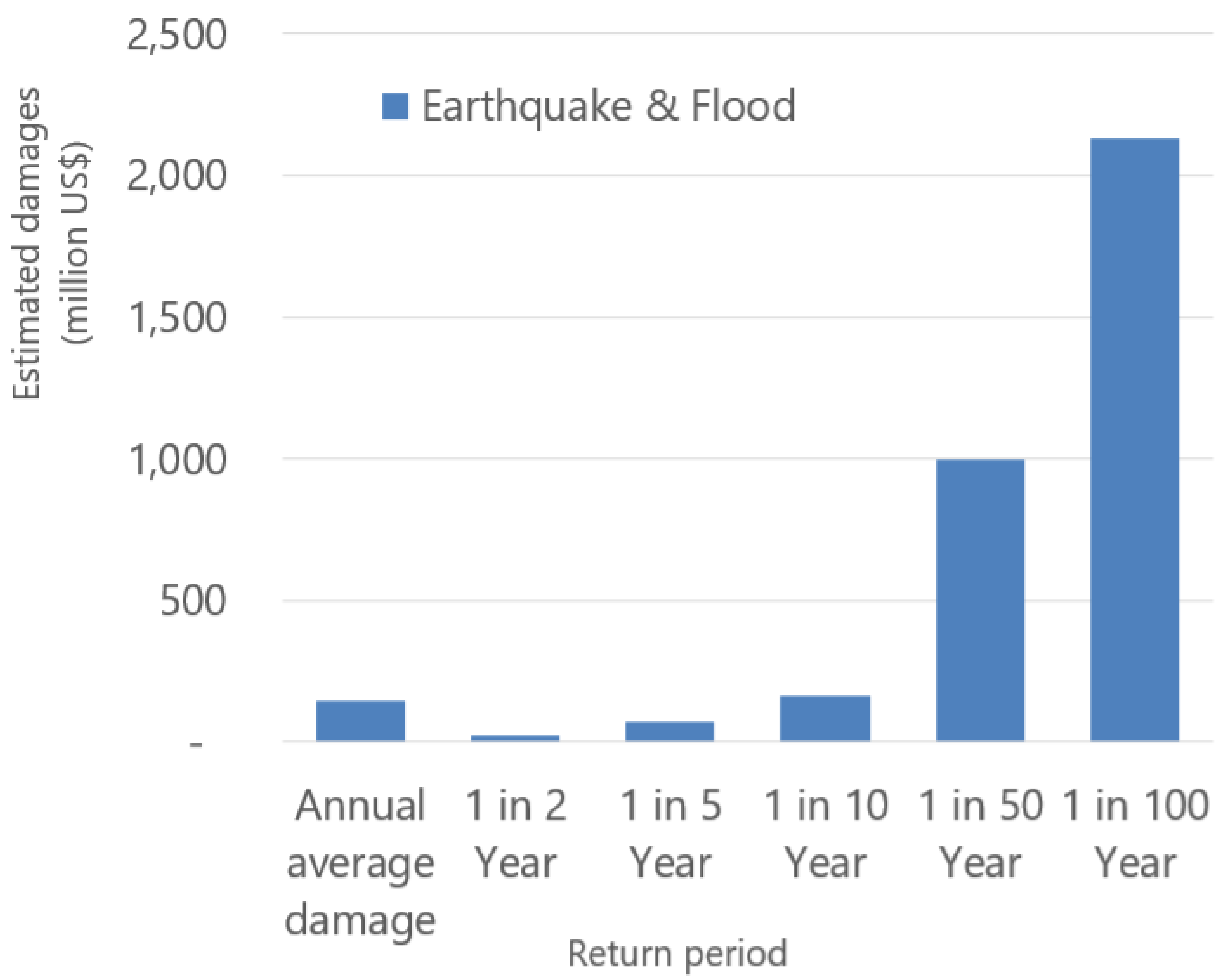
Establishing legal and institutional frameworks: the government established the Fiscal Risk Unit within the Budget Department of the Ministry of Finance and Economy with objective to understand, record and disclose fiscal risks

Monitoring of the government progress in managing contingent liabilities and Disclosure: the government publishes the fiscal risk statement annually

Albania is prone to natural disasters

- **Frequent disasters**, including the recent earthquake in 2019 and floods in 2021 (amid the COVID-19 pandemic)
- **World Bank assessment**:
  - Average annual losses are around US$ 147 million
  - Losses after a major earthquake can exceed 15% of GDP
- The government is responsible for emergency response, we support the affected population (for example, reconstruct private houses), reconstruct public assets – **these are often financed through budget cuts and borrowing**
- Albania is working on the **development of the Disaster Risk Finance Strategy**, which will help to move from reactive to proactive approach
- **To better manage disaster-related contingent liabilities**, we are working on the assessment of fiscal impacts of disasters and COVID-19 expenditure analysis together with the World Bank

World Bank Assessment of Disaster Risks in Albania



Assessment of fiscal impacts of disasters

The assessment will include:

- **Mapping of disaster risk** to prioritize scenarios
- **Estimation of fiscal impacts of selected disaster scenarios on the balance sheet**
  - Impacts of disasters on expenditures - such as through reconstruction public assets, compensation to the population, reconstruction of the private housing, emergency response costs
  - Impact on revenues – such as through the impact of disasters on businesses and households
  - Impact relative to total expenditures and GDP

Results of AIR Worldwide catastrophe risk model for Albania: some scenarios of disaster impacts

Earthquake

Exceedance Probability	Loss (All Billions)	Magnitude	Event Depth (Km)	Country
10.0%	12.19	6.3	9.6	Vlora
4.0%	43.42	6.0	4.7	Tirane
2.0%	102.32	6.4	10.1	Dibër, Tirana

Floods

Exceedance Probability	Loss (All Billions)	Predominant Counties	Month of the Year	Duration (Days)
10.0%	5.83	Tirane, Lezhe	May	18
4.0%	11.55	Durrës, Fier	July	27
2.0%	18.59	Fier, Berat	October	20

COVID-19 expenditure analysis

Purpose of the research:

When a disaster hits Albania, the Government has to reallocate some of its budget to emergency response – either by moving money between budget lines or through normative budget acts. This research is looking to quantify the **scale of these reallocations** (in the case of COVID) and their **impact** – in terms of the opportunity cost of the returns foregone from the delayed/cancelled expenditures.

Implication:

With additional disaster risk financing, *some* of this **LEK 20bn** could have continued and would have produced some economic value.

Headline Findings

At the level of programmes and economic classifications; total under spends against the counterfactual equal LEK 20bn (~$200 million).

Counterfactual = modelled estimate of what spending would have looked like in 2020 without the COVID.

Next steps:

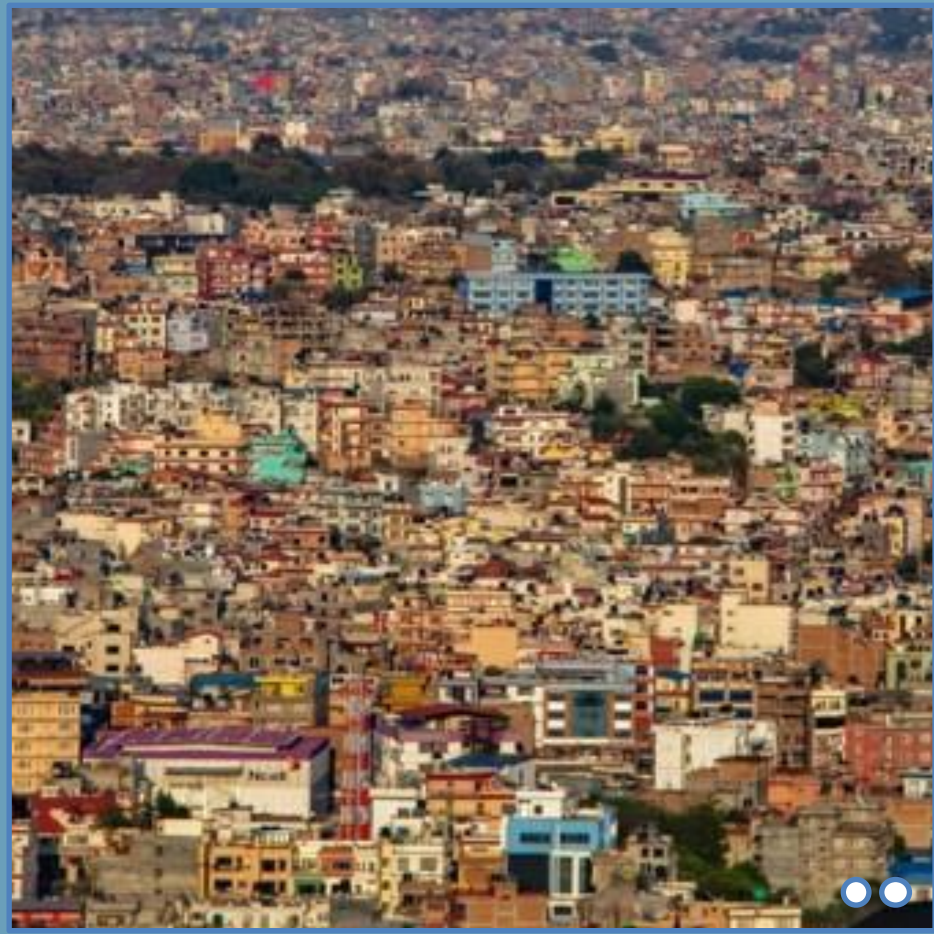
Further refine the data; carry out interviews and economic analysis to understand the impact of these reallocations (what returns could GOA expect, had the spending gone ahead).

Managing Disaster-related Contingent Liabilities

Nepal

April 27, 2021

Anil Pokhrel
Chief Executive, National Disaster Risk Reduction & Management Authority, Nepal



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Government of Nepal
Ministry of Home Affairs
National Disaster Risk Reduction & Management Authority

Background

The World Bank supports the Government of Nepal implement its Disaster Risk Financing Strategy

Objective:

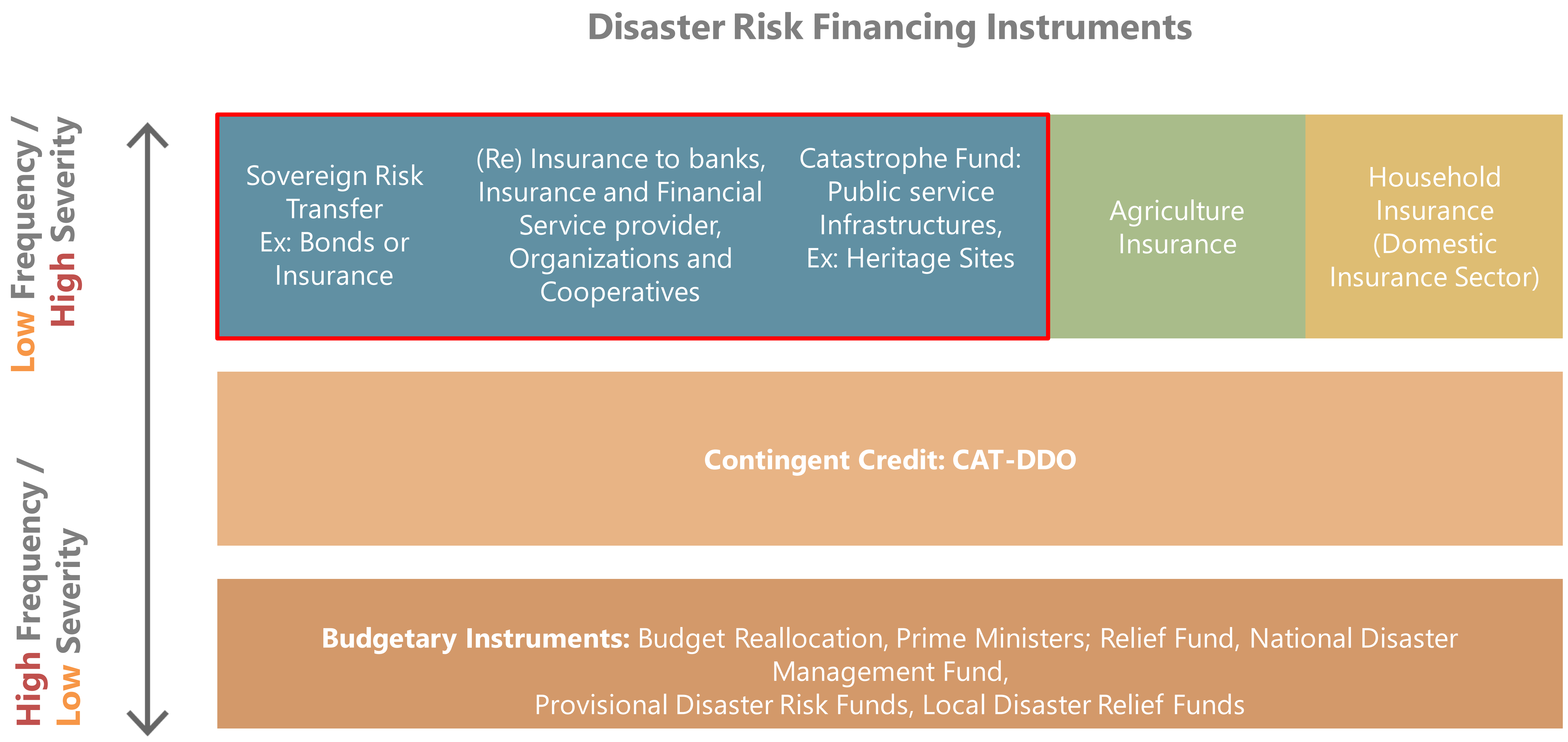
Minimize the financial impact of losses to private and public assets through implementing **an appropriate risk layering strategy.**

Implementation:

To **maintain a sound fiscal balance at Federal, Provincial and Local** after disasters by

1. **Estimating the government's exposure to contingent liabilities** arising from natural disasters for improved understanding of the potential financial risk to government.
2. **Developing catastrophe risk models** to simulate the impacts of natural disasters and quantify the probability of damage and loss.

To establish **pre-arranged financing mechanisms**, including **a sovereign financial Instrument**, to provide immediate liquidity at the onset of a disaster.



Identification of contingent liabilities

Objective:

Identification of the Government of Nepal's liabilities that may arise when natural disasters occur.

The analysis is on-going, and we are collecting and analyzing three types of information:

- **Expenditure data**, over a 5-10 year period, broken down by entity and type of expenditure. We are interested in understanding how much was spent, where the expenditure originated e.g. dedicated fund or budget line, and how it was financed
- **Qualitative information** to understand what happened for past disasters
- **Relevant policies and procedures** that guide expenditure decisions after a disaster

Estimation of contingent liabilities

Direct Estimation of Contingent Liabilities

	2015 Earthquake	2016	2017	2018	2019	2020
Total post-disaster expenditure (NPR Million)	21571	46672	66004	135227	104888	64387
Total post-disaster expenditure (converted into USD Million as per end-of-year exchange rate)	200	425	643	1205	906	543
Post-disaster expenditure as % of total government expenditure (%)	4.06	7.77	7.88	12.44	9.45	10.54
Post-disaster expenditure per capita	769	1639	2285	4617	3531	2138
Post-disaster expenditure as % of GDP (%)	1.01	2.07	2.47	4.44	3.03	1.71

	Average Annual Loss
Flood	$ 80 Million
Earthquake	$ 270 Million
Combined	$ 350 Million

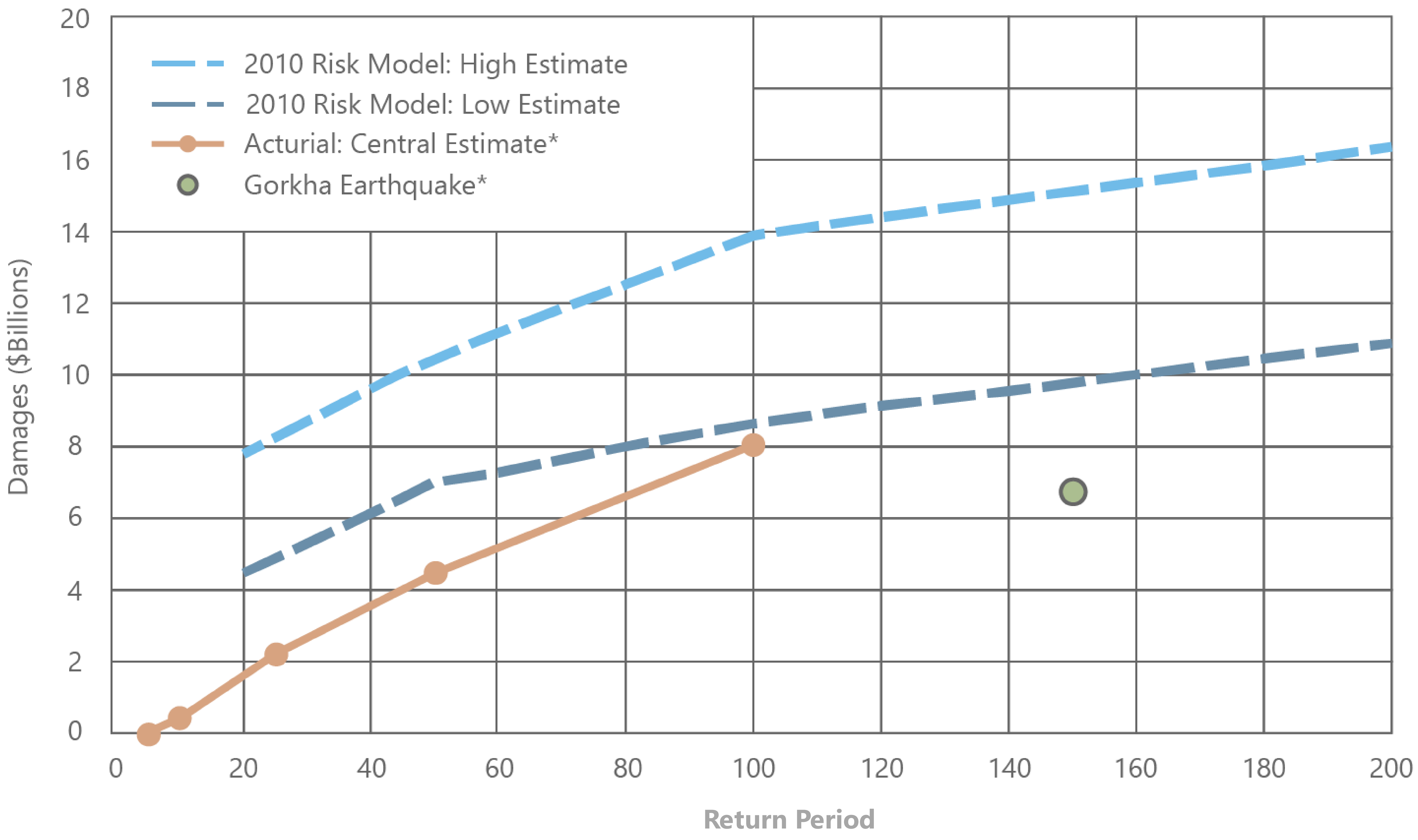
Reconstructed School Building Post Earthquake

Estimation of contingent liabilities

Actuarial Risk Analysis:

- Analysis for flood indicates losses could, on average, exceed **$10 Million every four years, $50 Million every six years**
- Limited loss events for earthquake results in greater uncertainty in actuarial analysis However, losses could be expected to exceed **$4 Bn every 50 years**
- **A protection gap** exists above current financing arrangements – **requires Disaster Risk Finance and Insurance solutions**

Existing Risk Assessments - Combined Earthquake and Flood



Key findings and options going forward

Key findings

- Disasters are a **major liability** to the Government of Nepal and can at least double expenditures as shown by the 2015 EQ
- Nepal **has many dedicated funds** at federal, provincial and local level, **budget lines** and post-disaster **budget reallocations, but not all allocated capital gets spent. Guidelines for use of funds as well as post disaster expenditure tracking remain incomplete.**
- **Nepal's domestic insurance market remains underdeveloped.** Earthquake and COVID-19 are currently the only disaster risk-related products available, albeit in very limited forms, as knowledge of disaster impacts and insurance development expertise is limited
- Catastrophe risk models are available to develop a Disaster Risk Financing product for earthquake but **not for flood – model will need to be developed**
- Opportunity to **use catastrophe risk models within the domestic insurance market** (regulators, Nepal Re, private insurance companies)

Options going forward

- Conduct a **funding gap analysis** and strengthen public financial management systems
- **Identify the optimal mix of instruments** for disaster response including budget reserves, reallocations and risk transfer
- **Strengthen post disaster public financial management** including budget execution, mobilization and reporting
- **Strengthen cat risk modeling** to enhance existing market
- Develop an **implementation plan for National DRM Strategy**

Roadmap

Activity	Expected Delivery
CL Report: Government of Nepal – Obtain remaining financial information on and share with GoN for feedback, to be followed by World Bank Workshop on Contingent Liabilities	April – June 2021
Strategy: Work on implementation plan for National DRM Strategy	Q3, 2021
Cat risk modelling: Appointment of catastrophe risk modeling firm, first results of cat risk modeling	Dec 2021
Workshop on structure of potential risk transfer instrument, final risk transfer developed	Until Q1/2 2022
Coverage from risk transfer instrument in place	Q2 2022

Plenary Remarks

Jean Pesme

Global Director, Finance, Competitiveness and Innovation Global Practice, World Bank Group

Q&A

- Please share your questions in English via chat box.
- If possible, please indicate which speaker(s) to address your question(s).

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Next Webinar

01	02	03	04	05
Managing Disaster-Related Contingent Liabilities	**Fiscal and Financial Resilience for Sub-national Governments**	Disaster Reserve Funds	Sovereign Disaster Risk Insurance	Catastrophe Bonds
FACT SHEET 1-2		FACT SHEET 3-5		

FACT SHEET 6	FACT SHEET 7-8	
Catastrophe Risk Insurance Market Development	Data and Information for Sovereign Disaster Risk Financing	Disaster Risk Financing Analytics Training
06	07	08

Thank you

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