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DISASTER RISK INSURANCE FACILITY

Southeast Asia Disaster Risk Insurance Facility

PROTECT THE GREATEST HOME OF ALL:

OUR COUNTRIES

SEADRIF is a regional platform to provide ASEAN countries with financial solutions and technical advice to increase their financial resilience to climate and disaster risks.

An Overview of Financial Protection of Public Assets

Facilitator: Benedikt Signer

Speakers: Olivier Mahul, Matthew Foote

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Structure of Webinars

90 minute webinar for each factsheet

Different guest speakers

Poll results will be included in final outputs

Live polls: Please participate

Please share questions via Chat function

POLL (1): TEST

What country are you from or representing?

Brunei Darussalam	Cambodia	China	Indonesia	Japan	Lao PDR	
Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	South Korea

Introductory Remarks

Olivier Mahul,

Disaster Risk Financing and Insurance Program

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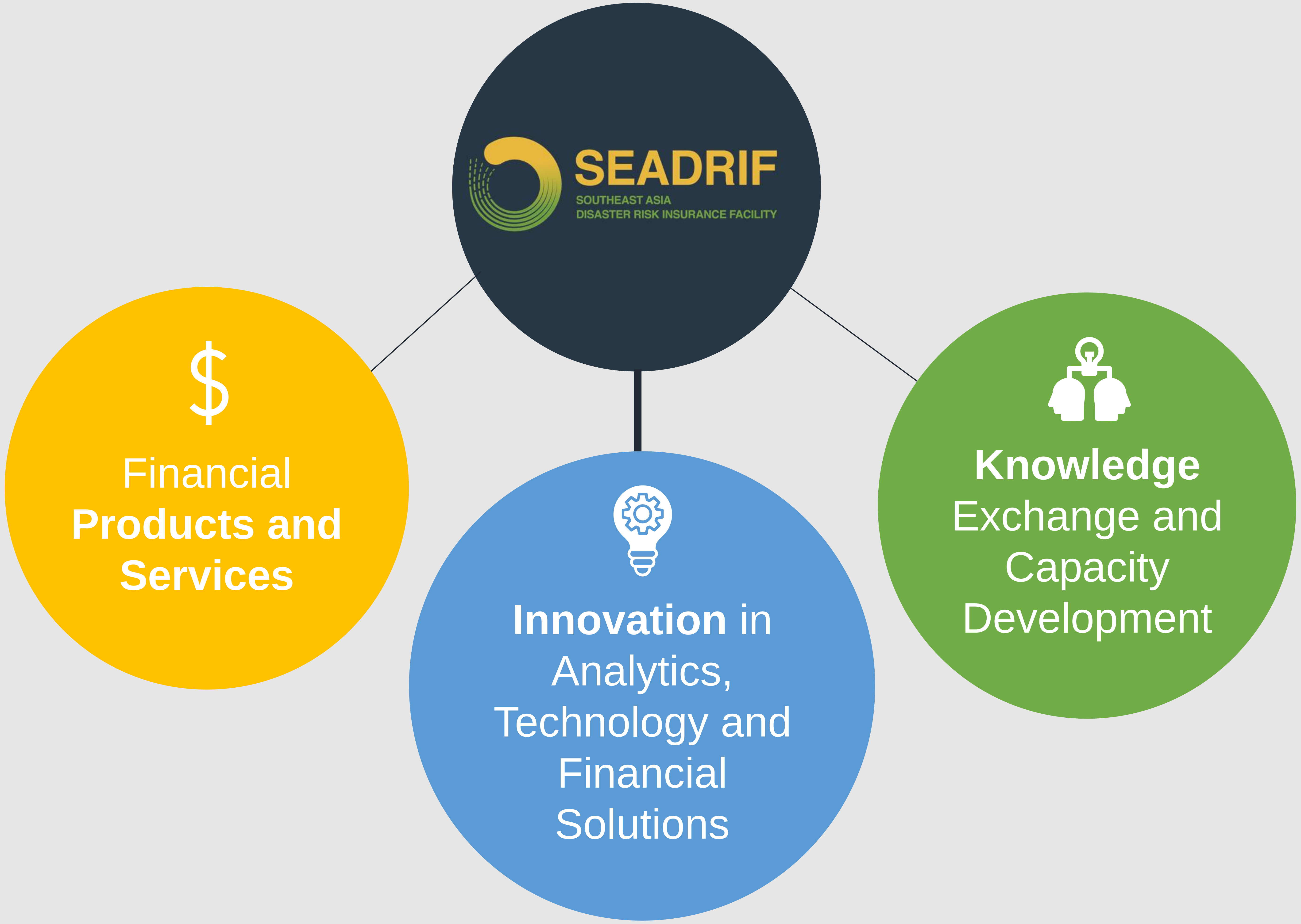
SEADRIF as a full service platform to strengthen financial resilience against disasters and climate shocks



From the start, SEADRIF has been established by member states to provide not just financial products and services, but also to catalyze regional collaboration and knowledge sharing, and to invest in joint public goods

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To maintain growth and reduce poverty, **US$94 trillion in infrastructure investment will be needed between now and 2040**.

Damages to power and transport infrastructure alone cost **$18 billion a year** in low- and middle- income countries.

The economic cost of disruption to infrastructure to households and firms, due to poor maintenance, disaster damages and delayed reconstruction, totals **at least $390 billion every year in the low- and middle- income countries**.

Disruption to economic activity, productivity and revenue (tax) and over the long-term slows **investment in the economy, job creation and poverty alleviation**.

Reliable and resilient critical infrastructure services are an **enabler of investment, growth, jobs and economic transformation**.

Objectives of the factsheets and webinar

- **Why** should governments develop a financial protection strategy for public assets?
- **When** can insurance be a good option for the financial protection of public assets?
- **Who** are the key stakeholders (both external and internal) that play roles in each stage of the insurance development process?
- **What** are the most important step-by-step considerations involved in the development of a strategy for public asset insurance?

INTENDED OUTCOME:

Government officials to develop strong understanding of the steps required to design, develop, deliver and operate effective financial protection of public assets, particularly through risk transfer and insurance

POLL (2):

Some key questions

These are some of the key questions we will cover in the series of factsheets and webinars.

Which of these are of interest to you? (select all that apply)

- **What are the strategic priorities for public asset protection?**
- **What is the type and scale of the risk faced?**
- **Is insurance suitable as an option?**
- **Have all stakeholders been included in the strategy?**
- **What are the key roles and responsibilities of each within the program?**
- **What are the prerequisites necessary to enable effective financial risk transfer?**
- **What procedures and systems are necessary to ensure effective management of the process?**

Operations and Management

- Roles and responsibilities for the government officials within an internal insurance program, the associated stakeholders, including auditing, compliance and governance, supervisory.
- Multi year aspects such as renewals and re-assessment of exposures.
- Review of procurement considerations
- Dealing with claims management
- Incorporating innovations and technologies

FACTSHEETS 7 and 8

Policy, Institutions and Regulations

- Development of an implementation roadmap for a public asset financial protection program
- How governments can agree objectives and build consensus around priorities
- How to develop internal governance and oversight functions, and ownership at each level of the insurance programme
- How risks are allocated across asset owners and operators

FACTSHEETS 1 and 2

Access to domestic and international markets

- Roles and options available to construction of cost-effective insurance, including common insurance structures and case studies, their pros and cons against considerations of budgets, risk appetites, and government priorities
- Introduction of pooling and mutualization of large scale public assets insurance programs
- Insurance/reinsurance concepts of retention, deductible and exclusion

FACTSHEETS 5 and 6

Data, Information and Analytics

- The importance and development of Public Assets Registries, and associated Enterprise Asset Management systems.
- How to assess and quantify asset exposure, sources of data, requirements for insurance transactions
- Introductions to the use of catastrophe analytics, burning cost / technical and market rates, tariff structures, risk based pricing methods, and underwriting.

FACTSHEETS 3 and 4

A comment on jargon

- Key concepts are often assumed to be understood by all
- Insurance is cluttered with jargon and legal terms
- It is always good to ask!

A glossary of key terms will be provided in each factsheet

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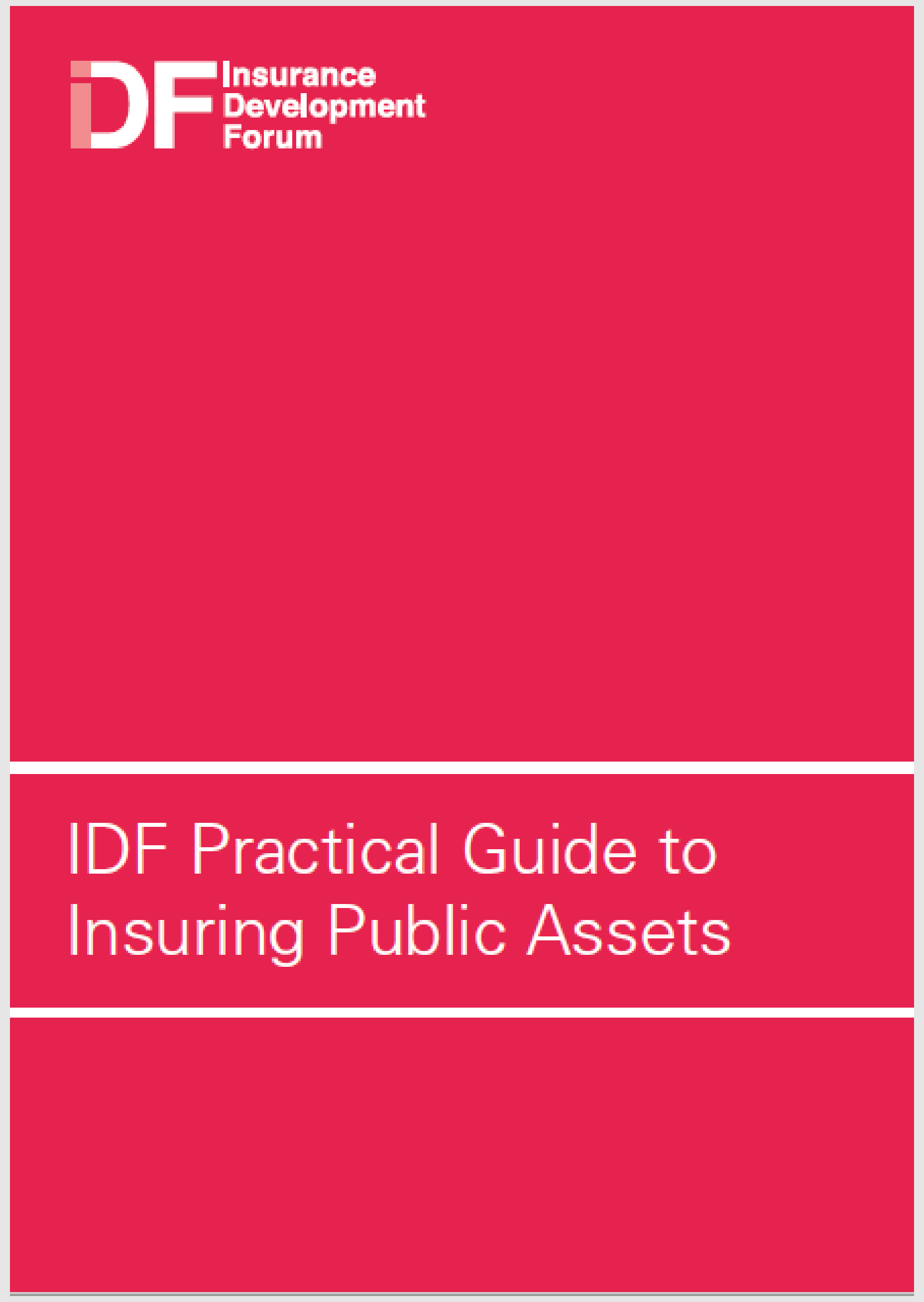
Glossary of selected terms

Actual Cash Value (ACV)	A method of estimating the insured value of properties and assets. ACV is equivalent to reinstatement cost minus depreciation, or the 'fair value'. It should only be used if the insured does not require funds to rebuild the asset from the ground up.
Aggregate (Loss / Limit)	The total loss experienced from multiple events over a given period. Some policies will include aggregate cover, or aggregate limits to cap payouts to an agreed total amount, usually over a 12 month period. See hours clause.
Analytics	Services and methods applied to assist in the identification, quantification and pricing of risk, and in the design of insurance and other financial transfer mechanisms. Analytics will include catastrophe modelling, underwriting, actuarial and exposure specialisms.
Annual Average Loss (AAL)	AAL is an estimate of the mean loss expected annually to an asset or collection of assets. It is a component of the 'technical rate' calculated for underwriting and pricing purposes. It is usually applied to catastrophe risk estimation.
Attachment	The monetary level of a loss at which the insurance will apply. Usually defines the point where coverage begins above a retention.
Broker (intermediary)	A specialist commercial advisory and advocacy agent which acts on behalf of the insured to acquire best cover and terms for the assets at risk. Services include analytics, legal wordings, claims services, and transactions. Brokers are regulated entities.
Captive	An insurance company that is wholly owned and controlled by its insureds. Captives are used to reduce external administrative fees, self-insure certain risks and act to seek reinsurance coverage. Underwriting profits are retained by the insureds.
Carrier	The policy issuing insurer/s, e.g. those accepting part or all of the insureds risk.
Catastrophe	An unusually large natural or anthropogenic loss, usually defined in terms of frequency and severity of the potential loss.
Cedant	An insurer or reinsurer which passes on part or all of the risk they have accepted for a premium to another reinsurer or retrocessionaire.
Claim	A formal notice and request for compensation by an insured to the insurer, or a cedant insurer to a reinsurer under the terms of the policy between them.

Some good sources of background information

There are many useful reference sources related to the concepts and approaches related to the use of insurance for public assets



References to some of the most helpful are provided in the overview factsheet

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The Role of Insurance in Financial Protection of Public Assets

Matthew Foote

World Bank, Disaster Risk Financing and Insurance Program

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Why do we protect public assets?

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

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

Governments often bear the brunt of the costs of disasters.

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Insurance can be part of a broad risk management strategy

AVOID

by removing the exposure to the hazard

REDUCE

by affirmative actions to increase resilience

RETAIN

accept the consequences of the risk

SHARE/INSURE

transferring or sharing a portion of the risk, through finance

- The choice of approach will reflect ***risk appetite***
- Risk is not certain
- Insurance provides finance to compensate ***potential*** losses – at a price

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Determining risk appetite: When to transfer, when to retain?

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What is insurance and why insure?

- A contract between parties for the provision of an agreed level of financial compensation in the event of an unforeseen event causing a loss
- One form of financial risk transfer
- Utmost good faith – all material facts must be disclosed before agreement and acceptance of risk
- Insured – all information related to the risk that may influence price / acceptance
- Insurer – ability to cover any losses under the agreed terms

- Compensation is provided for an agreed price – the premium
- Price will be determined by the insurance assessment
- Historical experience is only a guide
- the chance of a future loss is uncertain – insurance premiums reflect this uncertainty
- There are a wide range of insurance options available – some are more appropriate than others

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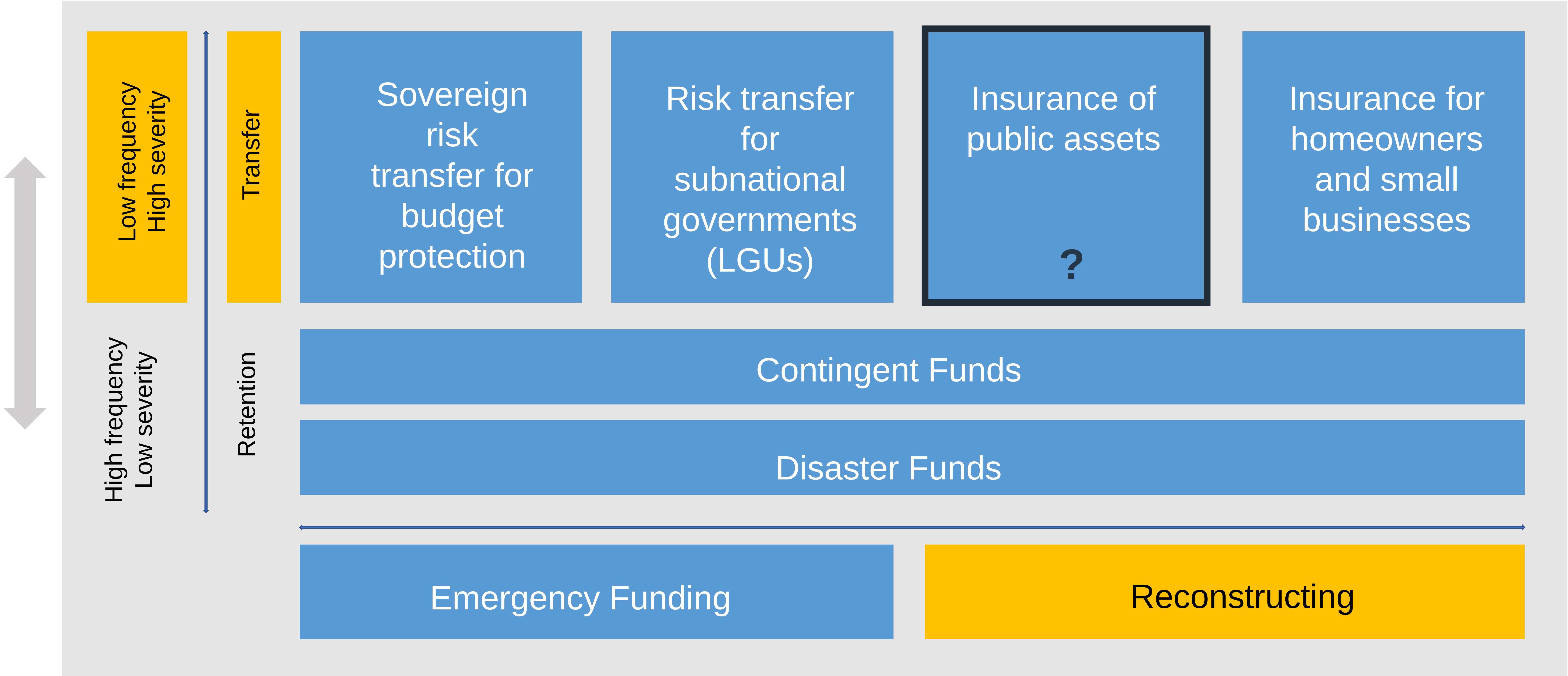
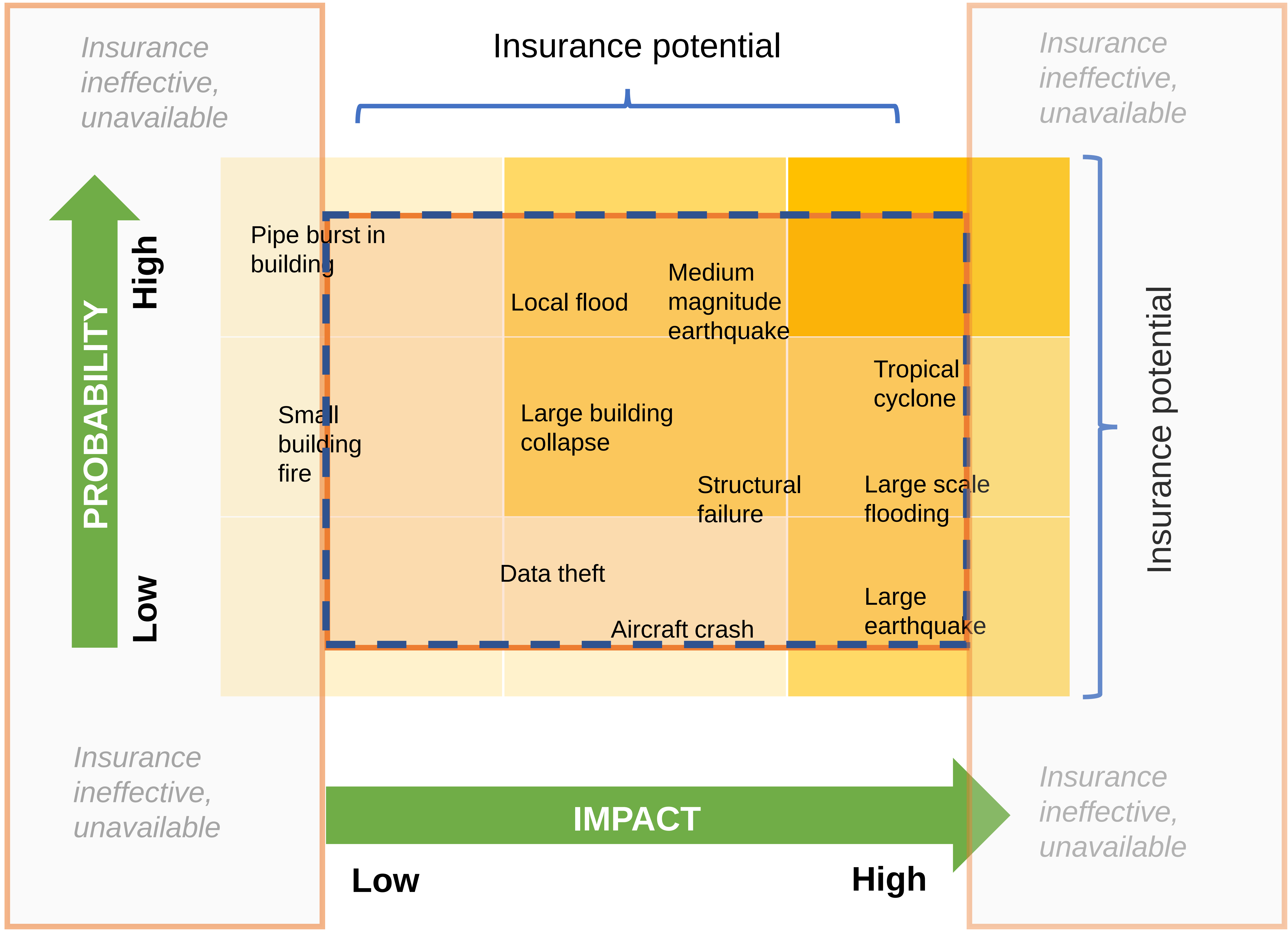
Insurance is one ***potential*** part of an overall disaster risk financing strategy



When is insurance an <u>effective</u> option?



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When is insurance <u>not an effective</u> option?

- the value of the assets is too small, or there is no strategic need to require compensation in the event of a loss
- the chance of a loss is so unlikely that it would not be worth seeking compensation for
- the price for accepting the risk may be too high – e.g. if the likelihood of a loss is too high, or the size of the loss is too large
- others may not be willing to accept the risk at any price – e.g. if the risk is deemed to be outside their own risk appetite, or they are not authorized to accept it

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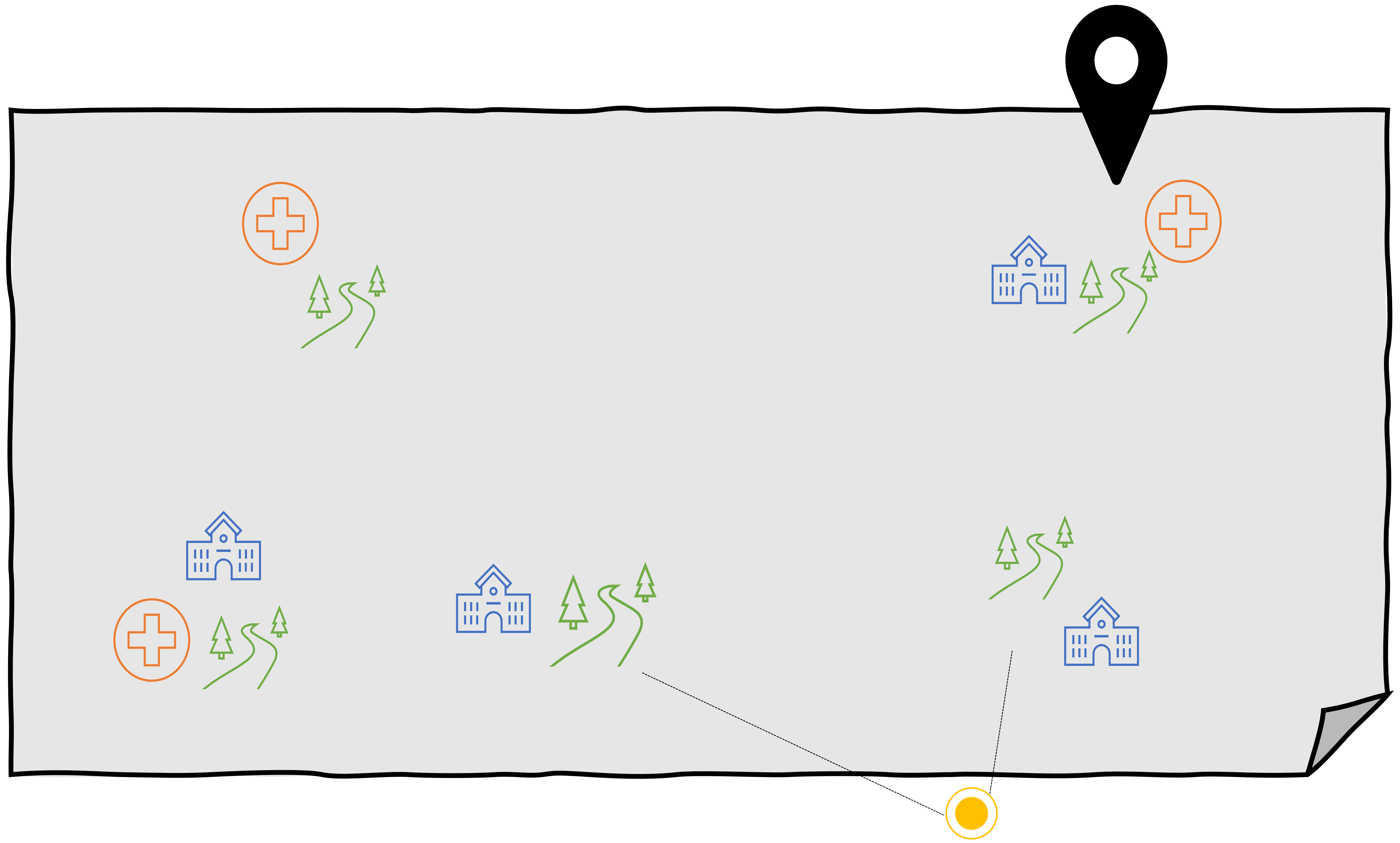
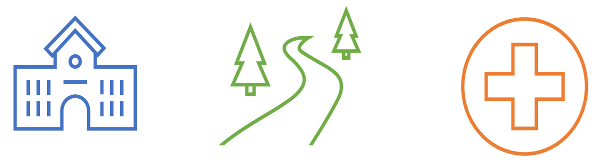
An example

A country is exposed to frequent tropical cyclones, but in recent years only certain regions have experienced significant damage.





Roads, schools and healthcare facilities have been prioritized for financial support in the event of damage.

Many of the roads, clinics and school buildings are not in the areas which have experienced tropical cyclones in the last 20 years – but there is still a possibility of a storm occurring elsewhere across the country.

Is it worth paying to transfer the financial risk for all assets?

Are all assets equally essential or critical?

Stages in preparation and delivery of financial protection strategy

Design	Development	Delivery	Renewal
The creation of an agreed business strategy and objectives for the financial protection of public assets in line with government policy vis-à-vis asset management.	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.	The operationalization of the insurance / disaster risk-financing program, under agreed procedural frameworks, ensuring effective disbursement of claims and transparent accounting in line with policy terms and conditions.	The continued review, redesign and renewal of the program to account for changes in exposure, risk and market trends to ensure ongoing cost effectiveness and sustainability.

Design

Creating a risk transfer strategy

- Identify and engage all stakeholders
- Set and agree risk tolerances and strategic objectives
- Define and agree the risks to be considered
- Set the risk appetite and risk thresholds across all stakeholders
- Ensure strategic plans are in line with government policy
- Consider all risk management options and alternatives including transfer, retention and reduction

Design

Who are the key stakeholders?

- An effective and successful risk transfer strategy needs full support and agreement between the key stakeholders
- Some entities / individuals can have multiple stakeholder roles
- Prioritization of asset protection
- Setting risk appetite
- Acceptance of roles and responsibilities
- Oversight and governance

- Asset owners
- Policy holder/s
- Legislative and procurement functions
- Insurance process manager
- Data / information managers
- Regulator / compliance agencies
- Insurer / reinsurer
- Brokers / intermediaries

Development

Developing and structuring the risk transfer framework

Collect and analyze data and information suitable for identifying and quantifying the risk to determine price and capacity (Hazard / Exposure / Vulnerability)

Determine key priorities and requirements for financial compensation

Establish appropriate legislative / regulatory frameworks to enable financial risk transfer, including claims settlement and audit

Ensure procurement regulations enable use of insurance, reinsurance and if needed, third party advisors

Develop competencies, governance and procedures to enable effective risk management

Development

Developing and structuring the risk transfer framework

- Ensure financial and budgetary mechanisms are appropriate for retained losses, as well as transferred risk
- Identify private finance partners suitable for the risk transfer
  - Role of domestic capital providers / insurers (including state owned)
  - Role of international capital providers / insurers
- Determine risk transfer options and structures
- Identify the policy holder/s and ensure competency
- ensure the policy wordings, limits of cover and exclusions / retentions are in line with strategic expectations
- Determine the size of budget needed
  - to cover the costs of running the program as well as the price of cover – internal and external

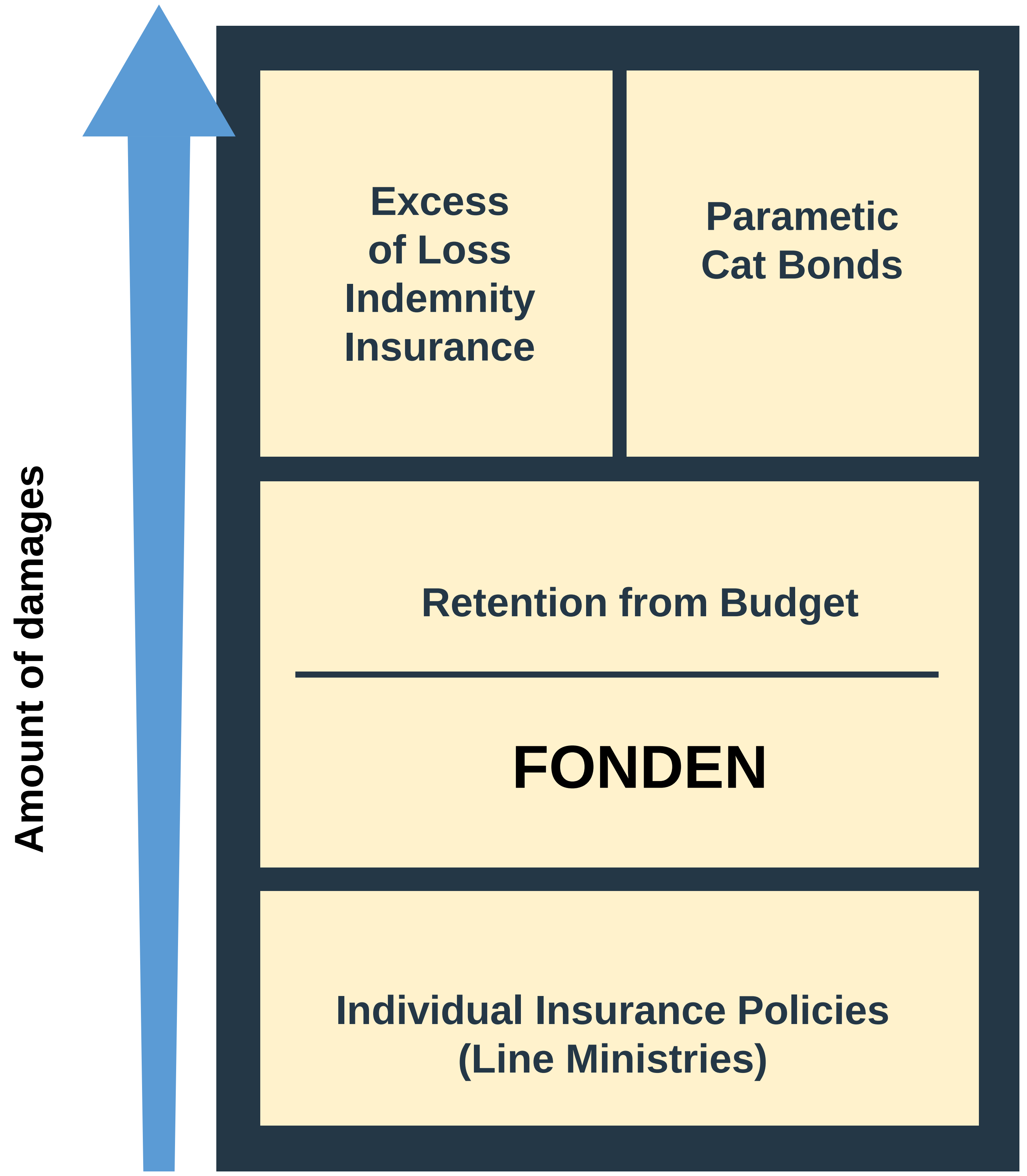
Developing and structuring the risk transfer framework

- The choice of risk transfer mechanism will depend on the specific strategic objectives
- Needs of the insureds / asset owners will form a key consideration
- Probability and size of losses may influence choice
- Options may change over time
  - Hazard / exposure change
  - Market conditions
  - Risk appetite

Parametric		Indemnity
Ex-ante trigger (physical event or estimated loss) Not physical damage to insured assets	*Payout basis*	Payout after loss incurred Reinstatement / rebuild
Fast payout (days-weeks) Trigger based	*Payment speed*	Slower payout (months) Adjustment and settlement processes
Efficient, attracts wider capital markets no claims handling lower exposure data requirement	*Advantages*	Tailored to specific infrastructure risk profiles Pricing reflects resilience
Basis risk – potential mis-triggering Black box approach Not multi-peril	*Disadvantages*	Potential for underinsurance Potential capacity problems High operational / data overheads

An example of insurance within a risk finance strategy - Fonden

- Mexican government Natural Disaster Fund
- Formed in response to earthquake (1985)
- Self insurance and budget retention plus combined parametric and indemnity programs
- Part of broader risk prevention and mitigation strategy
- Broker engaged to support arrangement of reinsurance coverage
- Approx. 250 individual insurance policies – via state insurer - Agroasemex
- At least 0.4% of federal budget in Fonden budget line
- National scale, managed through dedicated board
- Residual risk covered by parametric catastrophe bonds and excess of loss insurance (reinsured on international markets)



Delivery

Develop the operational risk transfer mechanism: Management

- Efficient and effective risk finance using insurance will require significant investment in operational capacity
    - Administration of the insurance program
    - Procedural rigor and transparency
    - Effective engagement between insureds and insurers
    - Claims management and settlement
    - Disbursement
    - Governance and oversight
- Competency and capacity of the key management functions
- Consider the timeline and ongoing management of the program

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Delivery

Develop the operational risk transfer mechanism: Data and information

- Data suitable for insurance transaction is essential
- Material disclosure and reasonable estimates of risk
- Accurate valuation of total insured values – reinstatement cost, or actual cash value
- Data should be consistent and reflect the material risk
- Insurer underwriting process will consider data and historical losses when determining price / acceptance of the risk

Key vulnerability and resilience characteristics:

- Location
- Construction
- Usage
- Age
- Size

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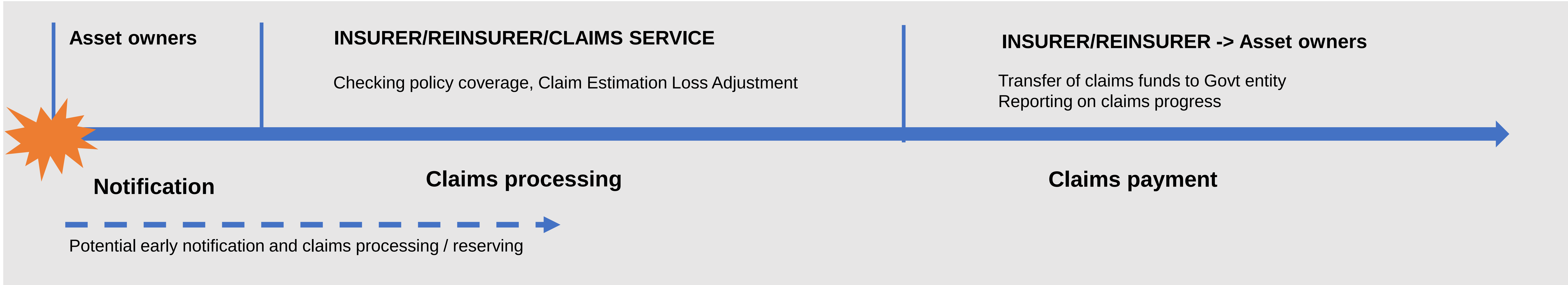
Develop the operational risk transfer mechanism: Claims management

- Type of insurance product will influence the claims process design
  - Parametric – trigger mechanism, funds released
  - Indemnity – claims notification, loss adjustment and settlement
- Essential to have a clear notification and loss adjustment procedure
- Large scale events – ability to handle and complete large volumes of multiple claims



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Renewal

Ongoing management of the insurance process

- Insurance contracts will typically cover a defined time period (usually 12 months)
- Renewal will require re-assessment of the risks
- Market conditions may change, capacity and price may vary
- Large scale losses may influence underwriting considerations
- Technological solutions may alter approaches taken – e.g. claims management systems, loss modelling and analytics
- Intermediaries and insurance partners may need to be consulted in advance of renewal
- Procedures should account for this, and adequate time given to ensure adequate cover is gained in time for inception of the next period

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Why do we protect public assets?

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

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Governments often bear the brunt of the costs of disasters.

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Final observations

- Public assets financial risk transfer requires clear objectives and commitment from stakeholders
- This has outlined an idealized approach
- In reality:
  - Many steps will be undertaken in parallel, or in different sequences
  - Key requirements and considerations will vary between countries
  - Some stages will be easier to complete than others
- The strategic plan can help to build consensus and ensure solutions are as effective as possible

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Thank you

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