FACTSHEET 4

Building Fiscal and Financial Resilience for Subnational Governments against Natural Disasters

Disaster Risk Financing & Insurance Program

SUPPORTED BY WORLD BANK GROUP

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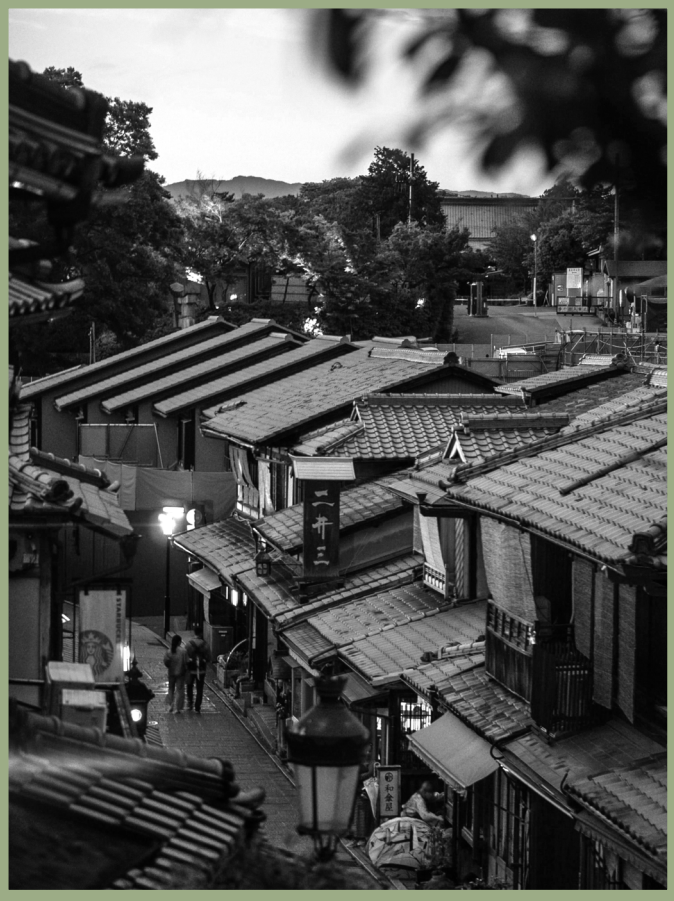

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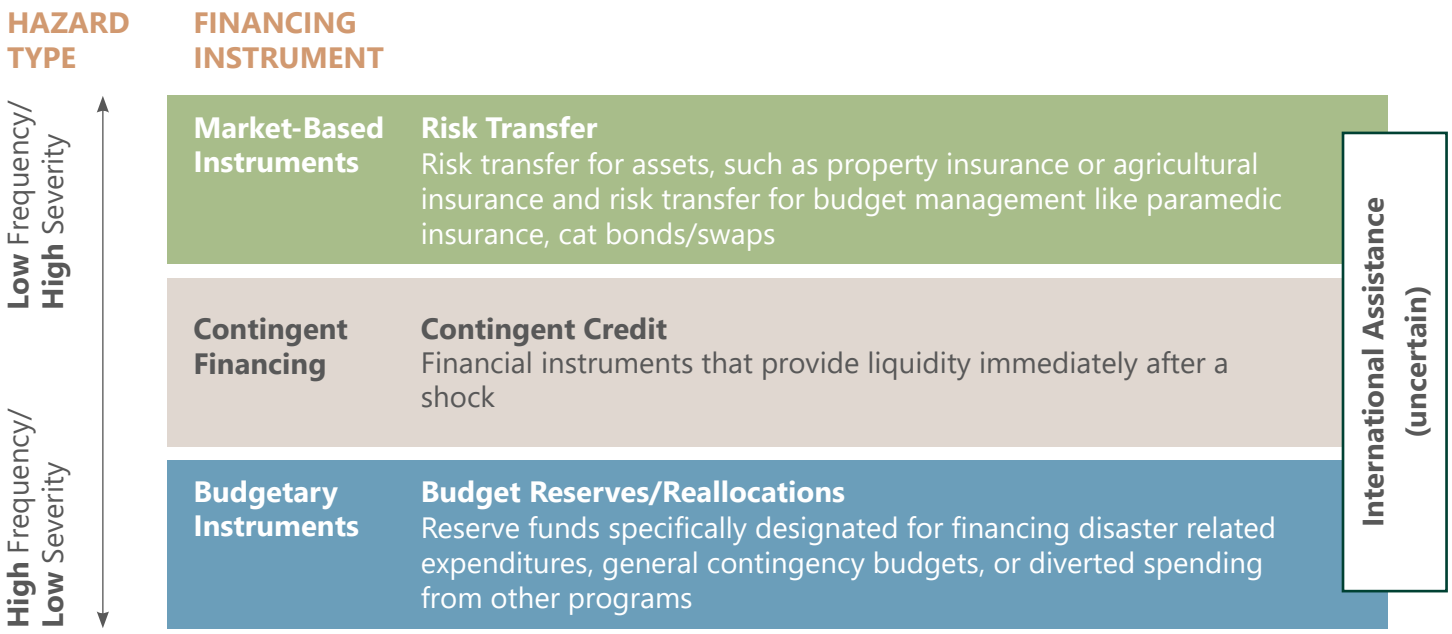
Topic 4: Sovereign Disaster Risk Insurance

Component 2: Instruments for Financial Management of Disasters

OVERVIEW

This factsheet is a continuation of previous editions that focused on instruments for the management of disaster-related contingent liabilities of governments. As countries seek to strengthen financial protection against disaster and climate shocks, they can implement a suite of policies and deploy financial instruments to pre-arrange funding in advance of shocks. Such a combination of instruments can be utilized following a risk layering approach, which helps governments to match the instruments against the frequency and severity of expected disaster events, as illustrated in Figure 1.

FIGURE 1: LAYERED APPROACH TO RISK FINANCING



Source: The World Bank Disaster Risk Finance and Insurance Program
Note: CAT= catastrophe.

Photo: Flore de Preneuf / World Bank

Figure 2 outlines five key areas that governments should consider in determining which financial products might best fit their disaster risk finance (DRF) strategy. These areas will help them evaluate the most effective approach to financial protection and whether insurance products, or other potential instruments, are best suited to achieving their DRF objectives.[1]

FIGURE 2: FACTORS TO CONSIDER IN EVALUATING FINANCIAL INSTRUMENTS

Source: The World Bank Disaster Risk Finance and Insurance Program

Cost of capital: How cost-effective is the instrument in accessing financial resources after a disaster, either in absolute terms (that is, how much does US$1 of disaster response cost?) or relative to other available instruments?

Timeliness: Can the instrument ensure that funding will be available at the right time?

Discipline: How well can the instrument support post-disaster spending discipline, and accountability and transparency?

Ownership: How well can the instrument clarify risk ownership? Is the entity that pays for it (for example, through a premium) also the entity that bears the risk?

Risk information: Can the chosen instrument help countries understand and price their risk?

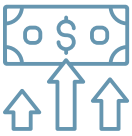
Disaster risk insurance forms an important part of a government's comprehensive disaster risk-financing (DRF) strategy. A DRF strategy requires a bespoke approach to optimize the mix of risk retention and risk transfer instruments for different funding needs. Thus, in managing disaster-related contingent liabilities, governments have utilized insurance as in instrument to transfer part of the residual risk to the (re)insurance markets taking into consideration the five factors. In this context, the webinar focuses on key considerations in the design and implementation of such sovereign disaster risk insurance programs, as well as the lessons learned from various case studies around the world.

[1] World Bank, Sovereign Climate and Disaster Risk Pooling, World Bank Technical Contribution to the G20, (Washington, DC: World Bank, 2017).

Part 1 - Why is Sovereign Disaster Risk Insurance Important?

Disaster risk insurance solutions are an important financial risk management option for most countries. In utilizing this insurance instrument, governments transfer the residual risk to the (re)insurance markets. With risk layering strategies, insurance solutions are often combined with other risk financing instruments in a way that prioritizes cheaper sources of funding, thus ensuring that the most expensive instruments are used only in exceptional circumstances.

Although every country's DRF strategy depends on a range of different factors, a key element is usually the frequency and severity of risks. A broad array of underlying instruments can be used to transfer the risk of specific meteorological or geological events (droughts, floods, hurricanes and earthquakes) to (re)insurance companies, banks and investors. Insurance has numerous benefits as a means for managing the disaster related contingent liabilities, including:



It can provide quick liquidity for response and cost-effective capital to rebuild public infrastructures or restore essential public services after a disaster for a certain layer of risk.

Insurance can also reduce the volatility of disaster impacts on government accounts and therefore promote budget stability, which can significantly benefit smaller countries lacking capacity to build reserves and/or have restricted credit access due to already high debt-to-GDP ratios.

It can help to develop a 'risk management' culture among risk owners and stakeholders by attaching a price to the risk.

It can encourage resilience through quantification of premium discount benefits for different risk reduction measures.

However, these potential benefits need to be balanced against the costs including:

Premium costs, which may not be economical against the expected return, particularly for governments that otherwise have access to sufficient (and cheaper) sovereign financing.[2] Therefore, insurance will not be suitable for covering all financial risks and will comprise only part of the DRF strategy. Insurance can be uneconomical for the smallest, most frequent potential losses, as well as cases where losses are so large that they are deemed either too improbable or too large to cover.

Premium costs are paid in advance, immediately impacting the budget. Also, in the long run, the insureds can expect to pay significantly more than their (expected) losses.[3]

Insurance may not necessarily be available for all perils or types of assets.

[2] World Bank, Sovereign Climate and Disaster Risk Pooling, World Bank Technical Contribution to the G20 (Washington, DC: World Bank Group, 2017, p.4).
[3] As much as 500 percent of the pure risk (expected losses) (Froot, 2001).

Part 2 – Sovereign Disaster Risk Insurance: Policy, Governance and Operational Considerations

POLICY AND GOVERNANCE CONSIDERATIONS

Sovereign disaster risk insurance may require reforms to policy, technical preparation work, and financial support. It will also require a strong political commitment to drive the development and implementation of disaster risk insurance programs. Key objectives and priorities are often clarified from the beginning, for example, who will be insured, what perils will be insured against, what level of protection will be provided through insurance, and how the program will be funded.

Regulatory and institutional frameworks for sovereign disaster risk insurance programs are guided by policy objectives. Legislation needs to clearly articulate and be accompanied by actions to ensure that coverage is (i) purchased where needed, (ii) appropriate and (iii) not being purchased where there is not value for money. Legislation should also allow public sector entities to have the funds and necessary authorizations to pay for insurance premiums. The legislative process can also provide mechanisms to incentivize the uptake of insurance, for example, use of conditionality in access to other forms of government financing, enforcement of compulsory insurance purchase and associated verification of such purchases, etc. Other important considerations include regulatory requirements for insurance products if such programs leverage commercial (re)insurance.

Government institutional arrangements for designing and implementing sovereign insurance programs vary depending on the organizational, legislative and governance models of each country. Ministries of finance have an important role in the development and implementation of these programs, especially in budgeting for insurance premiums. Other line ministries or agencies, for example, ministries of agriculture or ministries and agencies in charge of public infrastructure, are also involved in related insurance programs. Table 1 summarizes the roles of public and private stakeholders in a public asset insurance program as an example.

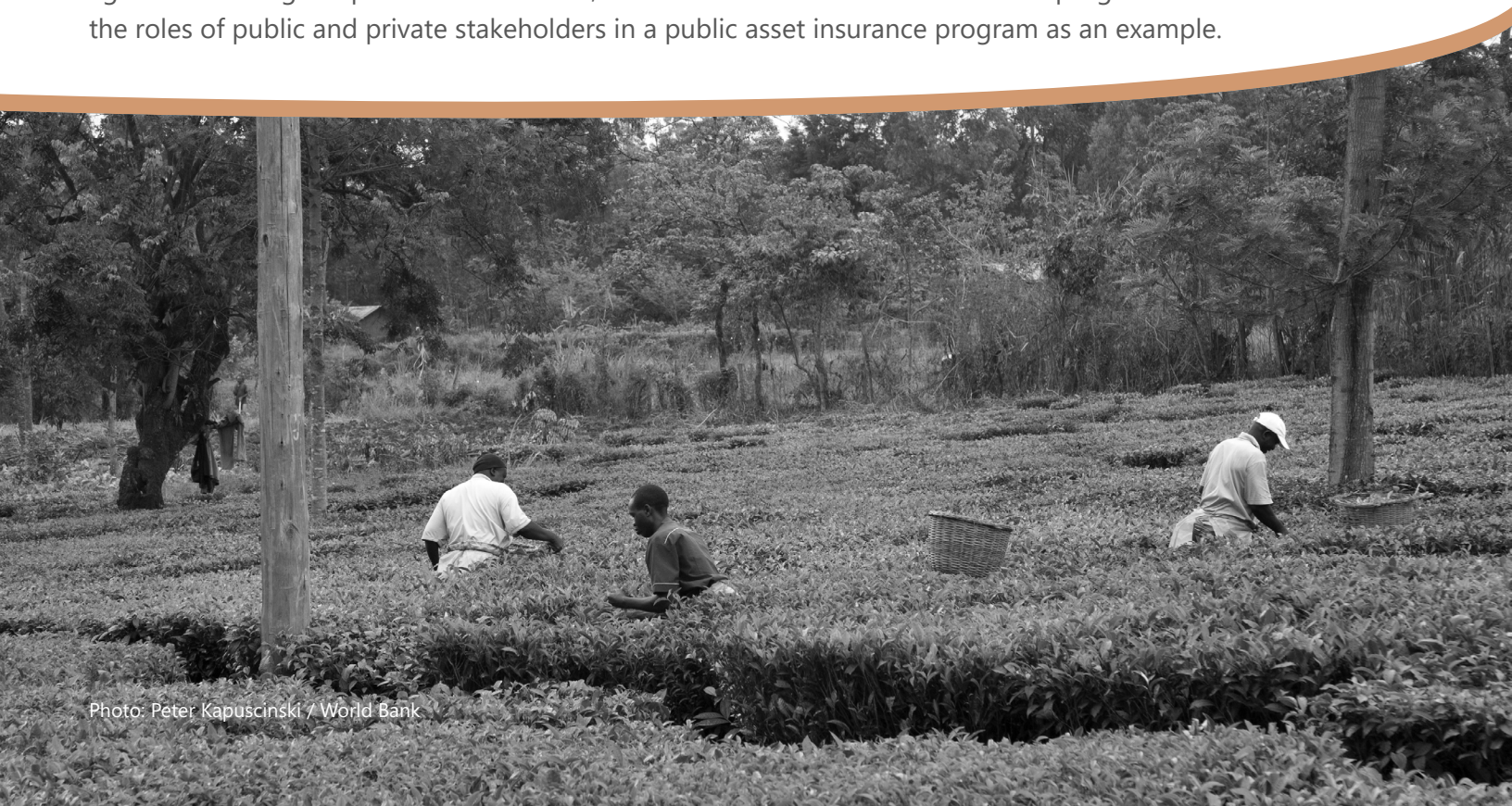
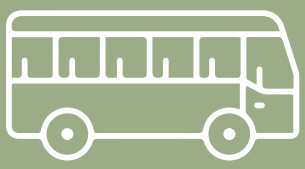


Photo: Peter Kapuscinski / World Bank

TABLE 1. STAKEHOLDERS' ROLES IN SOVEREIGN DISASTER RISK INSURANCE

 **Policy holder, for example, a Ministry of Finance (or asset-owning agencies and line ministries)**	• Ownership and development of strategies that leverage insurance instruments, including the delineation of risk appetite and risk tolerance. • Engagement with internal stakeholders including line ministries, subnational governments, asset owners, auditors, compliance officials and regulators. • Lead government representative for the insurers and final accepter of terms and conditions. Coordination of relationship with policy-issuing insurers, including approvals. • Engagement with brokers and other third parties in accordance with government procurement regulations. • Provision of systems and operations to support insurance management across government agencies. • Documentation and management of the insurance process and procedures. • Determination and agreement concerning the level of exposure to be retained by the government (for example, by asset-owning agencies and line ministries), or deductibles. • Provision of aggregated data (if multiple asset-owning entities) to the insurers with an appropriate level of accuracy and completeness. • Management of the claims process with insurers.
 **Asset-Owning Agencies and Line Ministries**	• Provision of data to represent the assets being insured at a sufficient level of accuracy and completeness. • Agreement on program aims and objectives. • Adherence to defined governance and management procedures. • Premium payments as allocated by risk assessment. • Claims notification and settlement, including the: initial notification of claim, and the provision of details and evidence related to the damage; engagement with loss adjusters, contractors and claims managers; and recording of claim amounts paid and completion of works.
 **Lead insurer / carrier (policy issuer)**	• Insurance pricing and rating of the assets, as notified in the schedule of assets provided by the policy holder. • Provision of policy wording and contract to provide cover as agreed with the policy holder. • Contact point for claims notification and settlement. • Organization of loss adjustment and other claims services for the policy-holding Ministry. • Ensure appropriate governance and compliance actions to guarantee cover and payouts in line with the policy.

Reinsurers	• Provision of reinsurance capacity to ensure full coverage against largest potential maximum losses, including natural catastrophes. • Ensure payment of claims by insurers according to the reinsurance policy.
Brokers / intermediaries	• Provision of transactional advisories and marketing to ensure cost-effective coverage. • Provision of analytical services to support pricing and structuring of risk transfer, and selection of coverage to ensure effective coverage in support of objectives. • Provision of ongoing services to support renewal of coverage as necessary.
Regulators and supervisory organizations	• Determine the capital and operational rules for the provision of insurance and reinsurance, particularly with respect to the participation of domestic markets, or inclusion of international insurance and reinsurance markets. • Determine tariff structures as necessary for public asset risks. • Approve/supervise special purpose entities, such as captives, state-owned insurers, mutuals or consortia.
Government audit and compliance agencies	• Oversight and validation of insurance processes against procurement and internal accounting rules. • Validation of asset values (insured values) appropriate to the type of coverage being provided.

Source: An Overview of Financial Protection of Public Assets Introduction to SEADRIF Knowledge Series, https://www.financialprotectionforum.org/sites/default/files/SEADRIF%20factsheets%20overview.pdf

Photo: Meg Landrito / World Bank

OPERATIONAL CONSIDERATIONS

Insurance Approach: Centralization vs. Decentralization

A number of approaches have been adopted by countries in operationalizing sovereign disaster insurance programs which typically vary from centralization to decentralization. Table 2 below discusses the pros and cons of various approaches.

TABLE 2. CENTRALIZED, PARTIALLY CENTRALIZED AND DECENTRALIZED INSURANCE APPROACHES

Approach	Advantages	Disadvantages
 **Centralized:** Risks are aggregated into a program or vehicle	• Consolidated purchasing power and conduit to international market capacity • Management of pricing volatility • Financial efficiencies from risk pooling/better managed risk retention • Quality control for insurance coverage standards • Visibility over multiple classes of risk, allowing for comprehensive risk management	• High administrative and operational cost burden • Risk of disconnecting insurance decision-making from experience of risk • Removal of choice in financial decision-making from direct managers of assets
 **Partially Centralized:** framework agreement with the insurance market	• Facilitates access to commercial insurance • Standardizes insurance purchase process, increasing the chance of successful placement • Promotes competition on price • Provides robustness in overall terms of engagement between insurers and public sector (but not necessarily in terms of coverage itself) • Protects freedom of choice in financial risk management	• Relatively high level of effort to implement • Reduction of choice of suppliers • Application of minimum standards in insurance terms and pricing that may not be possible in certain market contexts • No additional financial efficiencies from risk pooling/ better managed risk retention
 **Decentralized:** individual agency approaches	• Protects freedom of choice in financial risk management - keeping experience of risk and financial decision-making in the same place • Has no administrative or operational burden for government • Allow free market competition between suppliers	• Variability in price and coverage quality outcomes, with particular risk for small scale public entities with limited purchasing power • Increased risk of unsuccessful placements • No additional financial efficiencies from risk pooling/ better managed risk retention

Source: The World Bank, 2020, Catastrophe Insurance Programs for Public Assets-Operational Framework

Risk pools

Risk pooling is essential to the concept of insurance and financial risk transfer and has been utilized by sovereigns. Risk pooling does not reduce the underlying risk (which should be reduced through appropriate risk reduction measures). Rather, it allows for improved spreading of risk, leading to potentially significant financial and non-financial benefits for governments looking to develop a dedicated program for a specified pool of assets. The advantages and challenges of sovereign risk pools are described in Table 3.

TABLE 3: ADVANTAGES AND CHALLENGES OF SOVEREIGN RISK POOLS

Advantages	Challenges
Diversified risk across multiple countries with different risk profiles.	**Moral hazard.** Members with substandard risk-management practices or risk-prone assets may join the pool; however, such practices or risk exposures are not fully factored into the risk pool or reflected in those members' premium contributions.
Economies of scale through a shared fixed-cost base and reduced transaction costs of procuring services, such as brokers or claims managers. Operational costs, such as program development and day-to-day, back-office operations, can also be shared.	**Premium allocation/member contributions.** As contributions are allocated across members, they will always be conscious of cost, and expect fairness and transparency in the way that pool costs are allocated and justified.
Increased budget certainty and price stability. Pooling decreases the amount of reinsurance required, which in turn assists in smoothing costs over insurance market cycles, improving budget predictability, and reducing pricing volatility.	**Continued commitment and financial contributions.** Risk pools require a strong and ongoing commitment from key stakeholders - including governments and development partners - from design to implementation and day-to-day operations.
Joint reserves (joint surplus capital) established to self-insure a part of the risk.	**Sound operational design.** It takes time and effort to design and implement an appropriate and effective risk-pooling structure.
Excess risk is transferred to the reinsurance and capital markets.	Members also need to share **common principles** in risk management, as well as other common identifying features.
Cheaper premiums. Increased attractiveness to markets due to the diversified pool of risks.	-
Better risk information about the entire portfolio.	-
Improved risk ownership and increased incentives for members to collaborate and share information and innovation.	-

Source: World Bank, Sovereign Climate and Disaster Risk Pooling, World Bank Technical Contribution to the G20, (World Bank Group, 2017).

A number of public sector risk pools have been established and operated at the subnational/municipal, national and regional levels. These pools provide coverage to members, states and countries for different perils and covering a range of assets including agriculture and public assets. A recent World Bank report noted that between years 2007 and 2017, 26 countries in three regions - Africa, the Pacific, and the Caribbean/Central America - joined sovereign catastrophe risk pools.[4]

Types of insurance

Once a government has assessed its overall disaster risk profile, DRF strategy and the nature and extent of the risks it intends to transfer, the next consideration is what type of insurance product best addresses those risks.

Disaster risk insurance can take several forms. 'Traditional' **indemnity-based** insurance products require the assessment of individual losses following an insurable event. **Index-based** (including parametric) insurance policies provide payouts based on a pre-determined event (the 'trigger'). A hybrid **indemnity and parametric** product can also be provided by the insurance markets.

Agricultural insurance

Agricultural insurance products transfer a share of production risk (usually held by farmers) to another party (insurers) in return for a fee/premium. Agricultural insurance can be customized to suit a range of different farming situations (commercial or individual), agricultural products or hazards.

A commonly used form of agricultural insurance is index insurance, which links insurance payouts to an indexed proxy for incurred losses. Indices used include Weather Index Insurance (payouts in relation to rainfall levels, used as a proxy for droughts) and Area Yield Index Insurance (payouts if average crop yields fall below certain thresholds).

Weather derivatives are generally more cost-effective for low-probability events with severe impacts, such as a drought. Although most hazards are weather related, Southern Africa member states have a dedicated livestock index insurance product that insures against the increased mortality of livestock, including animal disease outbreaks.

[4] In 2016/17, these countries purchased aggregate parametric catastrophe risk insurance coverage of US$870 million for an aggregate premium of US$56.6 million. The three pools have so far made payouts of US$105 million. World Bank, Sovereign Climate and Disaster Risk Pooling, World Bank Technical Contribution to the G20, (World Bank Group, 2017).

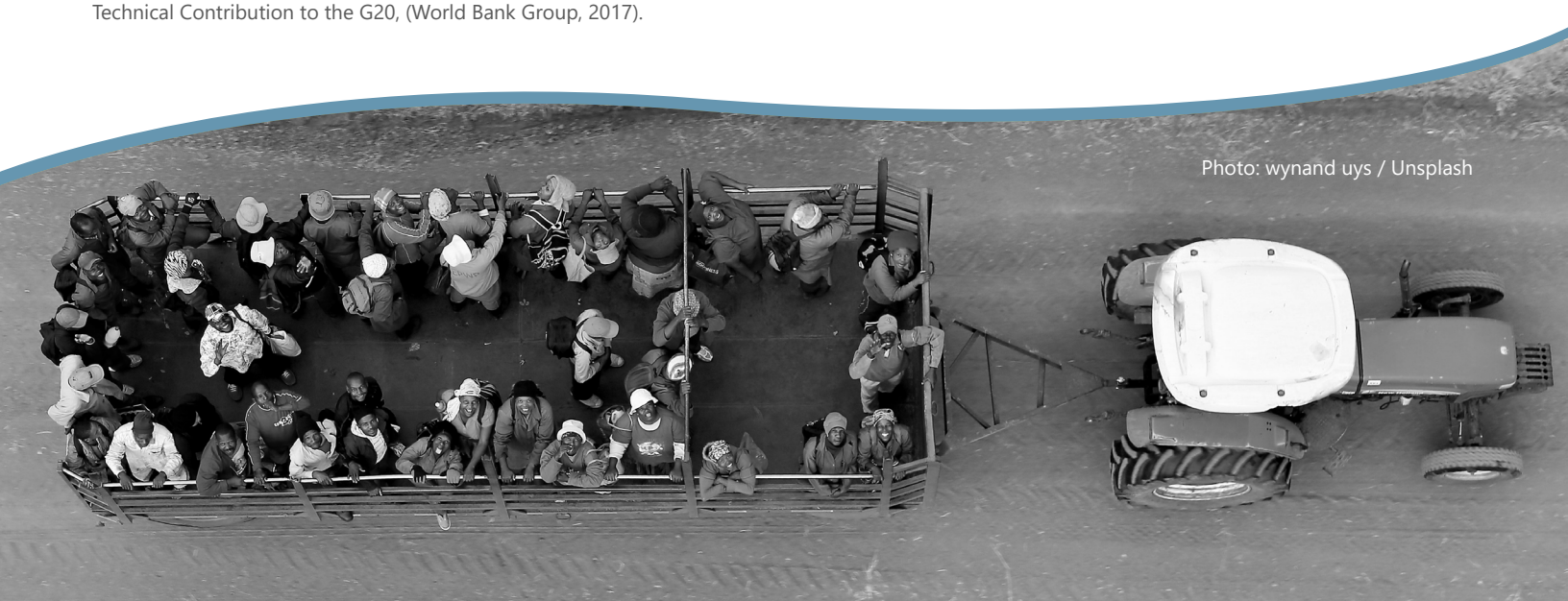


Photo: wynand uys / Unsplash

Potential advantages of agricultural insurance include:

More efficient public sector financing of agriculture emergency relief efforts

Pre-agreed transparent payout rules and delivery mechanisms, enabling governments to transfer a well-defined financial risk from national balance sheets

Reduced short-term, emergency-related costs to government

More rapid delivery of financial relief to those affected by systemic shocks, and

Increased access to agricultural credit for farmers who were previously not considered creditworthy individuals.[5]

Public assets insurance

Insurance provides a means for governments to transfer some of the financial risk away from the government's balance sheet and crowd in risk capital for reconstruction of public assets and infrastructures as well as timely restoration of public services. The format of insurance product for public assets protection could be indemnity, parametric or a hybrid. Each type of products has its own benefits and challenges. While indemnity product requires robust risk management including sufficient information about the portfolio of assets to be insured and better loss control, it entails costly damage assessment and potential costly dispute handling. Compared to indemnity insurance, parametric product requires less information and less costs for claims payments since the index value is based on independent, third party data and provider quicker payouts. However, one big challenge with parametric insurance is the basis risk when the index does not accurately reflect the actual losses or damages.

[5] World Bank, "Southern Africa - Regional Agriculture Risk Financing Framework Improving Agriculture and Food Security Risk Financing in Southern Africa."(Washington, DC: World Bank, 2020).

Photo: christoffer-zackrisson / Unsplash

MAINTAINING SOVEREIGN DISASTER RISK INSURANCE

As noted, once a government takes the position that insurance products are a potentially important part of the country's DRM strategy, further work needs to be done to determine the government's capacity and capability to activate and maintain a financial protection program.

Policy and governance requirements

The long-term sustainability of disaster risk financing solutions also depends on:

- Continued strong political commitment and support
- The breadth of insurance instruments that can be offered, and
- The ability to generate regular and sufficient premium income, possibly with financial support from donor partners
- Effectively linking financial instruments to pre-agreed post-disaster support programs, such as shock-responsive social protection programs or critical infrastructure recovery programs. This will help to ensure that funds can be efficiently channeled to support targeted post-disaster responses.

Other forms of insurance, such as regional catastrophe risk pools, also require regional cooperation and partner organizations to facilitate the policy dialogue and coordination between participating governments. Given the level of cross-country coordination required to establish and manage such a pool, regional political bodies are essential to facilitate the process.

The role of data

As insurance pricing is based on the probability of the triggering event occurring (rather than losses), scientific data and modeling are critical. However, collating the data often takes months, as investors require comprehensive risk assessments, precise definitions of triggering events, actuarial reports, legal and accounting advice, as well as other capital market information.

Factsheet 7 will discuss data requirements in further detail.

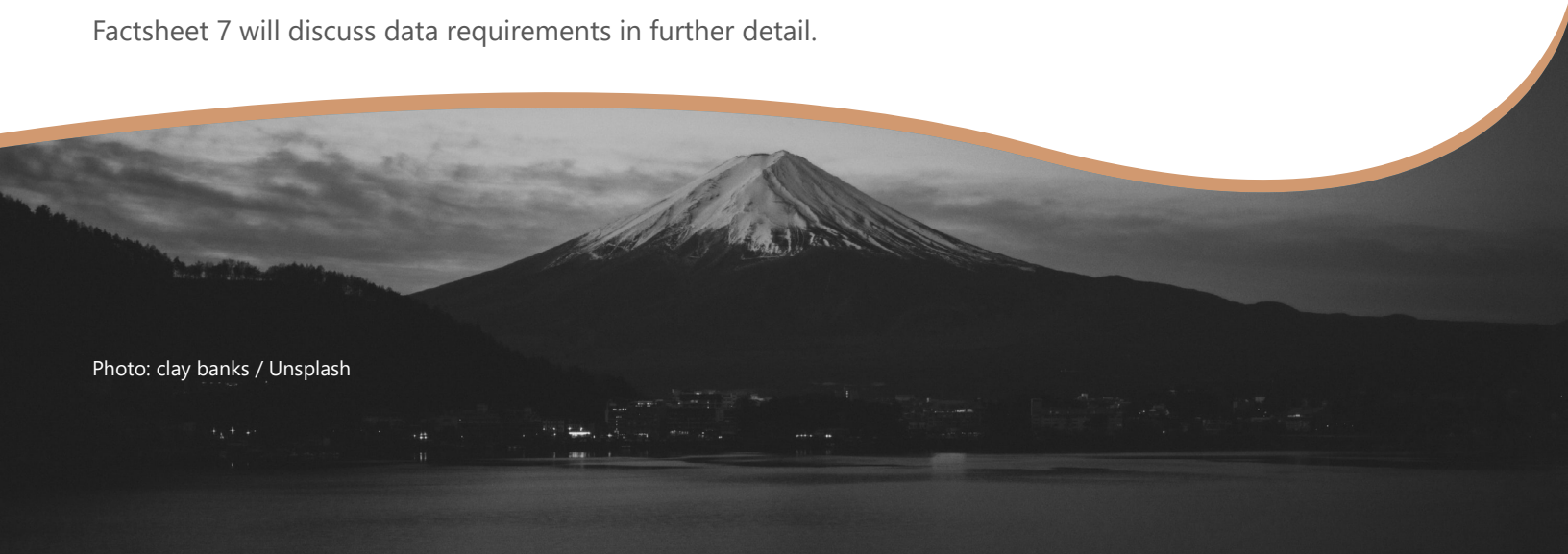


Photo: clay banks / Unsplash

Conclusion

Sovereign disaster risk insurance is an important component of a DRF strategy. It is an instrument used to manage a government's disaster-related contingent liabilities. It can provide rapid financing for emergency response and the funding needed to reconstruct public infrastructure following disaster events. It can also help to reduce the volatility in government budgets, as well as increase fiscal stability, among other numerous benefits.

However, insurance will not be suitable for covering all risk layers or all types of perils. In other words, the cost for insurance coverage may not be economical against the expected return. Therefore, a risk layering approach together with a clear risk appetite can help determine when insurance is most suitable. In this context, insurance may be suited to only part of a financial protection strategy.

As the case studies show, governments can structure insurance in different ways, allowing them to make the most out of these solutions for disaster risk financing.

Photo: Juniper Photon / Unsplash

Case studies

NATIONAL PROGRAMS AND RISK POOLS

Indonesia - Public asset insurance

As part of its overarching DRFI strategy, Indonesia launched its National Government Public Asset Insurance Program in December 2019. Key features of Indonesia's public assets program are as follows:

Objective: To protect public assets against the impact of natural and man-made disasters and to ensure the continuity of public services by leveraging domestic and international insurance markets.

Insurance cover: Indemnity cover, all risk, annual policy.

Buildings covered: 3,796 government-owned buildings across 43 ministries.

Total Insured Value: US$1.86 billion.

Private sector counterparts: A consortium of 55 domestic insurance and reinsurance companies has been established under the General Insurance Association of Indonesia (AAUI). The state-owned insurance company, JASINDO, is the consortium leader and policy issuer. MAIPARK, a specialized catastrophe risk reinsurance company owned by all general insurance and reinsurance companies in Indonesia, serves as the consortium manager. The consortium structure, the products offered, and the tariff rates are reviewed and approved by the financial services regulator, OJK.

Approach to market: Each ministry signs an insurance policy with JASINDO, the consortium lead. JASINDO then passes on the risk to members of the consortium. Any remaining excess risk not able to be retained in the domestic market is then transferred to international reinsurance markets through MAIPARK.

Key stakeholders in the government: The Ministry of Finance is responsible for designing and establishing the program and coordinating the overall implementation of the DRF Strategy (including coordination with the Pooling Fund). Each Ministry's Secretariat General is the policy holder.

Expansion plans for 2021 and beyond: The aim is to expand coverage to the buildings (including offices and education and health facilities) of all ministries, and subsequently to cover infrastructure (such as road, bridges, and so on).

Capacity Building and operational roll out. The Government has adopted a complete Handbook for the program (a manual of about 100 pages), including illustrated overview versions. The Handbook has been circulated to all 80 ministries. E-learning concerning the basics of (public asset) insurance and fundamentals of DRF have been prepared in Bahasa, Indonesia. Findings have been disseminated through the Kemenkeu (Ministry of Finance) Corporate University.

Japan - Residential insurance pool

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). Payouts are not proportionate to damage; rather, they rely on a four-step system of total, large, small, and partial losses, corresponding to 100 percent, 60 percent, 30 percent, and 5 percent, respectively, of the earthquake insurance policy limit. Discounts are also available for earthquake resistant buildings (Mahul and White 2012; Ministry of Finance n.d.). Also, tax deductions for earthquake insurance premiums are available. Despite this, private household disaster insurance penetration remains moderate, with only 29.5 percent of households having private asset protection insurance (for residential buildings and household goods) to cover earthquakes, tsunamis, and volcanic activities. The insurance is backed by the JER.[6]

For private businesses, natural hazard insurance (for floods and earthquakes) is available through corporate fire insurance policies, as well as some co-operative government mutuals. However, these premiums are significantly higher than for JER-backed policies.

Kenya Livestock Insurance Program

Key features of the Kenya Livestock Insurance Program are as follows[7]:

Objective: In the 2015/2016 season, the Government of Kenya purchased about 5,012 fully subsidized livestock insurance covers (on behalf of selected vulnerable pastoral households) which issue payouts based on a forage availability index (that is, the Normalized Difference Vegetation Index [NDVI]).

The fully subsidized component was launched first to allow insurance companies time to establish distribution infrastructure, as well as testing products and systems. It is designed to insure the vulnerable pastoral households just above the social safety net threshold. This will help to avoid accessing benefits from different programs. As of October 2016, 14,000 pastoral households were insured.

Coverage: The fully subsidized insurance product offers a pre-determined minimum coverage level. It has been designed to protect rapidly deteriorating livestock assets. Although the livestock insurance cover is purchased by the government ("macro coverage"), in case of a drought, the insurance companies pay claims directly to the policyholders of the beneficiaries. This enables pastoralists to keep their livestock alive, particularly their breeding stock during droughts because they can purchase fodder/pasture. However, only five Tropical Livestock Units (TLUs) are covered, which is the equivalent of about 5 cows or 10 goats.

[6] OECD and the World Bank. Fiscal Resilience to Natural Disasters: Lessons from Country Experiences. (OECD and World Bank, 2019).

[7] This case study was drawn from: file:///C:/Users/wb449978/Downloads/KLIP%20Four%20Pager.pdf

Criteria: The national and county governments have agreed and establish selection criteria to ensure that only those vulnerable households are benefiting from the fully subsidized component. To be selected, the household should: (i) be active in pastoralism and own a minimum of five TLUs; (ii) not benefit from any of the programs under the Kenya National Safety Net Program; (iii) not own more livestock than above a certain ceiling; and (iv) have either a formal money transfer system (for example, a bank account or mobile money service) or commit to acquiring one after being considered a beneficiary.

Sustainability: Given the low coverage of the macro coverage, the Government of Kenya has committed to creating a sustainable livestock insurance program by implementing a second phase. During this phase, beneficiaries would be required to contribute to the commercial cost of insurance. The Government will provide a 50 percent livestock insurance subsidy for up to 10 TLUs per household. For insurance, to be commercially viable, it needs the participation of a larger number of farmers and pastoralists. Being able to demonstrate that insurance pays when it is supposed to contributes to greater commercial sustainability.

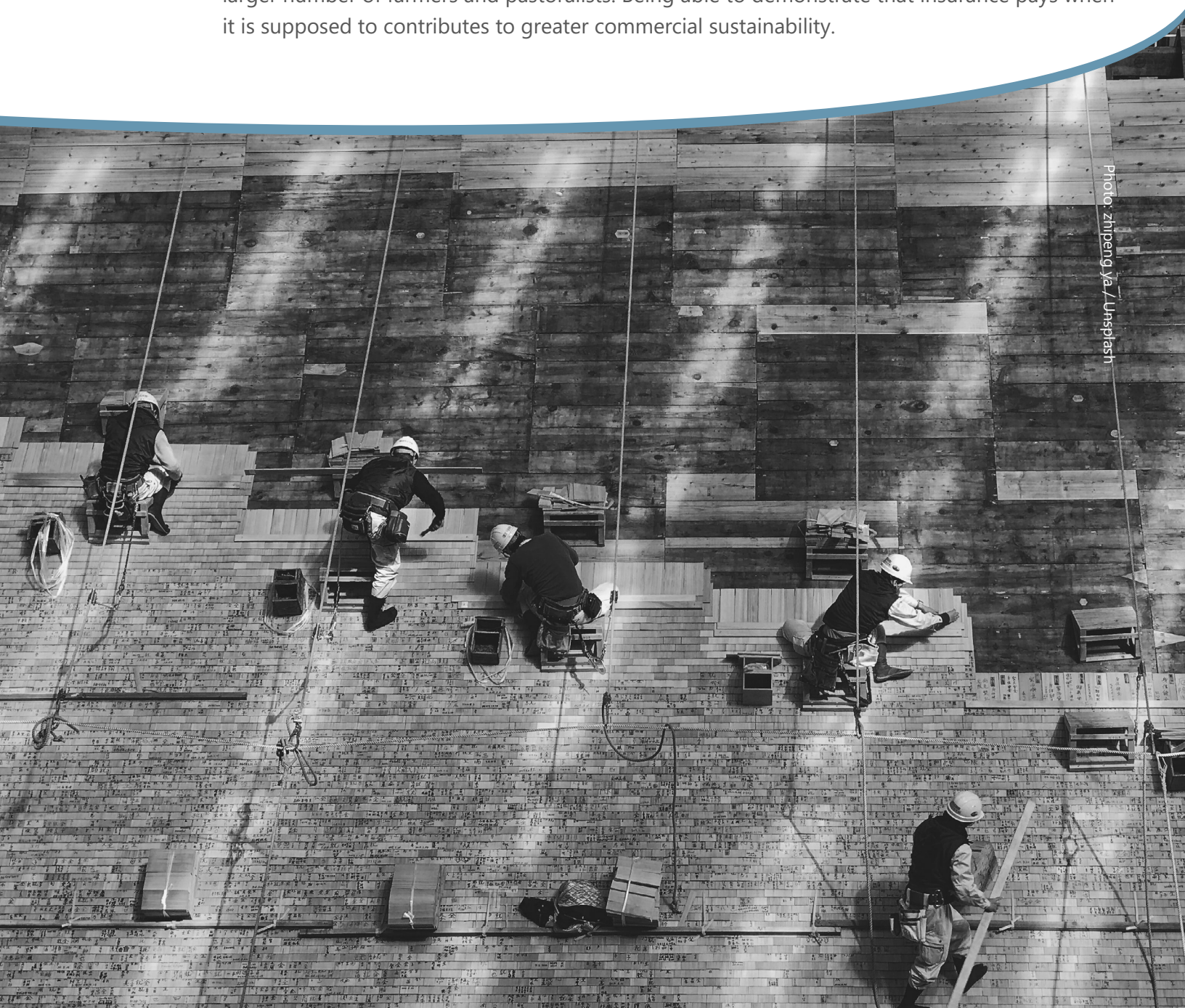


Photo: zhipeng ya / Unsplash

MULTI-JURISDICTIONAL RISK POOLS

The Caribbean Catastrophe Risk Insurance Facility (CCRIF)

The CCRIF, created in 2007, was the world's first multi-country catastrophe risk pool. It offered parametric earthquake and tropical cyclone insurance policies (backed by both traditional and capital markets) to its 20 Caribbean Community member and associate member states[8]. The parametric insurance mechanism is focused on financial liquidity, providing rapid payouts to help members finance their initial disaster response and maintain basic government functions after a catastrophic event. Since 2007, the CCRIF has made 53 payouts to 16 member governments on their tropical cyclone, earthquake, and excess rainfall policies, totaling approximately US$242.4 million.[9]

Participating countries pool their risks into a single, more diversified portfolio. As a risk aggregator, the CCRIF provides insurance coverage to participating countries at a lower cost than individual governments could obtain separately. In its early stages, the CCRIF relied extensively on technical and financial support under the technical leadership of the World Bank and a grant from the Government of Japan. It was capitalized through contributions to a Multi-Donor Trust Fund by several donors, as well as by membership fees from participating governments.

Donor funding allowed for the early financing of CCRIF expenditures. It also enabled the CCRIF to offer cheaper catastrophe coverage options to its members. In addition, it helped the CCRIF to build capital reserves for the longer term. In 2014, the facility was restructured into a segregated portfolio company, enabling the establishment of separate underwriting pools with differentiated capital.

The CCRIF relies on a network of service providers to facilitate risk management, risk modeling, captive management[10], reinsurance, reinsurance brokerage, asset management, technical assistance, corporate communications, and information technology.

[8] Nineteen Caribbean governments are currently members of the Facility: Anguilla, Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Dominica, Grenada, Haiti, Jamaica, Montserrat, St. Kitts & Nevis, Saint Lucia, Sint Maarten, St. Vincent & the Grenadines, Trinidad & Tobago and Turks & Caicos Islands. Three Central American governments are currently members of the Facility: Nicaragua, Panama and Guatemala. https://www.ccrif.org/about-us?language_content_entity=en#:~:text=Nineteen%20Caribbean%20governments%20are%20currently,Lucia%2C%20Sint%20Maarten%2C%20St.

[9] https://www.ccrif.org/about-us?language_content_entity=en

[10] An insurance company that is wholly owned and controlled by its insureds. Captive's underwriting profits are retained by the insureds.

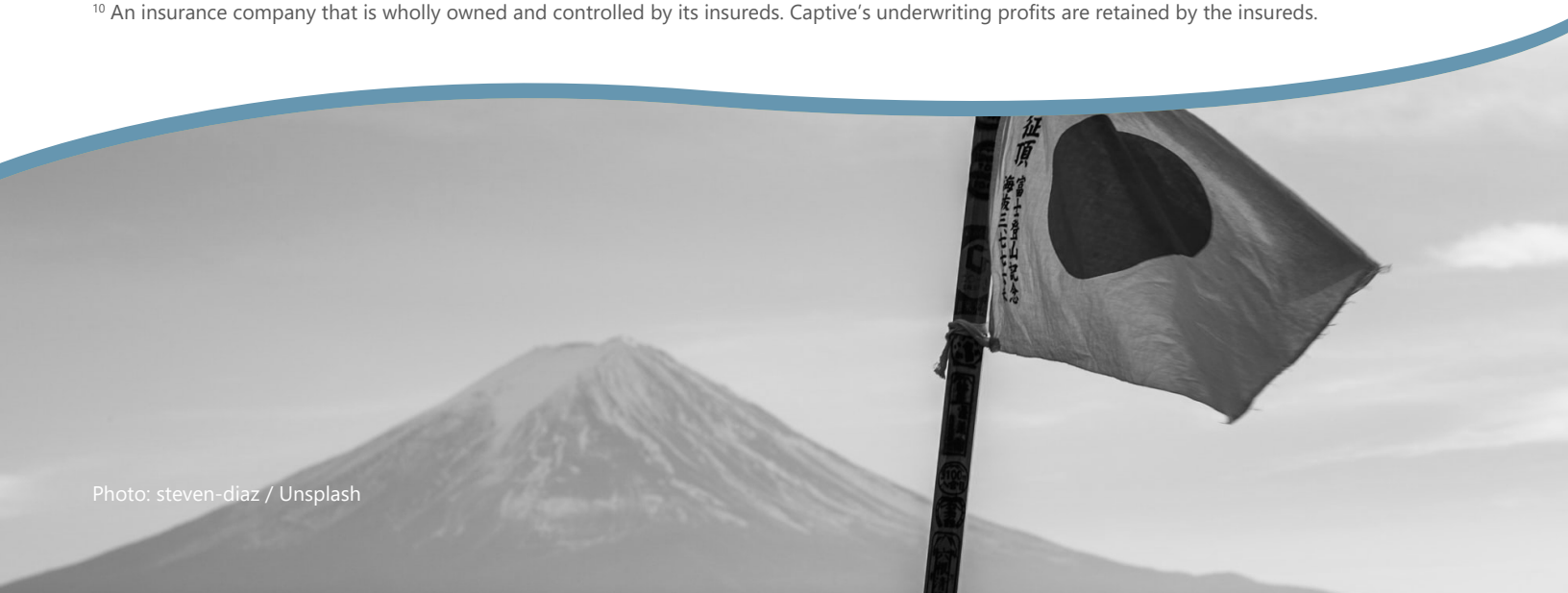
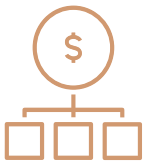
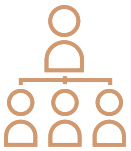


Photo: steven-diaz / Unsplash

The Southeast Asia Disaster Risk Insurance Facility (SEADRIF)

The Southeast Asia Disaster Risk Insurance Facility (SEADRIF) has been established as a regional platform for all Association of Southeast Asian Nations (ASEAN). As the first regional risk-financing facility in Asia, the SEADRIF was established (in Singapore) by participating ASEAN+3 countries, and it is owned by those countries. It receives financial support from donor partners, technical support from the World Bank, and administrative support from the ASEAN Secretariat in partnership with regional and other institutions.

The intended benefits of the SEADRIF are to:

 Provide rapid and predictable relief funding, thus reducing reliance on disruptive budget reallocations and dependence on uncertain humanitarian aid.	 Create a transparent, rules-based facility to provide post-disaster financial support to participating countries, thereby allowing governments to plan ahead.	 Mobilize international support, including donor financing and technical assistance.
 Enable improved access to international reinsurance and capital markets through regional risk pooling and a collective approach to markets.	 Offer access to public goods, such as a flood risk assessment model backed by state-of-the-art technology.	 Build regional leadership as a facility established and owned by the ASEAN+3 countries.

SEADRIF's first product provides insurance to Lao PDR against climate shocks and natural disasters. The insurance policy has a three year period and consists of two complementary components: the parametric component and the finite risk component. The core feature of SEADRIF's first insurance product is its parametric component which uses a stepped payout structure. The structure has fixed parameters that correspond to predefined levels of the modeled number of people affected by a flood, which trigger pre-agreed payout amounts. Specifically, 40% of the policy limit is payable in the event of a 'medium' disaster, and 100% of the policy limit is payable in the case of a 'severe' disaster. The parametric component must comprise a minimum of 50% of the total premium paid. The finite risk component provides countries with protection against events that might not trigger a payout under the strictly objective rules of the parametric component. This could be due to: (1) basis risk; (2) small flood events that don't trigger a payout under the parametric component; or (3) losses that are caused by natural disasters which are not flood-related, but for which the insured country requires a degree of financial support. To qualify for a payout under this component, the insured country is required to provide evidence that a disaster event has occurred.[11]

[11] https://seadrif.org/faq/

About the SECO-World Bank Program for Disaster Risk Finance and Insurance in Middle-Income Countries.

Middle-income countries face fiscal challenges in effectively responding to disasters. Relief, recovery, and reconstruction efforts are often constrained by limited fiscal capacity and capability. As such, many governments often rely on short-term international support as their primary source of post-disaster funding. However, establishing the appropriate risk financing strategies can help address these challenges and build national resilience.

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 to withstand natural disasters.

The Sovereign Disaster Risk Financing and Insurance Program for Middle-Income Countries (the Program) is one component of a broader World Bank-SECO partnership to address fiscal risk management in MICs. The Program provides tailored advisory services and institutional capacity building for public financial management of natural disasters. The Program's outcomes over the last eight years have been significant. Participating countries have improved their understanding of the financial and other impacts of natural disasters. They have also made significant regulatory, institutional,and operational changes to improve their financial planning for disasters. In addition, they have successfully adopted innovative risk financing instruments.

As part of the Program, this series of webinars aims to assist governments in developing and implementing more effective and cost-efficient financial protection strategies, which are key to better managing government disaster-related contingent liabilities and risks. In the process, they are also becoming more effective risk managers. This series also aims to bring countries together to share knowledge, experiences, and good practices concerning disaster risk financing.

Photo: radoslav bali / Unsplash

FACTSHEET 4: SOVEREIGN DISASTER RISK INSURANCE

Test your understanding and record your insights through this easy, DIY worksheet!

Activity 1: Given below are few statements about insurance as a disaster risk financing instrument. Identify if the statements are true or false.

#	Statements	True	False
1.	A disaster risk financing (DRF) strategy does not require a bespoke approach to optimize the mix of risk retention and risk transfer instruments for different funding needs.	◯	◯
2.	Under risk layering strategies, insurance solutions are often combined with other risk financing instruments, prioritizing cheaper sources of funding.	◯	◯
3.	Insurance can provide quick liquidity for response and cost-effective capital to rebuild after a disaster of lower frequency and high severity.	◯	◯
4.	Insurance is suitable for covering all financial risks. It is economical for all types of losses - whether large, small, frequent, or improbable.	◯	◯
5.	Insurance may not necessarily be available for all perils or types of assets.	◯	◯

Activity 2: From the statements about risk pool given below, identify which of the following are advantages or disadvantages of a risk pool.

#	Description	Advantage	Disadvantage
1.	Diversified risk across multiple countries with different risk profiles.	◯	◯
2.	Risk pools require continued commitment and financial contributions from all members.	◯	◯
3.	Economies of scale through a shared fixed-cost base and reduced transaction costs of procuring services such as brokers or claims managers.	◯	◯
4.	Excess risk is transferred to the reinsurance and capital markets.	◯	◯
5.	Members with substandard risk-management practices or risk-prone assets may join the pool.	◯	◯

Activity 3: Match the stakeholders in sovereign disaster risk insurance to the relevant stakeholders.

#	Stakeholders			Role descriptions
1.	Policyholders	Select One	Select One	Determine tariff structures as necessary for public asset risks.
2.	Lead insurer	Select One	Select One	Provide of analytical services to support pricing and structuring of risk transfer and selection of coverage.
3.	Re-insurer	Select One	Select One	Provide policy wording and a contract to provide a cover as agreed with policy holder.
4.	Brokers	Select One	Select One	Ensure the payment of claims by insurers according to the reinsurance policy.
5.	Regulators	Select One	Select One	Engage with internal stakeholders including line ministries, asset owners, auditors, compliance officials and regulators.

Activity 4: What are the challenges you are facing in designing and implementing a sovereign disaster risk insurance program?

Activity 5: Reflections

[1] My Top 2 Takeaways from this Factsheet are:

[2] Two concepts/ideas I would like more information on are: