



## Prosperity Notes Series

# MOBILIZING PUBLIC-PRIVATE SOLUTIONS TO MANAGE THE FINANCIAL IMPACTS OF NATURAL HAZARDS IN EMERGING MARKET AND DEVELOPING ECONOMIES

Challenges and Opportunities of Operationalizing Public Private Insurance Programs

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**Challenges and Opportunities of Operationalizing  
Public Private Insurance Programs**

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Managing the impacts of disasters in emerging markets is an urgent necessity as climate-related shocks grow in frequency and intensity. Governments face fiscal constraints, and insurance penetration remains low. This policy note outlines a structured approach to mobilizing public-private solutions that can leverage insurance markets, risk-sharing mechanisms, and development partnerships. The vision is to support scalable, adaptive, and financially sustainable disaster risk finance solutions through public-private insurance programs (PPIPs). By integrating private sector capital, government action, and innovative financing models, this approach aims to ensure resilience against disasters and climate shocks, while also promoting long-term economic stability and sustainable development.

## Strategic Context

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**Resilience is critical to protecting people and their livelihoods in a world affected by frequent and often overlapping crises that threaten economic development and human well-being.** Across the developing world, nearly one in five people are at risk of climate hazards and are likely to experience a severe climate shock in their lifetime from which they will struggle to recover.<sup>1</sup> Moreover, faced with increasingly constrained fiscal space, governments must juggle the difficult tradeoff of protecting their people and economies from the crises of today, while trying to invest for the future and better prepare for the crises of tomorrow.

**Disaster risk finance and insurance (DRFI) solutions are at the core of countries' climate adaptation and disaster resilience efforts** with the goal of helping people, businesses and governments to not only cope, but also prosper in the face of disaster risks. Adaptation and resilience require tangible and intangible investments to reduce risks in the physical environment (such as risk-informed building codes or disaster-proof infrastructure), as well as to help communities better prepare for shocks (such as early warning systems). However, not all risk can be eliminated, therefore building resilience also requires investments in financial preparedness, that is, readiness to cope with the likely costs of disasters so their direct and indirect impacts are mitigated. Without adequate adaptation and resilience investments, risks would continue to increase, thus making risk finance solutions unaffordable.

**Insurance solutions play a key role in a comprehensive DRFI approach – for governments, businesses and people.** Such an approach needs to combine financial instruments for different beneficiaries (national or local governments, businesses, and individuals) and address different protection needs. The optimal mix of instruments may look different for each beneficiary group. For example, for households, it will depend on the magnitude of the shock, the household's socioeconomic situation, and the tools available to them. For governments, a comprehensive DRFI approach will typically mobilize reserve funds and budget reallocations for small shocks, moving toward contingent finance instruments and risk sharing solutions (such as insurance) for larger disasters. A mix of instruments helps governments manage their direct contingent liabilities (for example,

1. WBG Corporate Scorecard, 2024

emergency spending and the cost of reconstruction of public assets, such as roads and schools) and indirect contingent liabilities (for example, an expected increase in social protection expenditures, and ad hoc financial help for firms and individuals). Pre-arranging financing through disaster risk finance and insurance solutions is more cost-effective than relying on ex-post response financing and ensures timeliness and predictability of resources.

**Access to insurance can help mitigate the macroeconomic impacts of major disasters.** A recent analysis by the Bank for International Settlements (BIS) finds that it is uninsured losses that drive the macroeconomic cost of disasters, whereas insured losses are typically inconsequential and, in some cases, can even stimulate growth ([BIS 2024](#)).

**However, insurance coverage remains low in many countries, leaving billions of people without access to adequate protection against disasters.** The insurance industry estimated the natural catastrophe insurance protection gap worldwide at 62 percent in 2023 ([SwissRe 2024](#)). However, it can exceed 90 percent in developing countries: this means that only about 10 percent of the direct economic costs of natural hazards are insured ([AON 2024](#)). Within countries, low-income communities are those less likely to have access to formal insurance. At the same time, climate change is likely to make insurance unaffordable (or even entirely unavailable) in many parts of the world, with insurers already reducing their exposure in some markets.

**Closing the insurance protection gap requires collaboration among governments, the insurance industry, regulatory and supervisory authorities, and development partners.** Under the 2024 Italian Presidency, G7 Finance Ministers and Central Bank Governors welcomed a [High-level Framework for Public-Private Insurance Programmes \(PPIPs\) against Natural Hazards](#). This framework, which was developed with the Organisation for Economic Co-operation and Development (OECD) and the International Association of Insurance Supervisors (IAIS), aims to promote public-private partnership schemes to ensure greater protection against catastrophic risks for citizens and businesses, strongly emphasizing the role of the insurance sector.

**This policy note discusses the challenges and opportunities of operationalizing PPIPs in developing countries, building on the experience of the World Bank in supporting financial resilience.** It shows that there is not one single approach to PPIPs. Rather, each country needs to build its own strategy based on its policy objectives, the capacity of the government, and the development of the domestic financial system and insurance market. This note identifies categories of PPIPs that have been used in developing countries based on country examples and presents key lessons about building the foundations for successful PPIPs in emerging market and developing economies (EMDEs). It builds on the World Bank's experience in supporting EMDEs to develop DRFI instruments and policies for more than a decade, and it complements the *World Bank Technical Contribution to the 2023 G7 Finance Track under Japan's Presidency*, which reviewed recent progress on financial resilience against climate and disaster shocks ([World Bank 2023](#)).

## Role of PPIPs in Addressing the Market Imperfections Driving the Insurance Protection Gap

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**The limited coverage of catastrophe risk insurance is linked to a number of market imperfections.** On the demand side — and beyond affordability challenges, especially in low-income environments — limited insurance coverage is often related to: (i) low awareness of catastrophic risks; (ii) lack of financial literacy and sometimes mistrust in insurance products; (iii) financial constraints (of governments and individuals); and (iv) the expectation that governments or donors will step in to provide assistance in the event of a disaster event. On the supply side, insurance markets in low-income countries are underdeveloped. Indeed, both insurance companies and supervisory authorities tend to have limited capacity, and the catastrophe risk models needed to offer disaster insurance are often complex and expensive.

**PPIPs involving government, industry players, and regulators can play an important role in addressing both supply-side and demand-side constraints.** As highlighted in the *High-level Framework for Public-Private Insurance Programmes against Natural Hazards*, these collaborations can take several forms, ranging from provision and sharing of risk information, to integrated approaches to risk reduction and financial resilience, as well as risk-sharing among private insurers and governments.

**Public intervention can foster competitive insurance markets by improving risk market infrastructure, such as data systems, risk models, and legal frameworks.** It can also build on existing public social protection programs, such as cash transfers, and use their data collection systems and delivery mechanisms to provide eligible beneficiaries with a form of social insurance that is increasingly connected with the insurance markets. These interventions reduce startup costs and entry barriers, in turn lowering insurance premiums and benefiting policyholders. Public interventions for effective PPIPs focus on building domestic insurance capacity, facilitating risk transfer to global markets, and educating the public about insurance. Supervisors play a critical role by ensuring stability, fairness and resilience of catastrophe risk insurance systems. They help create an enabling environment for domestic insurance through appropriate regulations, proportionate risk-based supervision and capital frameworks, as well as market conduct regulation and policyholder protection.

**Private insurers can contribute their technical capacity in underwriting, risk assessment, and claims management, as well as their financial capacity in risk-bearing.** In addition, the industry has a role to play in revealing the cost of risk (that is, through risk-based insurance premiums), thus incentivizing proactive risk management and driving risk management standards through society.

**Development partners are also an essential stakeholder in PPIPs in developing countries.** Development partners, including multilateral development banks, contribute to the development of sound and sustainable catastrophe risk insurance markets through the provision of technical assistance, capacity building, funding and policy guidance to public and private stakeholders. Such support is usually embedded in a broader agenda including financial inclusion, the development of adaptive social protection systems, and the creation of a resilient financial sector.

## Adapting PPIPs to Individual Country Contexts, while Aligning with Key Principles

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**Experience in building the financial resilience of EMDEs shows that PPIPs can take many forms,** depending on (i) the policy objectives of the government (who they want to protect and for what), (ii) the level of development of the insurance market, and more broadly the level of development of the domestic financial sector, as well as (iii) the financial and institutional capacity of the government to prepare for and respond to disasters.

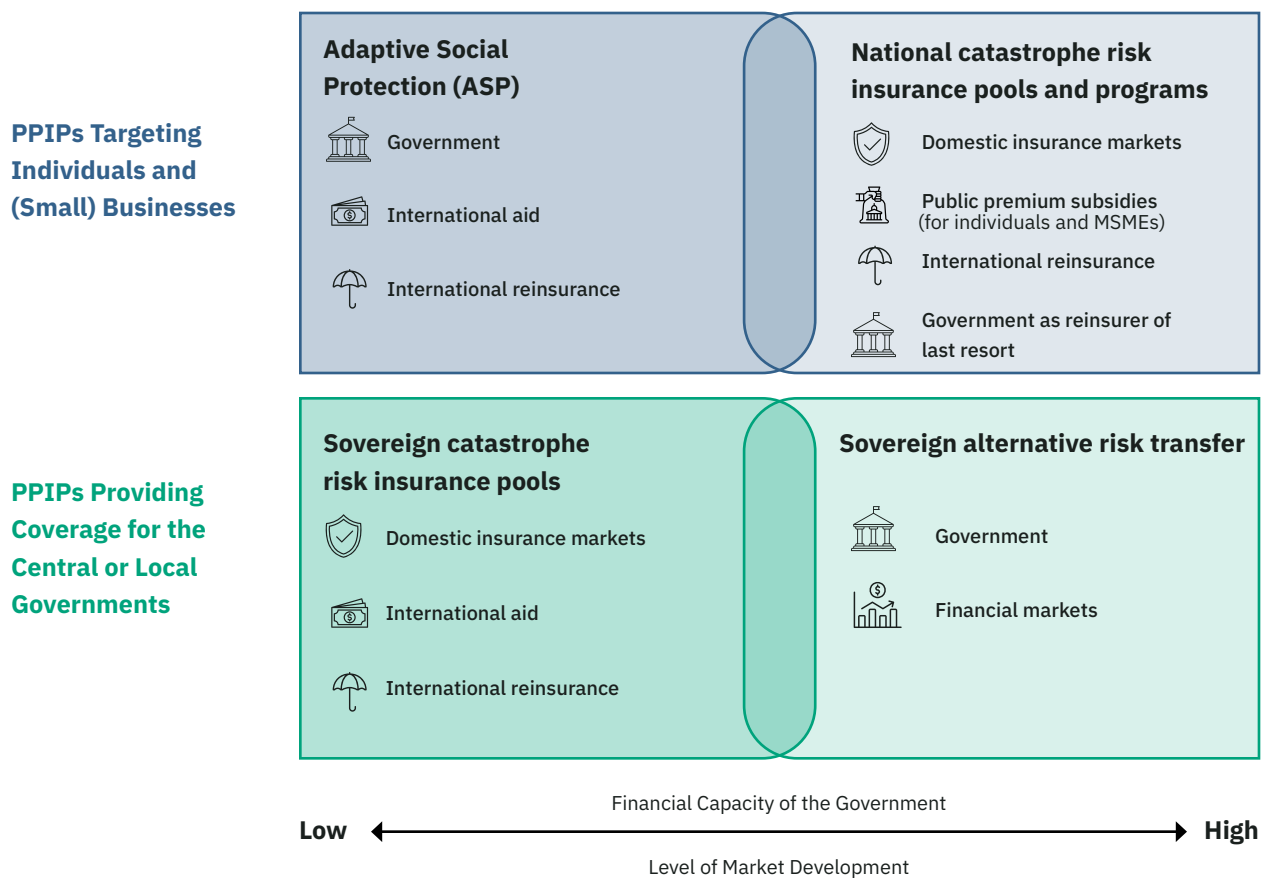
**Where the financial sector is under-developed and financial inclusion is low, governments will typically focus on protecting their most vulnerable populations** through adaptive social protection programs, backed by public funding (such as contingency funds) and sometimes market-based instruments (such as sovereign parametric insurance backed by international reinsurance), and often with substantial support from development partners. In contrast, countries with more developed insurance markets and higher financial inclusion will be able to build on this foundation and develop PPIPs that leverage the domestic insurance industry, for example through national insurance programs.

**Similarly, the technical and financial capacity of governments will affect protection choices.** When a PPIP covers households and businesses, part of their risk is typically transferred to the government, especially for large scale disasters. This means that a government will typically be mandated or expected to step in to cover the costs of a disaster. Where governments have sufficient fiscal space, they may choose to manage these risks and act as insurer of last resort. Alternatively, they can decide to transfer this risk to the insurance market – especially the most extreme (or tail) risks. The options available to government will also depend on whether the country is exposed mostly to idiosyncratic (localized) shocks that can allow for domestic risk sharing, or to highly correlated (systemic) shocks that affect large portions of the population or economy—and require international risk transfer. In smaller countries where disaster shocks can affect large parts of the population, or in countries where fiscal space and/or flexibility are limited, governments may need to rely on post disaster international aid and transfer a larger portion of risk through sovereign risk transfers solutions, another form of PPIP. Transferring some risk through such sovereign PPIPs can help governments free up fiscal space and better manage disaster-related contingent liabilities.

**The operationalization of PPIPs in EMDEs is country-specific and depends on the identification of entry points and priorities in the development of PPIPs.** There is no single approach for building domestic insurance capacity in EMDEs, and different countries will take different paths. Figure 1 highlights a few categories of PPIPs that have been implemented in EMDEs with different priorities and capacities. These categories are not meant to be all-encompassing and should not be seen as mutually exclusive. Rather, they are meant to provide a guide to help consider which type of PPIP might be most relevant in a specific country context and based on the protection objectives of the government. This categorization draws on the World Bank's experience supporting governments in leveraging insurance markets for resilience (see examples below).



**Figure 1:** Categorization of PPIPs in EMDEs



Source: Authors.

Note: MSMEs= micro, small and medium enterprises.

**When the primary protection priority are individuals, households or businesses,** PPIPs typically range from “social insurance” through adaptive social protection programs, to national catastrophe risk insurance programs that build on the domestic insurance industry. The balance between instruments depends on the level of development of the insurance market and the financial capacity of the government. However, multiple instruments usually coexist to cover different populations or different risks. Countries with lower financial capacity will typically rely on international assistance and/or transfer part of the risk related to these programs to international reinsurers, while countries with higher financial capacity will be able to act as insurer of last resort.

**>> In countries with low financial sector development and low government capacity,** there is limited access to financial services and the domestic insurance market is under-developed or even non-existent. The government typically has limited financial resources and institutional capacity to respond to disasters and often relies on international assistance. In this context, successful examples of PPIPs include:

**Adaptive Social Protection for Vulnerable People (World Bank 2020):** Governments can adapt social safety net programs to become scalable and provide additional support and/or reach additional vulnerable people in the event of a shock, essentially providing a form of social insurance. These programs often benefit from significant financial and technical assistance from development partners. In case of large-scale disaster events, their financial robustness relies on international aid or sovereign risk insurance, for example through regional risk pools.

**Example: Malawi - Scaling Up Social Protection, Backed by Private Sector Parametric Reinsurance.**

For more than two decades, Malawi has invested in strengthening its social safety nets. Thanks to World Bank financing and technical support, the safety net is now able to scale up in the event of a crisis. A contingency fund provides emergency cash transfers in response to moderate droughts, and a macro/sovereign risk transfer instrument covers the cost of larger scale-ups for more severe droughts. When the country experienced a drought during the 2023–2024 season, a scale up was triggered, with a US\$6.6 million payout from the insurance instrument and a US\$5.3 million payout from the contingency fund. This provided emergency cash transfers to over 140,000 households. Malawi’s efforts mark the first time an insurance product has directly backed a shock-responsive component for a social protection program in Africa, and it may pave the way for similar DRFI initiatives in other countries on the continent.

**Regional Disaster Risk Insurance Programs for Vulnerable Farmers:** In many EMDEs, the agriculture sector and farmers tend to be particularly vulnerable to disaster risks. Governments can establish regional insurance programs to protect specific sectors, such as vulnerable small farmers and/or herders, with select domestic insurance companies backed by international reinsurers. The focus on specific sectors (often agriculture) makes the design of these instruments more cost-effective. These regional programs rely on significant technical and financial assistance from development partners.

**Example: Horn of Africa - Using a Regional Approach to Insure Herders against Drought Risks in a Fragile Context.**

The World Bank’s De-risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa (DRIVE) Project protects pastoralists against drought through enhanced access to financial services, value chain development, and trade facilitation. It partners with 13 local insurers and 11 financial institutions to distribute a package of financial services (digital bank accounts, savings, and livestock insurance), along with a sovereign catastrophe risk insurance product in Djibouti. Pooling several countries into a regional insurance scheme creates scale, enabling smaller countries to join. It also mobilizes the capital of the local and international (re)insurers to take on the drought risk. After two years, more than 1.5 million people in Ethiopia, Kenya, and Somalia have benefitted from this package of financial services for resilience. Of these policyholders, 56 percent are women.

**>> In countries with higher financial sector development and stronger government capacity,** domestic insurance and financial markets tend to be more developed, with broader access to financial services, making it possible to deploy diverse instruments. The government might also have more financial resources to manage climate shocks and disasters. In this context, examples of PPIPs include<sup>2</sup>:

**National Catastrophe Risk Insurance Pools for Homeowners:** Where the domestic insurance market is more developed, the government can help domestic insurers establish a national pool to manage catastrophe risks, through joint reserves and joint access to international reinsurance, to protect homeowners. The government can make catastrophe risk insurance compulsory to minimize adverse selection issues and make insurance more affordable. While countries with strong financial capacity can have the government act as reinsurer of last resort of national catastrophe risk insurance pools, many countries need external support to make these programs financially robust in case of extremely severe disasters.

**Example: Turkey - Addressing Market Failures and Low Insurance Penetration through Public-Private Partnership.**

The Turkish Catastrophe Insurance Pool (TCIP) aims to increase market penetration and offer affordable insurance. The government provides a financial guarantee and enabling environment, while allowing companies to compete for operating the TCIP. Private insurers then act as agents.

TCIP is mandatory for urban areas and now insures more than 50 percent of the population. It has also achieved efficiency and speed of payouts, as demonstrated following the 2023 earthquake. The World Bank supported the establishment of the TCIP through a combination of technical assistance and lending, including contingency finance.

**Dual Catastrophe Risk Insurance Programs for Individuals.** A compulsory extension of guarantee against catastrophe risks can be included in all (voluntary) property and casualty insurance policies offered by domestic insurers, backed by international and public reinsurance. If property insurance penetration is low, this can be complemented by a national fund to compensate uninsured households, and the system can be backed by the government (if it has enough capacity), by external support (e.g., through contingent finance instruments offered by the World Bank and other IFIs), or by transferring the highest risks to international insurance markets.

**Example: Morocco - Protecting Insured and Uninsured Households.**

Morocco developed a dual catastrophe PPIP that builds on market-based insurance and solidarity principles to protect insured and uninsured households against disasters. It covers insured households through a compulsory extension of guarantee against catastrophe risks in all property and casualty insurance policies. However, insurance penetration is low (<5 percent). To protect uninsured households, the government established a Solidarity Fund (FSEC). Following the Al-Haouz Earthquake in 2023, the FSEC unlocked around US\$300 million to cover eligible losses, of which US\$275 million came from the FSEC (parametric) reinsurance policy.

2. Note that PPIPs presented in the “lower” category can still be relevant as countries move up on the spectrum of financial sector development and financial capacity.

**Public Insurance Subsidy Programs:** Government subsidies target sector-specific private insurance programs delivered by domestic insurance companies, such as crop (index-based or parametric) insurance programs.

**Example: India – Protecting the Smallholder Farmers.**

India currently has the largest subsidized crop insurance scheme in the world as measured by the number of insured farmers. The government’s national scheme, the Prime Minister Crop Insurance Scheme (*Pradhan Mantri Fasal Bima Yojana, PMFBY*), provides insurance coverage to farmers against multiple risks. It offers affordable premiums, with the central and state governments heavily subsidizing the majority of the premium cost. The PMFBY includes an Area Yield Index Insurance (AYII) program at its core, now with the option of including provisions for both pre- and post-harvest losses, helping farmers recover from both climate and non-climate related adversity and stabilize their income. Nearly 35 million farmers are currently covered under PMFBY.

Challenges remain regarding the timely settlement of claims and ensuring protection of the livelihoods of the tens of millions of vulnerable farmers currently not insured under the PMFBY and for whom PMFBY micro-insurance may not be most suitable, especially in regions prone to high climatic risks. India is constantly making improvements. It is now at the forefront of a technological revolution for AYII, which could be a global game changer, starting to roll-out remote sensing using satellite imagery, combined with on the ground crop loss assessment.

**Countries also need to plan disaster risk finance and insurance solutions to enable the delivery of critical public services and the protection and reconstruction of public assets after disasters.** This is essential to ensure governments can efficiently manage emergencies and maintain the continuity of government services (including basic security and safety), to finance the reconstruction of public assets, but also to act as reinsurer of last resort and guarantee the sustainability of insurance instruments for people and firms. At the sovereign level, PPIPs thus aim to provide emergency liquidity directly to the government to address immediate response post disaster, and longer-term finance to rebuild critical public assets and infrastructure. PPIPs typically include sovereign risk pools and sovereign alternative risk transfer programs for emergency response, as well as public asset insurance programs for the protection of critical assets, depending on the level of development of the insurance market and the financial capacity of the government. Countries with deeper financial (and borrowing) capacity tend to self-insure their own catastrophe risks.

**>> In countries with low financial sector development, low government capacity,** the focus is often on ensuring continuity of government and emergency services with rapid liquidity after disasters, as well as the management of relatively frequent shocks (for example, with return periods below 20 or even 10 years).

**Sovereign Catastrophe Risk Insurance Pools for Governments:** Regional vehicles offer governments (parametric) insurance to finance post disaster emergency response, backed by international reinsurance, and with financial assistance from development partners and donors in the form of capitalization and premium financing.

**Example: Regional catastrophe risk pools.**

Sovereign risk pools (Caribbean CCRIF, African ARC, Pacific PCRIC, and Southeast Asian SEADRIF) have been established over the last 15 years to help low-income countries secure emergency liquidity for rapid response following disasters.

The global insurance coverage from the four regional pools reached US\$1.4 billion in 2022, mainly driven by CCRIF, which represents more than 70 percent of the global coverage. These pools can help governments address some of the market imperfections that typically limit insurance coverage in EMDEs and make risk transfer more cost-effective by helping to (i) diversify risk across multiple countries with different risk profiles; (ii) establish joint reserves to self-insure a part of the risk managed by the pool; (iii) facilitate access to international reinsurance and capital markets; (iv) share operational costs, such as program development and day-to-day back office operations; and (v) establish a better foundation of risk information.

By supporting countries in developing standard products based on their respective needs, and structuring a portfolio of diversified country risks, risk pools offer larger transaction sizes that are more attractive to global reinsurance and capital markets. In addition, risk pools can reduce premiums by reducing the cost of capital, operating costs, as well as the cost of risk information.

**>> In countries with higher financial sector development and stronger government capacity,** insurance can help secure the larger amounts needed to reconstruct critical public assets impacted by severe disasters. Successful examples include:

**National Insurance Programs for Public Assets:** Government insures their critical public assets and infrastructure through a consortium of domestic insurers backed by international reinsurers.

**Example: Indonesia - Transferring Public Asset Risks to the Private Sector.**

In 2019, Indonesia transferred risks related to almost 11,000 public buildings (including schools, hospitals, and government offices) to the insurance market through its State Assets Insurance Program (*ABMN*). The program is insured by a consortium of more than 50 domestic insurers backed by international reinsurance. Payouts, for example after the 2020 Jakarta floods and the 2021 Mamuju earthquakes, have enabled ministries to repair assets and minimize public service disruptions.

**Sovereign Alternative Risk Transfer Solutions:** Governments seek additional protection through alternative risk transfer instruments, such as catastrophe (CAT) bonds or CAT swaps.

**Example: Jamaica - Combining Catastrophe Risk Pools, CAT Bonds, Domestic Reserves and Contingent Finance.**

In 2021, Jamaica passed its National Natural Disaster Risk Financing Policy for 2021–2026, which introduced a comprehensive and layered DRFI approach. This approach was built on the multiple financial instruments the country already had in place: including contingent funds, contingent credit lines, and insurance coverage provided by CCRIF.

To enhance its coverage against the most severe and infrequent events, the government added another risk transfer instrument, a CAT bond, to its existing suite of financial instruments. The CAT bond provides coverage against tropical cyclone winds. However, since it is designed with parametric triggers and high thresholds, such an instrument may not always trigger — even in case of severe disaster, such as Hurricane Beryl in July 2024.

## Lessons on Building the Foundations for Successful PPIPs in EMDEs

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The categorization presented above, along with the step-by-step guide outlined in the *High-Level Framework for Public-Private Insurance Programmes against Natural Hazards*, offer a useful framework to approach PPIPs in EMDEs. While PPIPs can help address some of the constraints that lead to protection gaps, their structuring and implementation also face challenges. The transaction costs and time required to establish PPIPs should not be underestimated. All the successful examples presented in the previous section have also required sustained technical and financial support from development and bilateral partners, as well as political and technical leadership from key country stakeholders. The World Bank's experience in this space can offer some useful lessons regarding how to address some of these challenges.

To build the foundations for successful PPIPs, policy makers can build on the following lessons.

### **1. PPIPs should be seen as part of a comprehensive, risk-layered DRFI strategy.**

Insurance and PPIPs should be seen as one instrument within a broader menu of options available to governments. Different instruments should be combined to protect against events of different frequency and severity, to address protection gaps holistically, and to mobilize funding across the disaster preparedness-response continuum. Insurance is most cost-effective to provide protection against severe events, whereas budget reserves or contingent credits can be used to address more frequent and less severe events. This approach, called risk layering, helps optimize financing, ensure cost-effectiveness and manage basis risk (figure 2). By combining different instruments according to their cost and characteristics, this approach can also help address challenges related to insurability and affordability, which are being exacerbated by the adverse impacts of climate change. However, it is important to note that, because of the costs and complexity associated with PPIPs, donor financing is often essential to establish and maintain PPIPs in EMDEs, through capitalization or premium support.

### **2. Long-term objectives should be considered alongside immediate needs.**

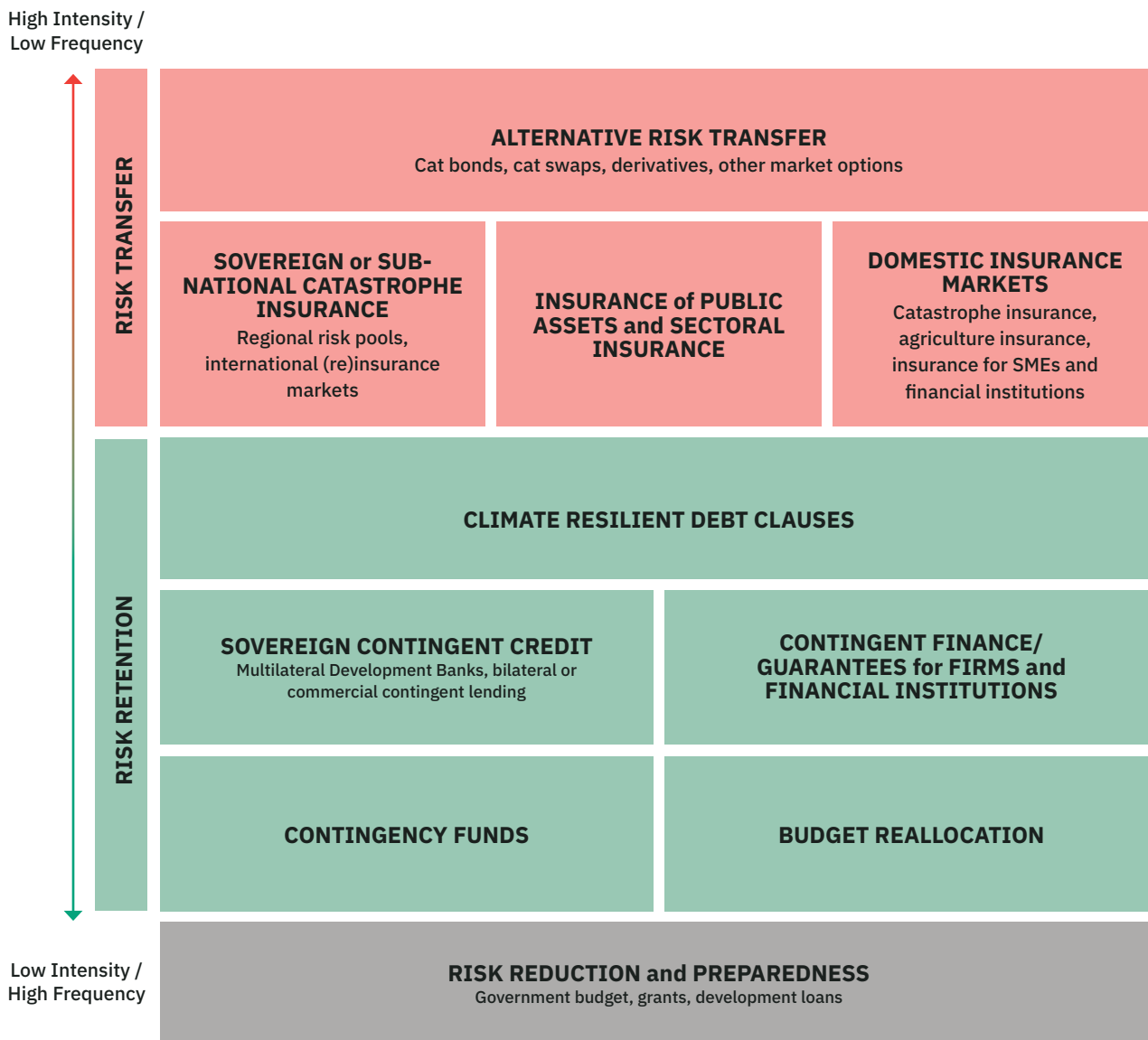
It is important to consider a phased and prioritized approach to help governments find practical solutions to address urgent priorities (saving lives and livelihoods), while also building the foundations for more sophisticated solutions in the long run. This is especially the case in low-income countries, where the financial system is weak, and the insurance sector is non-existent or nascent. In such contexts, donors and development partners may need to build on existing government systems (such as social protection systems), while progressively opening the door to market based solutions through premium financing or capital support. Sustained technical support from development partners is often essential in EMDEs, where governments and regulators may not be familiar with more complex risk transfer solutions or may need to adapt national regulations to be able to work with insurance companies.

### **3. PPIPs require strong political commitment and ownership.**

When it comes to implementing PPIPs and disaster risk finance solutions more broadly, the importance of government ownership and vision is paramount. Even in the most challenging of contexts, a strong champion within the government (typically within the Ministry of Finance) is essential to ensure continuity and to carry

through reforms. Therefore, there is a strong need for sustained engagement from development partners, international initiatives and the industry, to provide technical assistance and capacity building to bring key government actors on board. Fostering government ownership and leadership can help ensure the long-term sustainability of these solutions, beyond donor-supported programs.

**Figure 2:** PPIPs as Part of a Layered DRFI Strategy, Underpinned by Targeted Analytics, Advisory and Knowledge Services



Source: World Bank

## Agenda Ahead

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**Reducing the disaster protection gap in EMDEs requires advancing financial protection solutions, and especially PPIPs** that leverage public social protection systems and domestic insurance markets. This requires a three-pronged strategy, building on key global initiatives on climate and disaster risk finance that bring together relevant partners from developing and developed countries, international organizations, the private sector, and civil society (box 1). Focusing on these three strategic priorities would promote financial protection and help close the protection gap, as well as support the broader climate adaptation and resilience agenda.

**Priority 1: Scaling up PPIPs as part of comprehensive DRFI strategies.** Promote comprehensive DRFI strategies that integrate insurance solutions, leveraging PPIPs tailored to specific country needs, ultimate beneficiaries and the local context. This requires technical and financial support to help countries develop and implement layered DRFI strategies, with a specific focus on mobilizing domestic and international private risk capital through PPIPs to scale up sustainable and cost-effective financial protection programs. Linking layered DRFI strategies to the delivery systems of adaptive social protection programs is especially promising in EMDEs, given the potential to quickly reach poor and vulnerable people affected by disasters. In addition, forecast-based triggers and anticipatory action principles could be adopted to leverage social protection systems for early action in the face of impending shocks, thus ensuring timely disaster response and recovery efforts.

**Priority 2: Promoting domestic insurance and financial markets in EMDEs.** This requires technical and financial support to strengthen market infrastructure, the enabling environment for insurance development, and addressing demand-side constraints. Legal, public policy and regulatory factors shape the enabling environment for the development of domestic insurance markets. Strengthening financial sector regulation and oversight, including through the implementation of risk-based supervisory frameworks and by increasing regulatory and supervisory capacity can enable risk-based pricing, adequate risk retention, product innovation, and the overall resilience and stability of insurance markets. On the demand side, promoting financial literacy, risk awareness and an understanding of insurance products are key to supporting the expansion of domestic insurance markets. These efforts can be facilitated by international cooperation, for instance to improve access to climate data or harmonize methodologies for climate stress testing.

**Priority 3: Leveraging insurance to incentivize risk reduction measures and investments.** Support whole-of-government approaches to building resilience by promoting concerted and deliberate efforts across line ministries, as well as across different levels of government, including integration of disaster risk considerations in public financial management and fiscal risk management. Promote collaboration across the public and private sectors to ensure that insurance industry regulations enable and encourage improved risk management standards and contribute to the resilient and sustainable development of EMDEs, including by promoting resilient infrastructure standards.



**Box 1:** Global Initiatives in Support of Catastrophe Risk Insurance

**A number of international initiatives and players support developing country governments in their efforts to leverage insurance solutions for resilience.**

[Global Shield against Climate Risks](#) is a joint initiative of the Vulnerable Twenty (V20) Group and the Group of Seven (G7). It aims to provide and facilitate more and better pre-arranged protection against climate and disaster related risks for vulnerable people and countries. This initiative is implemented through a set of implementing vehicles, including the World Bank's Global Shield Financing Facility (GSFF).

The [ASEAN+3 Disaster Risk Finance Initiative](#) is a regional initiative that aims to strengthen the capacity of ASEAN+3 members<sup>a</sup> to manage the impacts of disaster and climate risks. The objectives of the initiative are to (i) support the implementation of DRFI solutions; (ii) lay the foundation for DRFI solutions through technical cooperation and investment in data and risk modelling, risk advisory toolkits and the development of enabling legal and regulatory infrastructure; and (iii) increase access to affordable financial instruments including insurance to secure adequate and appropriate financing for increasing pre and post disaster efforts. The World Bank is acting as the technical lead of this initiative.

The [Insurance Development Forum](#) is a public-private partnership led by the insurance industry and supported by the World Bank, the United Nations, and other international organizations. It aims to enhance the use of insurance to build greater resilience against disasters. With a broad membership, the Insurance Development Forum facilitates coordinated insurance activities, resource mobilization, and strategic partnerships.

Note: a. ASEAN is the Association of Southeast Asian Nations. ASEAN+3 is a cooperation framework that includes the Association of Southeast Asian Nations (ASEAN), China, Japan, and South Korea.

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