TOWARD A REGIONAL APPROACH TO DISASTER RISK FINANCE IN ASIA

DISCUSSION PAPER

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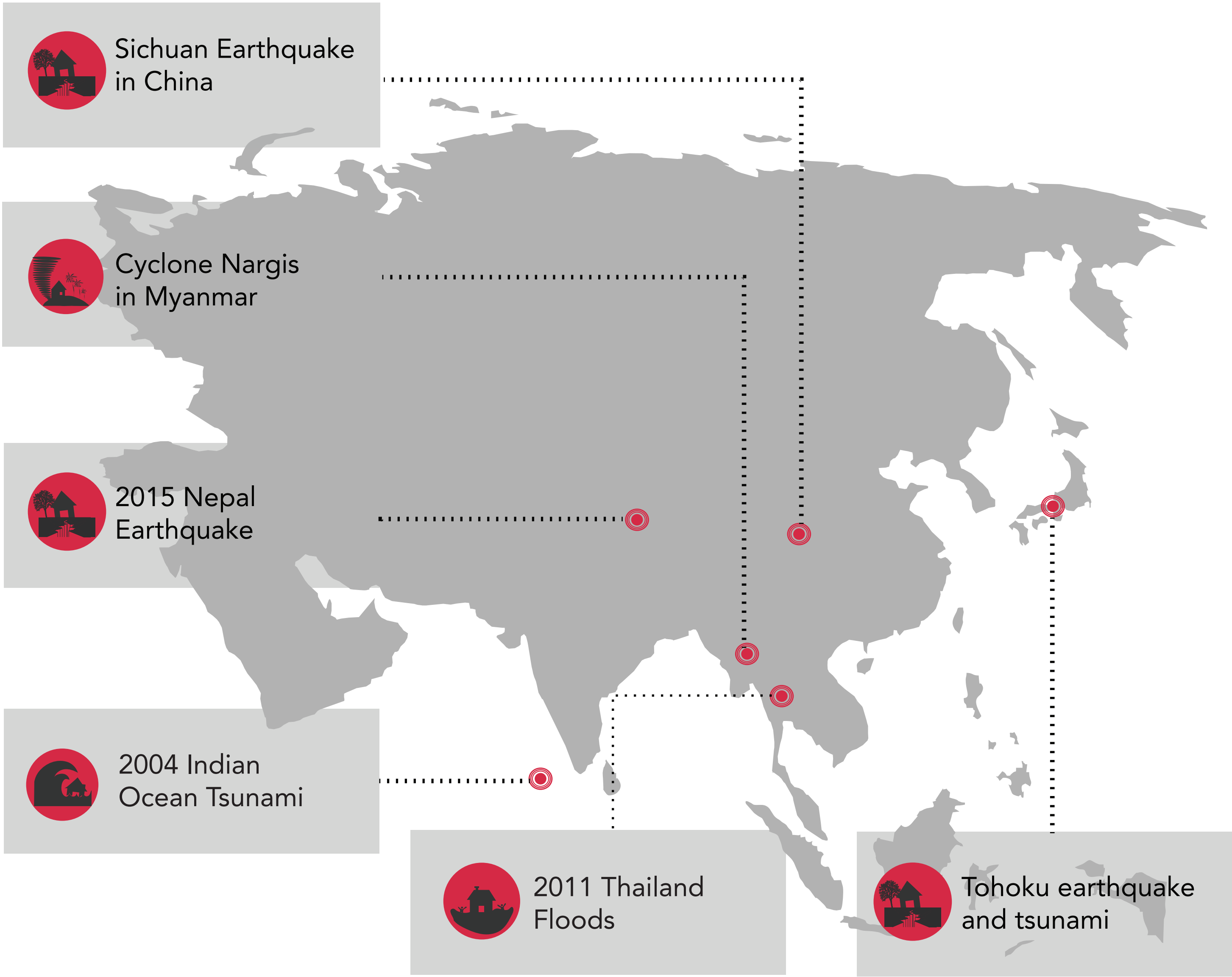
Asia is at high risk of catastrophic disaster and climate shocks that cause damage and erode welfare and economic gains.

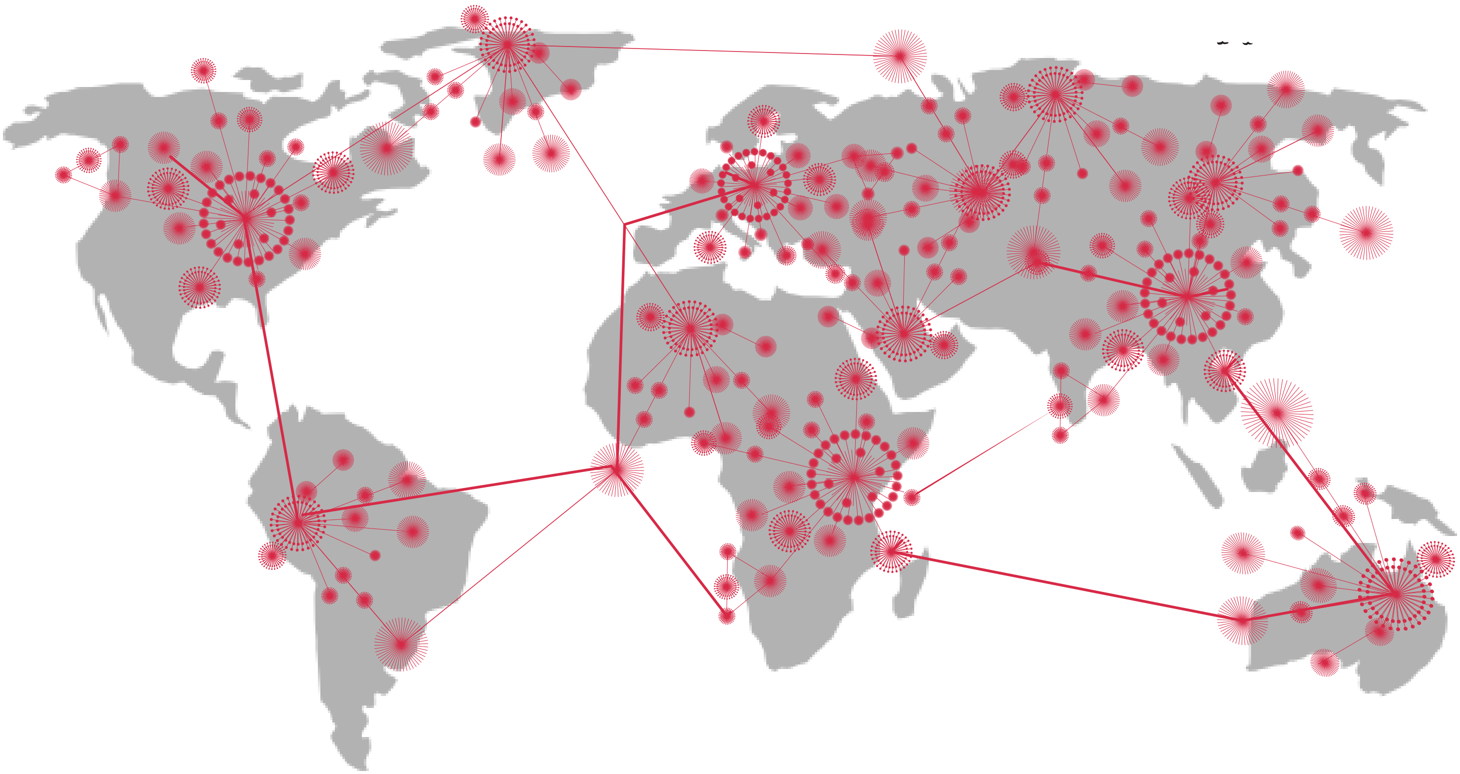
Financial protection strategies have been recognised by countries and their development partners as important tools to protect countries from these effects and to thereby support them in reducing poverty and increasing shared prosperity.



Asia has seen some of the deadliest and costliest disasters in history. Although the nature of hazards faced across the region vary significantly. Flood is the most persistent hazard across the region: analysis indicates that average annual economic losses from Asian flood disasters could surge to US$500 billion or more by 2050. Half of all Association of Southeast Asian Nations (ASEAN) member states have experienced at least one severe flood event costing over US$100 million in the past decade as well as equally devastating earthquake, tsunami, storms, typhoones etc.

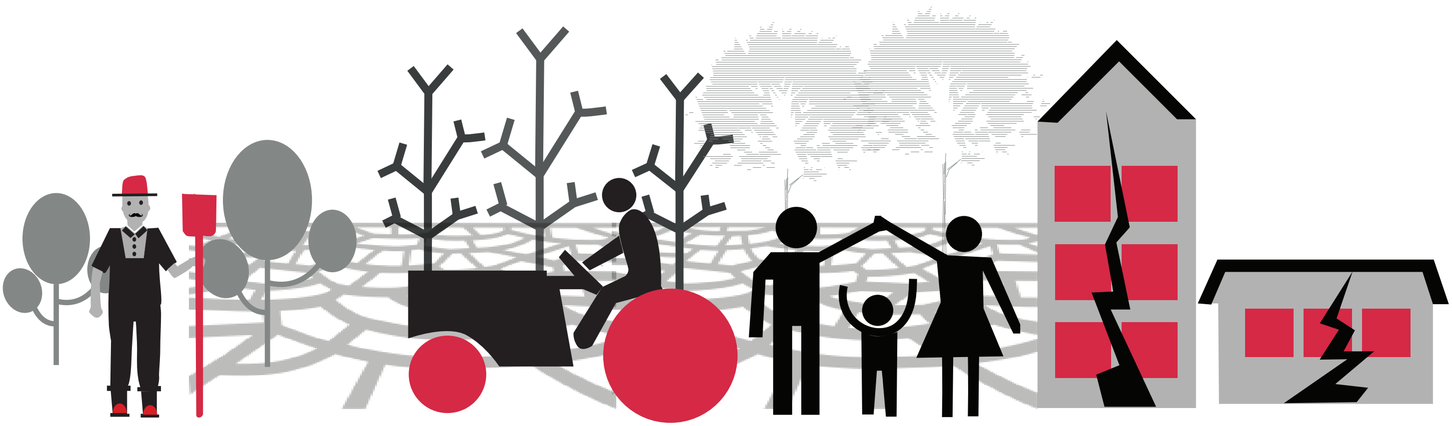
There is currently an active international dialogue on establishing a regional initiative for disaster risk financing for Asia.

The topic of an Asian disaster risk financing facility has been raised in various forums, including the Association of Southeast Asian Nations (ASEAN), Asia-Pacific Economic Cooperation (APEC), the G-7 InsuResilience Initiative, and the Vulnerable 20 Group of Ministers of Finance (V20).



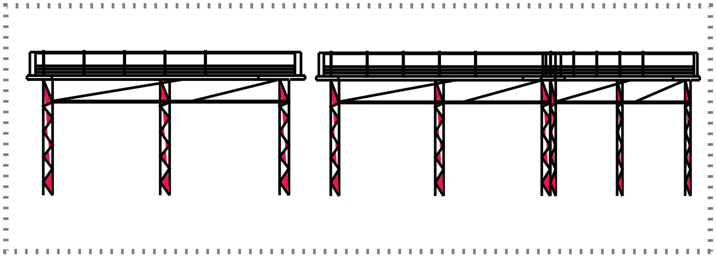
This heterogeneity in hazard generates different financing needs in the aftermath of a disaster.

While some governments may deal principally with costs for response and recovery after rapid onset disasters, others may need to fund livelihood assistance and food security responses to flood or drought-damaged crops, while others still may be dealing with reconstruction of critical infrastructure after earthquake, flooding, or storm damage. Some countries have to be prepared to deal with many different types of response costs.



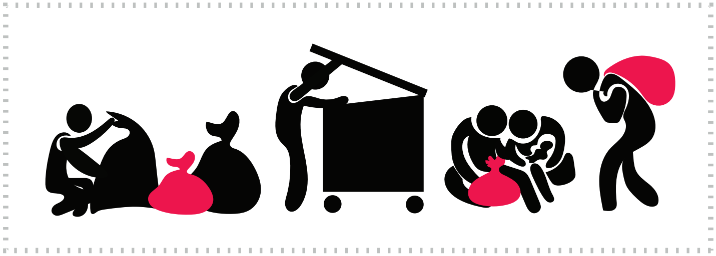
Differences in economic development further amplify the different post-disaster financing needs.

The nature of costs arising from disasters varies according to the type of population, asset, or economic activity exposed.



Countries with higher levels of economic development will have higher values of assets exposed, and are often concerned with large losses that occur through damage to infrastructure and economic disruption

The 2011 Thailand floods, for example, caused an estimated US$47 billion of damage and losses, of which 70 percent came through the manufacturing subsector. While post-disaster assistance for households was required, the largest financial challenges faced by the government related to reconstruction of physical assets after the initial emergency period, and to the significant drop in revenues due to manufacturing interruptions.



Conversely, countries with large populations of vulnerable poor may be focused on post-disaster assistance that supports livelihoods, such as social safety nets.

The biggest single contributor to losses from the 2005 earthquake in Pakistan came from damage to private housing, which accounted for almost 50 percent of the total cost of reconstruction. Although there was damage to infrastructure and costs through economic sectors, the bulk of the costs arose from the large humanitarian response to aid the 3.5 million people rendered homeless.

Why DRF?

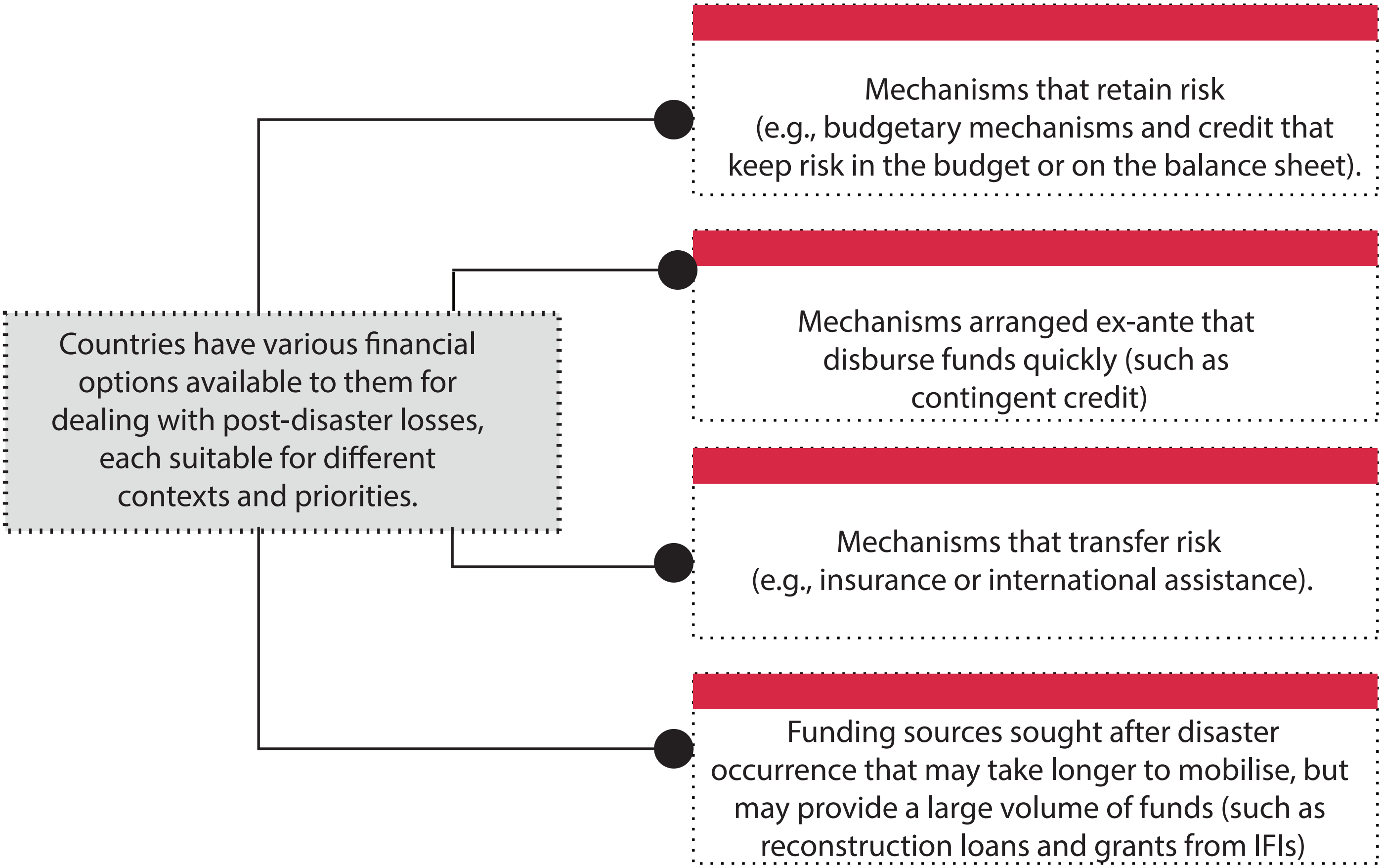
To respond immediately and effectively following a disaster—and to minimize the human, economic, and fiscal costs that increase rapidly when response is delayed or inadequate—Asian countries need access to sufficient money and effective mechanisms to spend during an emergency. A strategy for financial protection against disasters allows governments to increase their financial capacity to respond to disasters, and can improve financial inclusion for affected households and businesses by giving them financial tools to aid recovery.

Such financial mechanisms can also reduce the impact of disasters on social and economic development. They can smooth financial shocks and prevent governments and populations from resorting to adverse coping mechanisms that disrupt development progress and livlihoods. Through these positive impacts, strategies for financial protection against disasters can help to protect welfare and economic gains, thereby contributing to poverty reduction and shared prosperity.

A strategy for financial protection against disasters needs to encompass both sources of financing and mechanisms for effective disbursement of financing in-country

Securing Money For Disaster Response

Different post-disaster needs require different financing mechanisms; an instrument that provides rapid liquidity to support emergency operations may not be appropriate for funding longer-term, large-scale reconstruction of damaged infrastructure. For example, a reserve fund financed through the budget could be cost-effective for dealing with frequently recurring flood events; but pre-funding larger losses from more extreme events through such a fund would incur high opportunity cost of ring-fencing large reserves for infrequent use. Insurance on the other hand can be an expensive way to fund more frequent but lower-impact events, since premiums increase with the expected frequency of payouts; but for less frequent, catastrophic events, insurance can be an effective way to increase financial capacity beyond the national means.



A more detailed introduction to DRF is provided in the paper: Financial Protection Against Disasters: An Operational Framework for Disaster Risk Financing and Insurance (World Bank, 2014).

Disbursing Money Effectively

It is equally important to ensure that resources for disaster response reach the people who need it the most, when they need it the most. Responsibilities for post-disaster spending may be shared between central and local governments, such that state- or municipal-level entities may lead the financial response on the ground. Structuring of subnational disaster risk financing is therefore as important as mobilization of funds.

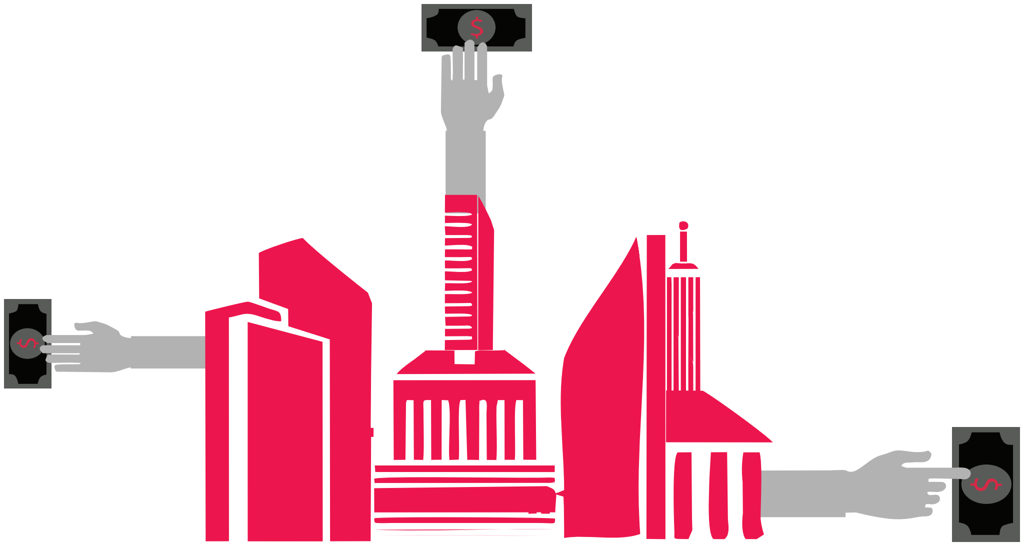
MEXICO

The government of Mexico acknowledges the importance of both in its fund for natural disasters (FONDEN), which is governed by clearly defined rules on allocation of post-disaster funding for recovery and reconstruction at the federal and state levels.

ETHIOPIA

The government of Ethiopia uses a social safety net (the Productive Safety Net Program) to deploy contingent financing mobilized at the national level down to affected households. In the event of a catastrophic drought, the safety net program can reach additional affected households using locally held contingency budgets and a federal-level contingent financing window.

The private sector plays an important role in absorbing post-disaster costs and in ensuring that households receive financial assistance after a disaster.



THAILAND

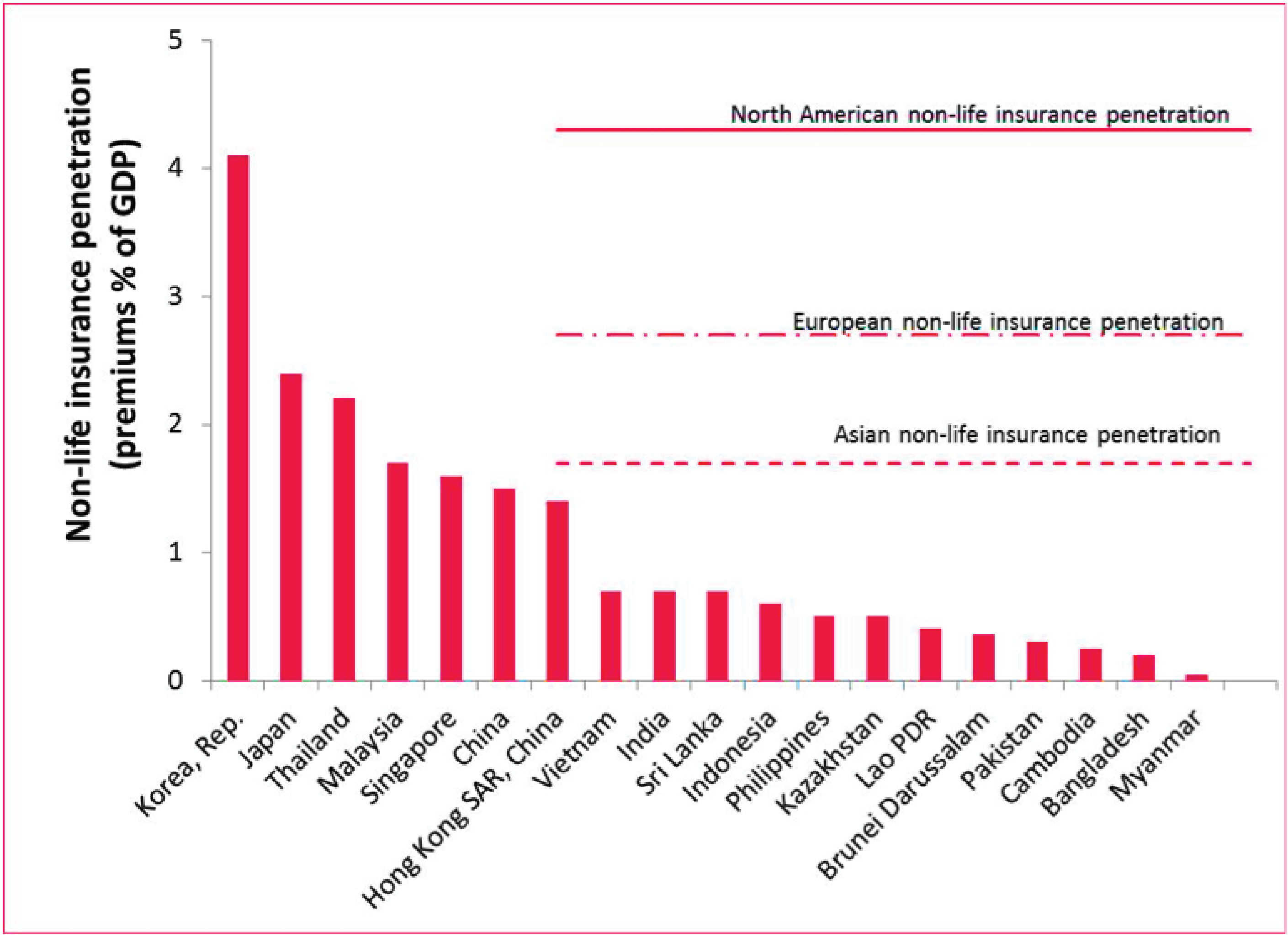
The private sector's importance was exemplified after the 2011 Thailand floods. According to World Bank estimates, domestic insurers absorbed losses of around 25 percent of the disaster total of TB 1.4 trillion of total economic losses (approx. US$40 billion). One key government response to the disaster was to establish a national Natural Catastrophe Insurance Fund as a back-stop for insurers. The fund was designed to help insurers cover costs should another major natural disaster event strike again.

TURKEY

The government of Turkey has also focused on using the private sector to provide disaster-affected households with financial assistance. The Turkish Catastrophe Insurance Pool is a national program of affordable earthquake insurance that functions as a public-private-partnership. It was established following the devastating 1999 Marmara earthquake, and now covers millions of homeowners in Turkey.

Low insurance penetration, however, hampers such a response through the private sector in many Asian countries (see figure 1).

Figure 1. Non-life Insurance Penetration as a Percentage of GDP in Asia (selected economies)



Source: Based on 2014 data from Swiss Re Sigma and 2013 and 2014 data from AXCO.

Disaster Risk Finance in Asia

Several Asian countries are active in strengthening their financial resilience. Any regional initiative should build on existing work. Some countries have already been working on national strategies to better manag the cost of disasters.

Knowledge gained through World Bank support to countries, dialogue in the region, and recent disasters suggests that countries' current priorities for use of financial instruments can be placed in three broad categories:

1

access to rapid disaster response financing (and deployment oF rapid response funds at the subnational level and to households);

2

property catastrophe risk insurance for public assets;

3

property catastrophe risk insurance for private assets

Rapid response financing here refers to financing released within days or weeks of a disaster occurring. Contingent instruments tend to offer this feature, such as the World Bank's contingent credit (Cat DDO) offering, insurance products such as the Pacific Catastrophe Insurance Pilot, contingent grant windows such as the federal-level contingent financing window linked to the Ethiopia productive safety net program described below, and donor emergency response facilities.

1. Rapid Response Financing

Access to rapid response financing is a priority issue for economies at risk of severe shocks, such as large earthquakes and tropical cyclones (e.g. Indonesia, the Philippines, Nepal, Myanmar); but it is also important for economies that are exposed to recurrent flooding but have limited resources to respond (e.g. Myanmar, Cambodia, the Lao People's Democratic Republic, Sri Lanka).

- **The Philippines** has already implemented and used disaster-contingent credit instruments with the World Bank (a Catastrophe Deferred Drawdown Option, or Cat DDO; US$500 million) and with the Japan International Cooperation Agency (JICA) (SECURE; $500 million); it has just finalized a second World Bank Cat DDO (US$500m) and also is evaluating sovereign catastrophe risk insurance as an option.

- **Indonesia** has carried out analysis to develop a national strategy for financial protection against disasters, including a possible disaster reserve fund.

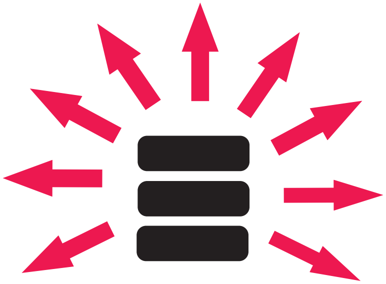
- **Myanmar, Cambodia, and Lao PDR** are in the early phases of exploring a sub-regional pooling of risk similar to the Caribbean Catastrophe Risk Insurance Facility (CCRIF) or the Pacific PCRAFI catastrophe insurance program

- **Sri Lanka** has recently put a disaster-contingent credit product in place with the World Bank (Cat DDO).

- **Nepal** - Among the lessons learned from the devastating April 2015 earthquake was an identified gap in rapid response financing and effective mechanisms to deploy funding once it is received.

Post-disaster rapid response financing may be mobilized for very different purposes across countries. For some, rapid response financing is valuable as bridge financing that helps to avoid budget disruption. For others, it allows urgent action (e.g., emergency services, financial assistance to affected populations) in the face of severe budget constraints. How such financing is used will largely be determined by the size of the economy and by budget flexibility.

Countries may opt to connect rapid response financing instruments to subnational disaster risk financing mechanisms, such as local-level disaster funds in Pakistan and the Philippines, or the scalable social safety nets used in Ethiopia. Subnational-level strategies for financing disaster risk are particularly relevant in Asia, given the region's increasing urbanization and megacities. For example, strategies at the municipal level can be designed to make allowances for the uneven distribution of exposure within Asian countries.



Some of the larger economies (the Philippines, Pakistan) are focusing on programs for subnational disaster risk financing that better structure how funds flow to provinces or local government units. The government of the Philippines is in advanced technical preparation of a program of subnational catastrophe risk financing that will allow local government units to better structure liability and fiscal transfers, including through a joint catastrophe insurance fund. The government of Pakistan has legislated for the creation of provincial funds for disaster risk management administered by provincial governments. Technical work is currently planned to operationalize at least one of these subnational funds. The idea of state-level financial mechanisms for emergency response to complement state disaster funds has been proposed for India as part of technical discussions, although this is in very early stages of consideration.

2. Public Asset Insurance

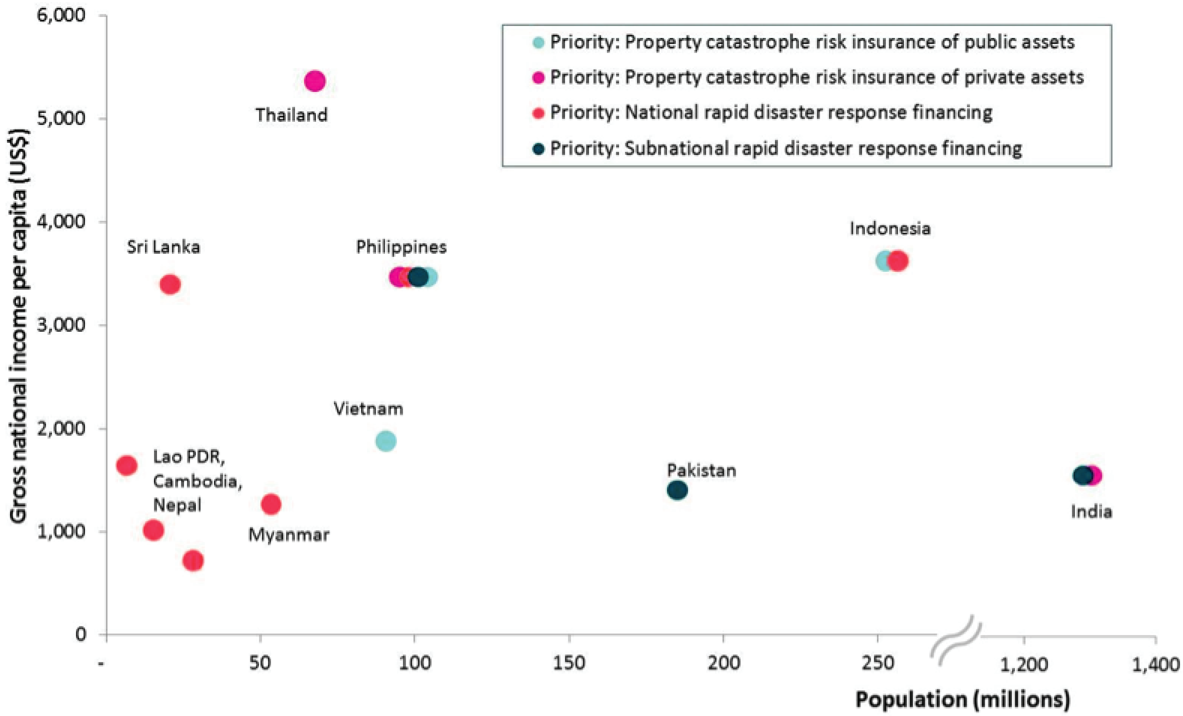
Property catastrophe risk insurance for public assets is a focus for a growing number of countries as they invest in new infrastructure and buildings. In Indonesia and Vietnam, for example, governments are beginning to develop public asset insurance programs. Property catastrophe risk insurance for public assets has already been utilized in the Philippines, and the government is seeking to increase insurance uptake even further.

3. Private Insurance

Property catastrophe risk insurance for private assets is becoming a focus for countries where a growing middle class and small businesses are at risk of property damage from disasters. Thailand, for example, set up a National Catastrophe Insurance Fund to shore up the domestic insurance industry following the devastating 2011 flooding. The Philippines is also in the early stages of exploring ways to reach more households and businesses with catastrophe risk insurance through the insurance market.

Any regional risk financing solution should build on the national priorities of individual Asian countries and should aim to stregthen them. Figure 2 shows an initial assessment by World Bank staff of where countries are currently focusing their engagement in disaster risk financing and what their needs are.

Figure 2. Identified Country Priorities on Disaster Risk Financing

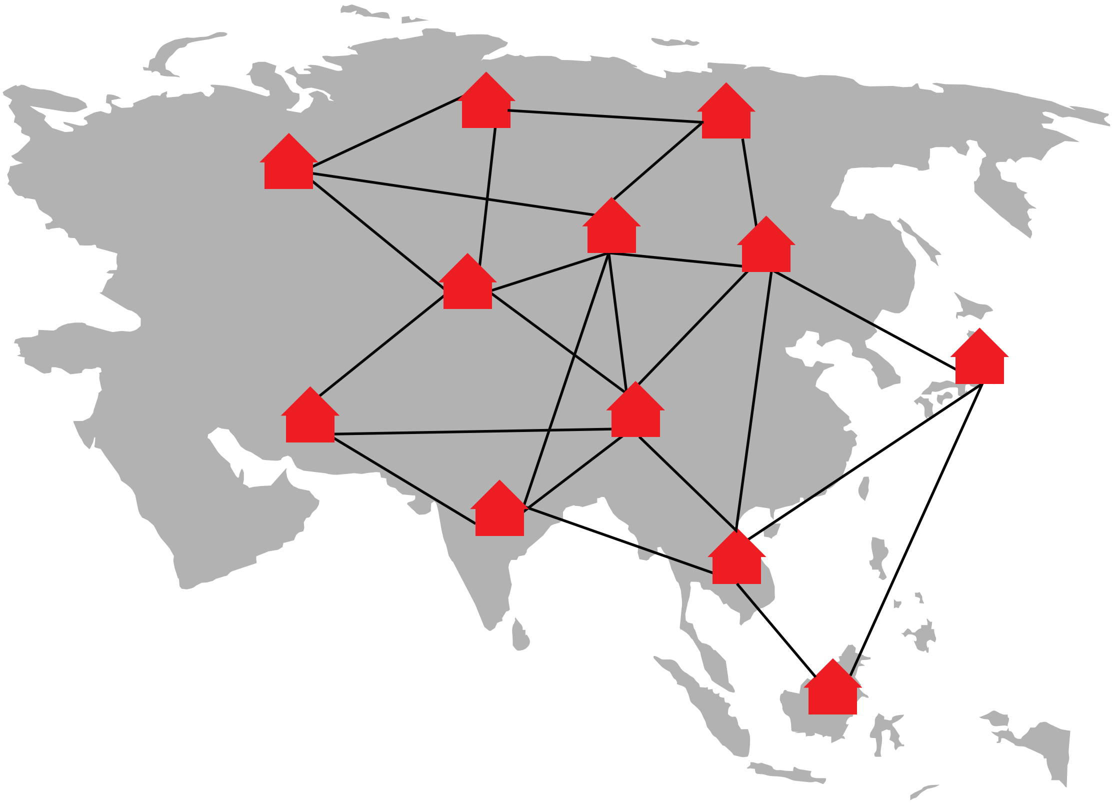


Source: World Bank GFDRR Disaster Risk Financing and Insurance Program (2015)

Any proposal for a regional risk financing platform should be evaluated against such priority areas and revised jointly with countries in order to provide improved access to the following:

- Rapid disaster response financing for the national government, complementing existing resources
- Rapid disaster response financing for subnational entities
- Insurance of public assets to transfer risk from the government to dedicated risk carriers
- Private property catastrophe insurance markets that provide access to affordable and sustainable catastrophe risk insurance for homeowners and enterprises

Toward a Regional Disaster Risk Finance Facility for Asia



A regional facility for disaster risk finance for Asian countries could contribute substantially to financial resilience in the region.

International experience shows that regional collaborations have opened up access to financing sources that would not otherwise be available to countries, and have helped countries to smooth the volatility of the cost of disasters and to better structure their financial response. Initiatives such as the Caribbean Catastrophe Risk Insurance Facility (CCRIF) and the Pacific PCRAFI insurance program have also demonstrated that regional platforms on disaster risk financing and insurance have the potential to confer benefits well beyond increased access to financing. These regional initiatives have also served as forums for sharing of knowledge and good practice, as vehicles for shared investment in public goods to support understanding of risk, and as engines of political momentum—driving engagement and progress in the subject area.

In Asia, such a platform should be flexible enough to accommodate the different post-disaster financing needs arising from the heterogeneity in natural hazards, exposure, and vulnerability across the region. The platform would have to accommodate the needs of both large and small economies (see box 1). Such a platform could prioritize the needs of countries dealing with flood, given that flooding is the most prevalent hazard in the region, but would also have to address the needs of countries struggling with losses from infrequent severe shocks such as earthquakes and tropical cyclones. To add value to countries' efforts in building financial resilience, it would need to serve countries focused on assisting vulnerable rural populations as well as countries focused on reconstructing homes and infrastructure.

Box 1: Small versus Large Economies: Financial Capacity for Major, Infrequent Events

Countries in Latin America and the Caribbean are highly exposed to losses from earthquake, tropical cyclone, and flooding, but their experiences in seeking to access external financial capacity for post-disaster spending have differed depending on their size. Mexico—an upper-middle-income country with a relatively large economy—sought to transfer a large amount of risk and was able to do so through a single approach to the international markets. Mexico's fund for natural disasters (FONDEN) is therefore backed by an excess-of-loss reinsurance program that provides in excess of US$400 million of financial capacity, while a catastrophe bond provides US$300 million of additional capacity.

For smaller countries seeking to place smaller amounts of risk, a single approach to the markets may not be feasible or cost-effective. The Caribbean Catastrophe Risk Insurance Facility (CCRIF) has helped Caribbean countries and more recently Central American countries to access external financial capacity for post-disaster spending arising from hurricanes and earthquakes. Sixteen Caribbean countries have pooled their risk in CCRIF, which is essentially a joint reserve mechanism that accrues premiums and joining fees from countries and pays out to members when a disaster occurs. As an aggregator of risk, the facility has been able to access risk-bearing capital on the international markets in the form of both reinsurance and catastrophe swap contracts. Although individual country policies with CCRIF are typically of the order of tens of millions of dollars, the reinsurance and catastrophe swap program provides over US$100 million of coverage. Countries have benefited from lower premiums, from the diversification benefits of risk pooling, and also from shared transaction costs.

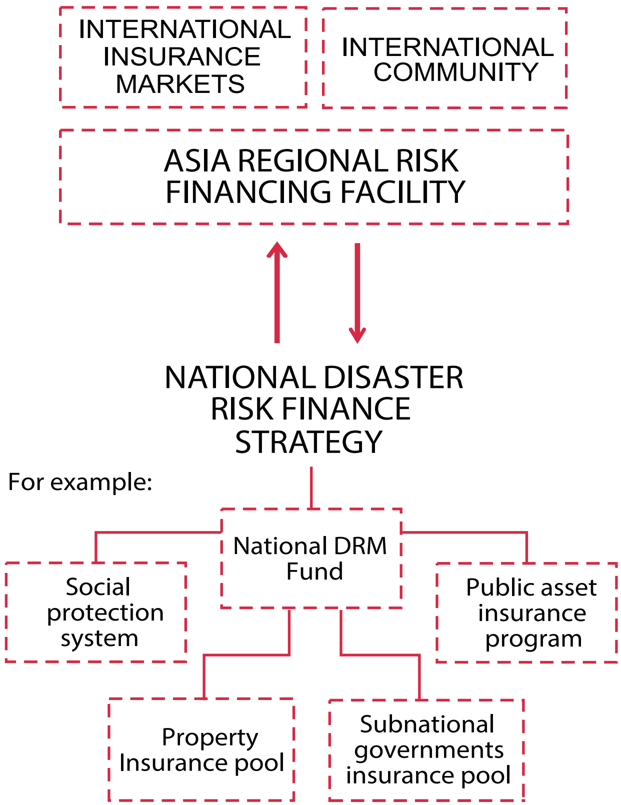
a. The facility was originally established with the technical assistance of the World Bank, and with initial funding of more than US$60 million from donors to provide claims-paying capacity in the early years.

The success of any regional risk financing facility will depend in equal measures on political and institutional arrangements as its technical foundation.

Any proposal for a regional risk financing facility will need a strong regional partner organization to support the political andpolicy coordination between participating governments. This could take various forms. For example, a regional organization could serve as a convening body to ensure coordination, could host a small technical secretariat for policy coordination while the facility maintenance is outsourced to specialist service providers, or could establish a regional facility as an affiliate body of the regional organization. An appropriate organization (or organizations) and their respective roles will need to be identified in consultation with interested governments.

A regional facility for Asia should build on existing work at the national level to develop strategies for financial protection against disasters and to ensure effective deployment as well as mobilization of funds. Financing mobilized within a regional facility must be connected to mechanisms in-country that disburse funds, such as scalable social safety nets/cash transfer schemes or subnational disaster risk financing mechanisms like those planned in Pakistan and the Philippines. And any regional platform should offer opportunities to develop resilience beyond mobilization of funds—by serving as a platform for capacity building, common investment, and dialogue.

Figure 3. Possible Interaction between National DRF Strategy and a Regional Facility

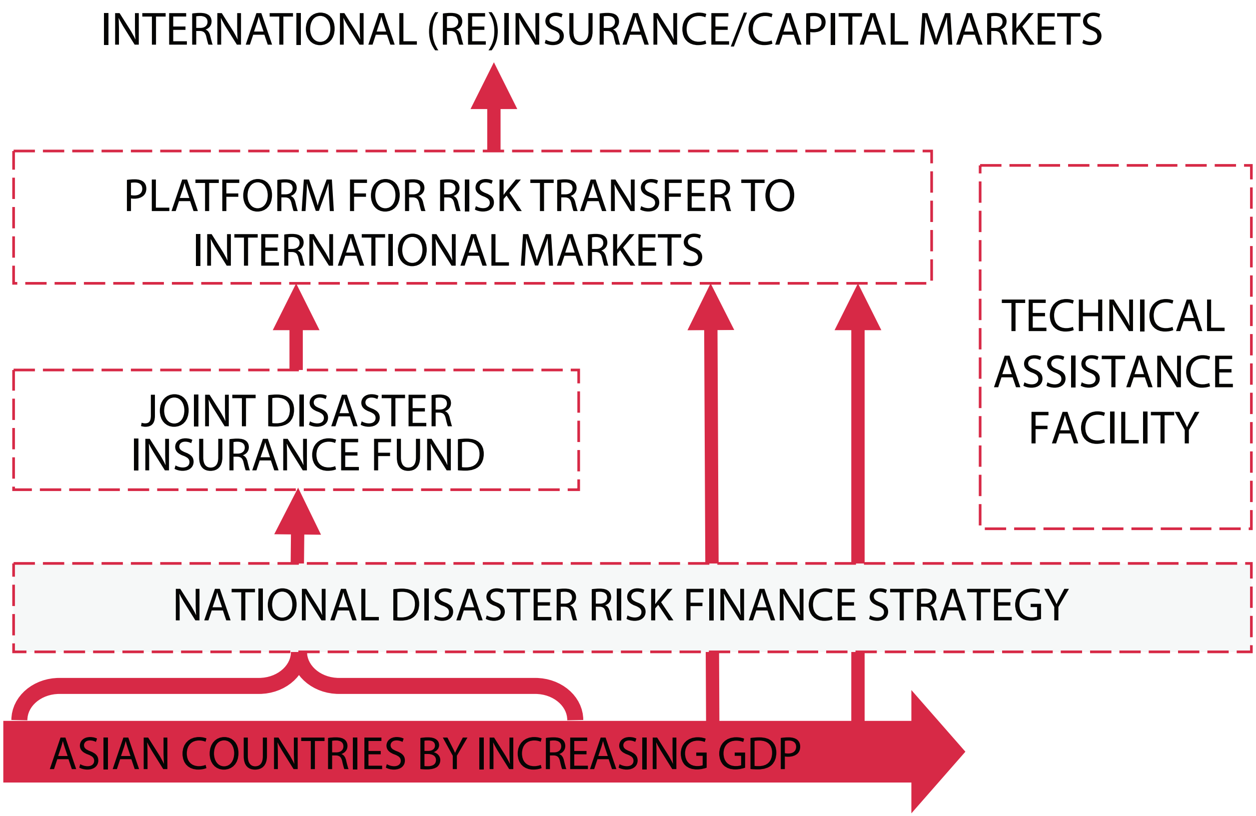


The proposed structure would enhance national strategies (figure 4), and funds mobilized through the facility could pass through national reserve funds and potentially into local-level disbursement mechanisms such as scalable social protection networks (as in Ethiopia) or down to subnational government entities (such as cities or provinces). Groups of subnational entities such as cities could also approach the platform directly as part of a national strategy, for collective coverage.

Proposed Structure for a Regional Disaster Risk Financing Facility for Asia

Figure 4 shows a possible structure for such a facility. It combines individual approaches for larger economies with joint approaches for smaller economies. As well as the individual financial components and technical assistance facility shown, the facility would alsocomprise a forum for key stakeholders (such as Ministries of Finance) to participate in knowledge-sharing and to foster political momentum in the field.

Figure 4. Proposed Structure for a Regional Disaster Risk Financing Facility for Asia



Desired outcomes from a regional facility should include:

Improved understanding of risk. Standardization of risk data and policy terms across countries is key for the establishment of a regional facility. This initiative can provide an incentive for economies to work together to better understand their risks and to invest in risk data, which can then also serve to inform risk reduction and prevention. This could also lead to the development of global public goods, such as regional risk databases and regional cat risk models, to support the establishment and operations of such a facility.

Comprehensive financial protection. A regional facility could be an umbrella to national strategies, offering additional options for financing to supplement national capacity, and working in complement to mechanisms in-country to disburse financing (such as cash transfer schemes) and thereby reach affected households and businesses. This regional mechanism could be used to drive the design and implementation of comprehensive national strategies.

Improved financial disaster planning. A facility could promote the development/improvement of national contingency planning to allow for a timely and cost-effective use of funds post disaster.

Reduced reliance on disruptive budget reallocations or uncertain humanitarian assistance. A facility could provide rapid funds in the immediate aftermath of a disaster. The facility could include a joint reserve mechanism alongside risk transfer to access international market capacity.

Cost savings through diversification of catastrophe risks. Through catastrophe risk pooling across countries with different risk profiles, such a facility could achieve significant diversification benefits, reflected in lower costs for risk financing. Lower cost for participants will come from diversification through pooling, not from cross-subsidisation. Risk-based pricing would be applied for participants.

Access to financial capacity in the international markets. A facility could provide a platform for access to international (re)insurance or capital markets for individual countries looking to place large amounts of risk or for clusters of smaller economies looking to achieve economies of scale by working together. A vehicle for insurance of public assets could also be considered.

The joint disaster insurance fund would be best suited for smaller economies, with uncorrelated but similar risk, looking to gain from the benefits of risk pooling. A model similar to that of the CCRIF, where countries enter into an insurance contract with the facility and pay a premium for access to rapid liquidity as bridge financing post-disaster, could be considered.

The risk transfer platform could function as a clearinghouse for transferring sovereign disaster risk in Asia to the international markets. It would allow large economies to approach the market directly and smaller economies to approach the market as a group, as the Pacific countries have. Standardized contracts could be used as well as a standardized process for readying countries for transacting. An approach for collectives of subnational entities (such as cities) to this platform could also be considered.

The technical assistance facility would be the home of public goods such as catastrophe risk models that would support the above components. It could also assist countries with their national strategies for financial protection, and specifically with mechanisms for disbursing funds in-country to better reach affected households and businesses.

A transparent, rules-based disbursement mechanism could be an attractive option to allow international partners to "pre-commit" post-disaster aid, thereby making the disbursement of funds quicker and more predictable for countries and allowing governments to plan ahead. This could also be considered as a platform component.

A regional platform for disaster risk finance in Asia could confer significant benefits to the region. Many discussions—between countries, donors, and development partners and within regional economic platforms—are already taking place on how to improve financial resilience in Asian countries. The heterogeneity of countries' needs and differing levels of existing engagement in this area, should form the basis of a transparent and open dialogue on disaster risk financing for the region. The next step in establishing any regional facility is to engage with individual countries to assess their priorities and needs.

NEXT STEPS