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Chapeau Paper

FINANCING DISASTER RISK REDUCTION, PREPAREDNESS, RELIEF, EARLY RECOVERY AND RECONSTRUCTION

by

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For

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CONTENT

1. INTRODUCTION

Adequate financing is required to reduce disaster risk and respond efficiently and effectively when disasters strike. However, continuing disaster losses indicate a significant shortfall in funding for risk reduction and preparedness. The gap in funding for post-disaster relief, early recovery and reconstruction is more difficult to gauge globally. However, international appeals for humanitarian assistance repeatedly fail to reach their targets. Much larger funding requirements for reconstruction are even harder to secure, resulting in de facto reliance on national budgets and prolonged recovery.

Between 2003 and 2022, disasters led to a reported $3.9 trillion in economic losses in nominal terms, compared to $1.9 trillion over the previous 20 years.[1] The growth in damage and losses has been driven by a complexity of factors including economic and demographic growth placing greater assets at potential risk, unplanned urbanization, risk-insensitive designs, short-term planning cycles, an asset- rather than systems-wide investment focus, and increasing concentrations of people in hazard-prone locations such as coastal areas and floodplains. Climate change has also played a role, resulting in observed increases in the frequency and intensity of extreme weather extremes.[2]

Without major investments in resilience to counter these various trends, economic losses are set to continue rising. Moreover, without increasing financing to support post-disaster relief, early recovery and reconstruction efforts, disasters will cause increasing setbacks in development gains, including poverty reduction and counter efforts to address significant infrastructure gaps in many countries.

This chapeau paper provides a high-level overview of financing mechanisms, their purposes, and opportunities to increase financing for disaster risk management. It is complemented by more in-depth papers prepared for the G20 Working Group on Disaster Risk Reduction on different aspects of financing mechanisms discussed in this paper.

Note on terminology. The term ***disaster risk financing*** is increasingly applied but with varying definitions, on occasion leading to misunderstanding and confusion. It is used in some contexts to refer to financing for all aspects of disaster risk management, including disaster risk reduction. More typically, the term is used with reference to post-disaster activities only – that is, financing for relief, early recovery, and reconstruction (including building back better). In some instances, it is used solely with reference to risk transfer instruments, such as insurance. It is important to clearly state how the term is defined each time it is used. The term is used in this paper, in line with its most common use, to refer to financing for post-disaster relief, early recovery, and reconstruction purposes and covering both risk transfer and risk retention solutions.

2. DISASTER RISK REDUCTION AND PREPAREDNESS

Disaster risk management begins with risk reduction, seeking to reduce existing risk and avoid the creation of new risk. The need for risk reduction is embedded in the Sendai Framework for Disaster Risk Reduction, 2015-2030 and related objectives are a core part of disaster risk management legislation, strategies and plans across the world. The 2030 Agenda for Sustainable Development includes 25 targets related to disaster risk reduction in 10 of the 17 goals. However, progress in putting words into action has lagged, in part because of funding constraints.

Over the past 20 or 30 years or so, there has been a particular emphasis on absorbing disaster resilience costs within broader investment allocations. This approach acknowledges the critical importance of resilient infrastructure, incorporating risk reduction measures into project design and associated costs into overall project cost – for instance, incorporating the costs of slope stabilization works, larger drains, and steeper road camber to reduce the risk of flash flooding in a road project. The approach is based on sound logic. However in the face of huge public investment needs and related pressures to stretch government budgets – in the case of the transport, for example, quite literally to build more roads – the approach has clearly proved insufficient. Moreover, in rapidly growing new sectors, such as mobile telecommunications, standard setting – including with regard to resilience – is barely keeping pace with growth.

Meanwhile, despite significant advances in the understanding and quantification of risk, government agencies have struggled to attract sufficient resources to undertake investments with the primary purpose of building resilience – for instance, investments in flood risk management projects, seismic retrofitting, or early warning systems.

The challenge in attracting financing both for integrating risk reduction measures into project design and for investments with the primary purpose of building resilience is partly simply that overall financing is tight – currently particularly tight in the wake of the coronavirus disease (*COVID-19*) pandemic and other economic pressures. As such, increased spending in a particular area can carry a high opportunity cost in terms of foregone spending in others. Nevertheless, the underspend on disaster risk reduction and preparedness may be particularly acute. The mid-term review of the Sendai Framework for Disaster Risk Reduction confirms this, reporting that 'most Member States have … identified that public-sector budget allocations and expenditures towards DRR (disaster risk reduction) have been significantly lower than for other national development priorities'.[3] This imbalance in part

[1] Centre for Research on the Epidemiology of Disasters, Université Catholique de Louvain. EM-DAT: The International Disaster Database. www.emdat.be (accessed 27 April 2023).
[2] IPCC. 2022.*Climate Change 2022: Impacts, Adaptation and Vulnerability. Summary for Policymakers*. Intergovernmental Panel on Climate Change, Bonn.
[3] UNDRR. 2023. *The Report of the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction, 2015-2030*. United Nations Office for Disaster Risk Reduction, Geneva.

reflects political pressure on governments to demonstrate results. Investments in resilience avert losses at an indeterminate date in the future, rather than generating streams of positive benefits in the relatively near term, as typical for other types of public investment. Ironically, the impact of spending on post-disaster relief, early recovery and reconstruction is particularly visible, and hence has strong public support.

Private sector investments have also been limited beyond some integration of resilience measures into broader investments. The mid-term review of the Sendai Framework, for instance, states that 'despite some progress on collaboration and knowledge-sharing, private funding has largely failed to adequately invest in DRR (disaster risk reduction) or effectively incorporate disaster risks'.[4] Low private sector investment in disaster risk reduction is in significant part a reflection of limited bankable disaster risk reduction and preparedness investment opportunities – that is, opportunities to generate streams of income. The agricultural sector offers greater opportunity for direct investment in disaster risk reduction but investors and banks have shown little interest in a sector associated with high climate, price, counterparty risks, and market failures, despite non-cyclical demand, steady income, and low correlation to other asset classes

Going forward, governments, development partners, the private sector and individuals urgently need to reach the point where levels of expenditure on risk reduction and preparedness are sufficient relative to the scale and nature of risk faced, the expected social and economic returns, and the reasonable roles and responsibilities of each entity.[5]

It is unrealistic at the current time to propose the establishment of a global fund for disaster risk reduction and preparedness to help boost financing availability. However, there are a number of measures that can be considered to increase investments in disaster risk reduction and preparedness both to directly boost available resources and, via the establishment of appropriate enabling environments, to help ensure that investments in this area are not unwittingly neglected. Some of these measures pertain specifically to government but some are also applicable to businesses. Potential measures are listed below in three broad categories: (a) direct enhancement of disaster reduction and preparedness resources; (b) supportive budgetary processes; and (c) enabling environment.

The measures include efforts to ensure that governments are able to utilize available financing as well as ensure that it is adequate. While most governments have relatively well-developed mechanisms and capacities for delivering post disaster relief, early recovery and reconstruction activities, the same is not true for disaster risk reduction. There are serious capacity constraints to design and implement effective disaster risk reduction initiatives. In the absence of such absorptive capacity, investment is not made. And in the absence of investments, absorptive capacity does not develop. This vicious cycle needs to be broken.

a) Direct enhancement of disaster reduction and preparedness resources

- Establish dedicated government budget allocations for disaster risk reduction at different scales – from small community grants to national level sectoral initiatives – to build a systemic financing approach and gain wider support and participation.
- Legislate fixed annual budget allocations for disaster risk reduction (noting that appropriate levels of funding will depend on individual country disaster risk and fiscal contexts).
- Provide national government conditional, matching or special grants to incentivize allocations of line agency, local government, and private investment resources for disaster risk reduction and preparedness.
- Take disaster risk into account in the formula for distributing national government resources to local government.
- Award local government progress in disaster risk reduction and preparedness with access to additional national government resources.
- Ring-fence concessional international assistance for investments in climate and disaster resilience.
- Access global and regional climate change funds – there are no global funds available specifically for disaster risk reduction but the overlap between disaster risk reduction and preparedness and climate change adaptation can be leveraged.

b) Supportive budgetary processes

- Quantify and disclose disaster risk, on the part of both government and private sector entities.
- Strengthen linkages between disaster risk reduction and preparedness goals and commitments and budget allocations, ensuring that the allocation of available resources aligns closely with agreed priorities.
- Cost government disaster risk reduction and preparedness plans to determine the scale of identified funding needs.
- Tag disaster risk reduction and preparedness budget allocations and expenditure to help monitor progress and related funding gaps.[6]
- Undertake periodic disaster risk management public expenditure and institutional reviews.
- Maintain separate funds/budget lines for disaster risk reduction and post-disaster purposes as combining funds can result in under-utilization of resources for disaster risk reduction to conserve resources for potential disaster events.
- Establish simple processes and prepare clear related guidelines regarding eligible users and uses, approval, disbursement, and reporting of disaster risk reduction and preparedness funds.
- Apply tax relief and subsidies to incentivize disaster risk reduction actions on the part of businesses and households.
- Simplify access to global and regional climate funds.

[4] Ibid.

[5] Benson, Charlotte. 2009. *Mainstreaming Disaster Risk Reduction into Development: Challenges and Experience in the Philippines.* ProVention Consortium, Geneva.

[6] In support of this, UNDRR is developing a global integrated taxonomy to tag and track disaster risk reduction and climate change adaptation expenditure and scoping the establishment of a related global observatory.

c) Enabling environment[7]

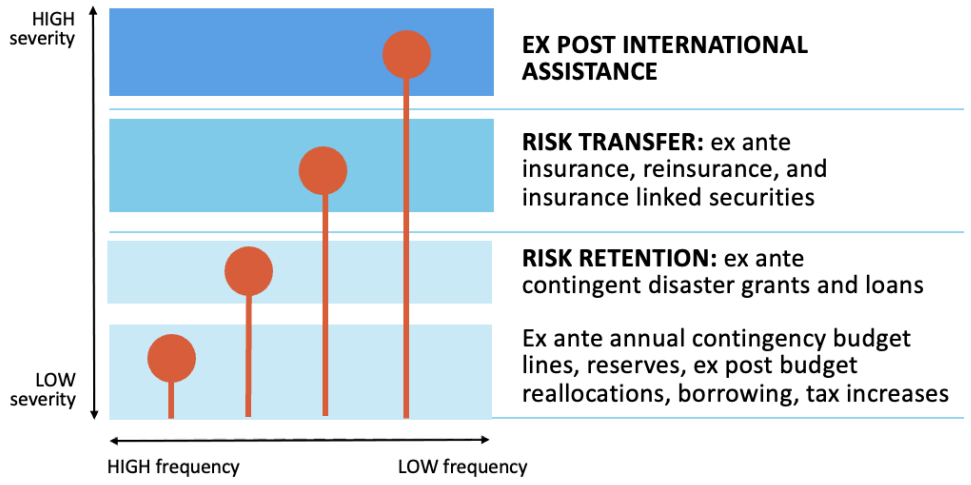
- Establish a conducive policy regime and institutional architecture to address disaster risk management through a 'whole of government' approach.
- Enhance the availability and accessibility of disaster risk data to all at sufficient levels of resolution to sufficiently assess risk and design appropriate solutions.
- Enhance public and private sector awareness and understanding of risk data and capacity to use it effectively.
- Undertake area-wide (e.g., city-wide) disaster and climate risk assessments to identify and address cascading risks.
- Integrate risk assessments into upstream, early-stage planning of investments, incorporating resilience as a core principle from the very beginning.
- Legislate and enforce risk-sensitive building codes and risk-sensitive land use zoning.
- Align climate change adaptation and disaster risk reduction and preparedness goals, objectives, and investment plans.
- Extend the currently very limited evidence regarding the costs and benefits of resilient design features and disaster risk reduction and preparedness investments and disseminate widely.
- Apply lower discount rates to the economic analysis of resilience measures (that is, increase the value attached to streams of benefits realized many years ahead, recognizing that hazard events could strike at any time, including towards the end of life of an investment).
- Undertake research on innovative solutions to reduce the cost of resilience solutions.
- Build and disseminate the business continuity case for investments in resilience.
- Enhance stakeholder coordination, particularly between government, development partners, and the private sector, to ensure that government-identified priority disaster risk reduction and preparedness investment needs are met and duplication of effort is avoided.
- Pursue a multi-hazard disaster risk management approach to help utilize available resources as cost-effectively as possible.
- Exploit opportunities to deliver on resilience and other development gains and private sector income generation, as relevant, simultaneously.
- Utilize risk-based pricing information signaled by insurance premiums to inform the public and private sector of levels of resilience and support targeted investments in risk reduction.

3. RELIEF, EARLY RECOVERY AND RECONSTRUCTION

It would be prohibitively costly to eliminate disaster risk entirely. As such, some residual risk will remain, resulting in periodic fatalities, damage, and loss and, hence, the need for post-disaster humanitarian relief, early recovery, and reconstruction measures.

It is recognized good practice to apply a risk-layered approach to finance these requirements – that is, to break risk down according to the frequency or probability of occurrence of disasters and the associated levels of loss at each layer of risk and then to identify the most cost-effective instruments for each layer (Figure). These instruments comprise a mixture of risk retention and risk transfer instruments.

Figure: Risk-based approach to disaster risk financing



Source: Asian Development Bank

These instruments begin with risk retention solutions for more frequent, less damaging events. For instance, solutions available to government include annual contingency budget allocations, reserves, contingent disaster grants and loans, post-disaster budget reallocations, and post-disaster borrowing. Risk transfer solutions - that is, insurance and insurance linked securities such as catastrophe bonds – are typically the most cost-efficient source of financing for medium-level risks, generating higher levels of loss but occurring less frequently. Governments also appeal to the international community for assistance following major events. This set of instruments can also be sub-classified according to those put in place in expectation of future disasters, often referred to as pre-arranged financing, and those turned to after an event.

There has been significant focus, particularly since the mid-2010s, to enhance financing arrangements for response. These efforts

[7] Many of these measures also help ensure that actions to enhance resilience are incorporated into post-disaster reconstruction.

have been motivated by efforts to ensure faster, more flexible, and accountable response and, via risk transfer solutions, to spread costs over time. Earlier strides in disaster risk modelling capabilities have facilitated significant innovations in insurance and insurance-linked securities, including the introduction of regional risk pools such as the Caribbean Catastrophe Risk Insurance Facility and African Risk Capacity. Most recently, there has been notable innovation in the delivery of disaster risk financing via anticipatory action, supporting threatened communities to take immediate short-term actions to reduce impacts before forecast events strike. Related global initiatives have also been established, including the InsuResilience Global Partnership, which was launched at COP23 in 2017; the Insurance Development Forum, an insurance industry-led platform launched in 2017; and the Global Shield against Climate Risks, a G7 initiative launched at COP27 in 2022.

The reality remains, though, that risk transfer efforts cover only a relatively small fraction of total post-disaster costs in many countries because of the high cost – and high opportunity cost – of comprehensive insurance cover, compounded by issues regarding availability of products and user awareness. For the same reasons, many individual farmers, small businesses, and households remain uninsured or underinsured, particularly in lower income countries. Meanwhile, a significant portion of post-disaster funding needs are met through government budgets, including near-term budget reallocations and longer-term displacement of previous spending priorities, and, in some cases, heavy reliance on the international community.

Efforts are required to increase disaster insurance penetration, to enhance the financial management of disaster risk more broadly, and to ensure that all available resources are used as efficiently and effectively as possible. Potential measures in this regard can again be clustered in three broad categories: (a) direct enhancement of financing; (b) supportive budgetary processes; and (c) enabling environment. Some of these measures apply across the board, to private sector entities and individuals as well as government.

a) Direct enhancement of financing

- Allocate annual budget resources to cover levels of expenditure incurred in immediate response to disasters in "good" years with lowest probable numbers affected by disasters – i.e., to cover minimum expected expenditure.
- Secure contingent disaster grants and loans.
- Secure a mix of parametric and indemnity insurance cover as appropriate.
- Establish and utilize existing risk insurance pools as appropriate, taking advantage of reduced premiums available through risk pooling.
- Leverage post-disaster reserves, multi-year funds and international post-disaster funding by using a portion of available resources to secure risk transfer solutions.
- Consider temporary non-regressive post-disaster tax increases.

b) Supportive budgetary processes

- Establish national disaster risk financing strategies and related action plans based on funding gap analysis and a risk-layered approach.
- Assess disaster risk and associated explicit and implicit contingent liabilities and undertake related fiscal/financial stress tests.
- Introduce temporary budget tags following major disasters to monitor related expenditure and spending gaps.
- Establish simple, fast-tracked processes for post-disaster reallocations of recurrent and capital budget resources.
- Establish simple, fast-tracked processes and prepare clear related guidelines for the approval and disbursement of relief and early recovery expenditure.
- Prepare clear guidelines for the utilization of post-disaster funds including clear eligibility criteria, fast-tracked approval and disbursement processes, robust monitoring and reporting processes, and eligible uses.
- Offer tax incentives and premium subsidies as appropriate to support sustained growth of disaster insurance product availability and uptake.

c) Enabling environment

- Enhance the availability and accessibility of disaster risk data at sufficient levels of resolution to adequately assess risk and design appropriate solutions.
- Develop comprehensive, GIS-tagged registries of infrastructure and assets, including replacement values.
- Include the need for the effective financial management of residual disaster risk in disaster risk management laws, policies, strategies, and action plans.
- Pre-prepare recovery plans for a range of disaster scenarios, including components on building back better.
- Undertake comprehensive post-disaster needs assessments as a basis for preparing post-event recovery plans.
- Establish tracking and monitoring systems to support effective use of post-disaster resources.
- Ensure robust, effective disaster insurance, reinsurance, and capital market legislative, regulatory and supervisory frameworks, including requirements on capital adequacy.
- Set risk-based insurance premiums, incentivizing investments in risk reduction.
- Strengthen financial literacy across government, the private sector, and the general public, including with specific regard to the financial management of disaster risk.

4. CONCLUSION

Ultimately resources are found for disaster-related spending – but to address the consequences of disaster risk rather than to reduce it. Few countries have comprehensive tagging, tracking, and expenditure review systems so there is limited available data to capture the relative balance of expenditure on disaster risk reduction and preparedness versus humanitarian relief, early recovery and reconstruction. However, OECD Development Assistance Committee data clearly demonstrates a considerable discrepancy, reporting that of the total $140.9 billion (in constant 2020 prices) provided as official development assistance to developing countries for disaster-related purposes over the period 2011 to 2020 only 5.2% was provided for disaster risk reduction and preparedness (OECD DAC, 2022). These data admittedly under-report spending on disaster risk reduction and preparedness as they only capture projects with primary disaster risk reduction and preparedness objectives and exclude spending on disaster resilience aspects of broader development projects. Nevertheless, the basic bias in focus remains.

More positively, notable effort, including considerable innovation, is being undertaken to improve financing for post-disaster purposes and these efforts look set to continue. This will support more timely response, thereby reducing the social and economic consequences of the physical destruction inflicted by disasters. Enhanced financing is also important in ensuring that “build back better” opportunities are reaped.

However, this progress has yet to be mirrored in efforts to enhance financing arrangements for disaster risk reduction. This is despite increasing disaster and climate risk knowledge and awareness and growing pressure for the disclosure of climate-related risks by both public and private entities.

The lag in progress urgently needs to be addressed. Improvements in financing arrangements for post-disaster purposes must be accompanied by increased financing for risk reduction. If not, the resources required for response will continue to grow and global efforts to ensure adequate advance financing arrangements will fall increasingly short of their objectives. Already, for instance, 1-in-25 properties in Australia are projected to be uninsurable by 2030 either due to the prohibitive cost of premiums or inability to find any willing insurer providers at all, with 80% of uninsurable cases due to riverine flooding.[8] Similar issues will arise elsewhere in the world, not least as climate change increases the frequency and severity of extreme weather events.

[8] Climate Council. 2022 *Uninsurance Nation: Australia’s Most Climate-Vulnerable Places.* Sydney.