



PUBLIC

October 2024

Disaster Risk Management Action Plan, 2024–2030: Redoubling Action Toward Disaster Resilience

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Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
CCA	–	climate change adaptation
CCRE	–	Climate Change, Resilience, and Environment Cluster
CCSD	–	Climate Change and Sustainable Development Department
CDF	–	contingent disaster financing
COVID-19	–	coronavirus disease
CPS	–	country partnership strategy
CSO	–	civil society organization
DEAP	–	Disaster and Emergency Assistance Policy
DMC	–	developing member country
DRM	–	disaster risk management
DRMAP	–	Disaster Risk Management Action Plan
DRF	–	disaster risk financing
DRR	–	disaster risk reduction
EWS	–	early warning system
FCAS	–	fragile and conflict-affected situations
GDP	–	gross domestic product
NOM	–	new operating model
PDNA	–	post-disaster needs assessment
SIDS	–	small island developing states
TA	–	technical assistance

GLOSSARY

build back better	–	Build back better refers to the use of the early recovery and reconstruction phases after a disaster to increase the resilience of nations and communities to future events by integrating risk reduction measures into the restoration of physical infrastructure, societal systems, livelihoods, economies, and the environment. ¹
climate change adaptation	–	This is an adjustment to actual or expected climate change and its effects that moderates harm or exploits beneficial opportunities. ²
disaster	–	A disaster is a serious disruption of the functioning of a community or a society, triggered by geophysical or extreme weather hazard events, leading to human, material, economic, or environmental losses and impacts. Disasters occur when geophysical hazard events (such as earthquakes, tsunamis, and volcanic eruptions) and extreme weather hazard events (such as droughts, floods, and tropical cyclones) interact with the exposure of vulnerable people and assets to those events. A disaster can lead to a state of emergency (footnote 1).

¹ United Nations Office for Disaster Risk Reduction. [The Disaster Risk Reduction Terminology](#).

² Intergovernmental Panel on Climate Change. [Definition of Key Terms](#).

disaster risk	–	This refers to the potential loss of life, injury, or destruction or damage to assets that could occur to a system, society, or community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability, and capacity (footnote 1).
disaster risk financing	–	This is the application of financial instruments as part of a systematic approach to managing disasters to anticipate, plan for, reduce, transfer, and respond to natural hazard events. It is intended to capture various financial mechanisms and policy options that enable greater financial resilience to natural hazards.
disaster risk management	–	This is the application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce disaster risk, and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses (footnote 1).
disaster risk reduction	–	This denotes both a policy goal or objective and the strategic and instrumental measures employed for anticipating future disaster risk; reducing exposure, hazard, or vulnerability; and improving resilience (footnote 1).
disaster risk transfer	–	A contractual process whereby the burden of financial loss (arising as a consequence of a natural hazard) is shifted to another party via the use of insurance or other financing instruments in return for a payment or premium.
hazard	–	This is a process, phenomenon, or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption, or environmental degradation (footnote 1).
recovery	–	This refers to the restoration or improvement of livelihoods and health, as well as economic, physical, social, cultural, and environmental assets, systems, and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and building back better to avoid or reduce future disaster risk (footnote 1).
resilience	–	This refers to the ability of a system, community, or society exposed to hazards to resist, absorb, accommodate, adapt to, transform, and recover from the effects of a hazard in a timely and efficient manner, including by preserving and restoring its essential basic structures and functions through risk management (footnote 1).
vulnerability	–	This refers to the conditions determined by physical, social, economic, and environmental factors or processes that increase the susceptibility of an individual, a community, assets, or systems to the impact of hazards (footnote 1).

NOTE

In this report, “\$” refers to United States dollars.

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ACKNOWLEDGMENTS

The preparation of this Disaster Risk Management Action Plan 2024–2030 (DRMAP) was led by Alexandra Galperin together with the Disaster Risk Management Team of the Climate Change, Resilience and Environment Cluster, namely Brigitte Balthasar, Steven Goldfinch, Belinda Hewitt, Maria Anna Orquiza, Grendel Saldevar, Sifayet Ullah and Chau Vu. The team benefitted from the guidance of the Climate Change and Sustainable Development senior management team that included Bruno Carrasco, Yolanda Fernandez Lommen, and Toru Kubo.

This DRMAP could not have been prepared without the ownership and commitment of several staff members from departments across the Asian Development Bank, namely, members of the working group (Michael Anyala, Babken Babajanian, Arup Kumar Chatterjee, Choon Sik Jung, Thomas Kessler, Jinha Kim, Thomas Panella, Argyha Sinha Roy, Tsuneyuki Sakai, Laxmi Sharma, Jose Luis Syquia, Takeshi Ueda, Fei Yu, and Vasoontara Yiengprugsawan); One ADB focals (Balabhaskara Reddy Bathula, Bouadokpheng Chansavat, Asif Cheema, Baurzhan Konysbayev, Marzia Mongiorgi, and Yuebin Zhang); and many other colleagues, especially those who supported the working group members and One ADB focals. Country directors and resident missions provided invaluable feedback during deep dive discussions coordinated by Avani Dixit, Gohar Mousaelyan, Savanhnguen Phongsavat, and Yukitsugu Yanoma.

The DRMAP team thanks the ADB Board of Directors for their guidance and direction, as well as representatives from private sector and civil society organizations for their feedback on the draft action plan. Thanks also to Haidy Ear-Dupuy and Roselle Rasay who helped organize the conversations with civil society organizations.

Coordination and administrative support were provided by Mark de las Alas, Guillarmee Romasanta-Articono, Pamela Elmido, Marian Lagmay, Maria Kristine Manalo, Zipporah Marquez, and Marianne Villanueva.

Lin Lu, Tammy Oaks, Aimee Ocampo, and Kae Sugawara edited the manuscript; and Jose Gamboa and Rocilyn Laccay implemented typesetting, graphics, and layout. The Department of Communications and Knowledge Management facilitated publication.

EXECUTIVE SUMMARY

The Disaster Risk Management Action Plan (DRMAP), 2024–2030 aims to redouble Asian Development Bank (ADB) efforts toward achieving disaster resilience in Asia and the Pacific. It follows an integrated approach that considers disaster resilience as the result of investments across a range of relevant sectors. The DRMAP encourages dedicated efforts to address systemic risks through structural and nonstructural measures.

Why focus on disaster risk management?

Asia and the Pacific is the most disaster-prone region in the world and highly vulnerable to diverse natural hazards, including meteorological, hydrological, climatological, and geophysical. Disaster losses take an increasingly significant toll on gross domestic product. They set back economic productivity and growth while also holding back progress on achieving the Sustainable Development Goals, including those related to poverty reduction and food security. The urban and rural poor suffer disproportionate damage and losses, undermining the viability of already fragile livelihoods and disrupting access to essential services, such as water, energy, health, and education. Amid rising disaster risk associated with climate change, rapid urban growth, and environmental degradation, the low traction for disaster risk reduction (DRR) is unsustainable.

What will ADB do?

ADB takes the rise of disaster risks very seriously, leveraging its expertise in finance and economic and social development across key sectors to address underlying vulnerabilities and risk drivers. As Asia and the Pacific's climate bank, ADB treats disaster risk management (DRM) as a critical component of working toward climate resilience. ADB's Disaster and Emergency Assistance Policy (DEAP) expresses the foundational importance of reducing risk and avoiding the creation of risk through risk-informed development while promoting the management of remaining risk through disaster preparedness, disaster risk financing (DRF), and resilient recovery and reconstruction.

The DRMAP sets out four interlinked strategic work streams to strengthen disaster resilience. These are well aligned with the Sendai Framework for Disaster Risk Reduction, ADB's 2021 DEAP, and Strategy 2030, including the five focus areas highlighted in the midterm review.

- (i) **Improve disaster risk knowledge and risk-informed planning tools.** Invest in disaster risk screening and upstream risk assessments in developing member countries (DMCs) and use risk knowledge outputs to design risk communication for a range of purposes, sectors, and target groups, as well as decision-making tools for investment planning and budget allocation.
- (ii) **Increase investments in DRR.** Assist DMCs in increasing their investments in DRR by defining evidence-based risk reduction priorities and designing and implementing (multi)sector programs that pursue risk reduction as a central output or outcome, covering structural and nonstructural interventions.
- (iii) **Increase investments in disaster preparedness and mainstream DRF into resilient development and recovery.** Develop projects that capitalize on ADB's comparative advantages in key sectors, including finance and public sector governance. Assist DMCs in strengthening their resilience through evidence-

based financial preparedness arrangements, including DRF, risk-responsive public financial management, and sector-based early warning systems.

- (iv) **Promote effective post-disaster recovery instruments and improve frameworks for resilient recovery in DMCs.** Maintain and strengthen ADB's tool kit of post-disaster financial instruments and improve the quality and resiliency of recovery and reconstruction programming, including by working with DMCs on disaster recovery policies and practices.

Four corresponding sets of priority actions are highlighted in the Appendix, which also identifies the lead and responsible departments, divisions, and teams.

How will ADB address disaster risk management?

ADB promotes a holistic DRM approach that seeks to integrate physical, nature-based, financial, and social resilience considerations into ADB's development, disaster, and emergency assistance. ADB's DRM approach requires careful consideration of disaster risk in upstream country strategy and programming, midstream pipeline development, and downstream project design and implementation. Effective DRM enablers include disaster risk governance, management of dedicated public finances, use of innovative technologies, inclusion of vulnerable communities and groups, promotion of women as DRM champions, and capacity strengthening. In promoting disaster resilience, ADB aims to further strengthen partnerships with the public and private sectors, civil society organizations, multilateral and bilateral development partners, and relevant regional organizations. Synergies between DRM and climate change adaptation are harnessed: The DRMAP, while focusing on actions that are relevant to DRM, interlinks with the Climate Change Action Plan, 2023–2030.

Key responsibilities for DRMAP implementation will be shared between ADB's operational departments, resident missions, and the Climate Change and Sustainable Development Department (CCSD), following the One ADB approach. CCSD will take the lead in communicating and disseminating the DRMAP. Monitoring arrangements involve (i) the Climate Change and Disaster Risk Management Advisory Group, under CCSD's leadership, at the strategic level; and (ii) a DRMAP working group comprising sector and thematic experts at the technical level.

I. RATIONALE

A. Introduction

1. Developing member countries (DMCs) in Asia and the Pacific are highly vulnerable to natural hazards. Compared with other regions of the globe, Asia and the Pacific has the biggest share of disaster-related fatalities, affected people, and economic loss, including livelihoods. The urban and rural poor suffer disproportionate damage and loss, undermining the viability of already fragile livelihoods and disrupting access to essential services, such as water, energy, health, and education. Women, children, older people, persons with disabilities, and Indigenous groups are among those most vulnerable to these impacts. Disasters destroy property and infrastructure and are taking an increasingly significant toll on gross domestic product (GDP). They set back economic productivity and economic growth and slow progress on achieving the Sustainable Development Goals, including poverty reduction and food security. Ignoring disaster risk in Asia and the Pacific, therefore, puts development and communities on an unsustainable path.

2. The first comprehensive Disaster and Emergency Assistance Policy (DEAP) of the Asian Development Bank (ADB) in 2004¹ broadened the scope of ADB's approach to disaster risk management (DRM). It included disaster risk reduction (DRR) and promoted a comprehensive approach to rehabilitation and reconstruction beyond physical aspects. In 2019, ADB conducted a review of the 2004 policy and the 2014–2020 operational plan for integrated DRM.² The review found that the policy and operational plan have steered ADB's DRM engagement in the right direction. They have been instrumental in facilitating a more systematic approach to DRM that led to a significant increase in projects with embedded DRM elements. Stand-alone DRM projects grew in number and funding as well, with innovative projects that promoted financial preparedness taking a significant share.

3. While the 2004 policy added DRR as a specific direction to ADB's DRM approach, the revised DEAP,³ which superseded the 2004 policy in 2021, goes one step further and expresses the foundational importance of reducing risk and avoiding the creation of new risk for ADB's DRM approach. The policy also acknowledges the diversity of hazards and vulnerability contexts in each country and emphasizes the need to treat DRM as part of the development process. Disaster preparedness and timely and effective response, recovery, and reconstruction remain important and are expected to contribute to DRR by adopting risk-informed and build-back-better principles. This is in line with the key principles of quality infrastructure and accounting for the full life-cycle value of infrastructure investments.⁴

4. The Disaster Risk Management Action Plan (DRMAP), 2024–2030 takes key provisions of the 2021 DEAP and translates them into four priority work streams to promote and guide the policy's implementation. The work streams (para. 35) highlight advances in risk modeling and producing risk information that facilitate a stronger economic case for the benefits of investing in DRR. Risk reduction is complemented by enhancing residual risk management through disaster preparedness and disaster risk financing (DRF). DRF addresses DMCs' capacity to identify and mobilize financial resources for different layers of risk and includes ADB's efforts to design and offer DRF instruments that help contain direct and indirect losses from disasters, while facilitating early recovery and reconstruction and promoting risk reduction.

¹ ADB. 2004. [Disaster and Emergency Assistance Policy](#).

² ADB. 2019. [Review of the 2004 Disaster and Emergency Assistance Policy](#); and ADB. 2014. [Operational Plan for Integrated Disaster Risk Management, 2014–2020](#).

³ ADB. 2021. [Revised Disaster and Emergency Assistance Policy](#).

⁴ ADB. 2021. [Supporting Quality Infrastructure in Developing Asia](#).

5. The DRMAP aligns with Strategy 2030,⁵ which articulates that ADB (i) assumes a role in strengthening DRR and disaster preparedness in DMCs before a disaster event; and (ii) provides early to medium-term assistance to post-disaster response and risk-informed and resilient recovery. The DRMAP work streams intersect with the five areas of enhanced focus under the Strategy 2030 Midterm Review:⁶ climate action, resilience and empowerment, private sector development and mobilization, regional cooperation and public goods, and digital transformation. Beyond ADB, the DRMAP supports the resilience objectives of the 2030 Agenda for Sustainable Development and the Paris Agreement on climate change and aligns with the Sendai Framework for Disaster Risk Reduction 2015–2030.⁷

6. Since climate change is increasing the frequency and intensity of weather-related hazards, DRM is a critical component of ADB's transformational pledge to shepherd Asia and the Pacific toward a climate-resilient future. Climate resilience in Asia and the Pacific cannot be achieved without lifting the DRM capacity of DMCs. At the same time, ADB's commitment to mobilize at least \$100 billion in additional finance for climate action by 2030 can help address some of the disaster resilience needs of vulnerable DMCs. The DRMAP aligns with ADB's Climate Change Action Plan, 2023–2030,⁸ including through country-focused upstream diagnostics of disaster risk and associated policy advisory services, midstream integration of DRM into risk-informed development and investment planning, and downstream delivery of projects that address vulnerability and strengthen community resilience.

B. Challenges and Opportunities

7. **Increasing disaster impact.** Asia and the Pacific is the most disaster-prone region in the world and highly vulnerable to diverse natural hazards, including meteorological, hydrological, climatological, and geophysical. During 1970–2023, 6.9 billion people were directly affected by disasters in Asia and the Pacific—almost five times the number (1.42 billion) in the rest of the world.⁹ Direct losses totaled \$2.50 trillion, which is equivalent to 40% of global losses, far higher than the region's proportionate contribution to global GDP. Floods and earthquakes are the most destructive hazards, followed by storms. In the past 54 years, Asia and the Pacific lost 1.84 million people to disasters, which constitutes almost 51% of the global death toll (footnote 9). Floods have been particularly deadly in the past decade; however, over longer observational periods, earthquakes and storms have constituted the biggest threat to human lives across the region.¹⁰

8. During the past decade (2014–2023), about 70,505 natural hazard-related deaths were recorded in the region, and direct physical losses totaled almost \$700.3 billion, equivalent to an average \$191.8 million loss per day (footnote 9). Direct losses continue to rise more rapidly than GDP in the region as exposure and vulnerability grow. Although overall fatalities have decreased, regional disparities exist: Mortality is much higher in least developed countries and in disaster risk hot spots within countries that tend to have higher poverty incidence. While floods have killed more

⁵ ADB. 2018. [Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#).

⁶ ADB. 2024. [Strategy 2030 Midterm Review: An Evolution Approach for the Asian Development Bank](#).

⁷ United Nations. 2015. [Transforming Our World: The 2030 Agenda for Sustainable Development](#); United Nations. 2015. [Paris Agreement](#); and United Nations. 2015. [Sendai Framework for Disaster Risk Reduction 2015–2030](#).

⁸ ADB. 2023. [Climate Change Action Plan, 2023–2030](#).

⁹ Centre for Research on the Epidemiology of Disasters. [EM-DAT: The International Disaster Database Centre for Research on the Epidemiology of Disasters](#) (accessed 6 September 2024). Figures cover the impact from disasters triggered by extreme weather and geophysical events and by health emergencies, excluding the coronavirus disease (COVID-19). People affected by multiple disasters were counted multiple times.

¹⁰ United Nations Economic and Social Commission for Asia and the Pacific. 2023. [Seizing the Moment: Targeting Transformative Disaster Risk Resilience. Asia-Pacific Disaster Report 2023](#).

people than earthquakes, some of the single most lethal events during the decade were associated with seismic events, such as the 2015 Nepal earthquake that killed 8,790 people.¹¹ In the past 10 years, disasters have affected more than 988 million people in Asia and the Pacific (footnote 9). Weather-related disasters were responsible for 95% of the permanent or temporary internal displacements of 225 million people in the region from 2010 to 2021.¹²

9. Poverty is closely interrelated with disaster vulnerability, and disasters are one of the key drivers that push the near-poor back below poverty lines—through direct losses and associated losses of livelihoods. Disasters threaten development progress and slow the attainment of the Sustainable Development Goals; in particular, food security, poverty reduction, and sustainable cities and communities are well off track to be met by 2030. Several disaster-prone DMCs are also facing indebtedness. This problem seems to be intensifying, with a recent report indicating developing countries are facing the worst debt crisis in history.¹³ Disaster risk also has an important gender dimension. Women and girls are disproportionately affected by disasters, experience higher losses of lives and livelihoods, and are highly affected by climate change impacts, such as heat stress.¹⁴ This is largely because of gender-specific inequalities and barriers for women and girls to participate in decision-making processes, including those on post-disaster response and recovery plans and programs. Women are more likely to depend on agriculture as their sole source of livelihoods. Many women do not have bank accounts or other secure forms of cash reserves to buffer times of economic distress. Such multidimensional inequality translates into a longer recovery time, and post-disaster situations also increase the likelihood that women and girls experience physical and domestic abuse.

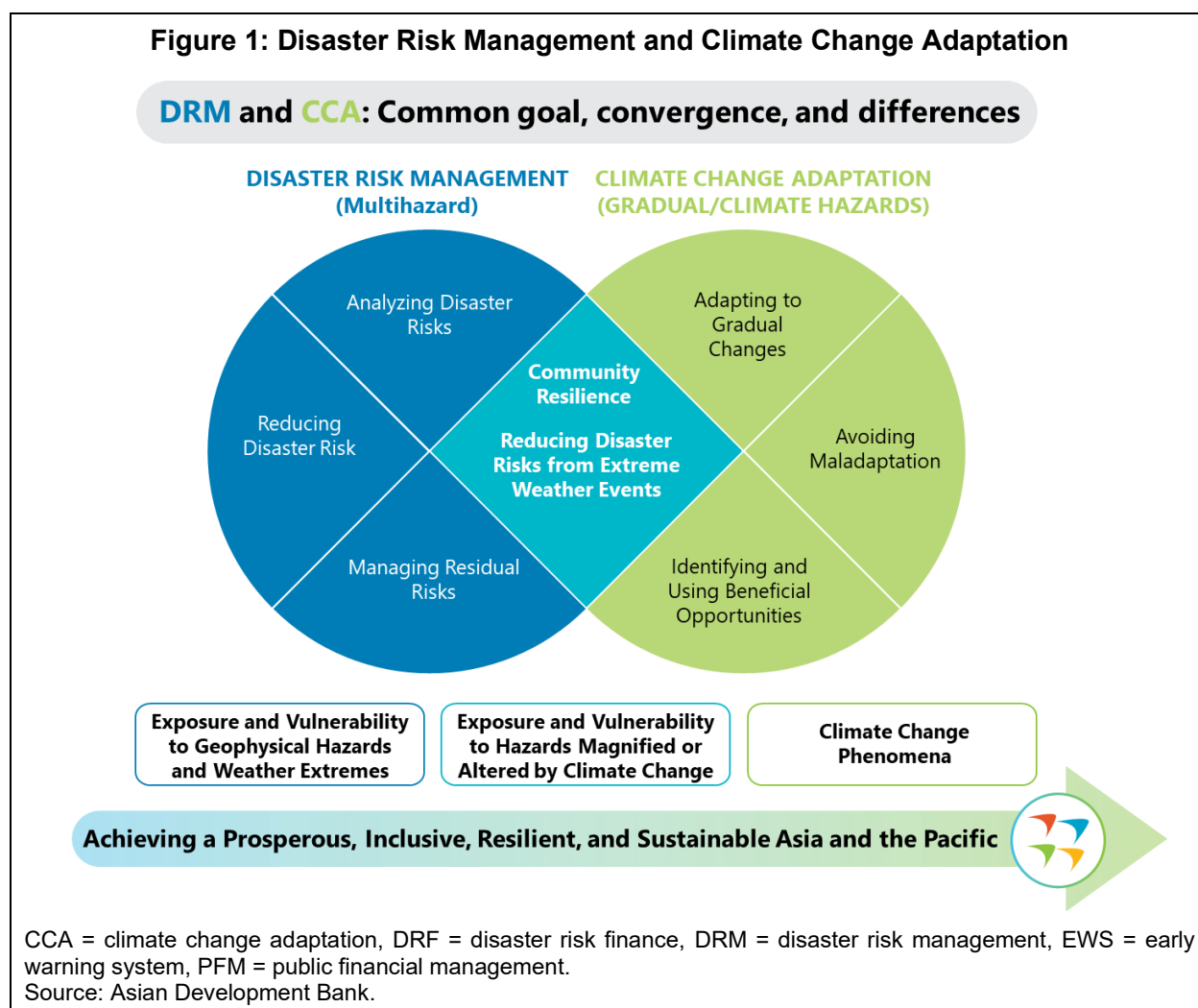
10. Rising atmospheric and sea surface temperatures affect the intensity and, in some areas, the frequency of meteorological and climatological hazards, such as rainfed floods, heat waves, and droughts. Glacial melt and sea level rise will magnify and alter downstream floods and coastal hazards, which, in turn, will carry higher potential for destruction and catastrophic losses—including through cascading and compounding impacts—if no countermeasures are taken. Coordination between DRM and climate change adaptation (CCA) for analysis, upstream policy design, and programming is crucial to ensure the effectiveness, quality, and resourcing of relevant actions to strengthen community resilience (Figure 1). While DRM focuses on near- to midterm changes in weather-related hazards for practical applications, such as early warning systems (EWS) and building codes, CCA develops responses to changes in average long-term climate conditions and their permanent implications on livelihoods.

¹¹ Government of Nepal, National Reconstruction Authority. 2016. [Nepal Earthquake 2015: Post-Disaster Recovery Framework, 2016–2020](#).

¹² ADB and International Displacement Monitoring Centre. 2022. [Disaster Displacement in Asia and the Pacific: A Business Case for Investment in Prevention and Solutions](#).

¹³ M. Martin and D. Waddock. 2024. [Resolving the Worst Ever Global Debt Crisis: Time for a Nordic Initiative?](#) Updated June 2024. Debt Relief International.

¹⁴ E. Neumayer and T. Plümper. 2007. [The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002](#). *Annals of the Association of American Geographers*. 97 (3). pp. 551–566; and Intergovernmental Panel on Climate Change. [Sixth Assessment Report](#).



11. **DMC capacity and enabling environment challenges.** The region has seen advances in DRM,¹⁵ especially more comprehensive DRM policy and institutional arrangements, improved disaster risk information, advances in disaster preparedness (including DRF), more impact-based and action-oriented forecasting and early warning capacity, and increased acknowledgment of the need to incorporate resilience into investment planning and budgeting. Overall, sustained investments in DRR and preparedness, whether embedded or dedicated, remain low across DMCs.¹⁶

12. Many DMC finance ministries perceive their limited fiscal headroom as a significant barrier to investing in DRR, disaster preparedness, and prearranged DRF. Disaster risk knowledge is often patchy. There is limited understanding of the impact of disasters on social and economic development and on livelihoods, especially of the poor. Governments are often unaware of the average annual losses and costs associated with disasters, not only because of a lack of

¹⁵ United Nations Office for Disaster Risk Reduction. [GAR Special Report 2023: Mapping Resilience for the Sustainable Development Goals](#).

¹⁶ This is also obvious from development assistance data. Of the \$137 billion in development assistance for disasters from 2005 to 2017, only \$5.5 billion was invested in disaster prevention and preparedness. Government of the United Kingdom; Foreign, Commonwealth & Development Office. 2023. [International Development in a Contested World: Ending Extreme Poverty and Tackling Climate Change—A White Paper on International Development](#).

quantitative risk analysis but also because of incomplete disaster damage and loss data. Additionally, disaster response and recovery costs and expenditures are not systematically tracked. Hence, the financial benefits of addressing disaster risk proactively and of avoiding or transferring these losses or costs through DRF cannot be appreciated. Disaster response is often ad hoc and can disincentivize greater participation of the private sector, such as by mainstreaming insurance. The lack of disaster risk information extends beyond finance ministries to other sector ministries and private actors, which often have incomplete data on the impact of natural hazards on their services, programs, clients, or investments. This means that cost-effective opportunities to promote disaster resilience through development strategies, programs, and solutions to address financial protection gaps tend to be missed.

13. Various DMCs have comprehensive national DRM plans. However, national disaster management organizations often have limited influence and capacity to coordinate development sectors around implementing transformative DRR agendas. Their low financial literacy limit their advisory capacity to promote investments in DRR and ex ante DRF instruments. In several DMCs, finance ministries are strengthening their analytical and budgeting capacity in relation to climate resilience; however, their understanding of the role and benefits of DRF instruments, and the role of insurance and the private sector requires further strengthening. Public financial management of national contingency funds or emergency reserves can be patchy, especially in relation to allocating and disbursing funds to address priority needs and areas in an effective, timely, and accountable manner.

14. Midstream risk governance and downstream technical and sector-specific subnational and local DRM capacity is often restricted, hampering efforts to promote implementing national DRM policies, plans, and programs. Depending on the type and degree of decentralization, local governments may find it difficult to coordinate sectors around a shared agenda, such as DRM. Not all local governments have local DRM offices, and if they do, the offices are often understaffed and overwhelmed with responding to frequent hazard events while also scrambling for resources. Even in situations where funds are available for DRM, access may be difficult if local governments have limited technical and public financial management capacity to fulfill the assessment, programming, and reporting requirements. These capacity constraints are typically more severe in the poorest and most vulnerable regions within countries.

15. **Urgency of increased investments in DRM.** Amid rising disaster risk associated with climate change, rapid urban growth, and environmental degradation, the low traction for risk reduction is unsustainable. Urban growth and infrastructure development that ignore disaster risks, including those aggravated by climate change, are major concerns. The impact of ecosystem degradation on water availability and food security directly affect the rural poor while also affecting urban vulnerability. Growing economic connectivity can transmit disaster impacts from one country to other countries through interconnected regional and global supply chains.

16. All these processes underline the urgency of increased investments in DRM as demand for DRM actors, relevant expertise, and services is growing.¹⁷ Most deaths and impacts, whether caused by geophysical events or weather extremes, can be avoided by DRM measures,¹⁸ including land-use planning, the promotion and implementation of appropriate building codes and techniques, and investments in EWSs. To be effective in building resilience, such efforts need to

¹⁷ Every \$1 spent on resilience investment results in \$4–\$7 in savings on losses and damage.

¹⁸ Triple dividend of DRM measures includes avoided future losses, economic benefits, and improved social and environmental outcomes. Intergovernmental Panel on Climate Change. [Climate Change 2022: Impacts, Adaptation and Vulnerability](#).

address risks across the entire spectrum of hazards, including geophysical and weather-related hazards aggravated by climate change. DRM measures need to cover end-to-end facilities and build capacity at the first line of defense: local government and communities. A multihazard approach to strengthening resilience through development requires strong oversight and coordination bodies to formulate and implement policies and plans, clarity on mutual roles and responsibilities on DRM, climate change and sector agencies, an effective legal and regulatory environment, and stronger implementation capacity and resource allocation that promote a coherent response to current and future risks in DMCs.

17. Due to competing priorities, a lack of awareness of the crosscutting benefits of DRM and limited resources only few DMC governments are allocating consistent funding to DRM beyond basic staffing and office costs. Some DMCs are interested in partnering with the private sector to mobilize additional expertise and resources. ADB can provide financial incentives and technical assistance (TA) to support necessary reforms and implementation and follow up with support for dedicated DRM investments. ADB can help DMCs access funding arrangements associated with the international climate change process under the United Nations Framework Convention on Climate Change and of emerging financing mechanisms for DRM. ADB can also help develop innovative financing and insurance solutions to diversify financial risks, including those magnified by climate change. Lastly, ADB can support regional collaboration on raising awareness and knowledge sharing on DRM by engaging with relevant regional organizations and forums, among others.

C. ADB Practice and Experience

18. **Increasing financing and investment.** ADB's DRM portfolio has grown significantly over the past decade, with ADB providing considerable assistance for DRM. From January 2014 to December 2023, ADB approved \$6.6 billion in financing for 113 stand-alone DRM projects, with 91.3% as sovereign loans, 7.5% grants, and 1.2% TA.¹⁹ Of these projects, 42.5% (\$2.8 billion) addressed post-disaster assistance, 39.1% (\$2.6 billion) directly sought to reduce disaster risks, and 18.4% (\$1.2 billion) were dedicated to ex ante DRF.

19. More than a quarter of the period's total number of stand-alone DRR projects continued ADB's traditional focus on flood risk management. Agriculture and rural development constituted 33% of ADB's DRR-focused portfolio, while urban DRR accounted for 25%. About 22% of stand-alone projects addressed risk through public sector management and governance, showing an increasing trend toward a comprehensive engagement in DRR and combining structural and nonstructural components. ADB has provided stand-alone DRR support through various modalities, including project and sector loans, multitranches financing facilities, and policy-based and results-based loans. Pakistan's National Disaster Risk Management Fund, which ADB supported with a financial intermediation loan of \$256 million to establish a multidonor fund, has been particularly innovative in leveraging investment in DRM (Box 1). Other notable projects include strengthening seismic resilience in Nepal and Armenia that involve structural measures and policy-level changes to design and adopt building standards for future school infrastructure.²⁰ The Landslide Risk Management Sector Project in the Kyrgyz Republic is ADB's first integrated landslide risk reduction project to safeguard rural communities in Jalal-Abad and Osh provinces.²¹

¹⁹ ADB administered, including cofinancing.

²⁰ ADB. [Armenia: Seismic Safety Improvement Program](#); and ADB. [Nepal: Disaster Resilience of Schools Project](#).

²¹ ADB. [Kyrgyz Republic: Landslide Risk Management Sector Project](#).

Box 1: Building a More Disaster-Resilient Pakistan through the National Disaster Risk Management Fund (2016)



Shaping national disaster risk management funds. Workshop on national catastrophe modelling in Islamabad held on 13 February 2023.

Pakistan faces high levels of disaster risks. In 2016, ADB supported the establishment of the National Disaster Risk Management Fund (NDRMF). The NDRMF, overseen by an independent board, helps pool and allocate funding in support of disaster risk management. It focuses on (i) disaster risk reduction; (ii) disaster risk financing strategies and instruments; and (iii) relief, recovery, and reconstruction. Since 2016, the NDRMF has financed many eligible projects that enhanced the country's resilience to natural hazards, including those aggravated by climate change. The fund has become an important component of Pakistan's disaster risk financing architecture and closely aligns with the disaster risk management policies and strategies of the Government of Pakistan.

Source: ADB. [Pakistan: National Disaster Risk Management Fund](#).

20. From 2016 to 2023, ADB approved 30 stand-alone DRF policy-based loans in 12 countries, five with regional coverage, that combine contingent disaster financing (CDF) grants and loans with policy dialogue and reform actions to promote disaster resilience. This instrument is guided by the 2019 CDF policy.²² Lessons from the coronavirus disease (COVID-19) pandemic informed the 2022 policy revision.²³ Assessments of the enabling environment for DRF have directly contributed to ADB's operations in this space and supported the implementation of policy actions to enhance disaster resilience. A growing number of DMCs see a need to enhance their financial disaster preparedness and are interested in the CDF instrument. Various TA projects and DRM loans and grants have provided further assistance to design and pilot specific insurance solutions and improve the enabling environment for DRF.²⁴ In addition, there is an increasing interest in adaptive social protection programming to buffer the impact of disasters on the most vulnerable and provide targeted and effective assistance averting further impoverishment.

²² ADB. 2019. [Contingent Disaster Financing under Policy-Based Lending in Response to Natural Hazards](#).

²³ ADB. 2022. [Enhancing Contingent Disaster Financing and the Countercyclical Support Facility](#).

²⁴ Examples include ADB. [Regional: Strengthening the Enabling Environment for Disaster Risk Financing \(Phase 1\)](#); ADB. [Regional: Strengthening the Enabling Environment for Disaster Risk Financing \(Phase 2\)](#); ADB. [India: Promoting Disaster Risk Insurance](#); ADB. [Regional: Natural Catastrophe Risk Insurance Mechanisms for the Asia and Pacific Region](#); and ADB. [Bangladesh: Pilot Project on Weather Index-Based Crop Insurance](#).

21. ADB approved 685 projects that incorporated measures to strengthen disaster resilience (referred to as embedded projects) from 2014 to 2023. This is about four times the number of projects during the previous decade (2004–2013), and almost five times as many for 2003–2012. The transport sector had the highest share of projects with embedded DRM components or design aspects (24%) followed by water and other urban infrastructure and services; and agriculture, natural resources, and rural development (both 21%). This reflects significant needs and opportunities to integrate DRM in these sectors, including through risk reduction measures, such as slope stabilization in transport projects and structural and nonstructural drought and flood resilience measures in agriculture and rural development projects. The downstream growth of embedded DRM components has further benefited from the increased prominence of resilience in ADB's Strategy 2030 and is acknowledged in the Strategy 2030 Midterm Review (footnotes 5 and 6). This prominence has also facilitated a sharp growth in the number of country partnership strategies (CPSs) that include DRM, with further progress to be expected through the implementation of the new operating model (NOM).²⁵

22. ADB has made some important strides in diversifying and fine-tuning the DRM funding and lending modalities that need to continue to address rising disaster risk. Resources for longer-term and proactive DRM have been generated through the Integrated Disaster Risk Management Fund (2013–2019), the Japan Fund for Prosperous and Resilient Asia and the Pacific, the Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States, and other trust funds, including those set up to address major disaster events. The establishment of the Asian Development Fund (ADF) thematic window, with a strategic area supporting DRR since 2021, incentivizes governments through grant assistance to invest in longer-term and systemic DRR that does not generate positive streams of income. This complements ADF support for CDF instruments through the crisis response window for highly vulnerable DMCs.

23. In terms of funding sources for post-disaster response, recovery, and reconstruction, the Revised Emergency Assistance Loan Policy facilitates the quick approval of loans that help rebuild high-priority critical physical assets and restore economic, social, and governance activities while investing in resilience to future disasters.²⁶ In the same year, the Asia Pacific Disaster Response Fund was enhanced with a second window for rapid technical support for post-disaster needs assessments (PDNAs), recovery plans, and post-disaster projects.²⁷ Following the phaseout of post-disaster budget support, the introduction of ex ante CDF constitutes a complementary instrument by providing governments with almost instantly available liquidity in an emergency while incentivizing DRM reforms and policy actions. Furthermore, concessional assistance-only DMCs can access support up to 100% of their annual allocation through the expanded Disaster and Pandemic Response Facility²⁸ under the ADF for use in response to severe disasters and emergencies triggered by natural hazards.²⁹

24. **Strengthening the DRM enabling environment and capacity of DMCs.** Across all streams of its DRM work, ADB has a strong focus on strengthening the enabling environment and capacity of DMCs through the delivery of innovative and impactful knowledge solutions, capacity

²⁵ ADB. 2022. [Organizational Review: A New Operating Model to Accelerate ADB's Transformation Toward Strategy 2030 and Beyond](#).

²⁶ ADB. 2021. [Revised Emergency Assistance Loan Policy](#).

²⁷ ADB. 2021. [Establishment of a Second Window of Assistance Under the Asia Pacific Disaster Response Fund](#).

²⁸ ADB. 2024. [Concessional Assistance Policy for the ADF 14 Period](#). Manila.

²⁹ The expanded Disaster and Pandemic Response Facility also covers response to conflicts and related humanitarian events, such as cross-border flows of displaced people; and health emergencies, including pandemics and epidemics.

building, and regional activities. ADB has produced flagship guidance and tool kits on topics such as disaster risk assessment, DRF, resilient infrastructure, and PDNA. ADB has also delivered capacity building and knowledge sharing activities for government officials on various DRM topics. Many of these activities were delivered in collaboration with regional partners and knowledge platforms. Knowledge products and capacity building activities for ADB Staff and DMCs have promoted an increased understanding of the importance of DRM, risk-informed development, and recovery. Capacity building has also contributed to designing DRM knowledge solutions, such as embedding DRM in school and tertiary curricula, developing contingency plans for sector agencies, and revising urban plans to address disaster risk.

25. In brief, ADB's DRM engagement, guided by the integrated DRM operational plan,³⁰ widened its focus from structural flood risk management to comprehensive investments in a wider number of relevant sectors, including transport, public sector management and governance, finance, water and urban infrastructure, and human and social development. This has included innovative engagement in stand-alone DRF. Embedding design aspects or disaster risk into sector programs has become commonplace in several infrastructure sectors. However, the 2019 review of the 2004 policy found a need for more comprehensive efforts to enhance long-term disaster resilience (footnote 2). To be more effective, risk-responsive and resilient development planning requires a more systematic and coordinated identification of investment needs and opportunities across priority sectors, infrastructure systems, and services (e.g., agriculture, water, and energy) to strengthen community resilience. This requires further strengthening the enabling environment for upstream and midstream agenda setting and investment planning, and downstream implementation capacity of risk-informed policies and risk reduction measures.

II. APPROACH AND OBJECTIVES

A. ADB's Disaster Risk Management Approach

26. The DRMAP follows the approach of the integrated DRM operational plan that considers DRR as the result of investments across a range of sectors. It translates the 2021 DEAP into strategic objectives and work streams that focus on natural hazards and disaster risks.

27. The climate shift under NOM promotes DRM's strategic importance in addressing a complex development challenge: finding solutions to the region's social and economic development aspirations while helping countries adapt to and reduce their exposure and vulnerability to weather hazards. Considering the accumulation of disaster risk in urban centers in Asia and the Pacific, this includes focused attention on livable and resilient cities. These are vital concerns and critical to carving out a sustainable development path for the region. Climate change and DRM thematic experts work at the Climate Change, Resilience, and Environment Cluster (CCRE) of the Climate Change and Sustainable Development Department (CCSD) to provide synergized support to these efforts. NOM also supports the private sector shift, particularly efforts to mobilize private sector participation. This is not only to ensure the viability of vulnerable business models, such as in agriculture and tourism, but also to generate innovative DRM solutions, especially in the finance sector, including banking, insurance, and reinsurance.

28. ADB promotes a holistic DRM approach that seeks to build risk governance structures, systems, and capacities, as well as physical, nature-based, financial, and social resilience, incorporating these considerations into ADB's disaster and emergency assistance; and balances an emphasis on risk reduction with preparedness, response, and recovery based on strong

³⁰ ADB. 2014. [*Operational Plan for Integrated Disaster Risk Management, 2014–2020*](#).

disaster risk analytics. The framework guiding ADB's DRM interventions are based on four principles: (i) recognize that risk management begins with risk reduction; (ii) recognize DRM as integral to the development process; (iii) acknowledge that DMCs have differentiated risk profiles and varying opportunities for enhanced resilience; and (iv) emphasize that timely, carefully planned, risk-sensitive, and well-designed relief, early recovery, and reconstruction solutions reduce the social, institutional, and economic impact of disasters and facilitate resilient recovery.

29. ADB's DRM approach places risk knowledge and the evaluation of shifting risk profiles at the foundation of well-designed and effective risk-responsive development strategies that have disaster resilience at their core. This requires ADB to carefully consider disaster risk in upstream country strategy and programming, pipeline development, and project design and implementation. Enablers of more effective DRM include disaster risk governance and the management of dedicated public finances; use of innovative technologies; identification and inclusion of vulnerable communities and groups; promotion of women as DRM champions and of gender responsiveness; partnerships with the public and private sectors, civil society organizations (CSOs), and multilateral and bilateral development partners; and capacity strengthening.

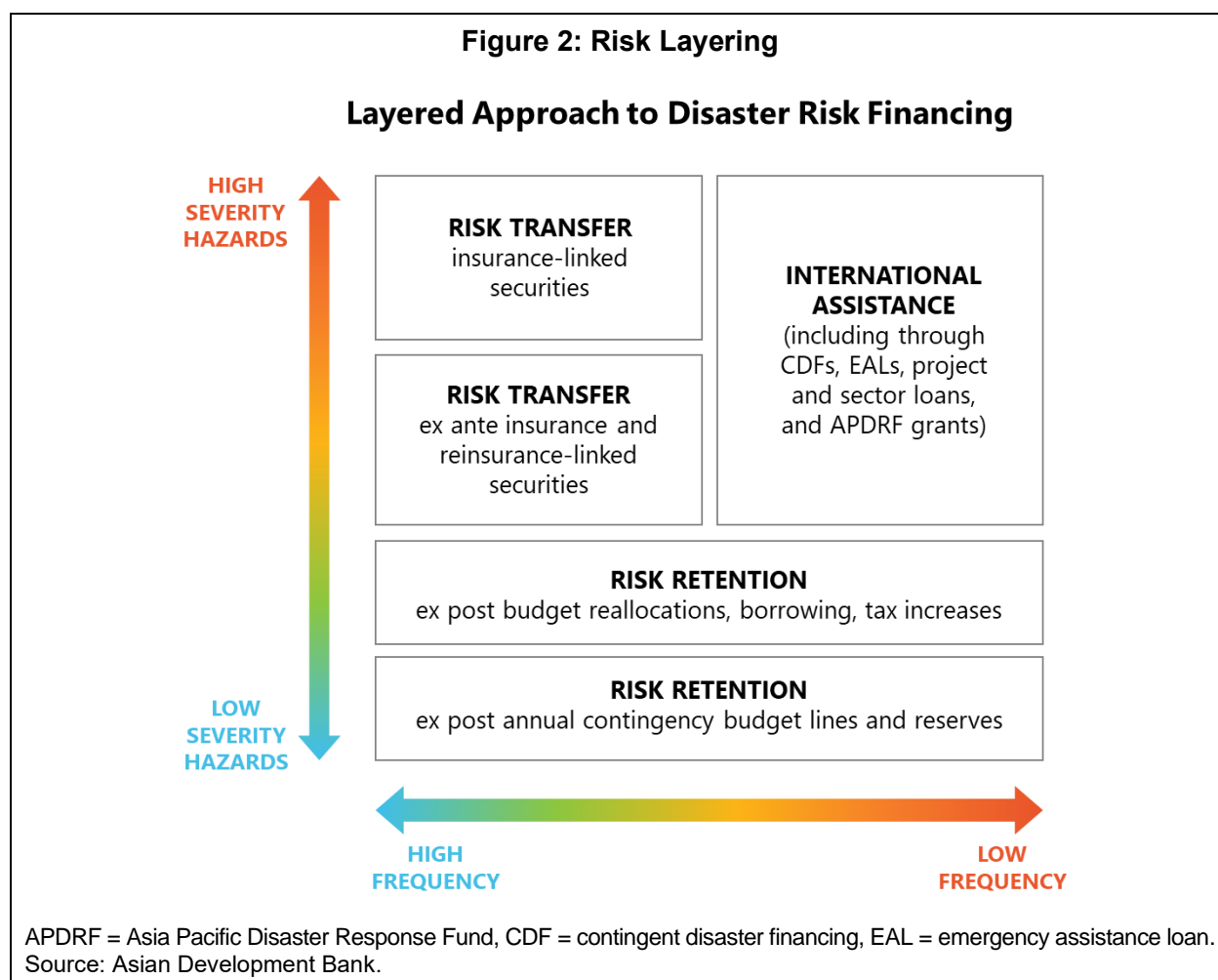
30. ADB applies a strictly differentiated approach to its engagement with DMCs, including fragile and conflict-affected situations (FCAS), small island developing states (SIDS), and landlocked and mountainous countries. Based on context-specific risk information and a qualitative understanding of aggravating factors—such as geographical and economic isolation, stretched human resource pools, social exclusion or marginalization, and gender inequalities—DRM solutions will be designed to address these constraints. This is in line with ADB's Strategy 2030 and its midterm review, the Pacific Approach 2021–2025,³¹ and the FCAS and SIDS approach.³² Operationalizing different strategies requires a coordinated approach between the relevant teams, ideally through joint country assessments.

31. ADB supports its DMCs in generating validated hazard and risk information and undertaking climate and disaster risk assessments to inform CPSs and investments. More significantly, it promotes better risk modeling and forward-looking analysis using new digital technologies and tools that allow DMCs to take evidence-based decisions on the economic and financial benefits of investing in DRR. Such assessments also allow the design of effective disaster preparedness and DRF strategies to address remaining risks.

32. Risk layering is at the core of ADB's focus to analyze government liabilities and possible financial protection gaps in resources to address post-disaster needs through complementary and innovative DRF in DMCs, including insurance and adaptive social protection (Figure 2). This also requires embedding relevant instruments in the management of public finances while enhancing the ability to allocate, disburse, monitor, and account for public funds used for DRM. CDF under policy-based lending can help strengthen the enabling and regulatory environment for DRF solutions. ADB's own response and recovery funding instruments are part of the wider DRF architecture and require continued refinement as risk dynamics and profiles change in the region.

³¹ ADB. 2021. [Pacific Approach 2021-2025](#).

³² ADB. 2021. [Fragile and Conflict-Affected Situations and Small Island Developing States Approach](#).



33. Finally, the synergies between DRM and CCA (Figure 1) need to be harnessed, ensuring the resilience of adaptation efforts to the full spectrum of possible hazards while DRM (i) takes full account of the impact of climate change on hazards and of changing vulnerabilities and risks, and (ii) supports managing extreme weather events as per the needs of individual DMCs. ADB will leverage the complementary expertise, roles, and responsibilities of climate change and DRM actors within the bank and in DMCs. In DMCs, ADB will prioritize building on and strengthening institutions, capacity, and expertise to manage disaster risks associated with weather extremes, rather than creating structures or centers of responsibility.

B. Objectives

34. The main aim of the DRMAP is to strengthen disaster resilience in DMCs amid intersecting trends that worsen risk across the region. The DRMAP highlights linkages with themes such as climate change, gender, food security, regional cooperation, private sector shift, FCAS, and SIDS.

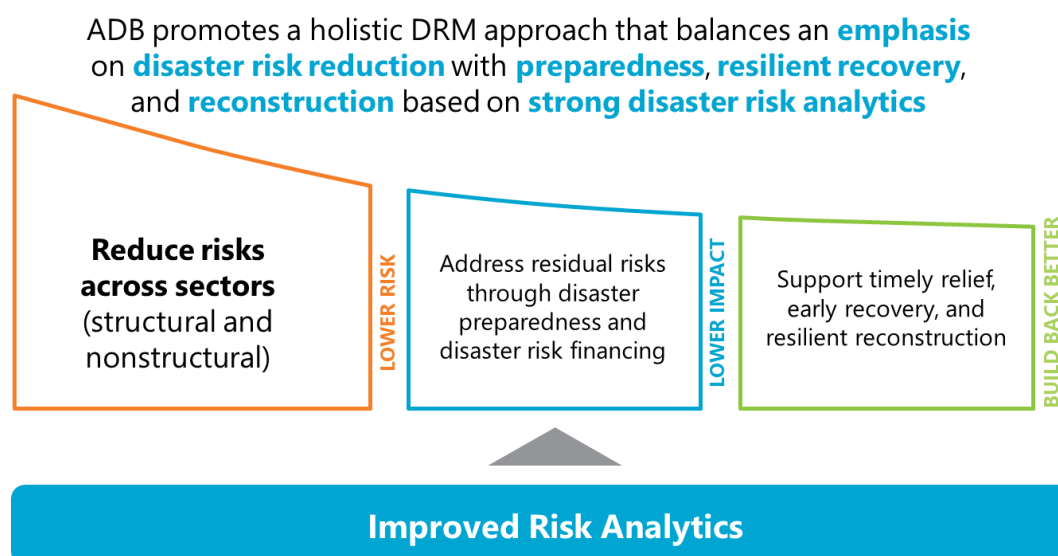
35. The DRMAP seeks to enhance the resilience of DMCs as an integral part of the development process, including through the following objectives and work streams (Figure 3):

- (i) **Improve disaster risk knowledge and risk-informed planning tools.** Invest in disaster risk screening and upstream risk assessments in DMCs and use risk knowledge outputs to design risk communication for a range of purposes, sectors,

and target groups, as well as decision-making tools for investment planning and budget allocation.

- (ii) **Increase investments in DRR.** Assist DMCs in increasing their investments in DRR by defining evidence-based risk reduction priorities and designing and implementing (multi)sector programs that pursue risk reduction as a central output or outcome, covering structural and nonstructural interventions.
- (iii) **Increase investments in disaster preparedness and mainstream DRF.** Develop projects that capitalize on ADB's comparative advantages in key sectors, including finance and public sector governance. Assist DMCs in strengthening their resilience through evidence-based financial preparedness arrangements, including DRF, risk-responsive public financial management, and sector-based EWSs.
- (iv) **Promote effective post-disaster recovery instruments and improve frameworks for resilient recovery in DMCs.** Maintain and strengthen ADB's tool kit of post-disaster financial instruments and improve the quality and resiliency of recovery and reconstruction programming, including by working with DMCs on disaster recovery policies and practices.

Figure 3: Disaster Risk Management Disaster and Emergency Assistance Policy Approach



ADB = Asian Development Bank, DRM = disaster risk management.
Source: ADB.

III. IMPLEMENTING ADB'S APPROACH TO DISASTER RESILIENCE

A. Improving Disaster Risk Knowledge in Developing Member Countries

36. Beyond integrating climate and disaster resilience into national development plans, ADB will help DMCs incorporate disaster and climate risk management considerations into their

midstream public investment planning and financial management frameworks. Rationalizing risk-informed decision-making platforms and resource allocation frameworks requires parallel support for the enabling environment and the capacity of selected institutions and agencies to develop, implement, monitor, and account for DRM projects and activities. Therefore, tools, funding frameworks, and instruments under development need to consider and promote the technical capacity to plan and implement DRM projects and the administrative and public financial management capacity to execute, monitor, and account for budgets and allocated resources. ADB intends to support DMCs in generating knowledge solutions for integrating DRM into development plans, legal and regulatory frameworks, and budgetary processes following individual country needs and priorities. The following solutions can be integrated into projects and/or be funded through TA.

37. **Disaster risk information.** ADB will generate and strengthen risk information that analyzes the exposure of people (especially of poor and highly vulnerable communities), assets, livelihoods, infrastructure systems, public services, and/or government finance to multiple hazards and climate change. ADB will seek to understand underlying interdependencies and vulnerabilities and the direct and indirect impact of losses, failures, and disruptions on livelihoods and economies. This will draw on risk information platforms and tools, including ADB's own. ADB will engage in DMC-specific analyses at higher levels of resolution and causal specificity to inform the design of national risk-informed investment strategies and pipelines or of specific projects and/or investments in disaster and climate resilience (Box 2). Innovative solutions and technologies, such as artificial intelligence, remote sensing, and advanced geographic information systems, will be applied to capture data inputs and speed up analyses as feasible. Depending on programming context, analyses may include quantitative modeling of risks and associated costs and/or qualitative analysis to capture social, economic, and environmental vulnerability and the impacts on risk and peoples' well-being. In relation to infrastructure losses, there is a need to generate better information on the indirect losses associated with the disruption of business and services. Risk assessments may cover multiple sectors or focus on one sector, depending on context, government priorities, and ADB's programming needs. To ensure that data remains accessible beyond project completion, ADB will help strengthen data-sharing platforms and invest in building DMC or (sub)regional capacity to maintain databases, including through frameworks and procedures for accessing and sharing data, depending on purpose and capacity.

Box 2: Innovative Disaster Risk Assessment in the Cook Islands (2024)



Assessing disaster risks to critical public infrastructure. The Avatiu Port in Cook Islands (photo by Alexandra Galperin).

In 2024, the Cook Islands and the Asian Development Bank completed a disaster risk assessment for the Rarotonga International Airport and the Avatiu Port and Harbor, which are of critical importance for the country's tourism-based economy. The study found that without countermeasures, average annual losses from storm damage to port assets could increase almost fivefold by 2090, with significant downtime expected. Airport damage is also projected to rise, potentially doubling the broader economic impact from service disruptions. The findings, which emphasized the need for cost-effective disaster risk reduction and adaptation measures, were validated through stakeholder consultations and summarized in a brief for policymakers. The second phase of the assessment will identify cost-effective risk reduction and adaptation measures. The risk assessment was highly innovative in further improving the understanding of coastal hazard risks under climate change conditions.

Source: Asian Development Bank.

38. **Disaster risk communication.** To improve the outputs of risk assessments and carry maximum credibility and relevance among potential users, ADB will ensure that quantitative risk models and assessments seek inputs from, and feedback loops with, government counterparts and private and civil society stakeholders. Pending privacy considerations, risk information is intended to be shared via suitable platforms and databases as a public good that can be accessed by civil society, the private sector, and the government. Disaster risk communication will be strengthened via the selection and design of appropriate metrics, indexes, maps, and other visualizations that address the information needs of different user groups, including finance ministries, key sectors (including private sector actors), and community groups. Support could include developing dedicated communication strategies in priority DMCs to ensure that targeted audiences receive relevant information, enabling them to act accordingly. This requires consultation with key stakeholders and intended users from the start of assessments to ensure that results meet information needs. ADB will use TA to develop guidance and case studies that promote knowledge solutions that can be incorporated into relevant ADB projects.

39. **Risk governance.** The landscape of disaster risks and DRM is increasing in complexity as different crosscutting agendas (especially those related to climate change) interface with DRM, while also offering prospects of capitalizing on additional resources for disaster preparedness and DRR. Realizing such opportunities requires agile national coordination bodies and mechanisms;

a strong capacity to identify priorities; and effective communication with governments, constituencies (including local institutions), and development partners. DMC officials need to be capacitated to better appreciate connections between climate change and DRM across relevant sectors and translate those into actions and proposals. Understanding public financial management arrangements around DRM will help pinpoint critical policies, practices, and procedures that can be strengthened to improve DRM capacities and build resilience. Beyond mobilizing national funding, this requires strengthening the understanding of the evolving international funding landscape (e.g., a loss and damage³³ fund and other specialized funding facilities). No less important is the ability to allocate funds to strengthen the risk governance of local government units and local DRM capacity in highly vulnerable communities.

40. ADB will develop and implement projects that will strengthen climate and disaster risk screening and assessment capacity in selected DMCs and help design fit-for-purpose risk-informed decision-making tools and processes to bridge the gap between risk information and investments. Depending on government priorities, this may involve work on national policies, legislative and regulatory frameworks (such as land-use planning), and risk-informed public investment planning and budgeting across sectors and administrative layers. Strengthening risk-informed decision-making will need to target the national, sector, and subnational levels (such as high-risk provinces or municipalities) and may seek to promote risk-informed transfers or subsidies to help local governments invest in risk reduction.

B. Realizing Greater Investment in Disaster and Climate Resilience

41. **Increased investments in DRR.** Based on the DEAP and the fundamental importance of reducing disaster risk as disaster losses continue to slow or even eclipse development progress in DMCs, ADB will seek to intensify its efforts to invest in local, national, and transboundary DRR initiatives that follow a multihazard approach. ADB will support its DMCs in pursuing targeted investments in DRR in coordination with other development objectives and crosscutting themes (e.g., climate change and environment). DRR's crosscutting nature means there is a greater need for comprehensive multisector programs that focus on resilience and mix structural with nonstructural interventions. Given the continuing accumulation of disaster risk in urban areas, urban resilience requires priority attention. The DRR objective informs all four work streams in DRM, including disaster preparedness (e.g., incentivizing risk reduction through DRF instruments) and recovery and reconstruction (applying risk reduction principles to build back better and avoiding the reconfiguration of vulnerability in the reconstruction process).

42. Building upon improved disaster risk knowledge and an evaluation of risk reduction needs against government development priorities, ADB will help DMCs design and implement (multi)sector programs that pursue risk reduction at the outcome or output level. This can be in the form of a stand-alone DRM program or as an embedded program, for instance as part of an urban development program, such as the Coastal Towns Climate Resilience Project in Bangladesh, or a rural poverty reduction program. ADB will strive toward aligning sector interventions behind a central risk reduction outcome or output and identify the metrics by which progress toward risk reduction is measured. Stand-alone DRR-focused programs need to emphasize the design of solutions that increase the social, environmental, and economic resilience of women and girls, poor and near-poor people, and other vulnerable groups. In many

³³ The United Nations Framework Convention on Climate Change defines "loss and damage" as the impact of climate change, including slow-onset events (rising temperatures, sea level rise, salinization) and extreme weather events (drought, heat wave, storm surge, flood, tropical cyclone) that may result in loss and damage. These could be economic losses (loss of resources, goods, and services that are commonly traded in markets) and noneconomic losses (remainder of items that are not commonly traded in markets).

countries, DRR investments will also serve CCA objectives (as adaptation requires reducing exposure and vulnerability to weather extremes) while building on the considerable body of experience in DRM. Based on the risk profile of a given country or area, geophysical hazards need to be addressed in DRM efforts to achieve sustainable resilience objectives.

43. ADB will continue pursuing DRR through investments in structural measures, such as increased resilience through cost-effective engineering design. It will also pursue investments in nonstructural risk reduction measures embedded in individual sector programs, such as the Disaster Resilience of Schools Project in Nepal (Box 3). Beyond individual investments, ADB will seek opportunities to address infrastructure resilience from a systems perspective. Building on information and, if necessary, additional analysis (Box 2) on the impact of disaster and climate risks on the performance of infrastructure systems and services, ADB will support investment plans (including subnational, urban, and master plans) with DRR and service continuity aspects. A more systematic appreciation of risk in one sector may expose interdependencies with other sectors (e.g., between water and energy) and motivate complementary investments. In highly seismic countries, reducing geophysical hazard risks to educational and health facilities is an excellent strategy to address the vulnerability of priority groups, such as children or people living with a disability. It also facilitates continuity of critical services in post-disaster situations. In terms of critical infrastructure, ensuring the safety and business continuity of energy, water, and transport services, including redundancy arrangements, is important so that the sector can immediately recover and support response and recovery efforts in a post-disaster scenario. Risk-informed investments in sectors can be pursued as part of ADB's development portfolio but also in the form of post-disaster assistance to build back better (para. 55).

44. ADB will continue supporting refining legislation and regulations and strengthening implementation capacity to promote the resilient planning, design, construction, operation, and maintenance of physical structures. This requires targeted efforts to strengthen the enabling environment for implementing national building codes, addressing gaps in (subnational) bylaws, awareness, training, and capacity building while engaging with private sector associations and civil society representatives. Efforts under TA will also be directed toward taking stock of common barriers and opportunities for promoting risk-informed development control regulations and land-use planning, including in post-disaster situations, to identify best practices.

45. ADB will also continue addressing the efficiency, accountability, and transparency in the use of public funds to ensure resilient design, operation, and maintenance of public infrastructure and services in vulnerable DMCs. Such considerations will feed into policy-based loans, including CDF, as well as sector development programs, which provide ADB with a platform to engage in a comprehensive dialogue with governments on disaster resilience. Ideally, upstream policy reforms and actions will be paired with risk reduction programming and investments in ex ante DRF (paras. 46–48). Efforts will be undertaken to front-load specific diagnostics and knowledge products in a growing number of DMCs to ensure a high quality of policy dialogue under CDF, other relevant policy-based loans, and sector development programs.

**Box 3: Resilient Education through Disaster Risk Reduction:
The Disaster Resilience of Schools Project in Nepal (2018)**



Reducing disaster risks to schools. Newly constructed earthquake-resilient school in Nepal.

The Disaster Resilience of Schools Project in Nepal has supported (i) reconstructing the heavily damaged buildings of 163 schools in 14 districts most affected by earthquakes; (ii) repairing and retrofitting buildings in 138 schools; and (iii) strengthening institutional capacity for disaster resilience, including improving school building inventory, capacity building for designing and building resilient structures, and strengthening the operation and maintenance capacity of school management committees. The project has not only improved the resilience of school buildings but also increased enrollment rates by almost 30%, because students feel safer in the reconstructed and retrofitted buildings.

“The new school is better in every way than the old school destroyed by the quake; teachers, students, and parents are all very happy,” said Lokendra Dhakal, headmaster of Sanjiwani Secondary School, one of the beneficiaries of the project.

Source: ADB. [Nepal: Disaster Resilience of Schools Project](#).

46. Increased investments in disaster preparedness and DRF mainstreamed into resilient development and recovery. Building on its expertise in the finance sector and public sector management, ADB will address residual risks and public and private financial protection gaps of households, businesses, and governments by supporting the design and implementation of DRF strategies and instruments. Box 1 provides an example of a sovereign fund that addresses DRR, DRF, and recovery needs. Strengthening or designing risk retention and risk transfer instruments will build upon up-to-date and context-specific disaster risk analytics (para. 30) and apply the principle of layering DRF instruments according to the expected frequency and impact of losses associated with various hazards. Work on DRF will include diagnostic and policy advisory support for establishing DRF strategies. ADB will help design and implement climate, disaster risk finance, and insurance-oriented solutions that promote financial protection expansion in DMCs, shifting from a reactive approach to advance solutions by, for instance, insuring critical infrastructure and agricultural assets, regional and city risk pools, and other instruments to deal with rare but highly damaging events that a DMC could not manage from its own fiscal resources. ADB will help DMCs diagnose and improve the ex ante and ex post allocation, mobilization, and

disbursement practices of national and local public resources for timely, effective, cost-efficient, and transparent post-disaster assistance.

47. ADB will continue to offer preagreed and quick-disbursing CDF as a financing option under policy-based lending to address the liquidity shortfall governments face in post-disaster situations before other funding sources become available. This gives governments the fiscal space to plan and allocate funds for critical response and early recovery functions before a disaster strikes. CDF also facilitates an in-depth policy dialogue to identify and address DRR, preparedness, and DRF reform needs (para. 50).

48. ADB's work on DRF diagnostics and policy advisory will help identify and address government liabilities and determine additional needs to spread public and private recovery and reconstruction costs through risk transfer instruments. Whether focused on sovereign or nonsovereign disaster insurance products, this requires engaging the private sector, particularly the insurance industry. Improving financial preparedness outcomes may involve strengthening the capacity of local insurance markets, the regulatory framework of the insurance sector, and support for risk quantification.

49. Beyond fiscal considerations, it is important to support DMCs in enhancing linkages between DRM and social protection. Effective response requires attention to the early recovery needs of the poor and vulnerable, such as through adaptive social protection and cash transfer arrangements to reduce the long-term impact on already fragile livelihoods. Social protection can (i) support disaster preparedness, for example by linking social protection with EWSs, risk awareness, and education; (ii) provide immediate, fast, and timely financial support, for instance, through cash transfers to people affected by disasters based on social protection targeting and delivery systems; and (iii) reduce the impact of disasters on the most vulnerable. The design of social protection programs will seek to incorporate such DRM concerns and priorities based on DMC context and needs.

50. ADB will combine its comparative advantage in public sector management and governance with expertise in disaster preparedness and work with national disaster management organizations, finance ministries, and relevant sector ministries to improve post-disaster response capacity and budget execution. This includes a better understanding of post-disaster expenditures to optimize and streamline the flow of funds, track funds and embedded reallocations, identify disbursement bottlenecks, and improve the oversight of fund utilization in line with policy targets. To further improve the quality, speed, and effectiveness of disaster response and recovery, ADB will offer support for the design of national disaster preparedness plans, in specific consideration of the need for quick mobilization, allocation, and execution of budgets for disaster response and early recovery functions (para. 58).

51. Promoting greater investment in EWSs, including through lending, will be another cornerstone of ADB's preparedness offer. Addressing a gap in national EWSs and using ADB's comparative advantages in critical infrastructure sectors, such as agriculture, energy, water, and transport, ADB will establish an EWS facility to support integrating EWS measures into sector projects. In collaboration with technical and development partners, ADB will include, as support measures, providing TA, grants, and cofinancing to assist public and private providers of critical social and public services in applying EWSs, ensuring service continuity, and supporting the resilience of communities reliant on these services. Priority investments will focus on promoting impact-based multihazard EWSs and early action, improving climate information and EWSs for investment, and embedding EWSs within wider country financial systems.

52. In terms of raising awareness and skill levels in DRM, ADB may conduct assessments of education policy and practice that can facilitate the identification of entry points to develop curricula and learning activities. These may include promoting knowledge on natural solutions or integrating skills building in resilient construction techniques in the curricula of technical and vocational education and training institutions.

53. Recognizing the growing risk of disaster displacement, ADB will support selected DMCs in harnessing development financing for preventing and managing forced displacement because of natural hazards and integrate displacement considerations into development plans and sector approaches.

C. Improved Frameworks and Guidance for Resilient Disaster Recovery and Reconstruction in Developing Member Countries

54. ADB can respond to DMC appeals to the international community with a range of post-disaster assistance instruments that inject additional liquidity for early recovery and reconstruction (para. 56). These include the Asia Pacific Disaster Response Fund, CDF, and emergency assistance loans. ADB will continue monitoring the performance of its various disaster response, recovery, and reconstruction instruments, especially in relation to their effectiveness and timeliness in helping DMCs recover while strengthening resilience to future shocks and stresses. From time to time, this may require realigning or creating financial instruments.

55. ADB takes a development-oriented approach that complements humanitarian assistance undertaken by others. In line with this development mandate, ADB will support early recovery and reconstruction and incorporate measures to enhance long-term resilience, such as risk-informed spatial planning, risk governance, and capacity building. ADB's participation in joint stakeholder mapping, needs assessments, and coordination mechanisms, including with CSOs, can promote a better understanding of the context and help develop tailor-made solutions while appreciating the complementary roles of development and humanitarian actors. It also helps ADB address existing and emerging needs, while paying attention to gender dimensions as the focus shifts from crisis response to recovery. In the context of FCAS, ADB will continue to leverage DRM as a vehicle to address the drivers of fragility, strengthen resilience, and provide communities with basic support and services to protect development gains. This may include conditional cash transfers, community asset creation, training, and other capacity building activities.

56. ADB's support for early recovery will focus on the (i) restoration of high-priority productive and social infrastructure, such as water, sanitation, power, communications, and transport; (ii) provision of, and access to, basic services, particularly education and health care; and (iii) restoration of economic productivity and livelihoods. Supporting DMCs to build back better, accounting for emerging and evolving risks, and avoiding the creation of new risk is central to ADB's approach (Box 4). Slow-onset hazards, such as droughts, will require timely assistance to contain impact and losses, supporting governments to design a set of staged triggers that can indicate the severity of a developing situation well before it fully manifests.

57. In post-disaster situations, central banks and financial regulators have a role to play to ensure that sufficient cash continues to circulate in the economy and to facilitate access to financial products such as credits, for instance through dedicated lending facilities. ADB may support governments in weighing and pursuing the best options, such as involving small banks and microfinance institutions to assist affected communities in their recovery, especially the poor and near-poor.

58. ADB's support for disaster recovery and reconstruction will be guided by DMC priorities and needs. To inform this, and to ensure the process is inclusive and participatory, PDNA support will be provided, enabling DMCs to quantify damage and loss and prioritize cost recovery needs. Through emergency assistance loans and repurposing of lending, ADB can also offer financing and implementation solutions for recovery, which can cover advisory services and expert advice on building back better programs.

Box 4: Supporting Resilient Recovery and Long-Term Resilience Building Through the Build Back Better Guides



Build back better. Sector-specific guides for recovery practitioners.

The Build Back Better Guide covers six sectors and was developed to enhance the climate and disaster resilience of communities, infrastructure, and developing member countries through well-designed post-disaster recovery and reconstruction strategies and projects. The guide condenses lessons learned, principles, measures, and best practices on building back better, covering integrated flood risk management, irrigated agriculture, power, social infrastructure, transport, and water and sanitation.

Source: ADB. Forthcoming. Build Back Better Sector Guides. Manila.

59. ADB will provide additional TA for strengthening national recovery frameworks and institutions that will help DMCs drive risk-informed recovery processes by articulating a vision for resilient recovery; defining a strategy; agreeing on recovery coordination, decision-making and implementation roles; and prioritizing actions to facilitate the transition from emergency to recovery in a post-disaster context. Drawing lessons from disaster response and recovery experience, including from reviews of post-disaster operations and expenditures, is critical to informing responses and ensuring recovery instruments and arrangements are fit for purpose. Working with the finance ministries to strengthen public financial management of post-disaster assistance will be a critical component of ADB's support to strengthen recovery capacity. ADB will support and facilitate the sharing of lessons and good recovery practices between DMCs.

D. Further Institutionalizing a Holistic Approach to Disaster Resilience at ADB

60. ADB will improve guidance and knowledge solutions on integrating disaster and climate risks into ADB's core business processes: upstream, midstream, and downstream. TA will be critical to support strategic knowledge work at all levels and the uptake of risk-informed pipeline and project development.

61. Upstream, ADB will continue integrating multihazard DRM in CPSs, especially in countries that are disaster-prone and/or have benefited from ADB's post-disaster support in the past 10 years. Diagnostic inputs will benefit from up-to-date and refined disaster risk information. Beyond CPSs, DRM considerations will inform country investment and knowledge product pipelines and address the representation of DRM expertise and capacity in country management teams. Midstream work will involve pipeline development, promoting government investment plans and medium-term fiscal and budget frameworks that consider and address disaster risks. Embedding monitoring mechanisms for DRM in CPSs can inform midcourse updating or correction during the annual country programming exercise. Finally, downstream knowledge work includes the design, promotion, dissemination, and consistent application of innovative climate and disaster risk screening and assessment tools (para. 65). This builds upon the improved integration of climate and DRM under the upcoming Environmental and Social Framework³⁴ into project preparation and implementation.

62. **CPSs and other key business processes.** ADB will review and update guidance to integrate DRM into the CPS preparation process³⁵ in consideration of ADB's emerging climate and disaster risk analytical tools (para. 65); complementary, open-source data on priority hazards and disaster impact; and downscaled climate scenarios that provide an outlook on hazard frequency or intensity.

63. ADB will prepare and update background studies on disaster risk governance capacity in high-risk DMCs. In addition to fundamental policy, institutional, and organizational characteristics and sector arrangements, the studies will cover DRF and the public financial management aspects of DRM, coordination arrangements with climate change actors, and the roles and integration of private sector and civil society capacity into key DRM functions. This may involve disaster-related public expenditure and financial accountability reviews for assessing public spending on disaster response, recovery, and reconstruction activities; and the disaster-related contingent liability on the government's books. ADB will integrate disaster risk governance in its governance and public sector assessments as relevant.³⁶

64. Beyond the CPS, DRM expertise will be mobilized for the design and regular review of midstream multiyear country programming pipelines and the prioritization of knowledge products to support ongoing sensitization, policy dialogue, and programming. At the downstream level, and with increasing decentralization, ADB will promote dedicated DRM capacity in priority, high-risk DMCs to not only manage or support stand-alone or embedded projects but also generate and design new initiatives (para. 84).

65. **Climate and disaster risk screening and assessment guidance and tools.** ADB is developing guidance and a set of improved software tools to enhance ADB's midstream and downstream DRM business processes, enabling integrated and comprehensive climate and disaster risk screening, assessment, and analytics for project identification and processing. The tools will be made available to ADB Staff, consultants, and DMC counterparts. Alongside the tools, ADB will address systemic gaps in a project's geophysical risk management through continued development and dissemination of specific guidance for geophysical hazard risk assessment and management.

³⁴ ADB. Forthcoming. Environmental and Social Framework.

³⁵ ADB. 2017. [Disaster Risk Management and Country Partnership Strategies: A Practical Guide](#).

³⁶ ADB (Sustainable Development and Climate Change Department). 2022. [Staff Guidance on Governance Assessments](#). 23 February (internal).

66. **DRM working group.** Under the Climate Change and Disaster Risk Management Community of Practice, a DRM working group will be established. The working group will bring together colleagues working on DRM from various sectors and themes, including from resident missions, to share and exchange knowledge solutions and project experience. The working group will be instrumental in promoting and monitoring DRMAP implementation. Subject to staff resources, designating DRM focal points in resident missions will be revisited. With increasing decentralization, there is a need to capture DRM innovations and knowledge solutions under development in DMCs and encourage an open exchange on challenges and solutions. This will help make use of the considerable expertise across the organization and mobilize those committed to addressing disaster resilience around a shared purpose. The working group may also invite external speakers from development partners, civil society, and/or the private sector to bring in external perspectives and additional expertise.

67. **Enhancing knowledge and strengthening DRM capacity.** ADB will continue offering annual capacity development events during ADB's Resilience Learning Month, covering climate change, DRM, and disaster and emergency assistance. The training content and style will evolve, capturing important policy and practice innovations and considering learning preferences. Furthermore, DRM topics will be embedded in relevant sector or thematic training courses and events, acknowledging the crosscutting nature of DRM. Focused DRM events will also be organized to provide deep dives on specific topics and share country experience.

68. ADB will continue strengthening its demand-driven PDNA training for resident missions—focusing on the assessment process, methodology, sector guidance, and application through practical simulation exercises. Future training and resources will aim to better prepare resident mission staff and sector groups to effectively participate in, and support, government-led PDNAs. The training content will be updated as the PDNA methodology, tools, and sector guides continue to develop, especially in the context of loss and damage, the disaster-climate-conflict nexus, and the use of technology for rapid and remote assessments.

69. **DRM knowledge products.** ADB will produce DRM knowledge products as needed, not only to provide technical and procedural guidance to Staff but also to capture and document knowledge solutions in DMCs. These solutions can serve as best practices, inform the design of investment projects, and be disseminated externally. Work on knowledge products includes reviewing and updating guidance notes, reconsidering the form and style of knowledge communication, and identifying needs for new flagship knowledge products. These knowledge products will be aligned with the country knowledge plans of the CPSs. Relevant DMCs, as well as regional, sector and thematic staff will be consulted in DRM knowledge product production, and selected products may be coproduced. Preferably, all knowledge products and guidance materials provide an easy-to-grasp synopsis of main points and—if relevant—tools to facilitate internal business processes. Knowledge products and solutions will be developed jointly with regional partners and may also engage the perspectives of CSOs and private sector actors.

70. **Roster of DRM experts.** Beyond the DRM team's routine support for the design of relevant sector projects, ADB will continue maintaining and enhancing the roster of experts and consultants that can be readily deployed to assist with country PDNAs, recovery planning, and processing of emergency assistance loans. Additional expertise, for instance on DRM capacity assessment and DRF, may be added depending on demand from operational departments and resident missions.

E. Leveraging Stakeholder Engagement and Partnerships for Resilience

71. Engaging with a wide range of public and private actors from various sectors and disciplines is key to achieving disaster resilience. This includes actors from DMC governments; civil society; academia; the private sector; international, regional, and subregional organizations; and multilateral and bilateral development partners. Given the dynamic nature of disaster risk and the number of actors involved, backing DMCs to coordinate international DRM assistance remains vital, especially with limited resources. At the country level, ADB will support, join, develop, and strengthen partnerships and consortia to (i) mobilize, share, and leverage expertise and resources; and (ii) maximize the impact on vulnerable communities. ADB will also seek to engage with and promote private sector involvement in DRM. Maintaining and building strong partnerships with a diverse range of strategic partners will be critical to meet ADB's DRMAP ambitions.

72. **Civil society engagement.** In line with the forthcoming Operational Approach to Enhanced Civil Society Engagement, 2025–2030, ADB will seek to deepen its engagement with CSOs. ADB can create room for community engagement in its resilience programs and use its platform to facilitate dialogue and cooperation between governments and CSOs that represent the interests of vulnerable communities and groups. Beyond safeguard processes, and under its programs, ADB can bring community organizations into (i) the fold of government-coordinated awareness raising and capacity strengthening, and (ii) the design and implementation of (local) DRM plans and programs. Other options include facilitating the participation of CSOs in national and local consultations on DRM policy design and planning exercises, generating community inputs into disaster risk assessments, capturing local perspectives and preferences on risk reduction and recovery needs, and engaging CSOs in disaster risk governance activities, such as monitoring DRM budget allocation and execution.

73. **Private sector engagement.** Disaster resilience cannot be achieved at scale without mobilizing the private sector to strengthen its own resilience and engaging its expertise and resources in risk reduction and post-disaster response, recovery, and reconstruction. A robust private sector can increase efficiency, transparency, and discipline in fund mobilization and execution. Financial markets, the insurance industry, and technology companies can help develop and deploy innovative disaster risk assessment and financing instruments. Beyond risk transfer, robust payment systems help ensure that cash transfers and insurance-related claims reach the intended beneficiaries.

74. Private sector losses can be high and have severe negative repercussions on livelihoods, especially on micro, small, and medium-sized enterprises that tend to have the biggest financial protection gaps. Beyond ensuring that investments in private sector infrastructure and operations are resilient, ADB will continue working with the insurance industry to develop DRF products for relevant clients, including agriculture; micro, small, and medium-sized enterprises; and governments. Collaborating with (re)insurers on preagreed finance and leveraging advanced risk modeling techniques enable the development of tailor-made risk transfer solutions.

75. Through global capital markets and debt instruments, it is possible to raise capital for projects that deliver social and environmental benefits. This is particularly attractive for investors that integrate environmental, social, and governance considerations into their investment strategies and that benchmark their investment portfolios against sustainability indexes. Insurers may also use their capital to de-risk deals for crowding in private investors and participate in funding resilience investments, thus supporting the entire value chain of DRM from assessment to financial support.

76. ADB will engage the private sector in public–private partnerships and work on regulatory reforms, for instance by focusing on city-level risk pools or engineering and building codes. There are additional opportunities to increase private sector participation in DRM, such as increasing business continuity readiness of critical logistics and infrastructure services and companies (including state-owned enterprises) in the communication, water and energy, and transport sectors. Working with the private sector on the design of innovative risk assessment, DRR, and post-disaster response and recovery solutions may be an avenue to harness new technologies for disaster resilience while generating new business models and protecting income streams.

77. **Regional cooperation and partnerships.** ADB will leverage its presence in Asia and the Pacific and its regional cooperation expertise to further promote and pursue DRM priorities and catalyze collective action through regional and subregional mechanisms. ADB will continue strengthening and developing its partnerships with key regional and international agencies, subregional and regional associations and institutions, national and subnational governments, and bilateral donors with an interest in DRM. ADB will continue

- (i) working with regional and subregional organizations, such as the Pacific Community, Association of Southeast Asian Nations, Central Asia Regional Economic Cooperation Program, and South Asia Subregional Economic Cooperation, that play an important role in supporting and maintaining commitment to disaster resilience, including as a public regional good (Box 5);
- (ii) supporting and working through government-led and multidonor coordination forums and consortia focused on resilience, such as policy coordination matrix processes in the Pacific; and
- (iii) working with agencies and institutions with specific technical and complementary expertise to ADB, such as space, geophysical, climate, and environmental scientific and technological agencies.

78. ADB will continue actively engaging in global and regional DRM-related platforms, including the Asia-Pacific Partnership for Disaster Risk Reduction, Asia-Pacific Water Forum, Coalition for Disaster Resilient Infrastructure, InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance, Global Shield against Climate Risks, and the International Recovery Platform. ADB will also continue engaging with subregional commissions and associations to encourage and support transboundary DRM for shared hazards, such as the Mekong River Commission.

Box 5: Fostering Regional Cooperation in the Greater Mekong Subregion (2022)



Regional cooperation for flood risk management. The main water control facility of the Damnak Chheukrom Mega Irrigation Project, supported by the Asian Development Bank, in Pursat Province, Cambodia (photo courtesy of the Cambodia Ministry of Water Resources and Meteorology)

The Asian Development Bank (ADB) has been a key partner of the Mekong River Commission (MRC) and its member countries since its inception, providing financial assistance, technical expertise, and capacity building support. ADB's contributions include grants and loans for integrated water resources management, flood and drought risk management, and environmental monitoring. Notably, ADB supported the MRC's regional Flood Management and Mitigation Program, which explored flood-related challenges, promoted best practices, and identified investment opportunities in the Lower Mekong Basin. ADB also provided support to flood forecasting and early warning systems in Cambodia, the Lao People's Democratic Republic, and Viet Nam through the Greater Mekong Subregion Flood and Drought Risk Management and Mitigation Project. Finally, ADB contributed to the MRC's Mekong Water Resources Assistance Strategy, which developed an operational strategy for sustainable water management in the Mekong Basin, emphasizing balanced development and cross-border cooperation.

Sources: ADB. [Regional: Greater Mekong Subregion Flood and Drought Risk Management and Mitigation Project](#); ADB. [Regional: Greater Mekong Subregion Flood and Drought Risk Management and Mitigation Project \(Cambodia\)](#); and ADB. [Regional: Greater Mekong Subregion Flood and Drought Risk Management and Mitigation Project \(Lao People's Democratic Republic and Viet Nam\)](#).

79. **National DRM partnerships.** ADB will further strengthen its DRM partnerships with DMCs' national and subnational governments, especially in high-risk countries, through sustained engagement beyond designing and implementing individual DRM projects and disseminating and scaling up knowledge solutions. Sustaining the engagement and commitment to DRM typically requires a longer time frame and follow-up investments that build on earlier project phases. Productive partnerships require substantive engagement with policy and decision-makers and are greatly enhanced if resident missions have relevant technical expertise. ADB will seek to leverage country dialogues and programming exercises to encourage scaling up of DMC cofinancing for stand-alone DRR projects and outputs, particularly in high-risk group C countries.

80. **Financing partnerships.** ADB will proactively seek additional funding from private and public sources to complement and enhance its own thematic and TA funds for investments in longer-term disaster resilience in group A countries, alongside scaling up DMC cofinancing in

groups C and B countries. ADB will develop a holistic fundraising strategy for DRMAP implementation. This will build upon the creation of partnership facilities focused on specific themes, such as EWSs, DRF, or enhancing of local risk reduction. Financial partnerships may also be built around (sub)regions and shared risks. Facilities will support and incentivize country engagement and diagnostics, providing support to programming, the development of solutions, and policy design, as relevant. ADB will combine external funds with its own TA funds, grants, and loans to maximize impact. For certain facilities, ADB may partner and share resources with agencies that have complementary expertise, roles, and implementation capacity. Furthermore, ADB will work on risk transfer arrangements through insurance and reinsurance, catastrophe bonds, and other instruments to attract private funds for DRM purposes.

F. Relationship with Other Development Themes

81. The relationship between DRM and ADB's climate change agenda, especially synergies with CCA and relevant items from the Climate Change Action Plan, have already been reflected in this paper (paras. 10 and 34). Climate change affects the occurrence and severity of hydrological and meteorological hazards, and the gradual impact of climate change can undermine livelihoods, increasing poverty. Poor and near-poor people are the most vulnerable to natural hazards, including weather extremes. Strengthening their resilience requires combining CCA, DRM, and other sector components, especially at the local level where separate institutions may be hard or unpractical to sustain. However, combining CCA and DRM components under joint resilience objectives needs to ensure that (i) ADB mobilizes distinct DRM and CCA expertise for the design and implementation of different program components, and (ii) complementary roles and responsibilities of government and technical DRM and CCA agencies are appreciated and strengthened to tackle separate and overlapping areas of concern. This includes the need for a nuanced and fact-based understanding of the interactions between climate change, natural hazards, and disasters.

82. Beyond finance, public sector management, and regional cooperation and integration, other important themes and sectors that are relevant to disaster resilience include gender, rural development and food security, urban development, social development, governance, private sector development, health, and FCAS and SIDS.³⁷ While the preceding sections of this paper have provided reflections of these linkages, the following provides a brief synopsis.

- (i) Gender considerations inform all aspects of DRM, beyond disaster response. Gender-specific vulnerability needs to be explored in disaster risk assessments and considered in all DRM-related programming and planning activities. Governments should be encouraged to maintain sex- and gender-disaggregated census and disaster impact data, as feasible.
- (ii) In line with Strategy 2030 and the midterm review, gender considerations need to transcend the vulnerability narrative and appreciate that empowering women as decision-makers and DRM agents will facilitate preparedness, risk reduction, and more effective recovery and lighten the burden of post-disaster situations on women and girls.
- (iii) In line with Strategy 2030 and the midterm review, further investments in adaptive and shock-responsive social protection are promoted to infuse DRM considerations and actions into social protection systems, programs, and the administration of financial and other benefits.

³⁷ ADB. 2024. [Summary of Midterm Review: Fragile and Conflict-Affected Situations and Small Island Developing States Approach](#).

- (iv) ADB will continue to strengthen urban DRM as part of its focus on making cities more livable and resilient as per Strategy 2030, reinforced in the midterm review.
- (v) ADB will continue to manage and reduce water-related disaster risks following the water resilience objectives of Strategy 2030.
- (vi) ADB will address the impact of natural hazards on food security following Strategy 2030.
- (vii) ADB will promote comprehensive investments in green infrastructure, contributing to communities with improved climate and disaster resilience as per Strategy 2030.
- (viii) ADB will ensure that the DRM needs of FCAS and SIDS are addressed and further explore alternative and meaningful ways to deliver assistance in complex operational contexts.
- (ix) ADB will identify the role of environmental factors in accumulating disaster risk and mobilize environmental expertise to design nature-based solutions, as needed.
- (x) ADB will explore avenues to support the business and service continuity of the health sector in disaster situations, building on pandemic preparedness provisions in the Strategy 2030 Health Sector Directional Guide.³⁸

IV. IMPLEMENTATION ARRANGEMENTS

83. Key responsibilities for DRMAP implementation will rest with the operational departments, resident missions, and CCSD, following the One ADB approach. A clearly integrated working arrangement across all relevant departments will be critical to the development of synergies and the success of the DRMAP. Implementation responsibilities will be allocated along the business process lines, such as integrating DRM into CPSs and country pipelines and integrating DRM into the design of grants, loans, and other operational tasks. CCSD will facilitate policy coherence; provide technical guidance and coordination, including for post-disaster assistance; help capture policy lessons and knowledge solutions; provide thought leadership on increasing and emerging challenges and opportunities; and test new approaches and innovations through pilot projects. Furthermore, CCSD will lead the administration of DRM business processes, supported by the development and rollout of state-of-the art risk screening and assessment tools, DRM capacity strengthening and training efforts, and the mobilization of private and public resources for DRM. Finally, CCSD will take the lead in communicating and disseminating the DRMAP. A set of priority actions to take the DRMAP forward has been identified in the Appendix.

84. A range of skills and resources are required to promote DRMAP implementation, many of which are available in CCSD, operations departments, and sector offices. ADB will gradually strengthen its capacity to support the design and implementation of strong DRM programs in high-risk DMCs by reinforcing expertise in resident missions—in most cases, experts with in-depth knowledge of country and DRM contexts. Target countries will be selected based on disaster risk, capacity, and government commitment to focus on DRM issues. Work on DRM diagnostics, policy dialogue, and the development of innovative pilot projects and programs at the country level require developing various TA projects. TA is also needed to kickstart the development of regional or subregional DRM facilities. Furthermore, there is a need to mobilize additional funding from public and private resources for strengthening DRM.

³⁸ ADB. 2022. [Strategy 2030 Health Sector Directional Guide: Toward the Achievement of Universal Health Coverage in Asia and the Pacific](#).

V. MONITORING AND REPORTING ARRANGEMENTS

85. Monitoring DRMAP implementation is the responsibility of the Climate Change and Disaster Risk Management Advisory Group, under CCSD's leadership. Together with relevant sector experts, CCRE's DRM team will provide strategic leadership and technical support to implement the action plan while also leading several priority actions. A DRMAP working group will be set up under the Climate Change and Disaster Risk Management Community of Practice to monitor progress and convene quarterly. The working group will report progress to the Climate Change and Disaster Risk Management Advisory Group, which is cochaired by the climate change director and DRM head and include as members directors from departments involved in the DRMAP. CCSD, through CCRE's DRM team, is committed to prepare annual progress reports to inform the Board about the implementation of the DRMAP. A midterm review of the DRMAP is scheduled for 2028.

86. In addition to monitoring the implementation of priority actions, ADB's contributions to disaster resilience will be monitored through a new corporate results framework indicator that will capture the annual share of committed operations that support DRM plus environment and nature (% of total operations). Furthermore, to track the impact of ADB's operations in raising disaster resilience, contributions to the following development results indicators will be also monitored: the number of poor and vulnerable people with improved standards of living; the number of people benefiting from improved infrastructure, financial, and economic services; and the number of people with improved climate and disaster resilience.

87. Certain components of the DRMAP can be identified as CCA, and climate finance can be calculated following ADB' guidance. Gender-related results will also be monitored.

DRM ACTION PLAN, 2024–2030: MATRIX OF PRIORITY ACTIONS

Priority Action	Timeline/ Target Date	Responsible Unit/Department
Work stream 1: Improve disaster risk knowledge and risk-informed planning tools		
Priority Action 1.1: Upstream		
<p>Conduct disaster and climate risk assessments for evidence-based and risk-informed investment planning. Promote and support demand-driven multihazard disaster and climate risk assessments in selected DMCs. Assessments facilitate identifying and evaluating exposed and vulnerable geographic areas and sectors that require priority attention and investments to reduce the risks on society and on the most vulnerable. These include</p> <ul style="list-style-type: none"> (i) completing two multihazard disaster and climate risk assessments in the Pacific (Cook Islands and Vanuatu in 2024) and applying the lessons to future assessments, (ii) undertaking two vulnerability and/or disaster risk assessments of education and health infrastructure, (iii) undertaking three transport-focused multihazard disaster and climate risk assessments by 2025 (Pakistan, Papua New Guinea, and Tajikistan), and (iv) exploring and promoting the use of digital innovation to facilitate upstream risk analytics. 	<p>2024</p> <p>2025–2027</p> <p>2024–2025</p> <p>2025–2027</p>	<p>DRM Unit</p> <p>DRM Unit with SG-HSD</p> <p>SG-TRA</p> <p>CCDT, ITD, and DRM Unit</p>
Priority Action 1.2: Upstream		
<p>Enhance DMC capacity to integrate disaster risk information into the development of investment planning and decision-making tools. Building on global and regional experience, develop TA to explore, document, and disseminate best practices in using risk information to allocate resources for risk-responsive investment planning. Promote and strengthen risk-informed public investment planning and decision-making platforms and tools in selected DMCs (CCAP, p. 46).^a</p>	2025–2028	DRM Unit with the Climate Change Team and relevant sector offices (e.g., SG-FIN, SG-PSMG, SG-WUD)
Priority Action 1.3: Upstream		
<p>Strengthen quality assurance and promote effective and purpose-driven investments in disaster risk information. Under TA, develop a flagship ADB knowledge product or taxonomy on the scope, methodology, metrics, and output requirements for multihazard disaster risk assessments to address upstream, midstream, and downstream risk information needs and applications in DMCs. The knowledge products will address physical, social, and financial dimensions of risk and risk information.</p>	2026–2028	DRM Unit with the Climate Change Team and relevant sector offices
Priority Action 1.4: Upstream		
<p>Establish and update DRM and disaster risk governance profiles for all DMCs. Use these profiles in policy dialogue and country partnership strategy development to promote reforms and</p>	2025–2028	DRM Unit and SG-PSMG with the Climate

Priority Action	Timeline/ Target Date	Responsible Unit/Department
improvements to the system(s). Mainstream disaster risk governance into the governance assessment.		Change Team, CCFE, and CCGE
Priority Action 1.5: Midstream		
Strengthen climate and disaster risk-informed land-use planning. Promote using or establishing risk-informed land-use planning in the design of transformative urban DRR projects (CCAP, p. 83). ^a	2024–2030	SG-WUD
Priority Action 1.6: Downstream		
Apply risk information systematically and consistently to the concept and design of risk-informed and -responsive projects. Ensure high-quality projects and programs that enhance resilience by developing an innovative set of digital ADB climate and disaster risk screening and analytical tools, integrate these into ADB's business processes, and ensure consistency in applying risk information to the concept and design of risk-informed and -responsive projects.	2024–2027	DRM Unit, Climate Change Team, and ITD
Work stream 2: Increase investments in DRR		
Priority Action 2.1: Upstream		
Promote the engagement of the private sector in DRM. Design a knowledge product on the business case outlining the economic and social benefits of investing in private sector resilience, as well as identify financing and investment options to encourage private sector investment in disaster preparedness and risk reduction, including the role of public–private partnerships.	2025–2027	DRM Unit, in consultation with PSOD and SG
Priority Action 2.2: Midstream		
Integrate DRM into agriculture, natural resource and rural development sector development plans. Support selected DMCs in integrating climate adaptation and DRM into their agriculture and natural resource sector development plans and budgets, including related capacity development and access to knowledge.	2024–2030	SG-AFNR with PSOD
Priority Action 2.3: Midstream		
Review and update resilient design standards and building codes. Work with relevant entities to review and update design standards and building codes to reflect rising climate and disaster risk, including mainstreaming nature-based solutions (CCAP, pp. 78 and 83). ^a	2024–2030	SG-WUD and SG-TRA with the Climate Change Team, DRM Unit, and ENV team
Priority Action 2.4: Midstream		
Develop a DRM and resilient education tool and knowledge product. Outline the sector-specific challenges and opportunities of investing in resilient education systems.	2026–2028	SG-HSD
Priority Action 2.5: Midstream		
Establish risk-informed transport asset investment and management decision support platforms. Establish inventories of	2024–2030	SG-TRA

Priority Action	Timeline/ Target Date	Responsible Unit/Department
critical transport structures and facilities and support integrating disaster risk information in transport asset investment and management decision support platforms and tools in at least three DMCs (CCAP, p. 60). ^a		
Priority Action 2.6: Downstream Strengthen disaster and climate resilience to boost farm productivity and attract private green investments. Sustainably increase farm productivity and incomes. Strengthen the resilience of food systems to climate-induced hazards through measures such as (i) adopting drought- and submergence-resistant and short-duration crop varieties, (ii) supporting research facilities for developing new crop varieties, (iii) investing in agricultural mechanization for increasing resilience, (iv) investing in water use efficiency, and (v) constructing resilient water infrastructure to withstand extreme weather events (CCAP, p. 56). ^a	2024–2030	SG-AFNR with PSOD
Priority Action 2.7: Downstream Invest in drought risk and integrated flood risk management. Promote drought risk management by improving irrigation system efficiency, integrated flood risk management, and the incorporation of climate- and disaster-resilient designs. Promote the adoption of innovation and technology to ensure inclusive rural development and food security by (i) rehabilitating and constructing more than 600 km of flood embankments across key river basins (Brahmaputra, North Java, Terai, and others); (ii) upgrading irrigation systems covering more than 20,000 hectares in drought-prone areas (the Lao People's Democratic Republic and Viet Nam); and (iii) incorporating comprehensive asset management practices, including regular maintenance, climate resilience upgrades, and the adoption of innovative, sustainable technologies across AFNR infrastructure projects (Bangladesh, the People's Republic of China, India, Indonesia, the Lao People's Democratic Republic, Nepal, Pakistan, the Philippines, and Viet Nam).	2024–2030	SG-AFNR
Priority Action 2.8: Downstream Invest in comprehensive multisector urban resilience programs. Invest in multisector urban resilience programs strengthening risk information, urban DRR, EWSs and preparedness arrangements, and social protection (e.g., insurance, social protection services, cash transfers, skill diversification) with a specific focus on the livelihoods and living and working conditions of poor and vulnerable households, in collaboration with relevant CSOs. Ensure interventions are gender responsive and maximize their relevance to multiple hazards (e.g., coastal floods, flash floods, heat waves, landslides).	2024–2030	SG-WUD and SG-HSD with NGOC, OMPD, and PSOD
Priority Action 2.9: Downstream Support transformative DRR programming to address the vulnerability of critical public and/or social infrastructure and infrastructure systems. Provide awareness raising, advisory, and	2025–2029	DRM Unit with relevant sector offices (OMDP,

Priority Action	Timeline/ Target Date	Responsible Unit/Department
technical services to selected DMCs and resident missions, resulting in the identification and design of transformational investments and/or programs that reduce disaster risks to critical public and/or social infrastructure (e.g., education and health) while addressing structural and nonstructural vulnerabilities. Develop two bankable DRR projects, building on programming experience in Armenia and Nepal.		PSOD, SG-HSD, and SG-WUD)
Work stream 3: Increase investments in disaster preparedness and mainstream DRF into resilient development and recovery		
Priority Action 3.1: Upstream Conduct upstream DRF assessments. Identify key protection loopholes and advise governments on DRF strategies based on a risk-layering approach (CCAP, p. 65). ^a	2025–2030	SG-FIN with the DRM Unit, PSOD, and SG-PSMG
Priority Action 3.2: Midstream Support DMCs in improving their PFM capacity in relation to DRM. Promote (i) proactive budget allocation and utilization of funds for DRR and preparedness; (ii) timely transfers, effective use, and accountability for disaster response and recovery operations; and (iii) disaster-responsive and -resilient social protection through an enabling PFM environment. Use existing policy-based loans to promote effective and efficient practices and standards.	2024–2030	SG-PSMG with the DRM Unit and SG-HSD
Priority Action 3.3: Midstream Establish a DRF TA. In collaboration with key partners, establish a DRF TA to provide technical support to DRF in the Pacific and explore options to expand this into a DRF financing facility.	2025–2027	DRM Unit with SG-FIN
Priority Action 3.4: Midstream Establish an EWS funding facility. Strengthen sector EWSs and facilitate EWS investments in selected DMCs or group of DMCs, incorporating gender approaches as appropriate, with technical and financial support from partners.	2025–2027	DRM Unit with the Climate Change Team and relevant sector offices
Priority Action 3.5: Midstream Diversify ADB's portfolio of DRF instruments in support of its DMCs. Introduce a pilot program for climate-resilient debt clauses in SIDS and Bhutan for new and existing loans.	2024	SPD with the DRM Unit, SG-FIN, and relevant divisions
Priority Action 3.6: Downstream Advance the design and promote implementation of innovative sovereign DRF instruments. Support governments in providing liquidity in the immediate aftermath of disasters, both at the national and regional levels (e.g., disaster relief bonds, parametric insurance and city risk pools, contingent disaster financing).	2024–2030	SG-FIN with the DRM Unit

Priority Action	Timeline/ Target Date	Responsible Unit/Department
Priority Action 3.7: Downstream Develop innovative crop insurance models. Support selected DMCs to develop innovative crop insurance models, including for heat insurance to protect farmer income losses from catastrophic weather events. Ensure heat insurance targets and meets the specific needs of female farmers and informal workers.	2024–2030	SG-AFNR with SG-FIN
Priority Action 3.8: Downstream Invest in flood and drought preparedness. Establish advanced flood and drought EWSs using state-of-the-art forecasting technology and data-driven risk mapping (Bangladesh, Indonesia, Nepal, the Philippines, and Viet Nam), integrate climate-resilient infrastructure and nature-based solutions in flood and drought projects (Cambodia, Indonesia, Pakistan, Sri Lanka, and Viet Nam), and provide training on flood and drought preparedness and other DRR strategies.	2024–2030	SG-AFNR
Work stream 4: Promote effective and resilient recovery in DMCs		
Priority Action 4.1: Upstream Support resilient recovery readiness. Support selected DMCs to enhance their resilient recovery readiness through multisector diagnostics, need-and-gap assessments, and the development of comprehensive recovery frameworks.	2025–2028	DRM Unit with CCGE and selected resident missions
Priority Action 4.2: Midstream and/or Downstream Support timely and resilient recovery efforts in post-disaster situations. Support DMCs and resident missions in conducting timely PDNAs and developing resilient recovery plans by continuously strengthening PDNA capacity and maintaining a PDNA expert roster for rapid mobilization in the aftermath of disasters.	2024–2030	DRM Unit

ADB = Asian Development Bank; CCAP = Climate Change Action Plan; CCDT = Digital Technology for Development Division; CCFE = Fragility and Engagement Division; CCGE = Gender Equality Division; CSO = civil society organization; DMC = developing member country; DRF = disaster risk financing; DRM = disaster risk management; DRR = disaster risk reduction; ENV = environment; EWS = early warning system; ITD = Information Technology Department; NGOC = NGO and Civil Society Center; OMDP = Office of Markets Development and Public-Private Partnership; PDNA = post-disaster needs assessment; PFM = public financial management; PSOD = Private Sector Operations Department; SIDS = small island developing states; SG = Sectors Group; SG-AFNR = Agriculture, Food, Nature, and Rural Development Sector Office; SG-FIN = Finance Sector Office; SG-HSD = Human and Social Development Sector Office; SG-PSMG = Public Sector Management and Governance Sector Office; SG-TRA = Transport Sector Office; SG-WUD = Water and Urban Development Sector Office; SPD = Strategy, Policy, and Partnerships Department; TA = technical assistance.

^a ADB. 2023. [Climate Change Action Plan, 2023–2030](#).

Source: ADB.