OPERATIONAL PLAN FOR INTEGRATED DISASTER RISK MANAGEMENT 2014–2020

ASIAN DEVELOPMENT BANK

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APRIL 2014

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Printed in the Philippines.

ISBN 978-92-9254-504-8 (Print), 978-92-9254-505-5 (PDF)
Publication Stock. No. RPT146429-3

Cataloging-In-Publication Data

Asian Development Bank.

Operational plan for integrated disaster risk management 2014–2020
Mandaluyong City, Philippines: Asian Development Bank, 2014.

1. Integrated disaster risk management. 2. Disaster risk financing. 3. Resilience. 4. Asia and Pacific
I. Asian Development Bank.

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Printed on recycled paper

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Abbreviations

ADF	–	Asian Development Fund
ADF-DRF	–	Asian Development Fund Disaster Response Facility
APDRF	–	Asia Pacific Disaster Response Fund
CPS	–	country partnership strategy
DEAP	–	Disaster and Emergency Assistance Policy
DMC	–	developing member country
DRF	–	disaster risk financing
DRM	–	disaster risk management
DRR	–	disaster risk reduction
EAL	–	emergency assistance loan
IDRM	–	integrated disaster risk management
PDNA	–	post-disaster needs assessment
PPP	–	public–private partnership
RSDD	–	Regional and Sustainable Development Department

Executive Summary

Strategy 2020 identifies disaster and emergency assistance as one of the Asian Development Bank's (ADB) areas of operations, reflecting the considerable challenges that natural hazards pose to development in Asia and the Pacific. The region is subject to all major types of natural hazard and dominates disaster impact rankings, including with regard to loss of life. Direct physical losses are increasing more rapidly than regional gross domestic product as both exposure and vulnerability to natural hazards continue to grow. The intensity and, in some areas, frequency of climatic extreme events is expected to increase with climate change, potentially exacerbating this trend in future years. Disaster risk now presents one of the most serious threats to inclusive sustainable socioeconomic development in Asia and the Pacific and has a particularly detrimental impact on the poorest members of society. Poverty and vulnerability to natural hazards are closely linked and mutually reinforcing. Disasters are a source of hardship and distress, potentially forcing the near-poor temporarily below the poverty line and contributing to more persistent, chronic poverty. The poor, in turn, are among the most vulnerable to natural hazards.

Disaster risk presents one of the most serious threats to inclusive sustainable socioeconomic development in Asia and the Pacific

Between August 1987 and December 2013, ADB approved $19.5 billion for a total of 631 disaster risk management (DRM) and DRM-related loans, grants, and technical assistance projects. Just over a third of this assistance was provided for post-disaster response. ADB's engagement in this area has been guided by a succession of policies. The current policy, the 2004 Disaster and Emergency Assistance Policy (DEAP), established three key objectives: (i) to strengthen support for disaster risk reduction in developing member countries (DMCs), (ii) to provide rehabilitation and reconstruction assistance following a disaster, and (iii) to leverage ADB's DRM activities by developing partnerships. A companion DEAP Action Plan was launched in 2008 to enhance the implementation of the DEAP. More recently, ADB has also ventured into the relatively new area of disaster risk financing.

The Operational Plan for Integrated Disaster Risk Management, 2014–2020 (hereafter IDRM Operational Plan) builds on ADB's significant support for DRM and good performance in this area, while remaining in alignment with the 2004 DEAP. It seeks to (i) promote an integrated disaster risk management (IDRM) approach in ADB's operations, supporting related products and business processes to strengthen disaster resilience and enhance residual risk management and encouraging a more coordinated, systematic approach to DRM; (ii) further strengthen DMC IDRM capabilities, knowledge, and resources to reduce disaster risk and to respond to disaster events in a timely, cost-efficient manner; and (iii) mobilize additional public and private partnerships and resources for IDRM. This operational plan succeeds the 2008 DEAP Action Plan.

The IDRM approach is based on a vision of disaster resilience combined with three basic DRM principles: (i) many development actions carry potential disaster risk but also provide opportunities to strengthen resilience; (ii) DRM investments may underperform and ultimately even exacerbate disaster risk if climate change is ignored; and (iii) levels of expenditure on risk reduction and residual risk management should increase to reflect long-term risk profiles. These principles in turn imply three key DRM requirements: to integrate disaster risk reduction into development, to address the intersection between DRM and climate change adaptation, and to ensure that

there are adequate financing arrangements in place to reduce risk and to manage and transfer residual risk.

The IDRM approach will address these three requirements through a series of common, crosscutting actions to institutionalize IDRM, strengthen capacity and knowledge, invest in disaster resilience, and engage stakeholders. These actions will reduce disaster risk in both the immediate and long term and enhance residual risk management for effective disaster response, collectively strengthening disaster resilience. This IDRM approach will be reflected in individual projects in hazard-prone areas, in country partnership strategies (CPSs), and in the development of revised and new sector and thematic operational plans.

The IDRM approach is based on a vision of disaster resilience

Tools and guidance materials will be developed to strengthen the mainstreaming of IDRM into ADB's core business processes. ADB already addresses disaster risk in a number of CPSs and embeds DRM considerations in a wide range of development projects. However, further institutionalization is essential, providing a strong underpinning for a more strategic approach. Guidance will be prepared on the incorporation of disaster and climate risk concerns into the sector and thematic work undertaken during CPS preparation. ADB will also enhance existing disaster and climate change risk project screening tools to ensure they include adequate coverage of disaster risk.

ADB will support IDRM capacity development both within ADB and in DMCs, and will provide related knowledge products to support DRM mainstreaming into DMC development policy and practice and ADB operations. In particular, it will strengthen capacity for the integration of IDRM into DMC development plans, regulatory and legislative frameworks, and budgetary processes; develop IDRM-related public goods and services; establish an informal network of ADB staff working on IDRM actions and initiatives; strengthen IDRM representation across all communities of practice; continue to provide IDRM training for ADB staff; and prepare knowledge products to capture ADB's considerable practical experience in many aspects of DRM and to provide sector-based guidance on DRM interventions.

Progress against each of the three requirements under the IDRM approach will be supported through continued investment in disaster and climate resilience projects. ADB will focus on three specific areas of investment: disaster risk reduction, post-disaster response, and disaster risk financing.

Finally, ADB will support strengthened stakeholder engagement and coordination through the further development of a wide range of DRM partnerships, the promotion of private sector involvement in IDRM, and efforts to mobilize additional public and private resources for IDRM.

The IDRM Operational Plan recognizes significant synergies between actions to support disaster resilience and to support poverty reduction, urban resilience, gender equality, food and water security, and the particular needs of fragile and conflict-affected situations. In implementing the Operational Plan, particular consideration will be paid to these synergies.

Responsibility for implementing the IDRM Operational Plan rests primarily with operational departments and the Regional and Sustainable Development Department. Other support departments will also share responsibility, where relevant. The IDRM Operational Plan introduces ADB's first results framework for DRM. Annual accomplishment reports will be prepared detailing progress in the implementation of the IDRM Operational Plan as well as updates to the results framework.

I. Rationale

A. Introduction

Strategy 2020 identifies disaster and emergency assistance as one of three other areas of operations of the Asian Development Bank (ADB). The area is directly relevant to progress and envisaged achievements under Strategy 2020's three strategic agendas: inclusive economic growth, environmentally sustainable development, and regional integration. Disasters can undermine social and economic gain, with a particularly detrimental impact on the poorest members of society. By virtue of their differing social, cultural, economic, and political environments, the poor and near-poor are more likely to suffer loss of lives, homes, productive assets, livelihoods, and schooling as a consequence of disasters. More marginalized groups within poorer segments of society, such as women, children, the elderly, and the disabled, are often particularly vulnerable. By implication, disaster and emergency assistance supports inclusive economic growth. Strengthened resilience also supports environmentally sustainable development as natural hazards are themselves environmental phenomena, against which protection is required. Finally, as witnessed in the aftermath of the 2011 earthquake and tsunami in Japan and floods in Thailand, closer regional economic integration can spread the impact of a disaster well beyond immediately affected areas, in turn implying a need for disaster and emergency assistance to strengthen resilience and support timely post-disaster recovery and reconstruction efforts. Strategy 2020 indicates that ADB will continue to mainstream disaster risk management (DRM) and provide early and medium-term disaster response and assistance in partnership with specialized aid agencies.

Disaster and emergency assistance is directly relevant to progress and envisaged achievements under Strategy 2020's three strategic agendas: inclusive economic growth, environmentally sustainable development, and regional integration

ADB's engagement in DRM has also been guided by a succession of related policies. Its first disaster policy was approved in 1987, focusing on small developing member countries (DMCs).[1] A second policy was introduced in 1989, focusing on all DMCs.[2] These policies were superseded in 2004 by the Disaster and Emergency Assistance Policy (DEAP),[3] a far more wide-ranging policy than its predecessors. The DEAP established a series of objectives to (i) strengthen support for disaster risk reduction (DRR) in DMCs; (ii) provide rehabilitation and reconstruction assistance following a disaster; and (iii) leverage ADB's DRM activities by developing partnerships. A companion DEAP Action Plan[4] was launched in 2008. The action plan was set out in three parts, comprising (i) minimum actions required to implement the mandatory aspects of the DEAP, (ii) actions required to address lessons learned since the DEAP was approved, and (iii) additional considerations that could deepen ADB's incorporation of DRM into operations. The action plan was intended to be implemented over a period of 3–5 years. A 2012 Special Evaluation Study on ADB's Response to Natural Disasters and Disaster Risks found that the DEAP and DEAP Action Plan had provided sound guidance on DRM.[5]

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1 ADB. 1987. *Rehabilitation Assistance to Small DMCs Affected by Natural Disasters.* Manila.

2 ADB. 1989. *Rehabilitation Assistance after Disasters.* Manila.

3 ADB. 2004. *Disaster and Emergency Assistance Policy*. Manila.

4 ADB. 2008. *Action Plan for Implementing ADB's Disaster and Emergency Assistance Policy.* Manila.

5 ADB. 2012. *Special Evaluation Study on ADB's Response to Natural Disasters and Disaster Risks.* Manila.

This Operational Plan for Integrated Disaster Risk Management 2014–2020 (hereafter IDRM Operational Plan) provides new operational guidance on the implementation of the 2004 DEAP. It succeeds the 2008 DEAP Action Plan.[6] It also introduces ADB's first results framework for DRM, creating a mechanism for monitoring performance and regularly and publicly reporting on progress to Management.

B. Challenges and Issues

Asia and the Pacific is subject to all major types of natural hazards and dominates disaster impact categories across all regions of the world. Between 1970 and 2012, 1.8 million natural hazard-related deaths were recorded in the region, 51% of the global total. Reported direct physical losses totaled almost $1.5 trillion (in real 2012 terms) over the same period, equivalent to an average $95 million loss per day.[7] Physical losses accounted for 43% of the total global losses, far higher than the region's share in global gross domestic product.

Despite considerable advances in DRM understanding and know-how over the past few decades, there is no evidence of a long-term decline in loss of human life in the region.[8] Meanwhile, direct physical losses are increasing more rapidly than regional gross domestic product as both exposure and vulnerability to natural hazards continue to grow. The intensity and, in some areas, frequency of climatic extreme events is expected to rise with climate change, potentially exacerbating this trend. Nine Asian cities topped the results of recent analysis of risk from changing weather systems and temperatures in 50 cities of current and future importance to global business.[9, 10] Over the past 5 years alone, an estimated 834 million people have been affected by natural hazard events in ADB's DMCs. In 2012, 22.2 million people in 22 Asian countries were temporarily or permanently displaced by disasters and the region accounted for 81% of new displacement globally as a consequence of disasters between 2008 and 2012.[11] The November 2013 typhoon in the Philippines, Typhoon Yolanda (internationally known as Haiyan), has alone affected 12.2 million people and left 4.4 million people homeless.[12]

Continuing losses reflect disappointing progress toward strengthened resilience. According to the latest results from national self-assessments of progress against the Hyogo Framework for Action: Building the Resilience of Nations and Communities to Disasters, DMCs typically report that they have made some commitment to DRR and developed some capacity but that their progress has not been substantial.[13] Some of the key issues and trends raised in these progress reviews include the weak translation of DRM policies and legislation into action; inadequate risk and vulnerability information; insufficient budget allocations for DRR; insufficient implementation capacities; weak progress in addressing gender and women's issues;

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6 The term operational plan, rather than action plan, is adopted in accordance with the Staff Instructions on Processing and Monitoring Sector and Thematic Operational Plans.

7 The statistics on disaster losses are based on data extracted from EM-DAT: The OFDA/CRED International Disaster Database (www.emdat.be). Université Catholique de Louvain, Brussels.

8 ADB. 2012. *Investing in Resilience: Ensuring a Disaster-Resistant Future.* Manila.

9 In order of ranking: Dhaka, Manila, Bangkok, Yangon, Jakarta, Ho Chi Minh City, Kolkata, Mumbai, and Chennai.

10 Maplecroft. 2013. *Climate Change and Environmental Risk Atlas 2013: Country-by-Country Risk Analysis and Mapping.* Bath.

11 Internal Displacement Monitoring Center. 2013. Global Estimates 2012: People Displaced by Disasters. Geneva.

12 National Economic Development Agency. 2013. *Reconstruction Assistance on Yolanda.* Manila.

13 The Hyogo Framework for Action is a 10-year plan adopted by 168 governments at the World Conference on Disaster Reduction in January 2005. The latest assessment reports cover the period 2011–2013.

and inadequate results in achieving social equity.[14] Governments have also struggled to deal with the consequences of disasters due to insufficient liquidity, considerably exacerbating their adverse economic and social impacts.

In consequence, disaster risk now presents one of the most serious threats to inclusive sustainable socioeconomic development in Asia and the Pacific. DRM needs in the region are enormous and, without concerted region-wide action on the part of all stakeholders to address risk, losses look set to continue to rise. This increase will reflect insufficient efforts to tackle existing vulnerability in Asia and the Pacific; the continuing expansion of populations and capital assets in some of the most hazard-prone areas in the region, increasing exposure; and anticipated increases in the frequency and intensity of weather-related events as the consequences of climate change begin to take effect. In other words, all three factors contributing to disaster risk—hazard probability, exposure, and vulnerability—look set to rise unless action is taken.[15] This action is even more urgent in view of limited development resources and thus the need to ensure that individual investment needs are met just once and not time and again as development gains are undone by disaster.

Without concerted region-wide action on the part of all stakeholders to address disaster risk, losses look set to continue to rise

C. ADB Practice and Experience

ADB has provided considerable assistance for DRM. Between August 1987 and December 2013, ADB approved $19.5 billion—equivalent to 10.3% of total sovereign loans, grants and technical assistance approvals—for a total of 631 DRM and DRM-related projects. Of this, 33.0% ($6.4 billion) was for early recovery and reconstruction, 8.5% ($1.7 billion) for stand-alone DRR, 58.5% ($11.4 billion) for projects with embedded DRR elements, and 0.1% ($9.8 million) for ex ante disaster risk financing (DRF) (Figure 1).

Since the introduction of the DEAP in 2004, ADB support for post-disaster early recovery and reconstruction has continued to account for around a third of ADB's DRM-related assistance as the region has witnessed a series of major disaster events. Almost $0.8 billion in loans, grants and technical assistance was approved in response to the 2004 Indian Ocean tsunami, with a further $1.9 billion in loans and grants provided in response to the 2005 earthquake in Pakistan, the 2008 earthquake in the People's Republic of China, and the 2010 floods in Pakistan. ADB's $0.9 billion response to Typhoon Yolanda in the Philippines in 2013 established a new record in ADB's level of response to a single event. These five events accounted for 78% of ADB's post-disaster assistance between 2004 and 2013.

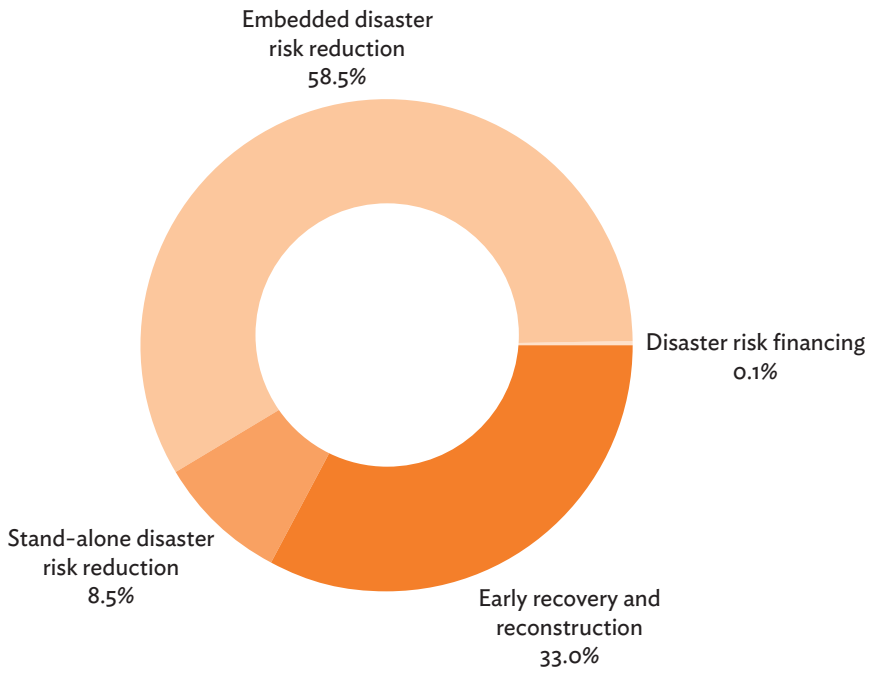
Between August 1987 and December 2013, ADB approved $19.5 billion for a total of 631 DRM and DRM-related projects

ADB has also continued to support DRR interventions, broadening the scope of assistance as understanding of disaster risk has deepened. ADB's original engagement in this area focused on a series of stand-alone flood control interventions dating back to some of ADB's earliest projects. More recent investments have stretched from large-scale urban integrated water resource management and river basin projects incorporating flood control components, such as the Citarum river basin project in Indonesia, through to support for community-based DRM projects and disaster risk modeling. They have included DRR interventions as part of climate change adaptation projects. ADB has also increasingly taken disaster risk into account in the design of other investments, helping to ensure that resulting development gains are sustainable.

[14] United Nations International Strategy for Disaster Reduction (UNISDR). 2013. *The Hyogo Framework for Action in Asia and the Pacific 2011–2013*. Geneva.

[15] Disaster risk d can be characterized as a function of the probability of occurrence of a hazard of varying severity in a particular location *p(h)*; the people and physical assets situated in that location and therefore exposed to the hazard *e*; and the level of vulnerability of those people and physical assets to that hazard *v*. This relationship can be expressed mathematically as d = *f* (p(h), e, v).

Figure 1: ADB Disaster Risk Management Assistance, 1987–2013



Source: Asian Development Bank.

For instance, ADB road investments in Bangladesh and Cambodia take account of flood risk. There has been a notable increase in technical assistance for stand-alone DRR initiatives in the last few years, with 48% (in real terms) of total such assistance provided over the period 1987–2012 approved in 2011, 2012, and 2013. This rise could be an early indication of greater ADB investment in DRR in the future.

Most recently, ADB has begun venturing into the relatively new area of DRF. Six new technical assistance and grant projects were approved over the period 2008–2013 focusing either specifically on DRF or on insurance, including disaster insurance, more generally. A further three DRF projects are currently being processed. Other recent notable developments have included the introduction of a pilot Disaster Response Facility in the Asian Development Fund (ADF) XI period, 2013–2016, and the establishment of an Integrated Disaster Risk Management Fund in partnership with the Government of Canada in 2013.

ADB's DRM project portfolio has performed well. Of the 27 early recovery and reconstruction loans and grants completed between 2009 and 2012, 89% were rated *successful* or *highly successful*, compared to 69% of all ADB sovereign loans and grants completed over the same period, and 83% were rated *likely sustainable*, compared to 59% for all ADB sovereign loans and grants. Over the same period, ADB completed five stand-alone DRM loans and grants, of which three were rated. All three were assessed as *successful* or *highly successful* and one as *likely sustainable*.

This new operational plan builds on ADB's significant experience in DRM and related lessons learned both by ADB and others. It seeks to encourage governments and development partners across the public and private sector to act together to reverse the tide of rising losses and to ensure that development gains are disaster resilient. In particular, and in line with recommendations in the 2012 Special Evaluation Study on ADB's Response to Natural Disasters and Disaster Risks, it takes account of an evolution in the context and understanding of disasters since the 2004 DEAP and 2008 DEAP Action Plan were formulated. Reflecting this, it introduces an approach to DRM aimed at long-term resilience, replacing ADB's previous orientation around an ever-repeating cycle of risk reduction, response, and reconstruction activities and an underlying assumption that disasters are inevitable.[16]

The operational plan builds on ADB's significant experience in DRM and related lessons learned both by ADB and others

The IDRM Operational Plan also focuses ADB engagement in DRM on activities where it can make a significant contribution, taking into account the nature of DMC requests for support in the field of DRM; the current priorities of governments and other development partners in this field; and ADB's core areas of operation, role, and expertise as a multilateral development bank. Previous challenges experienced in implementing the DEAP Action Plan are addressed, in particular pertaining to institutional arrangements for DRM.

[16] The DRM cycle identified three strategic phases, each following on from the last in continual rotation: (i) prevention, mitigation, and preparedness, in which ADB planning and programming enhances DMC capacity to identify and reduce vulnerability; (ii) transitional assistance and priority rehabilitation, in which ADB provides post-disaster support to restore high-priority physical and social infrastructure; and (iii) recovery, wherein ADB assistance is provided for longer-term reconstruction.

II. Directions

A. Outcome and Objectives

The IDRM Operational Plan's desired outcome is to strengthen disaster resilience in DMCs. This outcome will make a significant contribution to the achievement of Strategy 2020's three strategic agendas: inclusive economic growth, environmentally sustainable development, and regional integration.

The IDRM Operational Plan's desired outcome is to strengthen disaster resilience in DMCs

Disaster resilience is defined as the ability of countries, communities, businesses, and individual households to resist, absorb, recover from, and reorganize in response to natural hazard events, without jeopardizing their sustained socioeconomic advancement and development.[17] It recognizes the highly dynamic, continually shifting nature of the state of resilience as populations grow and move; capital investments expand; and the frequency and intensity of meteorological, hydrological, and climatological events change as a consequence of climate change. Disaster resilience at all levels of society is a critical component of efforts to achieve sustainable socioeconomic development and poverty reduction.

The IDRM Operational Plan has three overarching objectives toward its intended outcome: (i) to promote an integrated DRM approach in ADB's operations, supporting related products and business processes to strengthen disaster resilience and enhance residual risk management and encouraging a more coordinated, systematic approach to DRM; (ii) to further strengthen DMC IDRM capabilities, knowledge, and resources to reduce disaster risk and to respond to disaster events in a timely, cost-efficient manner; and (iii) to mobilize additional public and private partnerships and resources for IDRM.

The IDRM Operational Plan remains in alignment with the DEAP, maintaining the DEAP's focus on strengthened support for DRR in DMCs, the provision of rehabilitation and reconstruction assistance following a disaster, and the leverage of ADB's IDRM activities by developing partnerships. Its scope and objectives also build on and update the 2008 DEAP Action Plan, continuing to support operational work in strengthening DMC resilience to disaster risk and capacity to manage residual risk and recover from disasters.

The IDRM Operational Plan focuses specifically on natural hazards and related disaster risks as determined by human processes and activities. ADB support for countries in fragile and conflict-affected situations, health emergencies, and food crises are also covered under the DEAP but plans to operationalize these aspects of the DEAP are covered in separate operational plans.[18,19] The IDRM Operational Plan is aligned with these and other operational plans.

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[17] Note 8.

[18] The 2004 DEAP defines a disaster as a sudden, calamitous event that seriously disrupts the functioning of a community or society, causing widespread human, material, economic, or environmental losses that exceed the community's or society's ability to cope using its own resources.

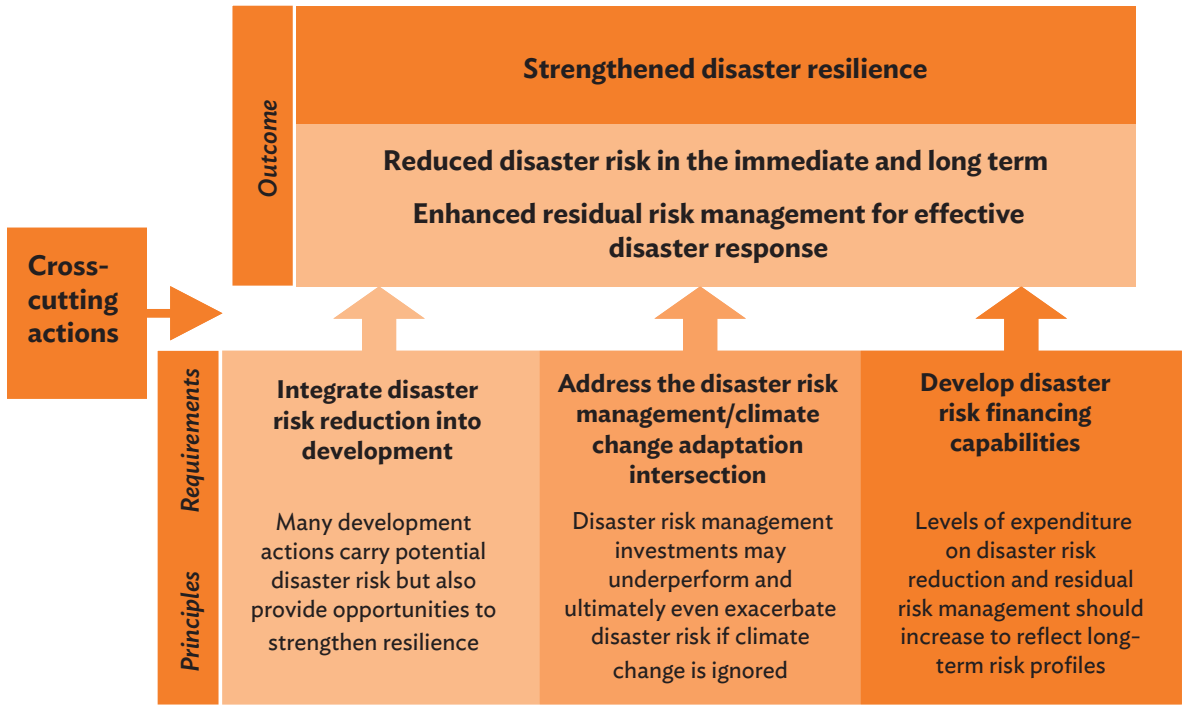
[19] ADB. 2013. *Operational Plan for Enhancing ADB's Effectiveness in Fragile and Conflict-Affected Situations.* Manila; ADB. 2009. *An Operational Plan for Improving Health Access and Outcomes under Strategy 2020.* Manila; ADB. 2014. *Operational Plan for the Agriculture and Natural Resources Sector: Promoting Food Security in Asia and the Pacific in 2014–2020.* Manila.

B. The Integrated Disaster Risk Management Approach

The IDRM Operational Plan introduces an integrated approach. The IDRM approach is based on a vision of disaster resilience combined with three basic DRM principles: (i) many development actions carry potential disaster risk but also provide opportunities to strengthen resilience; (ii) DRM investments may underperform and ultimately even exacerbate disaster risk if climate change is ignored; and (iii) levels of expenditure on risk reduction and residual risk management should increase to reflect long-term risk profiles, balancing expected social and economic returns from DRM and other investments. These principles in turn imply three key DRM requirements: to integrate DRR into development, to address the intersection between DRM and climate change adaptation, and to ensure that there are adequate financing arrangements in place to reduce risk and to manage and transfer residual risk.

The IDRM approach will address these three requirements through a series of common, crosscutting actions to institutionalize IDRM, develop capacity and knowledge solutions, invest in disaster resilience, and engage stakeholders. These actions will reduce disaster risk in both the immediate and long term and enhance residual risk management for effective disaster response, collectively strengthening disaster resilience (Figure 2). The IDRM approach will be reflected in individual projects in hazard-prone areas, in country partnership strategies (CPSs) and their regional equivalents in countries and regions facing significant disaster risk, and in the development of revised and new sector and thematic operational plans. This approach will satisfy the IDRM Operational Plan's three overarching objectives.

Figure 2: The Integrated Disaster Risk Management Approach



Source: Asian Development Bank.

The first principle lies at the heart of the approach, requiring a wide range of policy, investment, and capacity development interventions to reduce risk. These interventions can tackle the hazard directly (e.g., by reducing probabilities of landslides and flooding through forest conservation on steep slopes); they can tackle exposure to those hazards (e.g., by supporting the integration of disaster risk considerations into land use planning); and they can tackle vulnerability (e.g., by supporting livelihood diversification into more resilient occupations, rainwater harvesting, and community early warning systems). As such, DRR actions can take the form of both structural and nonstructural measures. They also cover stand-alone initiatives, such as seismic retrofitting of school buildings; the incorporation of DRR components into wider projects, such as flood control elements of urban development projects; and the integration of DRR measures into other development actions, such as adjustments in road engineering design and location to strengthen resilience against extreme rainfall or landslides. The latter two can be referred to as embedded actions. ADB is already engaged in actions through all three routes, variously addressing hazards, exposure, and vulnerability.

The operational plan addresses three key requirements: to integrate disaster risk reduction into development, to address the intersection between disaster risk management and climate change adaptation, and to ensure that there is adequate financing to reduce, manage, and transfer risk

The second principle focuses on the intersection between DRM and climate change adaptation. Adaptation focuses on the process of adjustment to actual or expected climate and its effects in order to moderate harm or exploit beneficial opportunities.[20] The intersection between DRM and climate change adaptation focuses more specifically on planning for changes in the intensity and frequency of extreme climate events and taking action to reduce risk today, tomorrow, and many years into the future. It implies consideration of these potential future changes in extreme climate events in the design of both stand-alone and embedded DRM actions, exploring, for instance, the implications of possible changes in the return periods of specific flood events for future levels of protection offered by flood defenses. ADB is already supporting this principle through, for example, technical assistance for disaster and climate risk assessment in the Pacific and the integration of the results into urban development and infrastructure planning. Both the first and second principles also highlight the need to consider extreme climate events in the design and implementation of climate change knowledge products, programs, and actions and to align DRM and climate change adaptation efforts more generally. The Environment Operational Directions, 2013–2020 similarly stresses the importance in aligning DRM and climate change adaptation efforts.[21]

The final principle focuses on the development and application of financing instruments to reduce risk and to manage and transfer residual risk. It covers the financial management of disaster risk by households and businesses as well as governments. ADB advocates a risk-layered approach to the development of DRF strategies, breaking disaster risk down according to the frequency or probability of occurrence of hazard events and associated levels of loss. Risk reduction is often the most cost-effective way to address high-probability, low-impact hazard events and can also yield significant returns by reducing risks associated with lower-probability, higher-impact events.[22] Risk reduction is also essential in ensuring that buildings and other engineering structures are built to life safety standards. A range of other financing

[20] Intergovernmental Panel on Climate Change (IPCC). 2012. *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change.* Geneva.

[21] ADB. 2013. *Environment Operational Directions, 2013–2020: Promoting Transitions to Green Growth in Asia and the Pacific.* Manila.

[22] For instance, cost–benefit analyses of a statistical sample of 5,500 United States Federal Emergency Management Agency (FEMA) mitigation grants between 1993 and 2003 for earthquake, flood, and wind hazards, including projects focusing on retrofitting, structural mitigation, public awareness and education, and building codes, yielded an overall benefit-to-cost ratio of 4.0. The ratio varied from 1.5 for earthquake mitigation to 5.1 for flood mitigation. (See A. Rose et al. 2007. Benefit–Cost Analysis of FEMA Hazard Mitigation Grants. *Natural Hazards Review* 8(4): 97–111.)

instruments can then be applied to the remaining layers of risk, selecting the most appropriate option on the basis of a range of factors including the scale of funding required for each layer of loss, the speed with which disbursement is required, and the relative cost-effectiveness of alternative instruments for specific layers of risk. The instruments include indemnity and parametric insurance tools, including property, crop, business interruption, and sovereign cover; contingency reserves; contingent loans; catastrophe bonds; and other alternative risk transfer instruments. ADB has provided financial support both for risk reduction and for post-disaster recovery and reconstruction support, including through emergency assistance loans with abbreviated processing requirements. However, ADB's support for the development of comprehensive DRF strategies and for ex ante instruments for post-disaster response—that is, instruments that are put in place before a disaster occurs—is far more recent. To date, much of the latter has focused on technical assistance in support of product scoping and the development and implementation of pilot projects.

Disaster response—encompassing support for post-disaster relief, early recovery, and reconstruction—will remain a central aspect of ADB's IDRM engagement. It will be addressed through the three principles enshrined in the IDRM approach. Disaster response actions will be designed to strengthen resilience to future hazard events, taking into account both current and possible future forms and levels of disaster risk. ADB will also support enhanced access to cost-effective, timely, and sufficient resources for disaster, assisting DMCs to limit the indirect social and economic consequences of disaster events.

C. Implementing ADB's Integrated Disaster Risk Management Approach

Actions and measures driving progress under each of the three requirements of the IDRM approach fall under four crosscutting areas: institutionalizing IDRM, capacity development and knowledge solutions, investing in resilience, and stakeholder engagement. They include steps to strengthen IDRM both within ADB's own areas of work and to promote disaster resilience more widely by building partnerships, leveraging additional financial resources, sharing knowledge, and strengthening the enabling environment for IDRM (Table 1).

1. Institutionalizing Integrated Disaster Risk Management

Tools and guidance materials will be developed to strengthen the integration of IDRM into ADB's core business processes. ADB already addresses disaster risk in a number of CPSs and embeds DRM considerations in a wide range of development projects. However, further institutionalization of IDRM is required, providing a strong underpinning for a sustained strategic, systematic approach to the issue. To achieve this, guidance will be prepared on the incorporation of disaster and climate risk concerns into the sector and thematic work undertaken during CPS preparation. ADB will also enhance existing disaster and climate change risk project screening tools to ensure they include adequate coverage of disaster risk and will apply these tools more consistently. The application of these enhanced guidance note and screening instruments will also create opportunities for dialogue on IDRM with governments, potentially leading to increased demand for IDRM projects and indirectly encouraging and supporting the institutionalization of IDRM in DMCs' own business processes.

Tools and guidance materials will be developed to strengthen the integration of IDRM into ADB's core business processes

Country partnership strategy disaster and climate risk sensitization. Guidance on the consideration and treatment of disaster risk will be built into the existing guidance materials on sector and thematic assessments in use by each regional department during the preparation

Table 1: Implementing the Integrated Disaster Risk Management Approach through Crosscutting Actions

	Outcome: Strengthened resilience	
	Reduced disaster risk in the immediate and long term	**Enhanced residual risk management for effective disaster response**
Institutionalizing IDRM		
CPS disaster and climate risk sensitization	x	x
Disaster and climate risk project screening tool	x	
Capacity development and knowledge solutions		
DMC IDRM mainstreaming capabilities	x	x
IDRM-related public goods and services	x	x
Informal ADB IDRM network	x	x
IDRM CoP representation	x	x
Training and workshops	x	x
Knowledge products	x	x
Investments in disaster resilience		
Disaster risk reduction	x	
Post-disaster assistance	x	x
DRF instruments	x	x
Stakeholder engagement		
Partnerships	x	x
Private sector engagement in IDRM	x	x
Financial resource leverage	x	x

ADB = Asian Development Bank, CoP = community of practice, CPS = country partnership strategy, DMC = developing member country, DRF = disaster risk financing, IDRM = integrated disaster risk management.
Source: Asian Development Bank.

of CPSs and regional strategic equivalents for the Pacific. The CPS preparation process offers the opportunity to address disaster risk in a strategic and coordinated manner, fine-tuned to individual country disaster risk profiles, government priorities, the specific areas of focus and goals of the CPS, ADB's comparative strengths in IDRM, and other planned and ongoing DRM initiatives. A background guidance note on securing and utilizing disaster risk data will also be developed and periodically updated, drawing on open-source online materials that can be readily accessed. CPSs for countries that have received post-disaster support from ADB in the past 10 years will automatically be expected to consider disaster risk in the preparation of CPSs.

Systematic consideration of disaster risk as part of the CPS preparation process may influence decisions regarding priority areas of focus. However, just as importantly, disaster risk sensitization is intended to help ensure that all ADB investments are disaster resilient, whether or not IDRM is selected as a priority area of focus.

Disaster and climate risk project screening tools. In parallel, ADB will develop disaster and climate risk screening tools for use in project design. These tools are intended to help ensure that individual ADB investments are adequately protected against natural hazards and that they do not create new forms of disaster risk or exacerbate existing ones. They are intended to promote a systematic approach to the analysis of disaster and climate risk at the project level and to strengthen ADB's accountability to DMCs for its actions.

An abbreviated version of the existing disaster and climate risk screening tool for project processing, which is already in use in some countries, will be used for first-level screening. A checklist for initial climate risk screening based on this screening tool is already under development, for use in conjunction with the environmental categorization process. The checklist will be expanded to include disaster risk. A second-level screening tool will then be developed for projects for which significant disaster and climate risk is indicated according to the preliminary screening. Existing climate risk screening tools will be adapted for this purpose. Resources will also be developed to understand the implications of the results of the project screening analysis and to support the identification of appropriate actions to deal with unacceptable levels of disaster and climate risk. A pilot project quality-at-entry indicator on climate change could also be extended to include disaster risk.

2. Capacity Development and Knowledge Solutions

Significant progress in the area of capacity development and knowledge solutions is required to support the sustained integration of IDRM into DMC development policy and practice and ADB operations. As Strategy 2020 observes, knowledge is a powerful catalyst for propelling development forward and enhancing its effects. ADB will focus on six actions to promote capacity development and knowledge solutions: strengthened DMC capacity for the integration of IDRM into development plans, regulatory and legislative frameworks, and budgetary processes; the development of IDRM-related public goods and services; the establishment of an informal network of ADB staff working on IDRM actions and initiatives; strengthened IDRM representation across communities of practice (CoPs); continued provision of IDRM training for ADB staff; and the development of knowledge products. In line with Strategy 2020's wider vision for knowledge solutions, these actions will help put the potential of IDRM knowledge solutions to work in Asia and the Pacific.

Capacity development and knowledge solutions are required to support the sustained integration of IDRM into DMC development policy and practice and ADB operations

Integrated disaster risk management mainstreaming capabilities of developing member countries. DMC capabilities for mainstreaming IDRM considerations into national, subnational, and local development plans, regulatory and legislative frameworks, and budgetary processes and for establishing related incentives will continue to be strengthened through ADB's operational work and the development of knowledge products. Actions will include measures to strengthen DRF understanding and know-how, supporting efforts to integrate disaster risk into public financial management. ADB is already strengthening IDRM capabilities in a number of DMCs through, for instance, the multi-donor Pilot Program for Climate Resilience and recent support for the development of a series of DRM practitioner handbooks. Activities to strengthen mainstreaming capacity will complement efforts under the Environment Operational Directions, 2013–2020 to integrate environment and climate change considerations into regional, national, and local development plans and actions. Related efforts under both operational plans will be closely coordinated to maximize synergies and pursue joint goals.

The goals and objectives laid out in a national development plan drive the focus of public interventions over the life of that plan. The inclusion of disaster risk concerns in these goals

and objectives is therefore critical in strengthening resilience. Regulatory and legislative frameworks play a vital role in stimulating investment in disaster resilience. Budgetary processes are essential in ensuring sufficient financing for effective DRM and an appropriate balance of resource allocations for risk reduction and post-disaster response. Both regulatory frameworks and fiscal instruments can also be applied to incentivize investments in disaster resilience.

Robust disaster risk assessments are critical in developing sound IDRM solutions

Integrated disaster risk management-related public goods and services. ADB will continue to support the development of regional and national public goods and services in support of enhanced IDRM, including through the application of state-of-the-art technology and know-how. Particular emphasis will remain on disaster risk assessment, supporting initiatives to examine levels of risk, to map and quantify risk, to develop related climate change scenarios, and to make this information widely available. Robust information of this nature is critical in developing sound IDRM solutions, such as risk-sensitive land-use planning, trans-boundary water resource management, and risk transfer products. ADB will also promote the application of state-of-the-art space-based and information and communication technology such as remote sensing and geographical information systems both for disaster risk assessment and early warning systems. This technology offers enormous potential to enhance the quality of IDRM interventions. ADB staff expertise will be developed to support the procurement of these types of technology and their absorption into ADB projects to support strengthened resilience.

ADB has already engaged in relevant activities such as the Pacific Catastrophe Risk Assessment and Financing Initiative, under which it has supported catastrophe risk modeling. It is also working closely with agencies such as the Japan Aerospace Exploration Agency to draw on technology and will continue to develop partnerships with space, climate, and other scientific and technological agencies to support its IDRM work.

Informal ADB integrated disaster risk management network. An informal IDRM network will be established to exchange knowledge and experience around IDRM, to identify and promulgate good practice, to build on innovation, and to extend ADB's body of advocates for the integration of DRM into ADB's core areas of business. This network will enable ADB to utilize, channel, and institutionalize its IDRM knowledge and experience more systematically.

ADB staff currently working on IDRM projects and related initiatives, including post-disaster response, will be encouraged to join the network. Through the activities of the network, members' interest in and understanding of IDRM will be strengthened. This is intended to lead to their sustained commitment to IDRM, beyond the life of their existing IDRM activities, and to their enhanced capabilities to identify IDRM opportunities and to implement related activities with a high degree of success.

The network is being established in part in recognition of the fact that efforts over a number of years to create disaster focal points in resident missions for high disaster risk DMCs and in regional departments, as laid out in the 2004 DEAP and 2008 DEAP Action Plan, have achieved limited success. Existing focal points will be maintained and technically supported by the Regional and Sustainable Development Department. Efforts to encourage the establishment of additional focal points will also be continued. However, the network provides a pragmatic parallel approach, providing a mechanism for strengthening IDRM capacity within ADB and creating a greater appetite for more formal arrangements.

Integrated disaster risk management communities of practice representation. IDRM representation will be strengthened as a crosscutting issue across all CoPs. The parameters of this engagement will be determined in consultation with the CoPs. Strengthened representation

will provide an additional mechanism for strengthening ADB staff IDRM knowledge and capabilities.

IDRM is relevant to all CoPs as they each cover areas that are potentially vulnerable to natural hazards and/or through which IDRM can be mainstreamed. However, it is impractical for ADB's limited DRM staff to be members of all CoPs. An alternative solution will therefore be determined and implemented, possibly drawing representatives of each CoP into a crosscutting group focusing on resilience from a range of different perspectives. Disaster resilience would form one aspect of resilience in this forum. A focal point from each CoP could also become a member of the informal IDRM network.

The existing DRF Working Group under the Financial Sector Development CoP will also become more proactive. This working group was created in 2012, drawing together ADB staff with expertise in finance across a range of departments. It focuses specifically on the development of DRF instruments and support for DMCs in establishing comprehensive DRF strategies, a new and innovative aspect of ADB's engagement in IDRM warranting particular internal focus and collaboration. The working group will expand its membership, in particular to include additional regional department membership; meet on a regular quarterly basis to share project updates and review progress and lessons learned; and strengthen its information-sharing functions, including through the creation of a repository of information on ADB DRF initiatives.

Training and workshops. ADB will run periodic staff capacity development workshops on IDRM. These workshops will be participatory, encouraging the exchange of knowledge and experience among participants, as well as the more formal delivery of materials and information. The workshops will play a key role in the establishment and strengthening of the informal IDRM network and in strengthening and maintaining the DRM skill sets of ADB staff included in the new disaster response team database.

ADB will also continue to arrange periodic training on post-disaster needs assessment (PDNA) methodologies for operational staff. Some of this training may be conducted jointly with subregional, regional, or international partners, echoing the typically collaborative, multi-agency approach to PDNAs and providing an opportunity for ADB staff to engage with counterparts in other agencies that they may encounter again in an emergency context.

In addition, ADB will continue to embed IDRM components in other relevant sector and thematic ADB staff training courses. This approach has been applied since 2009 and has included, for example, the insertion of DRM components in climate change workshops. By its very nature, this approach emphasizes the crosscutting nature of IDRM. It also allows ADB to sensitize a larger number of its staff to the opportunities for strengthening disaster resilience and to the perils in ignoring disaster risk. ADB will continue to hold periodic seminars and brown bag sessions on issues around IDRM as well.

ADB will focus on three specific areas of investment: disaster risk reduction, post-disaster assistance, and disaster risk financing

Knowledge products. ADB will prepare knowledge products to capture its own considerable practical experience in many aspects of IDRM, including both DRR and post-disaster response, and to document innovative solutions and lessons learned. The knowledge products will also draw upon experience from elsewhere, both within and beyond Asia and the Pacific and including civil society organization and community-based experience. These products will be shared both internally and with governments and other DRM stakeholders to support learning and good practice and to disseminate ADB's considerable expertise in this area. Knowledge products will include guidance on addressing the integration of climate change considerations into IDRM projects and vice versa.

3. Investments in Disaster and Climate Resilience

Progress against each of the three requirements of the IDRM approach will be supported through continued investment in disaster and climate resilience projects. ADB will focus on three specific areas of investment: DRR, post-disaster assistance, and DRF. The IDRM Operational Plan does not set an annual target for investment in DRM because requests for post-disaster assistance fluctuate significantly between years, depending on the timing and severity of individual disaster events.

Disaster risk reduction. ADB will continue to invest in local, national, subregional, and regional disaster and climate risk reduction initiatives, building on its strengthened IDRM capacity and greater institutionalization of IDRM in ADB business processes. It will support both structural and nonstructural, and both stand-alone and embedded, actions. These will include the incorporation of cost-effective measures to strengthen resilience in engineering design and actions to strengthen disaster resilience as part of ADB's post-disaster assistance. In doing so, and in line with the Environment Operational Directions, 2013–2020, ADB will explore the underlying causes of vulnerability, seeking to address the causal roots where these can be accommodated within the scope of a project. This emphasis complements that highlighted in the Water Operational Plan 2011–2020, which encourages a more comprehensive DRM approach, addressing hazards, community needs (social, economic, environmental), and vulnerabilities.[23]

ADB will place particular emphasis on innovation in IDRM, including through the implementation of pilot projects. It will encourage "no regrets" strategies and approaches, pursuing IDRM measures that are justified on the basis of current economic, social, and environmental costs, benefits, and levels and forms of disaster risk but that also support future disaster resilience, without requiring any certainty of knowledge about the frequency or intensity of future hazard events. In addition, ADB will seek to avoid the creation of new risk in its other development investments.

ADB will encourage DMCs to utilize the opportunities presented by disaster events to strengthen resilience, in part through example by "building back better." Via its engagement in the International Recovery Platform,[24] it will also support the development of pre-disaster recovery planning methodologies and applications. These tools will allow governments to develop strategies to improve recovery outcomes and exploit opportunities to upgrade infrastructure and technologies in the event of disasters, propelling them toward higher growth.

Post-disaster assistance. ADB will continue to explore measures to enhance the quality and scope of its post-disaster assistance, supporting a more timely and cost-effective government-led response, reducing the need for reprogramming of resources, and including specific measures to address the immediate and long-term needs of women and girls. Post-disaster assistance is expected to remain an important area of operation for ADB over the medium term reflecting the trend of rising disaster losses. However, actual levels of assistance provided in any single year will depend on the timing, intensity, and location of individual natural hazard events.

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[23] ADB. 2011. *Water Operational Plan 2011–2020*. Manila.

[24] The International Recovery Platform (IRP) is a thematic platform of the United Nations International Strategy for Disaster Reduction system which seeks to identify gaps and constraints in disaster recovery and to serve as a catalyst for the development of tools, resources and capacity for resilient recovery. ADB has been working with the IRP since 2008 and has been a member of the IRP Steering Committee since 2012.

The Staff Instructions on Emergency Assistance Loans will help support the more timely provision of emergency assistance loans (EALs) by providing greater clarity on related procedures. The recent response to Typhoon Yolanda in the Philippines has demonstrated how the One ADB approach can achieve impressive results, resulting in the approval of an EAL in just 4 weeks. This approach will also be applied in processing future EALs. ADB will continue to participate in government-led post-disaster damage and loss assessments, strengthening opportunities to ensure that the nature and levels of ADB assistance are carefully aligned with wider response programs and address priority reconstruction needs. A disaster response team database detailing ADB staff with experience in the preparation of post-disaster assistance, including EALs, and in damage and loss assessments will be established from which One ADB post-disaster response teams can quickly be built in the event of a disaster. Related skills assessments will be undertaken to ensure that there is comprehensive coverage of potential sector specialist requirements. Training will be provided to maintain disaster response skills, including PDNA capabilities.

To enhance access to ADB resources for disaster response, ADB will continue to pilot the Asian Development Fund Disaster Response Facility (ADF-DRF) at least until 2016. The ADF-DRF was introduced under ADF XI (2013–2016) to support increased access to ADB financing in the event of a disaster and to reduce the need for reprogramming.[25] Possible options for replenishment of the Asia Pacific Disaster Response Fund (APDRF) will be explored following a review of performance under the first $40 million tranche of funding.[26] The APDRF provides near-immediate liquidity in the aftermath of a disaster to help governments meet urgent life-saving emergency response needs. It has been highly valued by recipient governments.

Disaster risk financing instruments. ADB will continue to support the development of DRF instruments and wider DRF strategies for households, businesses, and governments, enhancing the public and private financial management of residual disaster risk. Many DMCs require support to strengthen their DRF capabilities, overcoming both demand and supply constraints to higher penetration. ADB has comparative strengths in the finance sector, making DRF a logical area of engagement for ADB and a particular niche area for it within the wider field of DRM. DRF also presents opportunities for considerable leverage of resources.

This support will be designed to (i) help facilitate timely recovery and reconstruction efforts, complementing ADB's post-disaster assistance instruments by providing additional injections of liquidity in the aftermath of a disaster; (ii) encourage the development of optimal bundles of DRF instruments, reflecting the opportunity costs associated with various options as well as considerations relating to the scale of funding required and timeliness of fund disbursement; (iii) help spread the public and private costs of recovery and reconstruction over time; (iv) incentivize investments in DRR through risk-based premium pricing and similar mechanisms; and (v) encourage income-enhancing, rather than risk-averting, livelihood decisions. Evidence from elsewhere, most notably from Mexico, demonstrates how governments can establish comprehensive DRF mechanisms for the rapid post-disaster rehabilitation of federal and state infrastructure, supporting effective post-disaster intervention and stimulating greater investment in DRR.

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[25] The ADF-DRF contains 3% of the performance-based allocation from the ADF pool. In the event of a disaster caused by a natural hazard, an ADF-only country can get up to 100% of its annual performance-based allocation (PBA) from the Disaster Response Facility to respond to the disaster, without affecting its allocation for other operations from the remaining PBA. A blend country affected by a disaster can receive up to 3% of its annual PBA from the Disaster Response Facility.

[26] The APDRF was established with an initial contribution of $40 million transferred from uncommitted resources of the Asian Tsunami Fund. Total uncommitted resources stood at $4.5 million as of 31 December 2013.

ADB has begun to lay the foundations for its work on DRF through the development of knowledge products and the implementation of several technical assistance projects. These include the development of a public–private earthquake insurance entity in the Philippines covering middle class and medium-sized enterprise property owners; the development of city-level DRF options and related financial literacy in Indonesia, the Philippines, and Viet Nam; and the development of public and private DRF capacity in Bangladesh. ADB is also supporting several pilot index-based crop insurance schemes in Bangladesh, Cambodia, and Viet Nam.

ADB will continue to support the development of innovative DRF solutions, working in close cooperation with the private sector to develop commercially viable, scaled-up products. However, it will rationalize its essentially piecemeal approach to date through the development of an approach paper placing support for individual solutions in the context of a broad road map. This road map will include clearly identified goals and objectives and will present a broad path to their achievement, linking individual initiatives together with additional actions to aid scaling up and the broader development of stable, solvent risk transfer markets and efficient access to global risk markets. These additional actions will include measures to strengthen the institutional structures and legal and regulatory frameworks for DRF in DMCs. Attention will be paid to middle- as well as lower-income DMCs, reflecting the likely greater capability to afford market-based solutions in these countries. ADB will also support the development of tool kits for the analysis of DRF alternatives, supporting wider rationalization of the selection and layering of DRF alternatives and the establishment of optimal bundles of instruments offsetting household, business, and government disaster risk.

ADB will document and draw on experience and lessons learned, including by development partners, in its DRF work, furthering the strategic development of ADB's program of work in this relatively new area of business.

4. Stakeholder Engagement

Successful IDRM requires coordination and collaboration across a wide range of public and private stakeholders, sectors and disciplines, countries facing common disaster risk, and countries linked through international trade and supply chains

Successful IDRM requires coordination and collaboration across a wide range of public and private stakeholders; across a wide range of sectors and disciplines; across countries facing common disaster risk, such as shared earthquake fault lines or river systems; and across countries linked through international trade and supply chains. ADB will support strengthened coordination and collaboration through the development of partnerships and the promotion of private sector involvement in IDRM. It will also seek to mobilize public and private resources for IDRM through these channels.

Partnerships. Strategy 2020 places particular weight on the role of partnerships in the area of DRM. ADB will continue to develop relationships with key regional and international agencies, subregional, and regional associations and institutions, national and subnational government agencies, civil society organizations, and bilateral donors working on IDRM. In particular, ADB will focus on (i) regional and subregional organizations through which ADB can leverage greater government understanding and commitment to IDRM, including those subregional organizations for which ADB provides secretariat support; (ii) national partnerships, for instance through government and multi-donor consortiums along the lines of the Nepal Risk Reduction Consortium;[27] and (iii) agencies and institutions with specific technical interests

[27] The Nepal Risk Reduction Consortium brings together humanitarian and development partners in partnership with the Government of Nepal to reduce Nepal's vulnerability to disasters. ADB is one of the founding members of the consortium and is coleading one of five flagship projects, focusing on hospital and school safety.

that complement and leverage ADB's own areas of expertise, such as space, climate, and other scientific and technological agencies, as already noted. ADB will also continue to be actively involved in a variety of global and regional disaster-related platforms, including the International Recovery Platform, the International Strategy for Disaster Reduction Asia Partnership, and the Asia-Pacific Water Forum.

ADB will also strengthen its bilateral national and subnational partnerships with DMC governments through its engagement with government agencies in the design and implementation of individual IDRM projects. Through these partnerships, ADB will seek to foster a long-term commitment to IDRM, helping to ensure that the benefits of ADB's IDRM investments are sustainable and to leverage these investments through subsequent government-supported replication and scaling up and more general enhanced government interest in IDRM.

To support the development of its portfolio of work on DRF, ADB will seek collaboration with other development partners working on this emerging topic. Related activities could include joint capacity development initiatives, such as the joint development and implementation of standardized methodologies and tools for financial disaster risk assessment and management.

Private sector engagement in integrated disaster risk management. ADB will promote greater private sector engagement in innovative IDRM solutions and encourage and support strengthened disaster resilience of the private sector. Greater private sector engagement in IDRM is essential to help meet the funding gap for DRM, to share and spread post-disaster relief, recovery, and reconstruction costs, and to ensure that all infrastructure constructed by the private sector is disaster resilient. The private sector will play a significant role in meeting the region's huge and increasing infrastructure investment and financial institution needs over the next few decades and a vision of disaster resilience is unrealistic without private sector engagement.

Activities will align with the Public–Private Partnership Operational Plan 2012–2020.[28] ADB will support the strengthening of the overall enabling environment for public–private partnerships (PPPs) in IDRM, for example supporting regulatory change. It will provide guarantees and financing, for instance to financial institutions in support of post-disaster housing reconstruction and capital for affected businesses. It will encourage the development of DRF products, continuing some preliminary work already under way. For example, ADB is already supporting the identification and design of city-level DRF solutions through technical assistance support and a next logical step could be to develop products supporting the uptake of DRF solutions by high disaster risk cities. There are also potential opportunities for greater private sector engagement in other aspects of DRM, such as in technological innovation to enhance the disaster resilience of infrastructure and in income-generating investments that could indirectly reduce disaster risk. In an agricultural context, for example, market drip irrigation and hydroponic cultivation systems could be marketed in drought-prone areas. In the Pacific, where the majority of infrastructure services are provided by state-owned enterprises, greater engagement by such enterprises in strengthening resilience will also be sought.

Financial resource leverage. ADB will seek to mobilize additional public and private resources for IDRM through the use of commercial cofinancing products, including guarantees, loan syndications, and risk transfer arrangements (e.g., insurance, reinsurance, unfunded risk participations), and through an expansion of existing IDRM financing partnership facilities.

[28] ADB. 2012. *Public–Private Partnership Operational Plan 2012–2020.* Manila.

Financing partnership facilities provide operational mechanisms for strategic, long-term, multi-partner cooperation, linking various forms of assistance in a coordinated manner for a well-defined purpose. In accordance with its Finance++ approach, ADB will combine the financial resources raised through partnerships together with ADB's own finance and with knowledge solutions to leverage the impact of its operations.

An existing IDRM financing partnership is being supported by the Government of Canada through the Integrated Disaster Risk Management Fund.[29] This fund came into effect in 2013, providing Can$10 million ($9.5 million) over the period 2013–2017 for DRR and DRF projects in seven Southeast Asian DMCs. The fund supports the development of synergies across actions to satisfy the three requirements of the IDRM approach and places particular emphasis on regional solutions, supporting cross-fertilization of ideas across countries and the development of initiatives to address shared IDRM challenges. ADB will seek to attract additional IDRM trust funds, taking advantage of increasing donor interest in DRM. ADB will also continue to support IDRM through other trust fund arrangements, including the Water Financing Partnership Facility and the Urban Climate Change Resilience Trust Fund.[30]

D. Crossovers with Other Development Challenges

The IDRM Operational Plan recognizes significant synergies between actions to support disaster resilience and poverty reduction. Poverty and vulnerability to natural hazards are closely linked and mutually reinforcing. Disasters are a source of hardship and distress, potentially forcing the near-poor temporarily below the poverty line and contributing to more persistent, chronic poverty. The poor, in turn, are among the most vulnerable to natural hazards. For instance, they are more likely to live in substandard structures in hazard-prone areas; face uncertain land ownership rights, reducing incentives to manage risk; and depend on vulnerable livelihoods, for example in agriculture and informal urban labor markets. Poverty can be further reinforced by deliberate risk-averting livelihood choices such as a preference for traditional, lower-yielding crop varieties because they are more hazard tolerant.

If carefully designed, efforts to reduce poverty and strengthen disaster resilience are complementary

However, if carefully designed, efforts to reduce poverty and strengthen resilience are also complementary. ADB will therefore pay particular regard to the needs of the poor and near-poor in its IDRM interventions, in line with intended actions under the Social Protection Operational Plan 2014–2020[31] to strengthen social protection's role in DRM and climate change adaptation and to encourage the development of disaster insurance products for the poor. At a more strategic level, the disaster and climate risk CPS screening framework will allow country teams to explore the potential impacts of disaster risk on the poor and support the integration of disaster resilience actions into CPSs.

There are also more specific crossovers between actions to strengthen disaster resilience and to strengthen gender equality, food and water security, and urban resilience, and to address the particular needs of fragile and conflict-affected situations. In implementing its IDRM approach, ADB will seek to capture these synergies:

- ADB will give close attention to the integration of gender-sensitive considerations in

[29] ADB. 2013. *The Integrated Disaster Risk Management Fund.* Manila.

[30] The Water Financing Partnership Facility is supported by Australia, Austria, the Netherlands, Norway, Spain, and Switzerland. The Urban Climate Change Resilience Trust Fund is supported by the United Kingdom and the Rockefeller Foundation.

[31] ADB. 2013. *Social Protection Operational Plan 2014–2020.* Manila.

disaster response, in line with Gender Equality and Women's Empowerment Operational Plan, 2013–2020: Moving the Agenda Forward in Asia and the Pacific.[32] Gender-based differences in vulnerability and women's priorities will also be taken into account in the design of DRR interventions and in IDRM knowledge products and capacity development initiatives. In all of these activities, women will be recognized as change agents in strengthening disaster resilience, rather than as passive victims.

- ADB will support initiatives to tackle the impacts of natural hazards on food security, in keeping with the Operational Plan for the Agriculture and Natural Resources Sector: Promoting Food Security in Asia and the Pacific in 2014–2020.

- ADB will continue to support water-related DRM actions as a key component of its integrated water resource management investments to strengthen water security, in line with the Water Operational Plan, 2011–2020.

- ADB will continue to support actions to strengthen disaster risk as part of its wider efforts to strengthen urban resilience, in keeping with the Urban Operational Plan 2012–2020[33] and in recognition of the fact that a considerable share of urban expansion is occurring in hazard-prone areas.

- ADB will pay careful attention to the differentiated, often exacerbated, IDRM needs of countries in fragile and conflict-affected situations, contributing to their wider recovery as supported through the Operational Plan for Enhancing ADB's Effectiveness in Fragile and Conflict-Affected Situations.

[32] ADB. 2013. *Gender Equality and Women's Empowerment Operational Plan, 2013–2020: Moving the Agenda Forward in Asia and the Pacific.* Manila.

[33] ADB. 2012. *Urban Operational Plan 2012–2020*. Manila.

III. Implementation Plan

Assignment of key responsibilities. The IDRM Operational Plan extends from 2014 to 2020. The responsibility for implementation rests primarily with operational departments and the Regional and Sustainable Development Department (RSDD). Other support departments will also share some responsibility, where relevant. Operational departments will take primary responsibility for operational aspects, including the integration of IDRM into CPSs in high-risk countries and into the design, implementation, and monitoring of disaster risk–sensitive loan, grant, and technical assistance operations in high-risk areas. RSDD will continue to play its existing role as central IDRM coordinator. It will ensure policy coherence, oversight, and reporting; monitor ADB-wide implementation of the IDRM Operational Plan; provide technical guidance and support to operations, including in post-disaster reconstruction; undertake innovative IDRM pilot projects; and lead the development of screening tools and guidance materials, broader IDRM capacity development, a review of the Disaster and Emergency Assistance section of the Operations Manual, the establishment and functioning of the IDRM network, the development of partnerships with other institutions, the mobilization of public and private resources for IDRM, the promotion of IDRM PPPs, and the development of knowledge products and services.

Skills mix and resource implications. The IDRM Operational Plan can be implemented within the existing IDRM skills mix and staffing capacity of RSDD. However, the depth and breadth of achievements under the plan would be significantly enhanced should additional DRM staff positions be created. ADB will explore opportunities to engage additional DRM experts, including through externally funded staff positions.

It is assumed that no DRM specialist positions will be created in the regional departments. However, the IDRM skill sets and capacity of existing operational department staff will be strengthened over the duration of the IDRM Operational Plan, allowing them to engage in DRM through their sector and thematic specialisms. Strong IDRM knowledge and capabilities on the part of mission leaders will play a particularly key role in ensuring the plan's successful execution. Budgetary resources will be required for staff training and capacity development purposes, including for IDRM staff capacity development workshops, PDNA training, and the incorporation of DRM components into other ADB training. The informal IDRM network, which will also strengthen skill sets and capacity, will be run utilizing existing staff capacity in RSDD.

The IDRM Operational Plan has been designed to have relatively limited budgetary implications, reflecting the realities of resource availability. It places considerable emphasis on the integration of disaster risk concerns into other ADB investments, a measure that often incurs relatively limited incremental cost and can generate high net benefits should a hazard event subsequently occur. Both embedded and stand-alone IDRM actions will continue to be financed through ADB core funding, including project preparatory technical assistance, loans, and grants. Resources will also be leveraged through public and private partnerships. Opportunities to use other thematic funds available in ADB—for example, attached to water security, climate change adaptation, urban development, governance, poverty reduction, and regional economic integration—to strengthen disaster resilience will be proactively explored.

Operational resources will be mobilized from technical assistance sources to develop the disaster and climate risk project screening tool and CPS disaster and climate risk screening materials. Additional resources will be required to incorporate the project screening tools into ADB business processes from 2015. Capacity development will be financed through existing ADB knowledge-sharing resources. An allocation has already been secured from the Sector and Thematic Skills Development budget administered by the Knowledge Sharing and Services Center for the first staff capacity development workshop, which was held in November 2013. Dependent on the outcome of a review of the first tranche of funding under the APDRF, resources may also be required to replenish that fund.

IV. Monitoring and Reporting

The IDRM Operational Plan introduces ADB's first results framework for DRM. Performance indicators, including baselines and targets, are presented in this framework (Appendix 1). These indicators draw in part on indicators in ADB's corporate results framework where appropriate, adapted to provide a specific IDRM focus. RSDD will lead the annual collation of data to measure progress against the IDRM results framework. It will continue to maintain its DRM operations database to support it in this role. Operational departments will also provide data, as requested by RSDD.

Once the CPS disaster and risk screening guidance materials are in place, additional indicators will be added to the results framework relating to the proportion of CPSs for high disaster risk countries that incorporate disaster risk diagnostics in their preparation; the proportion of CPSs for high-risk countries that include analysis of the risk posed by disasters to CPS strategic priorities; and the proportion of projects in high-risk countries that embed disaster resilience measures or directly address disaster risk.

Annual accomplishment reports will be prepared detailing progress in implementation of the IDRM Operational Plan. These reports will draw on the results framework and also include additional information as relevant, including on gender-related results. The reports will provide an assessment of implementation progress, key accomplishments to date, and an outlook, including emerging opportunities. They will include recommendations on corrective actions and on adjustments to desired outcomes, outputs, and results indicator targets, as appropriate. The accomplishment reports will be prepared by RSDD. The reports will be endorsed by the Director General, RSDD, approved by the Vice-President, Knowledge Management and Sustainable Development, and submitted to Management, with copy to relevant departments and offices, in accordance with the staff instructions. The first accomplishment report will be prepared in the first quarter of 2015. Subsequent annual reports will be due every 12 months thereafter.

Appendix 1
IDRM Operational Plan Results Framework

Integrated Disaster Risk Management, 2014–2020

Indicators	Baseline	2020 Target[1]
I. DRM Progress in Asia and the Pacific		
Number of lives lost as a consequence of [2] • Climate-related hazards • Geophysical hazards	 19,300 16,000	 Monitor Monitor
Disaster losses as a proportion of total government expenditure[3]	1.4%	Monitor
II. ADB's Contribution to DRM Results		
Quality of completed sector operations[4]		
Completed stand-alone DRR loans and grants[5] • Rated *successful* or *highly successful* • Rated *likely sustainable*	 100% 67%	 At least 80% 80%
Completed stand-alone DRF loans and grants[6] • Rated *successful* or *highly successful* • Rated *likely sustainable*	 - -	 At least 80% 80%
Completed embedded DRR loans and grants • Rated *successful* or *highly successful* • Rated *likely sustainable*	 85% 73%	 At least 80% 80%
Completed early recovery and reconstruction loans and grants • Rated *successful* or *highly successful* • Rated *likely sustainable* • Showing intended gender equality results	 89% 83% 88%	 At least 80% At least 80% At least 70%
Completed stand-alone DRM TA projects • Rated *successful* or *highly successful*	 82%	 At least 80%
Outcomes[7]		
Disaster early recovery and reconstruction operation beneficiaries • % women and girls	To be determined To be determined	Monitor Monitor
Outputs[8]		
Roads built or upgraded that embed DRR	17%	Increase
Land improved through irrigation, drainage, and/or flood management	43,215 hectares	Monitor

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Table continued

Indicators	Baseline	2020 Target[1]
III. Operational Management of ADB's DRM Program		
Quality at entry[9] and during implementation[10]		
DMCs receiving post-disaster assistance in the previous 10 years that have integrated disaster risk into the CPS[11]	89%	100%
Quality-at-entry of stand-alone DRR loans and grants rated satisfactory	100%	At least 90%
Quality-at-entry of stand-alone early recovery and reconstruction loans and grants rated satisfactory	100%	At least 90%
Average length of time to process emergency assistance loans	186 days[12]	12 weeks[13]
Stand-alone DRR loans and grants rated satisfactory during implementation	100%	At least 85%
Embedded DRR loans and grants rated satisfactory during implementation	96%	At least 85%
Early recovery and reconstruction loans and grants rated satisfactory during implementation	93%	At least 85%
Strategic focus **Proportion of proposed/pipelined ADB operations aligned with operational plan directions**[14]		
Early recovery and reconstruction operations building back safer[15]	69%	80%
Climate change adaptation loans and grants that address risk from climate extremes as a share of total climate change adaptation loans and grants[16]	73%	Monitor
Climate change adaptation TA that addresses risk from climate extremes as a share of total climate change adaptation TA[16]	67%	Monitor
Approaches and modalities		
Stand-alone and embedded TA focusing on IDRM as a share of total number of TA projects approved[17]	12%	Monitor
Number of DRF loans, grants, and TA approved[18]	2	Increase
IV. Organizational Management of ADB's DRM Program		
Human Resources • Informal network of ADB staff with interest in IDRM established by 2014 • Capacity and role of the DRF Working Group under Financial Sector Development Community of Practice further strengthened by 2014 • Staff training and capacity development on IDRM implemented on a continuing basis over the life of the Operational Plan for Integrated Disaster Risk Management, 2014–2020 (IDRM Operational Plan)		
Budgetary Resources • $525,000 for staff training and capacity development ($75,000 x 7 years)[19] • $105,000 for undertaking disaster and climate risk project screening as part of the business process from 2015 ($500 x 35 projects x 6 years)[20]		

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Indicators	Baseline	2020 Target[1]
• **Business Processes and Practices** • Disaster and climate risk project screening tools in operational use by 2015 • CPS guidance materials in operational use by 2015 • IDRM Operational Plan launched and disseminated through ADB seminars and workshops by 2015 • Funds to develop the project disaster and climate risk screening tool and develop the CPS disaster and climate risk guidance materials (approximately $500,000) mobilized from TA sources by 2015 • Revisions to Disaster and Emergency Assistance Operations Manual completed by 2015		

ADB = Asian Development Bank, CPS = country partnership strategy, DMC = developing member country, DRF = disaster risk financing, DRM = disaster risk management, DRR = disaster risk reduction, IDRM = integrated disaster risk management, TA = technical assistance.

Notes:
1 Some baselines are based on projects that have achieved particularly high levels of performance. In such cases, a lower minimum target has been set in accordance with broader ADB targets.
2 This is a 40-year average for Asia and the Pacific over the period 1973–2012, rounded to the nearest 100.
3 This is a 10-year average for DMCs in 2003–2012, based on central government expenditure.
4 Baseline figures reflect projects completed in 2009–2012.
5 Only five stand-alone DRR loans and grants were completed between 2009 and 2012, of which three were rated.
6 There are no completed DRF loans or grants to date, but related indicators are included in the results framework because DRF is intended to become an increasingly important area of business for ADB over the life of the IDRM Operational Plan.
7 Information on the number of beneficiaries is not currently collected on a consistent basis. These data will be collected in project completion reports for ongoing projects and in project papers for new loans, grants, and TA, including gender-disaggregated figures. The baseline will be set for 2014 once the relevant figures are available.
8 Baseline figures reflect projects completed in 2012.
9 Baseline project figures for quality-at-entry reflect relevant projects out of a sample of 60 projects approved in 2010–2011 and used in the quality-at-entry assessment of ADB CPSs and projects. This sample includes only one stand-alone DRR project and two early recovery and reconstruction projects.
10 Baseline project figures reflect active projects as of 31 December 2012.
11 Criteria for assessing integration are under development. The baseline will be revised in accordance with these criteria once they are available.
12 The baseline figure reflects emergency assistance loans approved in 2009–2012 in response to natural hazards only.
13 A maximum processing time of 12 weeks is indicated in Operations Manual D7 Disaster and Emergency Assistance.
14 Targets for indicators relating to the percentage of projects that take disaster risk into account in their design have been set as "monitor" because the scope for doing so will depend on the precise nature of individual loans, grants, and TA.
15 Baseline figures reflect projects approved in 2009–2012.
16 Baseline figures reflect projects approved in 2011 and 2012.
17 Baseline figures reflect projects approved in 2012.
18 Baseline figures are based on a 3-year rolling average for 2010–2012. The target will also be measured on a 3-year rolling basis.
19 The indicative budget requirement of $525,000 for staff training and capacity development will be met within the current level of budgetary resources allocated for sector and thematic training being administered by the Knowledge Sharing and Services Center, Regional and Sustainable Development Department.
20 Resources will not be required until the disaster and climate risk project screening tool is in place. The cost of applying the disaster and climate risk project screening tool will be absorbed by operational departments.

Sources: Data are drawn from reports and recommendations of the President; project completion reports; gender database; listing of loan, technical assistance, grant, and equity approvals database; Operations Services and Financial Management Department; Strategy and Policy Department; and EM-DAT: The OFDA/CRED International Disaster Database, Université Catholique de Louvain, Brussels.

Operational Plan for Integrated Disaster Risk Management 2014–2020

The Operational Plan for Integrated Disaster Risk Management, 2014–2020 seeks to strengthen disaster resilience in the developing member countries of the Asian Development Bank (ADB). The operational plan has three key objectives toward this intended outcome: (i) to promote an integrated disaster risk management approach in ADB's operations, (ii) to strengthen ADB's developing member country integrated disaster risk management capabilities, knowledge, and resources, and (iii) to mobilize additional public and private partnerships and resources for integrated disaster risk management.

The operational plan recognizes the importance of reducing disaster risk in both the immediate and long term, taking the possible effects of climate change into account. It also highlights the urgent need to enhance the management of residual disaster risk, including through the establishment of adequate disaster risk financing arrangements. It outlines a series of crosscutting actions to address these needs, focusing on institutionalizing integrated disaster risk management, strengthening capacity and knowledge, investing in disaster resilience, and engaging stakeholders.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to approximately two-thirds of the world's poor: 1.6 billion people who live on less than $2 a day, with 733 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

ADB

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