

MANAGING RISKS FOR A SAFER BUILT ENVIRONMENT IN THE MALDIVES

Building Regulatory Capacity Assessment EXECUTIVE SUMMARY

Building Regulation for Resilience Program August 2020











The World Bank Group

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Acronyms

BPA	Building Planning Approval
BRCA	Building Regulatory Capacity Assessment
BRR	Building Regulation for Resilience Program
BS	British Standard
CCA	Climate Change Adaptation
CEN	European Committee for Standardization
СР	Construction Permit
DAP	Design Approval Process
DEM	Digital Elevation Model
DMC	Disaster Management Centre
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EC	Eurocode Standard
EIA	Environmental Impact
	Assessment
EPA	Assessment Environment Protection Agency
EPA EPZ	Assessment Environment Protection Agency Environmental Protection Zone
epa epz gdp	Assessment Environment Protection Agency Environmental Protection Zone Gross Domestic Product
epa epz gdp gfdrr	Assessment Environment Protection Agency Environmental Protection Zone Gross Domestic Product Global Facility for Disaster Reduction and Recovery
EPA EPZ GDP GFDRR H&S	Assessment Environment Protection Agency Environmental Protection Zone Gross Domestic Product Global Facility for Disaster Reduction and Recovery Health and Safety
EPA EPZ GDP GFDRR H&S HDC	Assessment Environment Protection Agency Environmental Protection Zone Gross Domestic Product Global Facility for Disaster Reduction and Recovery Health and Safety Housing Development Corporation
EPA EPZ GDP GFDRR H&S HDC HIRU	Assessment Environment Protection Agency Environmental Protection Zone Gross Domestic Product Global Facility for Disaster Reduction and Recovery Health and Safety Housing Development Corporation Housing and Infrastructure Reconstruction Unit (Ministry of Planning and National Development)
EPA EPZ GDP GFDRR H&S HDC HIRU	Assessment Environment Protection Agency Environmental Protection Zone Gross Domestic Product Global Facility for Disaster Reduction and Recovery Health and Safety Housing Development Corporation Housing and Infrastructure Reconstruction Unit (Ministry of Planning and National Development) Land-Use Planning
EPA EPZ GDP GFDRR H&S HDC HIRU	Assessment Environment Protection Agency Environmental Protection Zone Gross Domestic Product Global Facility for Disaster Reduction and Recovery Health and Safety Housing Development Corporation Housing and Infrastructure Reconstruction Unit (Ministry of Planning and National Development) Land-Use Planning
EPA EPZ GDP GFDRR H&S HDC HIRU LUP MCC MEA	Assessment Environment Protection Agency Environmental Protection Zone Gross Domestic Product Global Facility for Disaster Reduction and Recovery Health and Safety Housing Development Corporation Housing and Infrastructure Reconstruction Unit (Ministry of Planning and National Development) Land-Use Planning Malé City Council

MoHUD	Ministry of Housing and Urban Development
MoFA	Ministry of Fisheries and Agriculture
MMI	Modified Mercalli Intensity
MMS	Maldives Meteorological Service
MNDF	Maldives National Defence Force
MNPI	Ministry of National Planning and Infrastructure
MoENV	Ministry for Environment
MoT	Ministry of Tourism
MPR	Malé Planning Regulation 2015
MPS	Maldives Police Services
MQA	Maldives Qualifications Authority
MSL	Mean Sea Level
MWSC	Maldives Water and Sanitation Company
NA	National Annex (to Eurocode)
NAPA	National Adaptation Plan of Action
NDMA	National Disaster Management Authority
NDP	National Development Plan
OC	Occupancy Permit
RDMO	Regional Development and Management Offices
SSE	Society of Structural Engineers
STELCO	State Electric Company
UN-Habitat	United Nations Human Settlements Programme
UNDP	United Nations Development Programme
UNDRR	United Nations Office of Disaster Risk Reduction

Definitions

Act (of Parliament, for example) indicates high-level legislation that is passed by the legislative arm of government in a country.

Building codes create legal requirements in the construction process of any infrastructure or building development and must be enforced. Building codes must refer to appropriate building standards. They are promulgated by local or national governments and have an independent legal value.

Building regulatory framework is the overarching national framework in place that determines how a building is constructed. A building regulatory framework is composed of three core components: a legal and administrative framework, a building code, and building code implementation at the local level. Building regulatory frameworks rely on an ecosystem of supporting institutions and system elements, such as the mortgage finance system, frameworks for secure tenure, property and tax regimes, professional societies, and training institutions for the labour force.

Building standards define test methods to determine product performance. Standards and specifically "building standards" do not have any independent legal status, but they provide an essential reference in any building process. There are around 4,000 building-related standards in the world.

Chronic risk is a risk distributed over time and space, such as individual building fires and individual spontaneous collapses. These risks do not stem from one isolated event but arise from continuous conditions, which accumulate over time.

Compliance documents are legally binding implementation regulations of the building code. A design code may form part of a suite of compliance documents.

Design codes are reference standards addressing structural design provisions (e.g., Eurocodes, ASCE 7-16, etc.). When specific standards are referenced in the building code, and the building code is adopted into law, they become legally enforceable.

Disaster risk is the potential loss of life, injury, and destroyed or damaged assets that could occur in a system, society, or community in a specific period and can be defined through the combination of three terms: hazard, exposure, and vulnerability.

Fire regulations are the set of rules, standards, and recommendations intended to reduce to a minimum the destruction caused by fire. Fire regulations are intended to prevent the ignition of an uncontrolled fire and to limit the development and effects of a fire after it starts. The National Fire Protection Association (NFPA), for example, has developed more than 300 consensus codes and standards aimed at eliminating death, injury, and property and economic loss due to fire, electrical, and related hazards.

Hazard is defined by a process, phenomenon, or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption, or environmental degradation. Hazards may be natural, anthropogenic or socionatural in origin. Natural hazards are predominantly associated with natural processes and phenomena. Anthropogenic, or human-induced, hazards are induced entirely or predominantly by human activities and choices. Hazards may be single, sequential, or combined in their origin and effects. Each hazard is characterized by its location, intensity or magnitude, frequency, and probability.

Hazardscape represents the existing and potential sources of threats (hazards) for a country. This includes natural hazards and chronic hazards.

Definitions (continued)

Heylhifah is the Maldivian term used to describe the littoral vegetation strip around the island.

Informal building includes both structures that are built according to national standards but have not obtained formal planning permission and semipermanent structures that do not meet official standards; they are most frequently built by lowincome households themselves or by landowners for rental. This broad definition of the informal sector means that most of the national housing stock fits within the informal category.

Land-use regulations are the ordinances of Government, including permits and codes, created to ensure that land resources align with national and local policy interests. Regulations are not restricted to controlling existing buildings and uses; in large part, they guide future development. Mapping and master plans are essential to land-use regulation, which can be conceived to determine land use at all territorial scales.

Non-engineered construction includes buildings that use traditional building practices without any or with little intervention by qualified architects and engineers in their design.

Policy is a plan or course of action, as of a government, intended to influence and determine decisions, actions, and other matters.

Reference standards address the performance, quality, design installation, test, and maintenance of all types of materials, systems, and products. When specific standards are referenced in the building code, and the building code is adopted into law, they become legally enforceable.

Resilience is the capacity of a system, community, or society that is exposed to hazards to resist the hazard effects, adapt to the hazard or recover from a disaster. For social systems, this is determined by the degree to which they are capable of learning from past disasters and organising themselves to reduce risk from future hazard events. From a building (engineering) perspective, resilience is commonly defined in terms of the ability of the structure to preserve life-safety, and continued function after a hazard event.

Udha is a Maldivian term for high waves.

Vulnerability defines the conditions determined by physical, social, economic, and environmental factors or processes that increase the susceptibility of an individual, a community, assets, or systems to the impacts of hazards.

Executive Summary

The Accumulation of Risk in the Built Environment in the Maldives

The Republic of Maldives includes 1,192 small, lowlying islands grouped into 26 atolls that together form a chain over 820 km in length, over an area of more than 90,000 square km in the Indian Ocean. However, the total land area in the Maldives is less than 300km². This makes it the smallest country in Asia in terms of land area as well as in population. Each island is appointed to a particular use: 188 islands are designated for habitation; 109 islands are for tourist resorts, and 128 islands are dedicated to industrial use. Of the inhabited islands, only 33 have a land area greater than 1km², and 67 have a population of fewer than 500 people.

The total population of Maldives is 407,660 (2014 census). Over 100,000 people live in the capital city Malé, which is on an island 1km by 1.7km. The urban population of the Maldives is expected to more than double by 2025. With an urban growth rate of about 5 percent a year, the country will go from predominantly rural to predominantly urban within a generation.¹ However, this growth is not homogeneous across all atolls: urbanization is expected to be concentrated on the reclaimed island of Hulhumalé, as well as designated Urban Regions in the outer atolls (to be defined in the Maldives National Spatial Plan 2020-2040).

This urbanisation has the potential to improve economic opportunities. However, there are also several challenges associated with this shift and concentration of population. Malé has transformed into an agglomeration of densely packed high-rise buildings, resulting in greater incidence of fire and unsafe construction practices that have recently resulted in several injuries and fatalities. The atolls are also seeing an increase in medium- to high-rise buildings, and with unregulated labour and limited local authority capacity for inspection, the structural integrity of buildings and the safety of occupants is being compromised. Furthermore, to relieve stress on land availability on inhabited islands, there has been a strong increase in land reclamation, which has potential impact on coral reefs and the environment.

The Maldives is vulnerable to several natural hazards, the prevailing ones being meteorological (i.e., tropical cyclones and storms, thunder storms, heavy rainfall, and drought) and hydrological (i.e., floods induced by heavy rainfall, storm surges, swell waves, and udha) in nature. The low elevation of the islands above sea level makes them particularly vulnerable to coastal flooding, events that are worsened by climate change. Maldives also has a low risk to earthquakes and is vulnerable to distal tsunami.

Maldives is currently in a transition phase. It has moved away from heavily centralised governance towards devolution and decentralization of decision making to island level and multi-party elections. A stronger and more wide-ranging legislative framework is one consequence of this transition. Given the rapid urbanisation and high vulnerability of the Maldives to natural hazards, regulatory decisions made now will have a significant impact on the longterm safety, productivity, and resilience of the urban built environment.

To facilitate the construction of safe and resilient buildings, comprehensive and effective building regulatory frameworks are needed.² The components of a building regulatory framework, including building and land-use regulations, enabling legislation, and local compliance mechanisms, function together to ensure that a particular building, on a particular site, achieves minimum levels of performance and resilience.

¹ C. Hague (2015). "The Maldives – Challenges for Sustainable Development in a Small Island State."

² World Bank, GFDRR (2015). <u>Building Regulation for Resilience –</u> Managing Risks for Safer Cities. Available online.

Why Is an Effective Building Regulatory Framework Important for the Maldives?

Building regulatory frameworks can be a costeffective mechanism for optimising risk reduction and can also support other societal objectives such as: accessibility and usability for people with disabilities; sustainability through energy-efficient buildings; hazard resilience of the built environment; and preservation of national heritage sites.³

An efficient and transparent building regulation process can also incentivise economic investment in the construction sector by providing the market with a clear set of design and construction requirements, quality standards, and competency expectations.

Increase in urbanisation has made construction the third largest industry in the Maldives and a major driver for economic growth. The pace of urbanisation is putting pressure on existing legislative and regulatory provisions and particularly on the institutional capacities to implement them.

3 Ibid.



Report Approach

This report follows the Building Regulation for Resilience (BRR) Program's Building Regulatory Capacity Assessment (BRCA) methodology.¹ It results in a series of recommendations for enhancing building regulatory capacity and implementation mechanisms in the Maldives that are tailored to local aspirations, resources and priorities. This is achieved by conducting the assessment in a staged process supported by consultations with a steering committee of local experts and wider stakeholder consultations with academic and private construction and design professionals.

The assessment covers three main components of the building regulatory system:

1. National legal and institutional framework

This focuses on identifying whether the necessary legal (acts, decrees, laws) and institutional structures are in place to enforce land-use and building regulations. To be effective, the legal, administrative, and institutional structures should include provisions for all steps of the life cycle of a building, including the project's siting, design, construction, maintenance, retrofit, and decommissioning.

2. Building code development and maintenance

This examines the adequacy of the building regulations (building code) and how they are maintained over time. The assessment focuses on the extent to which these regulations reflect an upto-date scientific understanding of how buildings perform against chronic risks, disaster events, and climate change and how they have been adapted to reflect local conditions and construction practices. Land-use regulations were also examined to determine whether they include provisions for the safe and resilient siting of buildings.

3. Local implementation

This examines the implementation and management of building and land-use regulations at the county level. Different entities handle implementing and enforcing planning, building, and fire regulations, and their capacity (in terms of staff, skills, and resources) plays a key factor in determining the adequacy of the control system. The level of education and training of professionals and workers in the construction industry also has a significant influence.

Beyond these three components, building regulatory systems also rely on an ecosystem of supporting elements such as insurance markets, mortgage finance systems, frameworks for secure land tenure, and property and tax regimes.



¹ World Bank, GFDRR (2017). *Building Regulatory Capacity Assessment: Level 2.* Available online.

The Government of the Maldives's Efforts to Strengthen the Building Regulatory Framework

The Maldives government has taken important steps towards strengthening the building regulatory framework. These actions are driven by several motivations, including a desire to increase the country's resilience to disasters and chronic stresses and to strengthen the profitability and safety of the construction sector.

A new Construction Act was issued in 2017 and a new Ministry of National Planning and Infrastructure (MNPI) was created in 2018. The MNPI has an extensive mandate that includes ownership of the Construction Act and associated regulations, land-use planning, national strategic planning, and infrastructure projects.

While the BRCA was being conducted in March 2019, 13 new regulations associated with the Construction Act were issued by the MNPI, including

a Building Code for the Maldives. Some critical components that remain to be issued, such as the reference standards (called compliance documents in the Maldives) for the Building Code; however, the Act and regulations form a framework on which to build a strong building regulatory capacity. Furthermore, a National Disaster Management Act was issued in 2015, which is now being implemented through the National Disaster Management Authority (NDMA), established in 2018.

To further strengthen the Government's own initiative in improving building legal and regulatory frameworks, the BRCA comes at a time when significant progress is already being made towards a more efficient building approvals system and awareness of the need for more resilient and sustainable construction and urban development is strong.

Key Challenges

A selection of the key challenges identified through the BRCA are outlined below. These challenges are explored in greater depth throughout the report and are linked to the later recommendations.

The Maldives faces instability in institutions and insufficient capacity of local authorities.

Institutional stability, development, and coherence, are essential for effective and sustainable regulatory systems. Since 2008, many changes have occured in the roles and mandates of official institutions to meet the country's building and planning needs.

The decentralisation of regulatory authority, though desirable in principle, requires commitment, considerable resources, and technical and financial capacities to support local administrations, which currently do not have the capacity (staff, skills, resources) to fulfill their roles.

Gaps remain in building regulations.

The presented review of the current legislation in Maldives finds, as a major gap, the lack of a Planning Act to regulate procedures and clarify roles and responsibilities. This gap was also highlighted by stakeholders participating at the kickoff workshop in Malé. The National Development Plan (2019-2028) has not been completed and issued. Furthermore, despite a new building code associated with the Construction Act (04/2017), tourist resorts are exempt from this building regulation.

Land-use plans are not available for many inhabited islands.

The geographic dispersal of nature of islands in the Maldives and local authorities' limited resources have meant that many inhabited islands have no land-use plans, complicating regulation of development.

Reference standards (compliance documents) are lacking in the Building Code of Maldives.

No reference standards or design codes (compliance documents) are currently associated with the Building Code, impeding its implementation. These compliance documents are currently being developed; however, it is important that they be developed through a proper consultation process with relevant stakeholders, that the compliance documents improve on existing practices, and that they reflect locally relevant hazards, construction, and resource constraints.

Land reclamation regulations are needed.

Land reclamation is increasing in the Maldives, given the need for land. Currently no guidance or regulation covers land reclamation. This is a serious gap that needs to be filled to ensure the construction safety of these sites as well as to reduce environmental impact and induced hazards.

No resilient features are included in informal construction.

Single-storey houses are currently exempt from building regulations. This is common in many parts of the world. However, in the Maldives, there have been few initiatives to enhance the resilience of these buildings to natural hazards. No specific guidance exists on resilient building features and practices for these buildings.

Hazard maps are of insufficient resolution for use in land-use planning and in the compliance documents.

Poor-resolution hazard maps exist for most of the Maldives, impeding risk-informed hazard zoning. This is partly due to the poor coverage and short history of measured hazard data. Furthermore, only low-resolution bathymetric and topographic data (DEM) exist for most of the country. Current hazard maps are enough but not ideal for use in future compliance documents. They do not follow state-ofart procedures for probabilistic hazard assessment, nor do they appropriately account for uncertainties in knowledge and data.

The systems and practices for processing building approvals are outdated.

Many permits and building application forms and documents are submitted in hard copy during the approval process. These are not systematically digitised. A modern system for data storage and sharing, and for building approval document submission and processing would significantly speed up the building approval and permitting processes, assist effective implementation of regulations, increase transparency, and provide a better service to residents.

Human resources and capacity in institutions for building regulation, monitoring, and inspection are insufficient.

The main challenge identified by all institutions involved in the building process is the lack of qualified and experienced technical staff within institutions. MNPI, the core regulating agency for the Construction Act, finds insufficient technical staff (engineers, architects and other built environment professionals) to be one of its biggest challenges to effective implementation of the new regulations. Local authorities also have very limited staff with technical skills for land-use planning, building approvals, and inspections.

No formal training for some sectors of the building trade and no continuing professional development courses are available.

Education and training opportunities in constructionrelated fields are scarce in the Maldives. There are no formal training courses in important trades such as masonry, plumbing, and carpentry, nor in construction management. There is a lack of professional development opportunities for building practitioners. This makes it difficult for building professionals to remain informed of state-of-art practices.

Recommendations

Based on the detailed Building Regulatory Assessment (BRCA) and building on the existing efforts the Maldivian Government has made to promote this agenda, a set of recommendations are made that build on existing Government's capacity and mechanism. These recommendations are intended to support the Government of the Maldives in launching comprehensive building regulatory reform going forward and were the outcome of a prioritization process. Two Action Planning workshops were carried out in July and August 2019, providing feedback on the full set of recommendations included in the BRCA. Among the stakeholders attending the Building Regulatory Capacity Assessment Maldives Action Planning Workshops were key government officials from the the Ministry of National Planning and Infrastructure, the Ministry of Housing, the Ministry of Tourism, the Ministry of National Defence Force, the Ministry of Islamic Affairs, and local organisations including the Association of Civil Engineers, MNACI, the Architects Association, and the Contractors Association. It was also attended by international organizations, including UNDP and the Maldives Red Crescent. Their input determined which actions to prioritize on, as well as the potential planning roadmap to implement them.

Next Steps

The Government of the Maldives has embarked on the journey to strengthen its urban resilience agenda through multiple initiatives, including two recent World Bank assisted operations: Maldives Urban Development and Resilience Project (P163957), and the Development Policy Financing with Catastrophe Deferred Drawdown Option and Pandemic Emergency (P163939). The BRCA findings and prioritised recommendations were utilised to inform the design of these projects and to support the strengthening of the country's building regulatory framework and implementation capacity. Further, the analysis and the full list of recommendations outlined in the report provide inputs with which the Government of the Maldives can develop and start a building regulatory reform action plan.



Summary of Recommendations

Table Key		
•	Short Term	Activities that could be carried out, starting immediately. Generally, these activities should be completed within a three-year time span.
	Medium to Long Term	Activities implementation of which will take longer: medium term, four to six years; long-term, seven to ten years.

1. NATIONAL LEGISLATIVE AND INSTITUTIONAL FRAMEWORK

Recommendations	S	M-L
1.1. Complete and implement the National Development Plan (2019–2028) *		
1.2. New planning legislation (Planning Act) should be developed and issued that clarifies roles, responsibilities, and procedures at all levels. $*$		
1.3. The 2017 Construction Act should be updated to include the tourism sector, which is currently exempt, on the principle that no sector should be exempt from the Act. $*$		
1.4. The NDMA should be strengthened institutionally to fulfil its wide-ranging mandate.		
1.5. Strengthen and expand the scope of land-use planning through the development and improvement of spatial and regional plans for different island categories.		
1.6. Integrate DRR into the National Development Plan and into environmental, planning, and building regulatory frameworks.		
1.7. The roles, authorities, and relationships of different institutions and planning authorities should be clarified to ensure complementarity & to reduce gaps/overlaps in service provision.		
1.8. Establish and support proper technical and research institutions to carry out studies and advise government on (inter alia) hazards, risks, building structures and materials, and environmental and other impacts of planning and construction.		
1.9. Redefine the roles and responsibilities of the Construction Industry Development Board and other committees mentioned in the new regulations to better reflect the aspirations of the relevant industry stakeholders.		
1.10. Build the capacity of local authorities to undertake effectively their responsibilities for enforcement and co-ordination of land-use and environmental regulation.		
1.11. Include MoT and NDMA as key stakeholders of the building regulatory framework and in drafting the code compliance documents.		
1.12. Environmental protection legislation should be enforced more strongly by EPA and local authorities.		
1.13. Initiate an immediate, timely, and transparent review process for the new regulations under the 2017 Construction Act that is participatory and inclusive of regulatory partners and actors in the industry.	•	

* These recommendations were selected by the stakeholders as being of the highest priority.

2. BUILDING CODE DEVELOPMENT AND MAINTENANCE		
Recommendations	S	M-L
2.1. Develop compliance documents to implement the Building Code of Maldives, making them locally relevant in terms of hazards, design & construction practices, and resource constraints. $*$		
2.2. Encourage a concerted effort to improve hazard data collection. $*$		
2.3. Designate the National Disaster Management Authority as the curator for all hazard maps, hazard data, and zoning maps; develop an online database to disseminate this data. *		
2.4. Establish a system of expert committees for drafting, reviewing and maintaining building regulations and compliance documents.		
2.5. Educate and train building sector professionals and the public on the new Building Code.		
2.6. Develop a guideline for including hazard-resilient features in low-engineered buildings.		
2.7. Build a materials testing laboratory, with trained technicians, to enable local capacity for checking materials.		
2.8. Develop new hazard maps for wind, floods, storm surges, earthquakes, and tsunamis for use in compliance documents and zoning; maintain and review hazard maps on a regular basis.		
2.9. Establish a clear process for converting the hazard maps into zoning regulations.		
2.10. Develop regulations for land reclamation works that require appropriate site investigation and assessment of the effects of land reclamation on the environment.		

* These recommendations were selected by the stakeholders as being of the highest priority.

3. LOCAL BUILDING REGULATORY CAPACITY AND IMPLEMENTATION		
Recommendations	S	M-L
3.1. Develop and implement training programs for specialised building trades such as plumbing, masonry, carpentry, and most importantly, construction workers (skilled workers). $*$		
3.2. Establish an Electronic Permitting System. *		
3.3. Prepare a staffing plan for MNPI and local authorities to implement and enforce the building regulatory framework at the national and island levels.		
3.4. Establish a clear and effective structure to monitor building construction at the local and central levels.		
3.5. Conduct a nationwide survey of the construction industry to set up a baseline of existing construction.		
3.6. Prioritise the types of tertiary education needed for actors in construction industry and identify ways to provide such opportunities.		
3.7. Standardize building approval processes through an intensive stakeholder consultation process.		
3.8. Develop proper interventions in organizational structures at the atoll and island level, based on the proposed hierarchy of islands in the Spatial Planning Framework of the NDP, to empower local authorities to implement the regulations.		
3.9. Undertake a strategic communication campaign to inform the relevant parties and the public of the new regulations.		
3.10. Revise the Third-Party Review system.		
3.11. Professional Qualifications need to be recognised by MQA.		

* These recommendations were selected by the stakeholders as being of the highest priority.



This report provides an assessment of the building regulatory framework in the Maldives. Research and recommendations were developed by the World Bank with the strategic objective of improving building safety and resilience across the country.

The analysis and recommendations outlined in the report provide inputs with which the Government of the Maldives can launch a comprehensive process of building regulatory reform. The recommendations build on the existing efforts the Government has made to promote this agenda.

As part of the Global Facility for Disaster Risk Reduction (GFDRR), the Building Regulation for Resilience Program develops and promotes activities to increase regulatory capacity to promote a healthier, safer, and more sustainable built environment. By leveraging good practice in building regulation as part of a strategy to reduce both chronic risk and disaster risk, it sets low- and middle-income countries on the path to effective reform and long-term resilience.

The GFDRR is a global partnership that helps developing countries better understand and reduce their vulnerabilities to natural hazards and adapt to climate change. Working with over 400 local, national, regional, and international partners, GFDRR provides grant financing, technical assistance, training, and knowledge sharing activities to mainstream disaster and climate risk management in policies and strategies. Managed by the World Bank, GFDRR is supported by 34 countries and 9 international organizations.









