

Action Agenda

Integrating Disaster Resilient Infrastructure in National Adaptation Strategies

Executive Summary

The era of climate disruption is defined not only by rising temperatures but by cascading disasters that threaten the foundations of growth, eroding hard-won development gains, and amplifying social vulnerability. Floods, cyclones, landslides, and heatwaves increasingly occur in clusters, overwhelming societies' capacity to recover. At the heart of this crisis lies infrastructure – essential to every economy yet acutely exposed to climate and non-climate related natural hazards. The world is building infrastructure at an unprecedented pace: an estimated 75 percent of the infrastructure needed by **2050** is yet to be built, with the largest share of this investment set to occur in the Global South¹. Without integrating disaster resilient infrastructure (DRI) into adaptation strategies now, we risk locking in trillions of dollars' worth of assets that are vulnerable to climate-induced disasters – assets that will fail more often, cost more to repair, and disrupt lives and livelihoods on a massive scale.

Embedding DRI into national adaptation planning is not a “nice-to-have” – it is an economic and social imperative. The resilience dividend is clear: CDRI's research shows that incorporating resilience in infrastructure adds 5–15% to upfront costs, but delivers a 7–12x return over the asset's life cycle. Encouragingly, an increasing number of National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs) now include infrastructure resilience as a key component of national climate action. As of mid-September 2025, 68 countries have submitted their NAPs, and nearly half include references to DRI – through measures such as retrofitting, building codes, budget tagging for resilience, and sectoral initiatives in transport, water, and energy systems.

This marks a significant step forward in recognizing the centrality of resilient infrastructure to adaptation. However, translating these policy commitments into practice remains a challenge. Implementation requires stronger institutional coordination, financing mechanisms, and enforcement capacities to ensure that resilience is systematically integrated across planning, budgeting, and infrastructure delivery. The focus must now shift from policy inclusion to operational integration, making resilience a defining feature of how countries design, build, and finance their development.

In the lead up to COP30, Coalition for Disaster Resilient Infrastructure brought together global experts through a Community of Practice to deliberate on the relevance of DRI in complementing climate adaptation strategies globally. The experts collectively developed an Action Agenda with recommendations for governments for integrating DRI in the national adaptation strategies.

¹All figures in \$ refer to US dollars.

Part I

Why DRI Now: The Case and Contours

The Scale of the Challenge

The world is building infrastructure at an unprecedented speed. Climate-induced disasters are no longer isolated shocks. Recent years have shown multiple hazards striking the same region in rapid succession. In Nepal, the 2024 monsoon floods destroyed over 200 bridges and washed away key highways connecting mountain districts²; in India, extreme rainfall in Himachal Pradesh and Uttarakhand in 2023 caused damages exceeding \$1.4 billion to transport and power infrastructure³; and in Switzerland, a 2024 landslide completely wiped out the alpine village of Brienz, underscoring that even high-income countries are not immune.⁴

1

Economic losses are surging: Over the last two decades, climate-related disasters have caused over \$3 trillion⁵ in direct losses globally, with infrastructure damage accounting for a majority share. In low- and middle-income countries (LMICs), the annual cost of infrastructure disruption is estimated at 1–2 percent of GDP, a figure projected to double by 2030⁶ without significant adaptation measures.

2

Global South's exposure is disproportionate: By 2050, Africa and Asia will host nearly 90 percent of the world's new infrastructure investment⁷. Yet, most of this expansion is occurring under intensifying hazard exposure: 85 percent of urban growth from 1985–2015⁸ was in flood-prone regions, and 80 percent of that in LMICs. Without resilient design, operation, and maintenance, much of this investment will be at chronic risk.

3

Fragile geographies as a warning case: Small Island Developing States (SIDS) and low-lying deltas face existential risks, with airports, ports, and power plants standing directly in the path of sea-level rise, cyclones, and storm surges. Disaster losses can exceed the entire GDP of a SIDS in a single event — as with Dominica in 2017, when Hurricane Maria caused damages worth 226 percent of GDP, crippling infrastructure networks from power to water supply⁹. Mountain systems offer another cautionary lesson. Landslides alone account for an estimated \$26 billion in annual global losses¹⁰. The 2015 Nepal earthquake triggered thousands of landslides, devastating water supply, communications, and transport systems¹¹. In October 2023, a glacial lake outburst flood (GLOF) in Sikkim, India destroyed the Chungthang Dam and major road links, while recurrent avalanches continue to isolate remote Himalayan communities¹². Rebuilding without resilience compounds fiscal strain, deepens debt, and prolongs recovery. Annual budget allocations for infrastructure maintenance and risk reduction must, therefore, be informed by historical damage and loss data, to avoid recurring cycles of destruction and reconstruction.

Why Infrastructure Resilience is Central to Adaptation

Adaptation strategies that overlook infrastructure resilience miss a critical lever for protecting communities and economies.

01

Interdependence amplifies risk: Infrastructure is not a sectoral concern; it is systemic. A single point of failure — for example, a power substation inundated during floods — can cascade into multiple sectors, cutting food and water supplies, healthcare services, and economic activity simultaneously.

02

Infrastructure as a backbone of adaptation: Roads, ports, railways, metros, energy grids, water and sanitation systems, telecommunications networks, public transport, education and health facilities, and housing are the enabling assets that make adaptation possible — from early-warning systems and resilient service delivery to food and livelihood security. When these systems falter, communities lose access to essential services, economic activity stalls, and hard-won adaptation gains are rapidly undone.

03

Service continuity saves lives and livelihoods: In cyclone-prone Odisha, India, the elevation of evacuation shelters and hardening of power infrastructure reduced disaster mortality by over 90 percent between 1999 and 2019¹³. These gains are directly tied to resilient infrastructure planning and investment.

04

Coherence for comprehensive risk management: Resilient infrastructure is a natural joint implementation area for disaster risk reduction and national adaptation plans because decisions on networks and facilities lock in risk for decades while society relies on them daily for water, energy, transport, health, communications, and public safety. Working together helps close persistent gaps in data on losses and service disruption, aligns finance and governance across ministries and utilities, and ensures accessibility and inclusion so services reach people in vulnerable conditions. It also reduces cascading failures across sectors and prevents maladaptation.

Resilient infrastructure therefore underpins adaptation across sectors. Yet, most NAPs and NDCs still lack systemic integration of infrastructure resilience into their goals, financing frameworks, and implementation mechanisms. When resilience is mentioned, it is often aspirational, fragmented, or limited to single-sector interventions. This is particularly concerning for SIDS, where ports and airports are lifelines, and for fast-urbanizing regions where weak building codes and overstretched utilities amplify climate risks.



Embedding DRI into adaptation strategies means:

1. Conducting comprehensive multi-hazard and multi-sector risk assessments and resilience stress tests.
2. Identifying adaptation-critical assets and prioritizing them in planning.
3. Ensuring that hazard mapping and risk diagnostics feed directly into project design.
4. Building resilience into the full infrastructure lifecycle — from planning and financing to construction, operation, maintenance, and monitoring.
5. Designing infrastructure projects to account for climate change by incorporating likely climate scenarios and anticipated growing risks and impacts from extreme weather events. While this may entail higher upfront capital costs, it can reduce future losses.
6. Improving data collection on loss and damage to infrastructure from diverse impacts of natural hazards and climate extremes.

The Cost of Inaction and the Resilience Dividend

The cost of neglecting resilience is staggering. Climate-induced disasters already cause average annual losses worth over \$700 billion globally¹⁴, with infrastructure damages constituting the largest share. For vulnerable economies, disasters can wipe out decades of development in hours — as seen when cyclones destroyed 60 percent of Dominica's GDP in 2017¹⁵ or when floods in Pakistan (2022) submerged one-third of the country and caused damages exceeding \$30 billion¹⁶. Beyond fiscal shocks, the social and human costs are immense: damaged roads and hospitals delay emergency care; contaminated water spreads disease; and displacement and livelihood loss deepen mental health crises. Poorly designed or sited infrastructure compounds these challenges, locking countries into cycles of maladaptation, higher long-term risks, and rising emissions. Economic costs associated with infrastructure failures due to climate-related disasters are, on average, 7.4 times the cost of direct damages to infrastructure assets¹⁷ making inaction not just costly but unsustainable.



In contrast, investing in DRI is a high-return, fiscally prudent strategy. Resilient systems keep economies running — preserving trade flows, protecting jobs, and ensuring continuity of health, water, and education services. They also deliver powerful equity outcomes: by reducing service disruptions, resilience safeguards the poor and most vulnerable, who bear the brunt of infrastructure breakdowns. For SIDS, resilient ports and airports secure lifelines for food and medicine; for mountain states, resilient roads sustain connectivity and markets; and for urban economies, resilient housing and utilities shield millions from cascading risks. The resilience dividend is clear — it is the strongest economic, social, and moral argument for embedding DRI systematically into national adaptation planning and finance.



Implementation Challenges: Integrating DRI into National Planning

- 01 From policy intent to delivery:** Most countries now recognize the importance of infrastructure resilience in their NAPs and NDCs, but translating these commitments into implementation remains uneven. While progress has been made in including resilience provisions — such as building codes and sectoral measures — operational integration across ministries and levels of government is still limited.
- 02 Fragmented systems and capacity gaps:** Adaptation efforts often run in silos, with limited coordination between water, energy, transport, and urban sectors. Risk assessments and diagnostics are expanding but are not yet consistently embedded in planning, codes, or enforcement. Strengthening institutional capacity and inter-ministerial coordination is key to turning strategies into action.
- 03 Financing and valuation shortfalls:** Despite rising adaptation finance flows, only a fraction supports infrastructure resilience. Resilience benefits — such as avoided losses, productivity gains, and health and social co-benefits — remain undervalued in cost–benefit frameworks. Embedding these in investment planning will help build a stronger fiscal case for DRI integration.



Why Now — and Why at COP30?

This is a decisive decade. Infrastructure pipelines worth trillions are being designed and financed, particularly across the Global South. Choices made today will determine whether growth trajectories are resilient or fragile. The evidence is clear: Resilient infrastructure is not an add-on — it is the foundation of adaptation and the backbone of sustainable development.

COP30 in Belém represents a pivotal moment — the “Implementation COP.” As the world moves from pledges to practice, the focus has shifted squarely to solutions that can deliver resilience at scale. The Amazon, host to COP30, is emblematic of global interdependence and vulnerability: its ecosystems sustain planetary stability, while its communities face mounting climate pressures. This setting underscores an urgent truth — adaptation must be built on resilient systems that safeguard lives, livelihoods, and economies.

Integrating DRI into national adaptation strategies aligns directly with this implementation agenda because infrastructure is where adaptation ambitions are ultimately realized — in the roads that enable evacuation during floods, the power grids that keep hospitals running during heatwaves, the water systems that sustain communities in droughts, and the digital networks that ensure early warning and coordination.

Embedding DRI systematically into national planning and financing transforms adaptation from a collection of projects into enduring, system-wide resilience. It ensures that every dollar invested in climate response also strengthens a country’s long-term development foundations — reducing future losses, protecting lives and livelihoods, and stabilizing economies against escalating shocks. As countries move from commitment to delivery, resilient infrastructure provides the most tangible pathway to turn climate goals into measurable outcomes. It connects global ambition with national implementation — the very essence of what COP30 seeks to achieve.

COP30 offers a historic opportunity to elevate DRI from a sectoral concern to a core pillar of the global adaptation architecture. An Action Agenda on Integrating DRI into Adaptation Strategies can provide governments, financiers, and practitioners a shared framework for embedding resilience in how nations plan, build, and finance their futures. This is the moment to make infrastructure resilience the defining marker of the global adaptation decade.

The Contours of Action on DRI

For DRI to become the backbone of adaptation, countries must act on four fronts:

1

Diagnosis and prioritization: Conducting systematic risk assessments and hazard mapping to identify adaptation-critical infrastructure, such as transport, energy, water, housing, and public services. These diagnostics must move beyond asset-level assessments to system-level interdependencies, identifying where failure in one sector could cascade across others.

2

Governance and planning: Embedding resilience into codes, policies, and cross-sectoral coordination mechanisms, and anchoring it in institutions with clear mandates. Resilience must be anchored institutionally — within ministries of finance, planning, and line agencies — through clear mandates, accountability structures, and performance indicators.

3

Financing mechanisms: Shifting from ad hoc donor support towards predictable, blended financing pipelines underpinned by national treasuries, multilateral development banks (MDBs), climate funds, and private capital. The resilience dividend — including avoided losses, job creation, and improved health and productivity — should be explicitly quantified, valued, and reported, making resilience investment a core component of fiscal planning.

4

Implementation pathways: Translating plans into time-bound, costed, and locally driven programmes with measurable targets. Governments should develop integrated project pipelines that bring together planning, engineering, finance, and community engagement — ensuring resilience principles are operationalized from design to delivery. Tools such as resilience screening frameworks, infrastructure audits, and performance-based contracting can help institutionalize action. Strong monitoring and evaluation systems are essential to track progress and adjust strategies in real time.

Part II

The Integration Framework: Principles, Pathways, and Tools

Embedding DRI into adaptation strategies is not a single reform — it is a systemic shift in how governments plan, finance, and govern development. While countries are at different stages of readiness, the challenge is universal: moving from DRI as an “afterthought” to DRI as a foundational principle of adaptation. This requires three anchors — clear principles, actionable pathways, and practical tools — that are replicable across contexts.

Principles for Integration

01 Whole-of-government, whole-of-society: Resilience must not remain siloed within adaptation focal points or disaster management agencies. Ministries of finance, transport, housing, energy, and environment must share mandates, while private sector, academia, and communities are engaged from the outset.

02 Science- and risk-informed planning: Infrastructure decisions must rest on robust and comprehensive multi-hazard risk assessments (including sector-specific mapping), that consider past losses and damages, current risk information and climate and demographic projections, and sector-specific vulnerability assessments. Participatory risk assessments confirm the value of local knowledge in identifying hotspots.

03 Resilience as development: DRI is not only about protection from shocks but about securing long-term growth, livelihoods, and fiscal stability. It must be integrated into national development plans, urban strategies, and sectoral investments.

04 Equity and inclusion: Resilience planning should prioritize the most vulnerable — small states, fragile mountain communities, urban poor, and women, children and the elderly—ensuring that no group bears disproportionate risks.

Pathways to Integration

1

National planning and governance

- Elevate DRI from a technical annex to a central chapter in National Adaptation Plans and disaster risk reduction (DRR) Strategies.
- Establish inter-ministerial platforms with convening authority (e.g., Chile's model where the Ministry of Public Works co-leads with the National Disaster Prevention and Response Service [SENAPRED]).
- Develop climate action plans at the subnational level. For instance, India's approach towards implementing State Action Plan on Climate Change (SAPCC).
- Ensure participation of infrastructure decision-makers on existing national platforms for climate action and disaster risk reduction.

2

Standards and methodologies

- Develop and adopt national standards for climate-resilient infrastructure – aligned with global frameworks but tailored to local risks (e.g., hydropower guidelines in Nepal).
- Integrate sectoral standards into national policies, examples being resilient airports in Indonesia and tsunami evacuation shelters adapted for schools and offices, and resilient housing codes in the Caribbean.
- Use scenario modelling, risk diagnostics, and resilience baselines to guide investment pipelines, ensuring that climate projections inform design choices.





3

Financing pathways

- Expand pre-arranged and parametric instruments. The Africa Risk Facility, the Caribbean and Central America Parametric Insurance Facility and Development Insurer (CCRIF SPC), Brazil's insurance public-private partnerships (PPPs), Chile's 2023 parametric catastrophe (CAT) bond providing \$630 million in earthquake coverage and India's municipal green bonds offer replicable models.
- Embed resilience in PPP contracts and concessions to avoid costly rebalancing after disasters.
- Leverage disaster & climate budget tagging, adaptation finance facilities, and resilience-linked bonds to align domestic and international flows.
- Institutionalize participatory risk assessments as a criterion for allocating adaptation finance, ensuring last-mile delivery to vulnerable communities.

4

Capacity and Regional Cooperation

- Pool technical expertise at regional levels: Caribbean states leveraging CDEMA, South Asia through shared hydropower and landslide guidelines, African regions through GCF readiness funds and the emerging DRI Resource Hub for Latin America and the Caribbean, which aims to strengthen regional knowledge exchange, technical assistance, and capacity for resilient infrastructure planning.
- Invest in long-term capacity building for engineers, local authorities, and communities—so that resilience is designed into infrastructure, not retrofitted after failure.



Tools for Governments

- Stakeholder mapping templates: Identify actors across ministries, sub-national agencies, academia, and the private sector who influence resilience outcomes.
- Risk and resilience scorecards: Integrate hazard, exposure, and fiscal risk data into infrastructure decision-making.
- Resilient infrastructure design standards: Sector-specific benchmarks (e.g., for transport, ports, and hydropower) adapted from global best practices.
- Disaster and climate budget tagging: Link adaptation investments with financial tracking systems.
- Participatory risk assessment frameworks: Scale local risk maps into national planning, ensuring community priorities inform pipelines¹⁸.
- Insurance and finance toolkits: Provide guidance on PPP-based insurance, disaster clauses, and resilience-linked bonds.
- National taxonomies for adaptation: Define and classify what constitutes adaptation and resilience investments to enable consistent tracking, reporting, and access to green and climate finance.

From Principles to Practice

Integrating DRI into adaptation is a staged journey — from national leadership and standards to financing and local implementation. The tools already exist; the challenge is to institutionalize and scale them. By embedding resilience into the DNA of planning, financing, and design, countries can break the cycle of “build–rebuild” and secure the resilience dividend for generations to come.

Part III

The Action Agenda: Recommendations & Call to Action

Vision

By 2035, all countries especially those in the Global South and SIDS embed DRI as a core pillar of their national adaptation strategies, backed by robust governance, open data ecosystems, hazard-specific standards, and innovative finance.



Action Areas for Integrating DRI into National Adaptation Strategies

Action Area 1: Governance & Institutional Coordination

- Establish a National Resilient Infrastructure Council to convene line ministries twice annually.
- Create country platforms / intersectoral working groups to promote DRI as a national priority.
- Create country climate & development platforms to align public and private investments with NAPs, NDCs, and DRR strategies.
- Ensure subnational entry points so city/community-level data and solutions inform national financing and policies.

Enablers: National Councils with participation from all relevant Ministries and agencies — including Infrastructure, Water, Transport, Energy, Finance (including Climate Finance Units or Project Development Units), Planning, Urban Affairs, Public Works, and Environment — as well as National Disaster Management Organizations (NDMOs), and state & city authorities.





Action Area 2: Political Will & Leadership

- Legislation can be adapted to ensure that resilience is not optional but a statutory requirement in planning and infrastructure investment decisions. For example, Japan's Basic Act on National Resilience (2013) mandates multi-sectoral risk assessments and infrastructure resilience plans; the Philippines' Disaster Risk Reduction and Management Act (2010) integrates disaster resilience into local development and investment planning; and Fiji's Climate Change Act (2021) embeds climate and infrastructure resilience across all government functions.
- Embed DRI accountability at ministerial and mayoral levels through annual resilience audits.

Enablers: Heads of State / Prime Minister Offices; Ministries of Justice, Interior, and Public Works; and Governors and Mayors.

Action Area 3: Knowledge Sharing

- Develop national and regional knowledge platforms on resilient infrastructure (e.g., hydropower, urban assets, and governance).
- Regular training for public sector officials, engineers, contractors, consultants, and other relevant stakeholders on resilience standards and building codes.

Enablers: Coalition for Disaster Resilient Infrastructure (CDRI), International Centre for Integrated Mountain Development (ICIMOD), UN Agencies, national universities, and engineering councils.

Action Area 4: Critical Sectors & Assets

- Prioritize resilience of lifeline assets: ports, airports, power grids, hospitals, schools, telecom, and water systems.
- Expand focus from primary to secondary/auxiliary infrastructure (e.g., feeder roads and substations).
- Establish and maintain critical infrastructure asset registries: to systematically identify, map, and monitor vital assets, enabling governments to assess interdependencies, track vulnerabilities, and prioritize investments for resilience upgrades.

Enablers: Ministries of Transport, Energy, Health, and Education, local governments, and private operators.

Action Area 5: Data, Technology & Risk Assessment

- Create an open, interoperable global data hub on hazards and vulnerabilities, integrating local-level data.
- Institutionalize continuous hazard-risk-vulnerability monitoring and anticipatory early warning systems.
- Scale data-driven solutions using AI and climate modelling for transboundary risks.
- Mandate periodic risk assessments by infrastructure owners and operators — both public and private — aligned with examples such as the European Union's Critical Entities Resilience Directive (2022), which requires updated resilience plans every four years.

Enablers: National meteorological and hydrological services; CDRI; research institutions, including the World Resources Institute (WRI), the Red Cross & Red Crescent Climate Centre, and the International Water Management Institute (IWMI); United Nations Development Programme (UNDP); and ICIMOD.





Action Area 6: Building Codes & Standards

- Establish hazard-specific sub-committees to update codes for new risks (e.g., heat stress).
- Generate a compendium of global good practices, conduct regional gap analyses, and establish a global best practices platform.
- Develop and enforce national DRI codes aligned with National Disaster Management Plans, NAPs, and DRR Strategies.

Enablers: National standards institutions; technical agencies; MDBs (e.g., the Asian Development Bank, The World Bank, etc.); CDRI & UN partners.

Action Area 7: Financing Mechanisms

- Introduce resilience-linked financial instruments: Green/blue bonds, PPPs, tax incentives, resilience-linked bonds, and carbon credits.
- Allocate dedicated budget lines for resilience, complemented by international support mechanisms.
- Embed triple-dividend analyses – which capture (1) avoided losses from disasters, (2) economic benefits from reduced disruptions and improved productivity, and (3) social and environmental co-benefits such as health, jobs, and wellbeing – into investment cases while channelling finance to sub-national levels (e.g., Kenya's Financing Locally-Led Climate Action Programme or FLLoCA).
- Establish and expand catastrophe funds and rapid-disbursement mechanisms to ensure immediate liquidity and fiscal stability following disasters. Examples include Mexico's FONDEN, the Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC), and the African Risk Capacity, which provide pre-arranged financial instruments for swift response and recovery.

Enablers: Ministries of finance/treasury; MDBs & climate funds; private banks; WRI; and national planning departments.

Action Area 8: Capacity Development

- Launch regional training programmes that pool technical expertise and knowledge exchange for developing countries – with a special focus on small states and subnational actors – to strengthen institutional capacity for risk assessment, resilient infrastructure planning, and climate-responsive project implementation.
- Offer accredited training courses on geospatial risk assessments and sectoral resilience solutions (e.g., through e-learning modules hosted on the DRI Connect digital platform).

Enablers: Regional platforms; CDRI; WRI; the Global Environment Facility (GEF)-funded UrbanShift programme; and national training institutes.

Action Area 9: Inclusion & Equity

- Prioritize vulnerable communities in planning and finance.
- Institutionalize participatory planning processes bringing together public, private, community, and informal actors.
- Establish parameters for inclusiveness, equity, and climate justice in DRI investments ensuring that planning and implementation integrate traditional and Indigenous knowledge systems and promote nature-based solutions that deliver co-benefits for communities, ecosystems, and livelihoods.

Enablers: National/State/Local Governments; MDBs; Community-based organizations; Infrastructure funders/providers.





Action Area 10: Regional & Global Cooperation

- Strengthen policy dialogue platforms (e.g., Hindu Kush Himalayan region-wide forums) for transboundary climate-resilient hydropower and shared infrastructure risks.
- Establish regional centres of excellence for training, data sharing, and technical assistance.

Enablers: International organizations, including ICIMOD, the Association of Southeast Asian Nations (ASEAN), the African Union (AU), the Caribbean Community (CARICOM), and CDRI; UN Agencies; and MDBs.



Call to Action

The world is at a crossroads. Without embedding resilience in infrastructure, adaptation strategies risk remaining aspirational. At COP30, governments and partners must commit to a Resilience-First Agenda:

- Place infrastructure resilience at the heart of NAPs and NDCs.
- Mobilize finance pipelines that value resilience dividends.
- Build capacity from the top-level ministry to the last-mile mason.

Resilient infrastructure is not an optional add-on — it is the backbone of adaptation, the guarantor of development gains, and the foundation of a climate-secure future.

Community of Practice on Integrating Disaster Resilient Infrastructure (DRI) in National Adaptation Strategies

Experts

- Aparna Roy, Fellow and Lead, Climate Change and Energy, Centre for New Economic Diplomacy, Observer Research Foundation (ORF) (Moderator and Lead Author)
- Dr. Munjurul Hannan Khan, Executive Director, Nature Conservation Management (NACOM) and previously Additional Secretary, Ministry of Environment, Forest and Climate Change, Bangladesh
- Karma Galay, Director General, Department of Local Governance and Disaster Management, Bhutan
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- Luis Doñas, Head of Foreign Affairs and Cooperation, National Disaster Prevention and Responsive Service, Chile
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¹⁸ Participatory risk assessments refer to inclusive, multilevel processes that engage stakeholders across government sectors, scientific institutions, civil society, and communities to jointly identify, analyse, and prioritize risks. These assessments integrate scientific and technical data (e.g., hazard modelling, geospatial mapping) with local and Indigenous knowledge, ensuring that vulnerability and exposure are understood from both systemic and lived perspectives. The approach enhances the legitimacy, equity, and effectiveness of adaptation decisions and helps ensure that resilience financing reaches those most at risk.



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