



RISK-INFORMED DEVELOPMENT

A Strategy Tool for
Integrating Disaster Risk Reduction and
Climate Change Adaptation into Development



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Acronyms

AAP	African Adaptation Programme	IBFCR	Inclusive Budgeting and Financing for Climate Resilience Project	PLANACC	National Adaptation Plan for Ecuador
ADB	Asian Development Bank	IIED	International Institute for Environment and Development	PRRP	Pacific Risk Resilience Programme
ADPC	Asian Disaster Preparedness Centre	ICRMP	Integrated Climate Risk Management Programme (UNDP)	REDD+	Reducing emissions from deforestation and forest degradation in developing countries
BPPS	Bureau for Policy and Programme Support	IDS	Institute for Development Studies (UK)	SDG	Sustainable Development Goal
CAF	Development Bank of Latin America	IFRC	International Federation of Red Cross and Red Crescent Society	SGR	Secretariat of Risk Management
CB	Crisis Bureau	IPCC	Intergovernmental Panel for Climate Change	SHSM	State Hydrometeorological Service of the Republic of Moldova
CBO	Community-based organization	ISO	International Organization for Standardization	SPREP	Secretariat of the Pacific Regional Environment Programme
CCA	Climate change adaptation	LoGIC	Local Government Initiatives on Climate Change	UN	United Nations
CCAT	Climate Change Adaptation Team	MADRID	Mainstreaming Adaptation and Disaster Risk Reduction into Development Initiative	UN GA	United Nations General Assembly
CCDRM	Climate change and disaster risk management	MAP	Mainstreaming Action Plan	UNDP	United Nations Development Programme
CDMP	Comprehensive Disaster Management Programme (UNDP Bangladesh)	NAP	National Adaptation Plan	UNEP	United Nations Environment Programme
CFF	Climate Fiscal Framework	NAPA	National Adaptation Program of Action to Climate Change	UNFCCC	United Nations Framework Convention on Climate Change
CFP	Climate fiscal policymaking	NDC	Nationally Determined Contribution	UNDG	United Nations Development Group
DRM	Disaster risk management	M&E	Monitoring and evaluation	UNHABITAT	United Nations Human Settlement Programme
DRR	Disaster risk reduction	NCDM	National Committee for Disaster Management	UNICEF	United Nations Children's Fund
DRT	Disaster Risk Reduction and Recovery for Building Resilience Team	NDMA	National Disaster Management Authority	UNDRR	United Nations Office for Disaster Risk Reduction
FAO	Food and Agriculture Organization	NGO	Non-governmental organization	UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
FRDP	Framework for Resilient Development in the Pacific	NRP	National Resilience Programme	UNU-EHS	United Nations University – Institute for Environment and Human Securities
FSIN	Food Security Information Network	ODI	Overseas Development Institute	USAID	United States Agency for International Development
GED	General Economic Division (Planning Commission Bangladesh)	OIEWG	Open-Ended Intergovernmental Expert Working Group	USD	US dollars
GFDRR	Global Facility for Disaster Reduction and Recovery	OECD	Organization for Economic Cooperation and Development	WB	World Bank
GIS	Geographic information system	OPM	Oxford Policy Management	WMO	World Meteorological Organization
GIZ	German Corporation for International Cooperation (GmbH)	PDOT	Local Government Development and Land-Use Management Plan	ZAMG	Central Institute for Meteorology and Geodynamics
GMI	Global Mainstreaming Initiative	PEI	Poverty Environment Initiative		
GOV4RES	Governance for Resilient Development in the Pacific	PIFS	Pacific Islands Forum Secretariat		
HFA	Hyogo Framework for Action				

1. Context



1.1 A changing risk landscape

The changing climate and rapidly growing exposure to disaster risk threaten to undermine the achievement of the Sustainable Development Goals (SDGs) and national development objectives. Disasters and economic losses have almost doubled in the last 20 years. Between 2000 and 2019, 7,348 major disaster events were recorded, affecting 4.2 billion people, claiming 1.23 million lives and resulting in approximately US\$2.97 trillion in global economic losses (CRED and UNDRR, 2020). A changing climate is projected to increase the incidence of climate-related disasters, which already account for the majority of annual disaster losses (IPCC, 2012), and will continue to increase vulnerability to other natural hazards such as earthquakes, tsunamis and landslides. Climate-related risks to health, livelihoods, food security, water supply, human security and economic growth will also increase (IPCC, 2018). Among the hardest hit are the world's poorest, whose vulnerability is rising due to socio-economic and political factors, including urbanization and competition for scarce resources (UNDP, 2015).

The already enormous challenge posed by climate change and disaster risk is being exacerbated by their interplay with other multidimensional risks such as those linked to fragility, conflict, climate security and epidemics, such as the COVID-19 pandemic. However, the systemic nature of risks, their interlinkages, and compounding effects are not often considered or understood (UNDRR, 2020; United Nations, 2020a). Climate change can drive disaster risk and compound existing conflict drivers, deepen fragility and make it harder to envision peace (United Nations, 2020b). At the same time, conflict increases people's core vulnerability, removing existing coping mechanisms and leaving them less able to handle disasters and the volatility presented by climate change. Each dynamic hinders peace and development (Vivekananda et al., 2019). The same holds for disaster risks. According to the Overseas Development Institute (2016), between 2004 and 2014, 58 percent of all deaths from disasters occurred in the 30 most fragile states. In Asia, 55% of climate-related disaster deaths between 1997 and 2016 were in just four countries, all of which rank high in the Fund for Peace's Fragile States Index (Peters and Budimir, 2016) as cited in Opitz-Stapleton et al. (2019). Our development responses must reflect the multidimensionality and interconnected nature of risk.

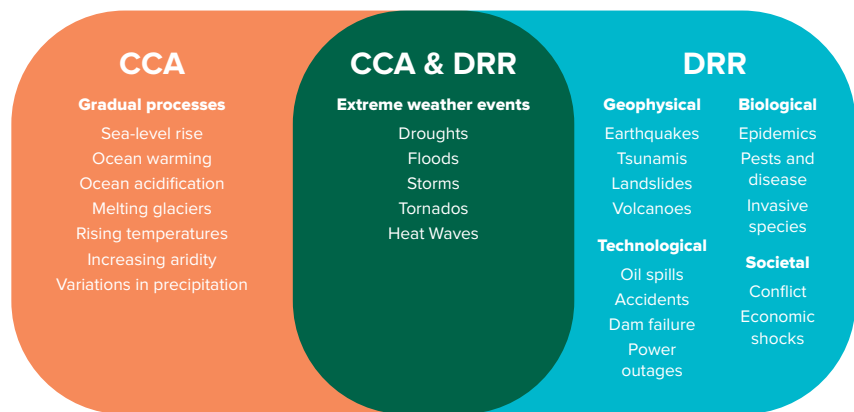
Development needs to be risk-informed

"It is clear that the prospects for eradicating poverty, building inclusive and equitable societies, and ensuring sustainable development depend upon countries pursuing a zero-carbon and risk-informed approach to development."

Achim Steiner, UNDP Administrator, 2018

Epidemics add another risk dimension that intersects with other risks related to climate change and natural or biological hazards. The rapid spread and unprecedented global impact of COVID-19 have demonstrated how disasters create ripple effects throughout the systems that hold societies together and drive development (UNDRR, 2020; Lavell et al., 2020). Furthermore, many disasters have occurred in tandem with the COVID-19 crisis (Walton and van Aalst, 2020): hurricanes in the Caribbean; severe cyclones in India; drought and locust infestations, flooding and landslides in Kenya; and successive storms, floods and mudslides in the Philippines up to November 2020 (Cord and Arnold, 2020). Even in the absence of a significant disaster, accumulating and co-existing risks can unleash cascading impacts across sectors, triggering crises with devastating impacts on those already left furthest behind (UNDRR, 2020).

Figure 1: Hazard typology



This tool uses “climate and disaster risks” to refer to the full range of risks relating to climate change impacts and natural, biological, societal and technological hazards.



Disaster and climate risks are largely rooted in inappropriate or “flawed” development (Roy, 2018). The impacts of climate change and disasters can threaten development objectives and achievements but, in turn, vulnerability to these risks is affected by development choices (Roy, 2018; OECD, 2009). Many hazards become disasters as a result of development decision-making (e.g. poor land-use planning or the nonexistence of a building code), which can increase or decrease vulnerability and exposure to disasters. It is, therefore, increasingly important to move towards “prospective” risk management as an essential component of sustainable development, as this helps avoid the creation of new risks, tackles underlying vulnerabilities, and supports adaptation to climate change (Aysan and Lavell, 2014; UNU-EHS, 2008).

Disaster and climate risk management is an essential component of risk-informed, sustainable development.



1.2 An opportunity for integrated, cohesive action towards risk-informed development

Three separate frameworks shape policy and implementation strategies at the global level for climate change, disaster risk reduction (DRR) and development. Risk-informed development is a common underlying principle that binds these global frameworks. Dubbed by the UN Secretary-General the “super year” for action on sustainability, 2020 marks the 75th anniversary of the UN Charter and the fifth anniversary of the adoption of the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, and the SDGs, supported by the Addis Ababa Accord (the financing plan for the SDGs). Five years into implementing these global frameworks and working against the backdrop of ever-more-rapidly changing risks, significant opportunities abound for leaders and governments to step up and take decisive actions to end extreme poverty, conquer inequality and fix the climate crisis in an integrated and cohesive fashion. Ensuring the local-level implementation of these global agreements would add impetus for countries to pursue more coherent actions for risk-informed development. These include the Grand Bargain, the SIDS Accelerated Modalities of Action Pathway, the New Urban Agenda (Habitat III) and the New York Declaration for Refugees and Migrants (Opitz-Stapleton et al., 2019).

Although these agreements have led to disjointed progress, they hold significant promise for a more integrated approach. The past separation of dialogue and policy frameworks on these issues at the global and regional levels has sometimes resulted in parallel processes that were mirrored in “siloes” approaches at the national level. However, the post-2015 reference frameworks interconnect with one another better than past agendas and, supported by joint policy dialogue at the regional level,¹ provide a significant opportunity for integrated, cohesive action towards sustainable, resilient, risk-informed development. Taken individually, none of the frameworks engages with the full spectrum of shocks, stresses and risk drivers that might affect a system (Peters et al., 2016). But together, they provide a useful umbrella for many threats and risks that are otherwise often treated as silos (UNESCAP, 2017).

Building resilience to risks and addressing underlying vulnerability is a unifying goal for climate change adaptation (CCA), climate change mitigation, DRR and poverty reduction practitioners at all levels. The adoption of resilience as a central concept in international development policy has emerged from concerns over the protection of development gains from shocks and stresses and the need to ensure that development does not deepen vulnerabilities and inequalities and the impacts of climate change and natural hazards do not derail the achievement of the SDGs (UNDP, 2015b). The realization of the SDGs will depend upon successfully integrating resilience-building into development planning and budgeting. The dividends gained from resilience-building will help free up vital capital that could be allocated to sustainable development and to create a conducive environment for risk-informed public- and private-sector investments. Building resilience thus provides a common goal and supports integrated mainstreaming approaches (UNDRR, 2020).

¹ In some regions, separate regional frameworks are being replaced by more integrated strategies. For example, the proposed Strategy for Climate and Disaster Resilience in the Pacific (SRDP) or the Southern Africa Development Community (SADC) Regional Resilience Framework (2019).

The continuing challenge is to ensure that global dialogues and frameworks are translated into cohesive local action and not carried out in silos (UNDRR, 2019). Governments are implementing platforms and processes to continuously operationalize and translate these global framework agreements into coherent local actions. These processes include the National Adaptation Plan (NAP), the Nationally Determined Contributions (NDCs), and the National Disaster Risk Reduction Strategies and Plans, specifically under Target E of the Sendai Framework. All these afford a wide range of opportunities for mainstreaming CCA and DRR in development. The NAP is a continuous, progressive, iterative process that supplements synergy and coherence between DRR and CCA. The NDCs are renewed every five years, which presents an opportunity for integrating DRR into NDC and NAP processes that advance resilience-building and sustainable development efforts.

Most importantly, the process of mainstreaming climate change and DRR needs to break through into the regular development planning, budgeting and investment programming of governments at the national, subregional, local and sectoral levels. Ideally, it entails planning and finance bodies/institutions becoming mainstreaming champions. These processes and integration initiatives are already good to start with. However, there is often a thin line between coherence and simply including climate change and disaster risk management (DRM) as add-ons. This document was developed to draw connections between these processes, plans and strategies, with the aim of deliberately facilitating the process of moving beyond the mainstreaming silos that are currently in place.

Guidance is needed to help governments implement and localize global and regional policy frameworks on these separate issues in a more unified and collaborative manner, from the national to the local levels.



2.

Climate and disaster risk-informed development

2.1 What is mainstreaming for disaster and climate risk-informed development?

Risk-informed development can be achieved by mainstreaming *both* disaster and climate change risks and their management into everyday decision-making around development. Mainstreaming is a dynamic process that aims to make risk an integral component at the heart of development strategies, including policymaking, planning, budgeting, programming, implementation and monitoring and evaluation (M&E) processes at the national and subnational levels. DRR and CCA mainstreaming is when both of these issues are brought into the mainstream of development activities rather than being dealt with as add-ons. Joint approaches to mainstreaming disaster and climate change risk will support more cohesive and effective action.

The mainstreaming objective is achieved when risk is considered a normal and inseparable part of economic activities and development, as something that is continuously acknowledged, assessed and managed when pursuing particular development pathways and practices. Risk-informing development entails transforming the development agenda from within and fully institutionalizing the risk management process within the policymaking, planning, project-cycle and investment planning processes to implement DRR and CCA measures. Mainstreaming is a process: it is not an end in itself but a means to an end, one that results in development becoming more risk-informed and resilient (SPREP and UNDP, 2014). Risk-informing development through mainstreaming, therefore, sets out to achieve several development outcomes: (i) development is protected from the impacts of hazards and climate change; (ii) development does not increase existing and future levels of climate and disaster risk; (iii) development reduces vulnerability to hazards; and (iv) development supports resilience-building and adaptation to climate change.

Mainstreaming both disaster and climate change risks requires vision, engagement and leadership from the highest echelons of national development decision-making, planning and finance institutions. It also requires the whole of government, society and the development community to treat development as a risk-informed and risk-based decision process that includes knowledge of complex risk and actions to address these and integrates opportunities and trade-offs into development plans, policies, programmes and actions to ensure they are sustainable and resilient (Opitz-Stapleton et al., 2019).

2.2 Mainstreaming challenges

Although there is a recognition that more coherent mainstreaming is needed to risk-inform the development agenda, progress has often been limited. Practitioners are finding implementation difficult, and several bottlenecks to mainstreaming have been identified. These mainstreaming challenges include insufficient funding that incentivizes DRR/CCA integration, a lack of awareness and knowledge of risk, limited political will and commitment, poor coordination, lack of capacity and inadequate stakeholder participation (see box 1). This has resulted in a lack of continuity or sustainability and piecemeal approaches to mainstreaming (UNDP and UNEP, 2015).

Box 1: Challenges for mainstreaming disaster risk reduction and climate change adaptation

Lack of awareness and information. In many countries, risk continues to be treated primarily as a humanitarian or scientific issue rather than a core development concern (Pervin et al., 2013). There is a lack of awareness of risk outside dedicated government units for DRM or climate change, and policymakers and development practitioners have limited understandings of the risk posed by natural hazards or climate change, the relationship between these risks and social and gender dynamics and how these relate to development priorities (UNDP, 2015). There are multiple information barriers to effective mainstreaming, including data availability issues for modelling and developing risk scenarios and assessing the impact of disasters and climate change, which are essential for risk-informed development (UNDRR, 2019).

Unclear roles and responsibilities. There is a lack of clarity around these and time constraints when it comes to DRR and CCA mainstreaming in terms of both policymaking and practical action. DRR and CCA are often treated as two separate issues (IFRC, 2013; UNDP, 2015; Tearfund, 2008), so financing for the two is often disconnected (UNESCAP, 2017; Ishiwatari and Surjan, 2019; van der Keur et al., 2016).

Political commitment and ownership. Governments and donors often do not prioritize disaster risk, with investment decisions guided by political factors and short-term perspectives (i.e. the promotion of growth and employment) rather than technical decisions (Aysan and Lavell, 2014). Evidence suggests that government staff feel limited ownership of these issues, the mainstreaming of which originates from “outside” development partners (Kaur and Pervin, 2013). Even when officials are aware of risks, they have not included the responsibility for reducing them in their agendas and priorities (UNDP, 2015).

Weak capacities. Limited personnel, expertise and the capacity to operationalize mainstreaming has also been a problem at all levels (UNDP, 2015). Often DRR is successfully integrated into policies, but these are not translated into practice because stakeholders lack the technical knowledge and skills to change their working practices. This is compounded by a lack of tools and methodologies for DRR/CCA mainstreaming (GIZ 2019, UNDP, 2015).

Institutional barriers, weak coordination between sectors and gaps in inter-organizational arrangements. A reluctance among national DRM agencies to “relinquish power and resources” has constrained institutional and organizational change in many countries (Keweloh, 2015). Many practitioners work in silos on separate sector-specific activities for DRR and CCA with limited means for coordination. The 2009 Global Assessment Report concluded that “governance arrangements for DRR in many countries do not facilitate the integration of risk considerations into development. In general, the institutional and legislative arrangements for DRR are weakly connected to development sectors” (UNDRR, 2009).

Financial constraints. In national HFA reports, financial constraints were identified by governments as one of the main barriers to mainstreaming and the reason for the lack of progress on reducing underlying risks nationally or locally (UNESCAP, 2017). This limitation is further compounded by the lack of data and the weakness of analytical models for building a strong business case for investing in DRR and CCA. The two areas have not always been seen as a priority as compared to other pressing concerns in resource-scarce countries. In these contexts, funding also falls short of the optimal standard. This is due to a variety of factors, including government institutional capacity constraints, demand constraints (e.g. individuals being less able or willing to pay for risk reduction, or less knowledgeable about the benefits of doing so) and supply constraints, such as limited resources (Shakya, 2018).

A review of mainstreaming challenges suggests that these requires an equally strong emphasis on policy and planning instruments, as well as action, implementation and monitoring. There has been some success in adopting national and sectoral policies, laws, regulations and plans (i.e. governance-related outputs) that incorporate risk reduction objectives but limited attention has been paid to the processes that generate risk in the first place, or on putting risk reduction into action (UNDP, 2015). In other words, the transformation of DRR and CCA commitments into local action and downstream investments that proactively target resilience-building has not always been adequately considered. “Mainstreaming requires more than just developing appropriate policies and tools...a change in organizational culture is required, and this needs political commitment, motivation, including financial support” (UNDP, 2015).

Mainstreaming DRR and CCA through parallel processes can overburden national and subnational systems that are already overstretched, while leading to competition and wasting scarce resources. In the Pacific region, this challenge paved the way for the Framework for Resilient Development: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP). The programme is leading the way when it comes to strengthening integrated adaptation and risk reduction to enhance resilience to climate change and disasters, promote low-carbon development and support disaster preparedness, response and recovery (SPC, 2016).



Experience suggests that mainstreaming challenges can be overcome by focusing on action and outcomes (rather than mainstreaming outputs). This requires a shift in the thinking and behaviour of development actors at all levels.

2.3 Mainstreaming strengthens risk governance

To overcome the mainstreaming challenges described above, the governance issues underlying development decision-making and implementation need to be addressed. Doing so will support behavioural change and create an enabling environment for more sustained mainstreaming. UNDP (2015) defines mainstreaming as “a governance process that provides the enabling environment for ensuring risk reduction [and CCA] become an underlying principle of sustainable development”. UNDP has made strengthening disaster risk governance a cornerstone of its efforts to understand, reduce and manage risks for the past two decades. For example, the Pacific Risk Resilience Programme (PRRP) and its successor, the Governance for Resilient Development in the Pacific (GOV4RES) Project, have been working with governments in four countries to put risk governance building blocks in place as the foundation for more permanent, institutionalized mainstreaming to support risk-informed and ultimately more resilient development in the Pacific (UNDP, 2016a). Similarly, in Cuba, UNDP has been working with the government to strengthen risk governance at the subnational level by decentralizing DRM and supporting municipalities to integrate DRR into the investment planning process. All public entities in Cuba are now legally obliged to include actions to reduce risk in their economic planning.

A mainstreaming approach that strengthens the core elements of risk governance (e.g. processes, institutions and stakeholders) is more likely to overcome implementation challenges and support more permanent mainstreaming outcomes (UNDP, 2016a). It is important to strengthen key governance aspects associated with development decision-making (i.e. capacity, finance and coordination), but the fundamental principles of governance (e.g. participation, efficiency, responsiveness, accountability, inclusion and transparency) can also be applied during interactions between stakeholders to strengthen the mainstreaming process (Planitz, 2015).

Experience suggests that mainstreaming can strengthen risk governance (within the context of overall governance for development), ensuring that risk reduction and adaptation become integral elements of development policy and practice.



3.

Background to the tool



3.1 Building on existing tools

Many programmes have developed practical resources to support mainstreaming. However, these have usually focused on either disaster risk or climate risk, but not both. These have been valuable for providing strategies to separately mainstream either DRR or CCA and have been used to inform the work of UNDP in several countries, as well as multi-partner initiatives, such as the Integrated Climate Risk Management Programme (UNDP, 2015).

Increasingly, however, UNDP practitioners and their counterparts in government are asking to pursue DRR and CCA in an integrated manner and calling for a mainstreaming tool that converges these two areas of work. There is hence growing recognition that joined-up approaches to DRR, CCA and sustainable development are essential. “DRR and CCA both share an overarching goal of reducing vulnerability and building resilience as a means to achieve long-term sustainable development. However, these two practices are often implemented in silos using parallel institutional structures, policy and legal instruments, communities of practices and approaches at the global, regional, national, sectoral and local levels. And thus, creating duplication, confusion and in some cases competition that can result in limited impacts on the shared goal” (UNDP, 2014).

UNDP has developed this tool to help national and subnational governments and sectoral entities overcome these longstanding silos and translate a commitment to separating global and regional agendas into joint action at the country level. This new tool helps establish connections between the Paris Agreement, the Sendai Framework for Disaster Risk Reduction and the SDGs and supports their joined-up implementation and localization. It provides practical guidance that is grounded in experience to help national and subnational governments “risk-inform” the 2030 Agenda. Although this tool was developed in response to requests from UNDP practitioners, it is also a valuable resource for practitioners outside UNDP and at other UN agencies seeking to mainstream DRR and CCA in development (see section 4.1).

3.2 Development of the tool

UNDP has decades of experience working with national governments and other partners to support climate change mitigation and adaptation and DRR, which has proved an opportune starting point for this initiative. Specifically, this tool is informed by the experiences of UNDP global programmes such as the Global Mainstreaming Initiative (GMI), the MADRID programme (developed jointly with UNDRR and partners) and the ICRMP. The tool also uses experiences that have emerged from regional programmes such as the Pacific Risk Resilience Programme (PRRP) and the African Adaptation Programme (AAP). It draws on resources developed by a range of organizations that include the following:

- *Integrating Disaster Risk Reduction and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework* (UNDRR, 2020).
- *UN Common Guidance on Helping Build Resilient Societies* (United Nations, 2020).
- *Mainstreaming DRR for Sustainable Development: A Guidebook for the Asia Pacific* (UNESCAP, 2017).
- *Risk Governance Building Blocks for Resilient Development in the Pacific* (UNDP, 2016).
- *Mainstreaming Environment and Climate for Poverty Reduction and Sustainable Development: A Handbook to Strengthen Planning and Budgeting Processes* (UNDP and UNEP, 2015).
- *Climate-Resilient Development: A Framework for Understanding and Addressing Climate Change* (USAID, 2014).
- *A Guide to Mainstreaming DRR and CCA* (IFRC, 2013).
- *Mainstreaming Climate Change in National Development Processes and UN Country Programming* (UNDP, 2011).
- *Mainstreaming Climate Change Adaptation into Development Planning: A Guide for Practitioners* (UNDP and UNEP, 2011).
- *Integrating Climate Change Adaptation into Development Co-operation: Policy Guidance. Organization for Economic Co-operation and Development* (OECD, 2009).

This tool is the product of a continuous process that began in 2016 and has included a series of activities, such as literature reviews, exploring good practices, consultations, workshops, webinars, virtual consultations and peer review.

- **Literature review.** Over 25 existing mainstreaming guidelines, frameworks and tools for CCA and/or DRR developed over the past two decades by UNDP and other organizations were reviewed, and each was profiled in a separate report.² Additional updated resources were reviewed when the tool finalization process commenced, mainly to reflect on and update the evolving context while highlighting the changing risk landscape and reflecting on other multidimensional risks.

² Unpublished Review Report: CCA and DRR Mainstreaming Frameworks, Guidelines and Toolkits, UNDP BPPS, March 2016.

- **E-discussion.** A global e-discussion was launched to collect experiences, case studies and feedback on key elements of the mainstreaming tool. A consultation platform was developed with the UNDP Knowledge Management team, with a built-in Google translate function to ensure it was accessible to participants from a range of countries. The consultation process involved three phases: (i) identifying experiences and expectation, (ii) collecting feedback on the outline tool and supporting case studies and (iii) gathering feedback on the draft tool. Several reports summarizing the findings were prepared,³ and over 200 responses were received from participants from 60 countries, including:

Afghanistan, Armenia, Angola, Argentina, Australia, Bangladesh, Brazil, Cambodia, Canada, Chad, Denmark, El Salvador, Ethiopia, Fiji, France, the Gambia, Ghana, Haiti, Italy, India, Indonesia, Japan, Kazakhstan, Kenya, Liberia, Malawi, Mauritania, Mozambique, the Netherlands, Nepal, Niger, Nigeria, Pakistan, Palestine, Panama, Peru, the Philippines, Republic of Korea, Rwanda, Samoa, Solomon Islands, Somalia, South Africa, Sri Lanka, Sweden, Switzerland, Sudan, Tajikistan, Thailand, Tonga, Turkey, Uganda, United Arab Emirates, United Kingdom, United States, Uruguay, Vanuatu, Vietnam and Zimbabwe.

- **Workshop.** A global workshop was held in Armenia under the auspices of the ICRMP in mid-June 2016 to discuss a draft of this tool with representatives from six countries. This tool was updated based on feedback from the workshop.
- **Virtual consultations via MS Teams.** In 2020, a series of virtual consultations were held with UNDP Regional Advisers to both DRR and CCA teams in Africa, the Arab States, Asia and the Pacific, Europe CIS, Latin America and the Caribbean to seek their involvement finalizing the tool. This included working with programme countries that had advanced with mainstreaming DRR and CCA within development in order to include their experiences as case studies in the tool. Virtual meetings were also held with the following UNDP country offices to discuss the drafting of the case studies: Lebanon, Macedonia, Moldova, Ecuador, Uganda, Kenya, Cambodia, Bangladesh and the Pacific Regional Hub.
- **Global webinar.** A webinar was organized in 2020 to promote and discuss the tool and consult with two UNDP communities of practice (Crisis Prevention and Resilience and Nature-Based Solutions and Climate Action) on finalizing the tool and the next steps in its roll-out and application.
- **Peer review.** The final draft of this tool was peer-reviewed by leading practitioners and experts.
- **Dissemination.** A road map for rolling out and disseminating the tool provides support for the implementation process.



This new combined DRR and CCA tool is grounded in experience and has been developed based on multiple stakeholder inputs.

³ See, for example, "CCA and DRR Mainstreaming Framework: Consultation Findings and Case Studies – Phase 1 of the E-Discussions", UNDP BPPS, April 2016.



4. Overview of the tool

4.1 Audience

This tool has been prepared for:

Government policymakers, planners and practitioners from core development agencies, notably: (i) planning and finance ministries; (ii) key sectors such as agriculture, health, sanitation, education, water, energy, nutrition and industry and (iii) subnational government.



Rationale: there is still only a small base of government officials versed in DRM and climate adaptation. Although in some countries there have been some positive moves towards incorporating risk into development and moving towards a more “prospective” approach to DRM, more ministries of economy, planning or finance and core line ministries need the capacity to do this (Aysan and Lavell, 2014; UNESCAP, 2017). DRR and CCA are of such importance that decision makers from across all ministries and subnational units—including those addressing housing, urban development, commerce, energy—should be involved in the mainstreaming process.

National disaster management authorities (NDMAs) and ministries responsible for climate change and related entities/departments such as those for hydrology, meteorology or geology, the environment, etc.



Rationale: the fields of CCA and DRM have developed as separate disciplines.⁴ At the national level, CCA is typically still considered a new practice, and climate change is a comparatively recent concern for national-level policy. The responsibility for CCA has often been allocated to ministries of the environment. Conversely, NDMAs have traditionally been responsible for DRM. Both typically lack political clout or budget, and there is a clear rationale for increasing the convergence of these separate strands of work with the development agenda.

⁴ The main regulatory frameworks for these two disciplines are the UN Framework Convention on Climate Change (UNFCCC) and the Sendai Framework for DRR (2015–2030), respectively.

Also crucial is improving linkages with relevant agencies, including those responsible for hydrometeorology, geology or those concerned with social welfare, women and youth, given the increased vulnerability of economically and socially marginalized groups to climate change and disasters. This tool promotes the engagement of all relevant agencies.



UNDP DRR and CCA focal points and development practitioners or partners from national, regional, international, intergovernmental or non-governmental organizations.

Rationale: UNDP has made strengthening disaster and climate risk governance a cornerstone of its efforts to understand, reduce and manage risk for the past two decades. Since 2005, it has worked with national governments, communities and development partners to support risk governance in 125 countries. This tool should guide UNDP and development practitioners from other organizations, including intergovernmental bodies and regional and national organizations. International financial institutions and regional development banks could also use this document to inform their sector-based investments.

In addition, the tool identifies opportunities for providing incentives and actively engaging other key stakeholders who play a fundamental role in risk-informing development, including:



Civil society

Rationale: many countries recognize that effective CCA and DRR require strong community engagement and partnerships. Initiatives therefore need to build on the priorities, capacities and needs of communities and other local stakeholders, including women, the elderly, youth and people with disabilities. Specific attention should be given to engaging socially and economically marginal or vulnerable groups. This tool identifies how civil society and community-based organizations can be empowered to play an active role in mainstreaming DRR and CCA in support of risk-informed development.



Private sector

Rationale: the tool also recognizes the role that the private sector plays in risk-informing the development agenda, including addressing risks to and from their own ongoing and planned business and investment activities. The private sector can also be instrumental for skills development, especially for youth, including for entrepreneurial efforts for the green economy and other resilience-building initiatives. The tool identifies where the engagement of private-sector stakeholders is relevant – either as partners supporting DRR/CCA activities or as implementers of risk-informed private-sector development.



The tool targets government practitioners but is written from the perspective of development practitioners and is not restricted to those working on CCA or DRM.

4.2 Purpose and uses

The purpose of this dynamic tool is to build a common understanding of risk-informed development and support the mainstreaming of both disaster and climate risk management into development policy and practice. The tool does not attempt to delve into the risk management process itself, for which dedicated methodological notes and standards already exist (see annex B).

The tool provides strategic practical guidance on integrated and coherent approaches to DRM/CCA mainstreaming. It will help governments at all levels to mainstream DRM and CCA into development policy, planning, budgeting, programming, implementation and M&E. The tool also seeks to build broad commitment among the key actors for risk-informed development.

It is important to note that the tool has multiple uses, depending on where a country is focusing its mainstreaming activities. It can be used (i) as an advocacy tool, to create support for DRM/CCA mainstreaming; (ii) as an initial diagnostic tool, to map the current state of mainstreaming and monitor progress over time; (iii) as a strategy tool, to identify priority entry points for accelerating the mainstreaming process and (iv) to help operationalize mainstreaming and identify strategic entry points (through a comprehensive mainstreaming strategy).

Different applications of the tool:

a) Help development practitioners mainstream both climate and disaster risk

- **Link separate global and regional policy processes** and help governments cohesively implement and integrate the outcomes of the Paris Agreement, the Sendai Framework and the SDGs and risk-inform their implementation and localization.
- **Overcome silo approaches at the national level and promote common understanding and language** among practitioners to discuss shared goals (i.e. resilience, inclusion and sustainability), under the overarching goal of risk-informed development.

b) Develop integrated approaches to mainstreaming

- **Provide a strategic framework for action and implementation** to support coherent and coordinated mainstreaming.
- **Provide guidance that acknowledges synergies, similarities and differing priorities**, specificities and nuances of climate and disaster risk.
- **Provide a stronger, unified advocacy message and approach** for both DRM and CCA to deal with a changing risk landscape.
- **Optimize utilization of scarce human and financial resources.**

Several brief case studies demonstrating the interlinkages between the mainstreaming spheres and subcomponents can be found in section 6. The stand-alone annex D provides more detailed descriptions of the case studies.



Breaking down silos

Silo approaches can result in resource wastage: “At the operational level, CCA and DRM efforts still use sectoral or partial approaches that are less in synergy and are thus ineffective and inefficient. A number of the same activities with similar objectives and benefits are carried out by various ministries with a confined sectoral approach. For example, mangrove tree planting programmes are conducted by the Ministry of Marine Affairs and Fisheries, the Ministry of the Environment and Forestry and the National Board for Disaster Management, all to achieve the same goals and benefits, namely to improve resilience in coastal areas”

Sayoko, UNDP Indonesia⁵

⁵ See the contribution of Sayoko (2016) of UNDP Indonesia in UNDP's online discussion on the Integrated DRM/CCA Mainstreaming Framework, <https://www.sparkblue.org/integrated-DRR/phase3>.

c) Support implementation and identification of practical and strategic entry points

- **Provide an implementation tool** to translate theory and policies into action in a way that embeds risk at the “heart” of development and treats disaster risk and the impact of climate change as internal aspects of development rather than external ones.
- **Identify practical and strategic entry points** for mainstreaming in different contexts, levels and sectors.
- **Avoid duplication, parallel processes** and perceptions of risk as an “add-on.”

d) Diagnose mainstreaming status and track progress

- **Support the preparation of a current mainstreaming baseline.**
- **Measure progress** towards risk-informed development.



The vision is a single DRR/CCA mainstreaming tool rolled out by a unified community of practitioners that would deal with all hazards collectively (including climate-related disaster risk) and focus on vulnerability reduction (across all hazards) and hazard drivers (including climate change and socio-economic factors) as part of the development agenda.

4.3 Scope

The tool will focus primarily on disaster and climate change risks. Risks are defined by UNDP as the: “probability of harmful consequences – casualties, damaged property, lost livelihoods, disrupted economic activity and damage to the environment – resulting from interactions between natural and/or human-induced hazards and vulnerable conditions” (Olhoff and Schaer, 2010). Specifically, the definitions of climate and disaster risk used in this tool are presented in box 2.

The tool supports understandings of disaster and climate risk in the context of broader risk management or influencing factors. It will take into account links with related issues, such as environmental degradation, social inequalities, economic and political instability and conflict. For example, women can be more severely impacted by disasters, and therefore inequalities and vulnerabilities at the heart of development will need to be dealt with as part of risk mainstreaming to bring about real change (UNICEF, 2016). The tool also acknowledges associated trends such as urbanization, migration and land conflict and how these contribute to risk. Notably, the tool recognizes that climate change mitigation is essential for achieving DRR and reducing the need for CCA.

The importance of integrated approaches

We recently witnessed how urgently DRR-CCA convergence needs to be implemented at the community level. In one village in a mountainous area, the community had invested in building irrigation facilities for their farmland. One night, there was heavy rain that caused landslides in several parts in the village, including at several irrigation facilities. The farmers had been expecting to harvest the crop in May/ June but are now facing the possibility of crop failure. It was too bad to see how much effort the community had put in to building irrigation facilities in a landslide-prone area. They should have thought about building irrigation facilities and at the same time strengthening the surrounding slopes to protect what they have invested in. A lesson to be learned.

Erawan, UNDP, Indonesia⁶

⁶ See the contribution of Erawan (2016) of UNDP Indonesia in UNDP’s online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

Box 2: Definitions

- **Disaster risk** is the potential loss of life, injury or destroyed or damaged assets that could occur to a system, society or a community during a specific period, determined probabilistically as a function of hazard, exposure, vulnerability and capacity (United Nations, 2017).
- **Climate change-related risks are created by a range of hazards.** Some are slow in their onset (such as sea-level rise, glacial meltdown, changes in temperature and precipitation leading to droughts, or agricultural losses), while others happen more suddenly (such as tropical storms and floods) (UNFCCC, 2007).
- **DRR and CCA** include both risk management measures concerned with reducing the negative impacts of hazards, reducing vulnerabilities and exposure and increasing resilience in the long term. Despite their similarities, by definition CCA only deals with climate change-related impacts, whereas DRR deals with all hazards including climate-related hazards. Similarly, CCA specifically deals with the long term (since climate is defined as the average weather), while DRR deals with all timescales. Finally, DRR refers to the “causal factors of disasters” (i.e. preparedness for possible or actual hazards and addressing causal factors and vulnerability), while CCA is about “adjustment to actual or expected climate and its effects.” However, despite these differences, DRR includes CCA (i.e. CCA is a focused subset of DRR), which in turn must be placed within the wider contexts of development and sustainability (Dr. Xu Tang, WMO⁷).

The tool supports understandings of historical, present and future risk. It is important that any development risk is analysed in the context of past disaster experiences and current climate variability. It should also take into consideration how risks might be altered in the future due to climate change (climate scenarios) or reduced significantly if appropriate mitigation action is taken.

The tool applies to different country contexts and levels. The tool can be applied in different country contexts, at different levels (from the national to subnational levels) and in various sectors. This is because mainstreaming can take place at many levels and is more likely to succeed if it is promoted at all levels.

The tool targets development processes and is relevant for risk-informing recovery. DRR and CCA should be integral to policymaking before, during and after a disaster. The tool encourages proactive DRM, treating risk as an essential component of sustainable development. However, this tool is also relevant for risk-informing post-disaster recovery policies, plans and programmes.

This new tool unpacks the process of mainstreaming both DRR and CCA and provides practical guidance that is applicable to a range of country contexts and at different levels to help practitioners transform policy commitments into practical, cohesive action.



7 Dr. Xu Tang, Director of the Weather and DRR Services Department (WDS) of the World Meteorological Organization, in UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

4.4 Approach

The tool advocates for an integrated mainstreaming approach, which ensures that risks associated with both climate change and other natural hazards are considered together. As discussed earlier, the priorities and analytical timeframes for DRR and CCA are different, but for practical purposes, this tool builds on the premise that DRR extends beyond CCA (by considering a wider range of hazards) and therefore integrated mainstreaming considers all hazard sources, including rapid-onset changes and gradual, long-term changes.

This tool helps development practitioners consider the impacts of various risk sources across a wide range of timescales. It reviews development through a shared risk lens, although as one practitioner identified: “this lens should then be able to zoom in and out on the specifics, nuances, similarities and differences of DRR and CCA” (Dalena, Rwanda⁸).

This joint or integrated DRR and CCA mainstreaming tool differs from tools that consider DRR and CCA separately in several ways (see table 1). Specifically, it helps development practitioners (i) build knowledge and assess the risks from all natural hazards and climate change across the range of timescales; (ii) build commitment for joint mainstreaming and identify opportunities for linking separate DRR/CCA/development policies, legislation and plans in support of joined-up implementation; (iii) carry out a joint analysis of expenditure, budgeting and resource mobilization for both climate and disaster risks as an integral part of development financing; (iv) strengthen organizational arrangements including coordination and capacity across DRR, CCA and poverty practitioners, including through cohesive procedures, tools and projects; and (v) ensure development stakeholders are at the forefront of mainstreaming.

Table 1: Integrating DRR and CCA

	DRR mainstreaming	CCA mainstreaming	Integrated mainstreaming
Knowledge	Considers all hazards (e.g. biological, geological, water, climate, weather) and impacts to/from development.	Focuses on climate variability and long-term change, including future scenarios and impacts on development.	Joint data collection, risk assessments, research, knowledge and M&E covering all natural hazards and their historical timescales, as well as climate change projection (e.g. rapid-onset change and gradual, long-term change).
Policy	Links DRM/DRR policies, legislation and plans to development.	Links CCA policies, legislation and plans to development.	Links both DRR and CCA legislation, policies, plans to development policymaking and planning to ensure joint implementation.
Finance	Mobilizes budget for proactive DRR as part of the development agenda, not just for preparedness, response and recovery.	Links climate finance options to the development agenda.	Involves joint expenditure analysis, budgeting, funding and risk financing opportunities to more explicitly allocate and monitor resources for both DRR/CCA as part of national, subnational and local development financial management.
Organization	Strengthens DRR coordination, capacity and procedures within the development sphere.	Strengthens CCA coordination, capacity and procedures within the development sphere.	Builds joint risk capacities, coordination, responsibilities, procedures, tools, programmes and projects from within the development sphere.
Stakeholders	DRM practitioners take the lead.	CCA practitioners take the lead.	Development practitioners take the lead with technical advice from DRM and CCA practitioners.

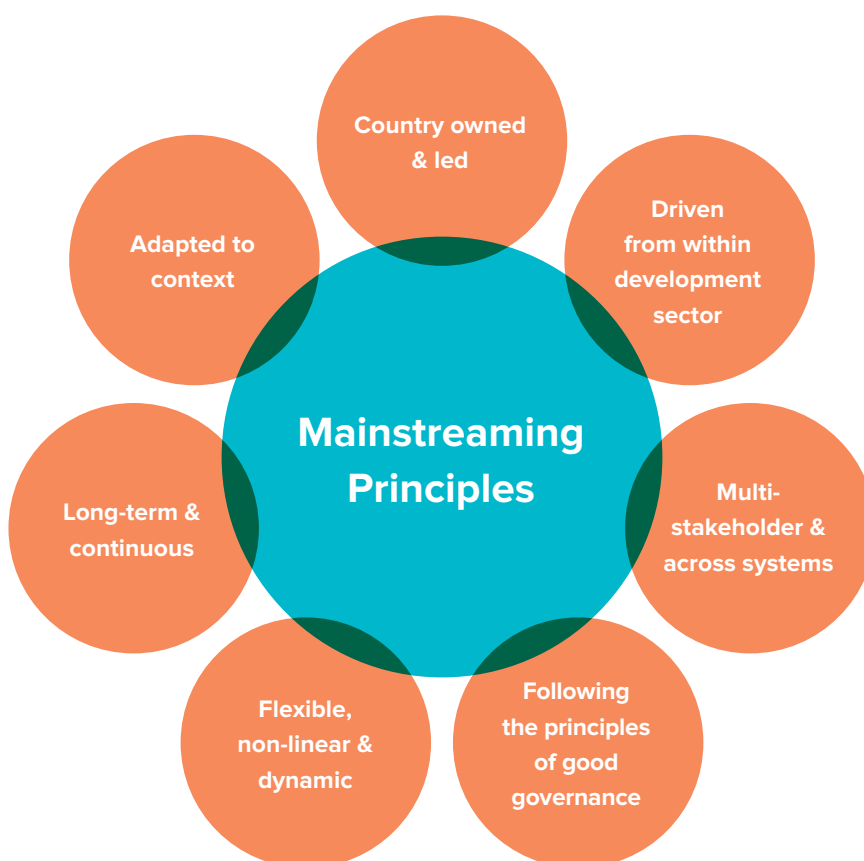
8 Maria Gemma Dalena (2016) from UNDP Rwanda in UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/integrated-DRR/phase3>.

5.

Mainstreaming principles

Before unpacking the tool, it is important to stress some critical principles that should underpin and guide any mainstreaming effort (see figure 2). These originate in a wealth of experience captured by reviewing the literature on existing guidelines and tools, gathering the experiences of UNDP and a broad range of practitioners, as well as case studies and online discussions. Although these build on core principles identified in earlier tools, they move beyond these and guide practitioners to adopt an approach to mainstreaming that challenges conventional approaches that deal with risk as an “add-on.”

Figure 2: Mainstreaming principles





This tool supports a country-led mainstreaming process owned by country champions at all levels.

1

Mainstreaming is country-owned and led. Mainstreaming should be a country-driven, countrywide process to embed risk in existing development policy and practices. Mainstreaming cannot be driven from the outside and will only be successful, pragmatic and context-specific if it is guided by nationally driven solutions and draws upon a country's systems, priorities and capacities (Pervin et al., 2013). For example, experience in Bangladesh has shown the importance of a “whole of government approach” and practitioners in the Republic of Korea and Malawi have noted that ownership at the subnational and community levels is essential with mainstreaming driven by champions.⁹

2

Mainstreaming is driven from within the development sector. Mainstreaming should weave, embed and institutionalize risk by putting it at the heart of development decision-making. The process should start from within the development agenda and strengthen existing development approaches. It therefore needs to be steered by key development actors that champion the integration of DRR and CCA into policies, plans, projects and budgets, supported by DRR and CCA actors. Systems thinking will be needed to shed light on interdependencies, synergies and trade-offs across sectors. One example of this approach was taken in Kenya, where the integration of DRR was initially championed by the Ministry of Planning as a cross-cutting issue and is now addressed in nine thematic areas and sectors in the Second and Third Medium Term Development Plans (2013–2017 and 2018–2022) (UNDRR, 2019).



This tool promotes mainstreaming from within existing development structures, systems, procedures and processes to avoid the usual practice of taking risk as an “add-on.”

3

Mainstreaming is a multi-stakeholder process with many levels of intervention across sectors and systems. It is also a multidisciplinary process and requires the involvement of a wide range of stakeholders. The key decision makers and stakeholders to involve in the particular country context need to be mapped out. Putting all the components of the mainstreaming framework into place requires collective action through cooperation, consultation and negotiation at different levels (local, national and international) and between a variety of relevant actors (different government authorities, legislators, academia, private sector, civil society and communities).



This tool identifies the differing but important and varied roles that stakeholders play to support mainstreaming and highlights how these actors can be engaged to increase success.

⁹ UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

4

Mainstreaming follows widely accepted risk governance principles such as equity and inclusion, participation, responsiveness, transparency, accountability, effectiveness and efficiency (UNDP, 2014). The application of these principles should structure how decision-making and implementation ought to be carried out concerning mainstreaming (Planitz, 2015). For example, in Indonesia and Nepal, the government is incorporating gender equity, inclusion and participation into the risk assessment and analysis supporting mainstreaming, to ensure that DRR and CCA solutions address gender-related vulnerabilities more effectively (UNDP, 2015a). Mainstreaming strengthens risk governance from within the development agenda (UNDP, 2016a).

This tool promotes the use of the core values and principles of governance to guide decision-making and implementation around risk management.



5

Mainstreaming is a flexible, non-linear, dynamic process – there is no blueprint. The framework is not intended to provide a linear step-by-step blueprint on how to integrate DRR and CCA into development. The mainstreaming process is dynamic, and the entry points are interlinked and act to reinforce each other. The sustained institutionalization of DRR- and CCA-related issues in development requires action across all entry points over time. Pursuing one or two entry points may be a good start, but most certainly will not suffice to sustain DRR and CCA as a regular part of development practice in the long term. The flexibility of the mainstreaming framework means that if progress in one entry point stalls (e.g. for political reasons), work can move forward on other entry points in the meantime and thus maybe overcome the barrier in question.

This tool can be applied dynamically and is flexible enough to support varied priorities and differing mainstreaming entry points.



6

Mainstreaming is a continuous, long-term process, given that risks and circumstances are constantly changing. Mainstreaming should not concentrate on a single entry point. It is also not advisable to focus on one sphere (e.g. policy) and to “finish” work in that area and then move onto another sphere. Like all processes of institutional reform, each area will need to be revisited and targeted on an ongoing basis so that changes in context, national priorities and needs can be addressed. Moving beyond mainstreaming as a series of piecemeal governance outputs (e.g. policies, laws and plans) requires an ongoing process of change (Aysan and Lavell, 2014) that allows for engagement and innovation. An FAO study found that a significant period exists between the introduction of mainstreaming as a national priority and its effective implementation in sector planning. In Bangladesh, mainstreaming was first introduced in 2005 but was not implemented in the agriculture sector through a comprehensive action plan until 2009, suggesting that it takes time for change to materialize (Trujillo, 2014).



This tool supports a long-term mainstreaming process that moves beyond quick wins and sees mainstreaming as an ongoing process of change.

7

Mainstreaming is context-specific. Mainstreaming should be adopted to the context. Experience shows that no context is the same and it is important to be sensitive to the “unique histories, political ideologies, cultures and aspirations” of a country.¹⁰ Mainstreaming should be adaptable to the ever-evolving and changing context. Each country’s context will provide different starting points, opportunities for engagement and unique challenges. The process of mainstreaming DRR and CCA will start differently in each country and face different challenges, depending on factors such as the extent to which a shift from a reactive to a more proactive risk management approach has already taken place within existing national institutions. Further, experience shows that mainstreaming at times needs to be opportunistic and that timing is critical: “although it is fundamental to take a structured approach, where opportunities arise, these then need to be effectively tapped into” (Dalesa, Vanuatu¹¹).



This tool is flexible and so can be applied in different and specific contexts. It is sensitive to the evolving nature of risks and their multidimensionality, which may require the use of different entry points or a combination of these.



10 UNDP’s online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

11 Dalesa from Vanuatu in UNDP’s online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

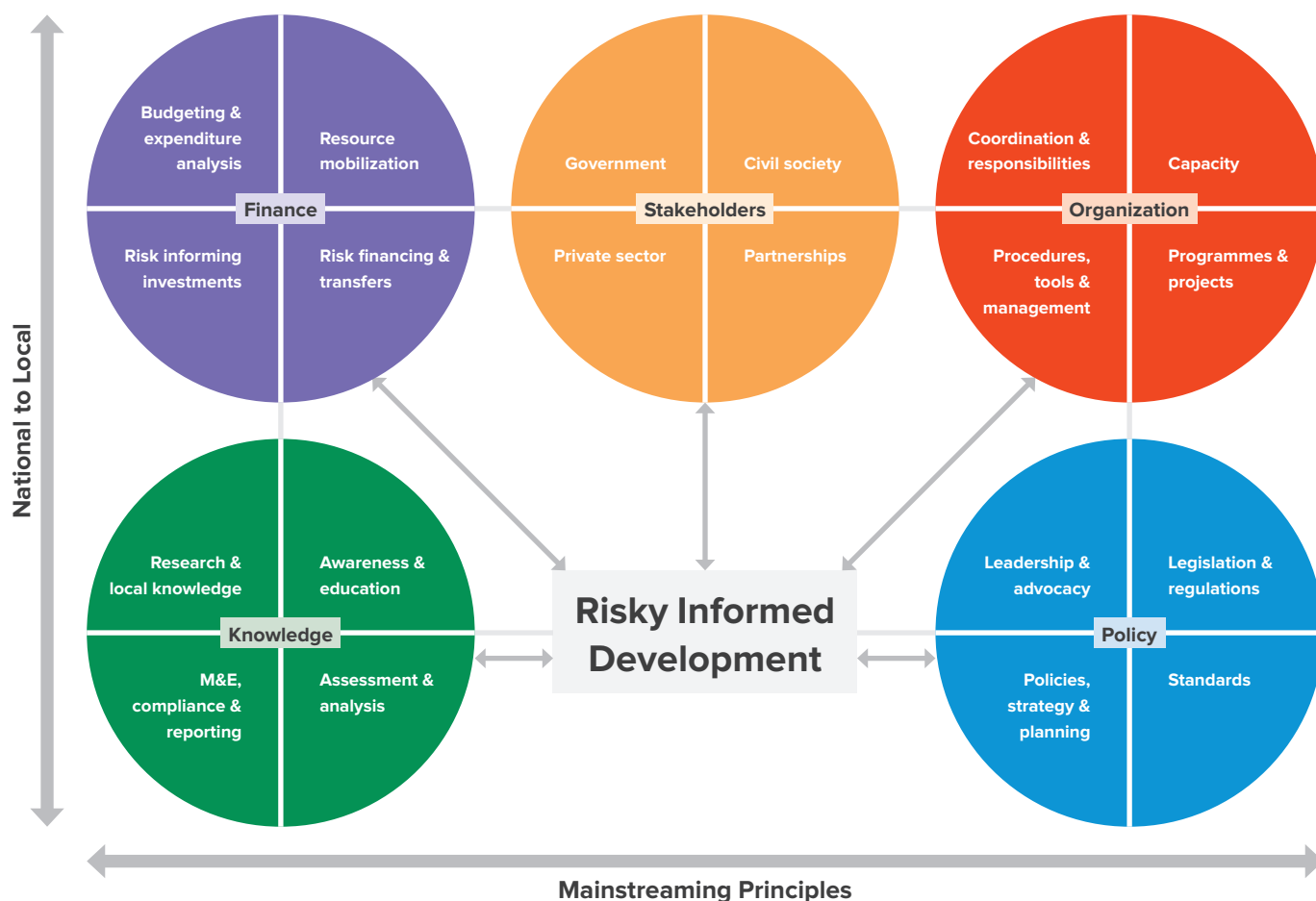
6.

Unpacking the mainstreaming process

6.1 Overview

This section provides guidance on implementing the five spheres of action of mainstreaming (knowledge, finance, stakeholders, organization and policy) that can help advance and institutionalize the mainstreaming process (see figure 3), which is essentially a change and learning process. Each mainstreaming sphere of action is subdivided into four specific entry points.

Figure 3: Mainstreaming spheres of action and entry points



The following considerations should be kept in mind while working to strengthen priority spheres of action for mainstreaming and the respective entry points:

- **Choosing the starting point is context-specific.** There is no one right starting point for mainstreaming, and entry points will depend on the context. The best possible combination of priority entry points that will help achieve a specific country’s intended outcome will vary between contexts. In most cases, it will be beneficial to work on several entry points simultaneously, as is shown in the case studies in section 6. It is important to note that the order in which the components are presented in the following section does not indicate a prescribed sequence for applying the tool in practice.
- **The spheres of action are interrelated.** Entry points are all interrelated and their interdependence helps gain traction or make progress in other spheres. This is because risk governance strengthening is a complex web of context-specific processes and interactions between various aspects, institutions and actors. The entry points therefore work dynamically, with one success leading to another. This is illustrated clearly in the case studies in section 6.
- **The spheres of action are a mix of mainstreaming conduits.** The components comprise entry points that can function as drivers for the mainstreaming process (e.g. awareness-raising, advocacy, capacity financing and leadership) or outputs or targets for mainstreaming (e.g. policies, plans, budgets and projects), or can support the implementation of these outputs (e.g. capacity, finance and partnerships). However, most commonly, strengthening an entry point will have multiple benefits for mainstreaming.
- **Progress will vary by the sphere of action.** Simultaneously working on multiple spheres of action means that if progress stalls in one area (perhaps for political or economic reasons), work can still continue or be revisited in other spheres of action.

The key issues to be considered within each sphere of action are listed in table 2. These issues are not all-encompassing and could be further expanded, depending on the context.

Table 2: Mainstreaming spheres of action

Spheres of action	Entry points	Sub-entry points
Knowledge	Awareness and education	Advocacy and awareness-raising; school curriculum; professional education.
	Research and local knowledge	Scientific research and technology; local knowledge; translation and communication of technical knowledge; knowledge-sharing platforms.
	Assessment and analysis	Risk assessment and analysis; risk tools; analysis of underlying root causes.
	M&E, compliance and reporting	Enforcement, quality control, compliance; reporting; monitoring, evaluation; mainstreaming baseline and progress.
Policy	Leadership and advocacy	Ownership; political will; political commitment; champions; community leadership; vision.
	Legislation and regulation	Laws, codes, regulations; custom law; enforcement, incentives.
	Policy, strategy and plans	Global/regional policy commitments; national and subnational policy frameworks; national and sectoral development; DRR/CCA strategies and plans.
	Standards	ISO standards or professional association technical standards (i.e. architects, builders or engineers, etc.); Sendai Framework minimum standards.

Spheres of action	Entry points	Sub-entry points
Finance	Budgeting and expenditure analysis	Sustained financing or budget allocations for DRR/CCA; public financial management; public expenditure reviews; cost-benefit analyses; economic impact assessment.
	Resource mobilization	Funding opportunities; climate finance; avoiding duplication; effective use; cost-sharing; private-sector resources; taxation; innovative financing instruments.
	Risk-informed investments	Cost-benefit analysis; screening and appraisal; public and private-sector investments; business continuity.
	Risk financing and transfers	Insurance and reinsurance; risk pooling; financial exposure/reserves; disaster risk transfer tools; shock-responsive social protection.
Organization	Capacity	Capacity needs assessment; capacity development; dedicated staff capacity/roles for DRR/CCA, including DRR/CCA focal points in departments other than those focusing on DRR/CCA; training of trainers; equipment and resources; local capacities and community training.
	Coordination and responsibilities	Organizational arrangements; institutional roles and responsibilities; job descriptions; coordination platforms and mechanisms; mainstreaming action plans.
	Procedures, tools and management	Internal procedures; cross-sectoral procedures/processes (e.g. "bottom-up/top-down" planning); tools and guidelines; checklists/frameworks.
	Programmes and projects	Project/programme management cycle; logical frameworks.
Organization	Government	Engaging apex and line ministries; finance and planning ministries, meteorological/ hydrological and geological agencies; commissions; parliament; councils; committees, public institutes; police; army; subnational governments.
	Civil society	Engaging communities; interest groups (women, elderly, youth); NGOs; CBOs; the media; cultural or religious groups/organizations.
	Private sector	Engaging corporations; companies; for-profit businesses; small and medium-sized enterprises.
	Partnerships and networks	Private/public; multi-stakeholder, inter-agency collaboration; communities of practice; South-South cooperation; civil society networks; academic and research networks; regional and community hubs; training centres; resource and service centres.

6.2 The 5 spheres of action for mainstreaming

The remainder of this section provides a brief overview of each sphere of action and their related entry points. More in-depth guidance on the entry points is provided in stand-alone annex C, which includes detailed tables with the following information:

- Overview of what is meant by the entry point and what support is needed for joined-up or parallel DRR and CCA mainstreaming
- Explanation of why the entry point is relevant for mainstreaming
- Identification of who is usefully involved in strengthening this mainstreaming entry point
- Overview of how practitioners can strengthen this mainstreaming entry point
- Summary of expected results from supporting this mainstreaming entry point
- Identification of key challenges experienced by the practitioner
- List of relevant practitioner tips
- List of potentially useful tools to help strengthen this entry point and identification of gaps in existing tools
- Reference to a checklist for the entry point, which will be developed following piloting

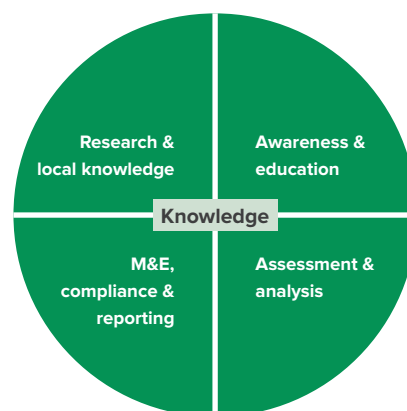
Knowledge

Purpose:

Supporting this sphere of action will help drive the mainstreaming process.

Increasing the knowledge base and raising awareness around the links between disaster and climate change risks and current and future development (supported by joint assessment and analysis), is vital for “making the case” and galvanizing support for mainstreaming.

Supporting this component will also build the foundation for risk-informed development decision-making, by ensuring the information for evidence-based decision-making is grounded in solid research and local knowledge on both rapid-onset and more gradual risks across all relevant timescales. Making this knowledge accessible and communicating it in a user-friendly format supported by decision-making tools will be key.



Entry Points:

This sphere of action comprises four main entry points. Mainstreaming will involve support for one or more of these areas of intervention or entry points (see annex C for “how-to guidance” on each of these):

- **Awareness-raising and education.** In many disaster-prone countries, general awareness of climate and disaster risk may exist, but awareness in many countries on how these risks interact with development processes is still low. Effective awareness-raising and education are needed to build a common understanding of why mainstreaming is needed, galvanize commitment and mobilize resources and capacities for responding to risks (including promoting climate change mitigation and prevention). Integrating disaster and climate change risk into the education system via the curriculum, (including professional education) provides a sustainable approach to awareness-raising on core DRR and CCA concepts. Similarly, raising awareness of stakeholders such as the community, house owners or beneficiaries is also important for providing a check and balance from the beneficiary side (UNDP, 2015).



Support for this entry point will: (i) increase awareness, understanding and prioritization of risk-informed development; (ii) promote risk-informed development as an accepted goal among key stakeholders and (iii) empower key stakeholders to reduce risk as part of development decision-making and practice.

- **Research, local knowledge and communication.** A favourable environment for risk management is one in which access there is access to scientific research and local knowledge and decision-making is transparent and democratic (Mitchell and Ibrahim, 2010). Evidence-based decision-making recognizes the importance of grass-roots knowledge to help understand local

challenges but also values the research and innovation that universities and businesses contribute (ARUP, 2018). Research, science and technology are therefore increasingly important elements as they increase understanding of risks and help identify innovative solutions for addressing these (Tang, WMO¹²). Many countries, however, lack the infrastructure or technical capacities to provide high-quality risk information. Consequently, practitioners have had to draw upon global climate projections or hazard data that is insufficiently sector-specific, policy-relevant or actionable and is poorly matched with policy, planning and management time-frames, compounded by uncertainty (USAID, 2014). Increasingly, agencies that have scientific, technical and service expertise will be called on to deliver specialized, targeted products and services to advance efforts to analyse, reduce, manage and finance risks (Tang, WMO). However, effective risk communication is essential to ensure climate change and disaster information can be used in different contexts and is accessible, tailored, user-friendly, relevant and actionable for mainstreaming. Further, effective risk communication with at-risk populations is fundamental to driving action on the ground (Battistoli, 2013) and ensuring that sufficient action is taken to both prevent and respond to risks from climate change and “natural” disasters, including restorative eco-based practices (Wheeler, USA¹³).

Support for this entry point will (i) provide decision makers with the knowledge they need to make risk-informed decisions and (ii) ensure that information is “translated” into the language of development actors, including communities.



- **Assessment and analysis.** Risk-informed development requires an assessment of specific policy objectives, strategies and projects from a risk perspective. This requires accessible risk information and research, together with risk assessment tools to analyse the nature and extent of hazards, vulnerability conditions, the magnitude and likelihood of potential damage and losses, and analysis of the causes and impacts of losses. There is a need for holistic risk assessments and analysis that can map the complex topography of risks (from natural and human-induced hazards). Strengthening this entry point will support a paradigm shift towards dynamic joint risk assessments, which reveal the multiple drivers of risk, the range of impacts, the effectiveness of policies and projects focused on reducing risk, and identify current implementation gaps (GFDRR, 2016). There is also a need to study and analyse cost-effective solutions to avoiding risk (e.g. relocating people, creating natural buffer areas, restoring the natural environment or water cycles, and so on (Wheeler, USA). Risk assessment is therefore an integral part of the decision- and policymaking processes and requires close collaboration between various parts of society.

12 Dr. Xu Tang, Director of the Weather and DRR Services Department (WDS) of the World Meteorological Organization, in UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

13 Rob Wheeler (2016) of Global Ecovillage Network in UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

Support for this entry point will provide critical assessment and analysis for supporting development decision-making from a risk-informed perspective.



- **M&E, compliance and reporting.** Several developing countries have excellent regulations on land-use planning, building codes and other ordinances that seek to avoid and/or control risk on paper. However, compliance with these and enforcement of them is one of the greatest challenges for DRR/CCA. Enforcement and quality control are generally the weakest part in the system, often due to a lack of human and financial resources and political interference with the regulatory system. In many developing countries, enforcement procedures are weak or non-existent, which is compounded by problems of weak governance and corruption, leading to an abuse of land-use controls and building permits (IFRC and UNDP, 2015). Similarly, M&E help track the implementation of risk-informed regulations and codes, assess DRR and CCA mainstreaming progress, and identify if projects and programmes are sufficiently risk-informed or whether adjustments are needed. In other words, M&E need to capture the effectiveness and impact of mainstreaming. M&E should not be a one-off activity that is carried out at the end of a neat sequential mainstreaming process (Tobita, Japan¹⁴). Instead, ongoing formal and informal monitoring of mainstreaming activities should be part of daily/regular organizational procedures and will provide continuous support for improving the mainstreaming process and responding to mainstreaming challenges.

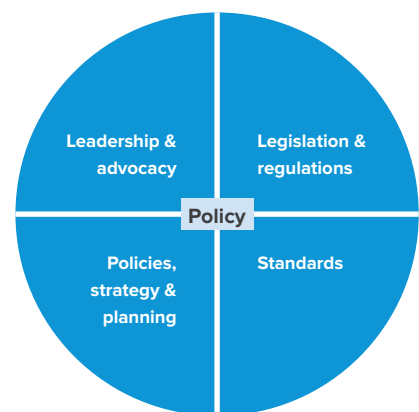


Support for this entry point will (i) improve enforcement of risk-informed legislation and (ii) help track and report on mainstreaming progress towards climate and disaster risk-informed development practice.

Policy

Purpose:

Supporting this sphere of action will help provide the enabling environment for risk-informed development by promoting high-level commitment and leadership for risk mainstreaming and by contributing a comprehensive and supportive legal, policy and planning framework. Policies, laws and regulations provide the foundation or “technical architecture” upon which strategies and plans can be built as the basis for integrating risk into development practice (Lal et al., 2012). This sphere also supports accountability and risk ownership as part of the larger disaster risk governance framework (Amaratunga et al., 2019).



Entry Points:

This sphere of action comprises four main entry points. Mainstreaming will involve support for one or more of these areas of intervention or entry points (see annex B for “how-to guidance” on each of these):

- **Leadership and advocacy.** Leadership, advocacy, political commitment and political will at all levels are critical for mainstreaming, building support for proactive treatment of risk and encouraging individuals and communities to take action before disasters (as well as during and after). According to the

14 Naomi Tobita (2016) in UNDP’s online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/integrated-drr/phase3>.

World Bank (Meadowcroft, 2009), “the most important factor influencing the success of climate change governance to date has been engagement (or not) by top political leadership”. Experience shows that “leadership is really critical for the mainstreaming efforts to bear real fruit.”¹⁵ Although experience is showing that national-level champions are essential, increasingly practitioners are identifying that community commitment and leadership are also vital if development is to be resilient: “after all, political commitment alone cannot lead to adaptation and DRR at the community level if community leadership is absent. Community leadership is what drives the process in sustaining development programmes.”¹⁶

Support for this entry point will build the engagement and commitment of senior champions to help drive the mainstreaming process.



- **Legislation and regulations:** the legal and regulatory frameworks establish a system of accountability for risk reduction and adaptation (IFRC and UNDP, 2015). National legal frameworks are important as they provide stakeholders, decision makers and practitioners with the rationale, incentive and guidance for actions. The process of establishing feasible laws and regulations (and ensuring overall consistency with the existing body of law) is crucial. Therefore, mainstreaming risks into these vehicles for driving change is essential. Ideally, both disaster and climate change risk are integrated as part of (i) updates to existing national or sector legislation for development or poverty reduction or (ii) the drafting of new legislation (rather than developing new “stand-alone” legislation for DRR and CCA). Where separate DRM and climate change legislation exists, linkages between these and development-related regulations need to be strengthened and their joint implementation supported.

Support for this entry point will provide the enabling environment for mainstreaming and establish the legal rights of citizens and the duties of the State and other stakeholders (e.g. the private sector). It will help risk-inform legislation and regulations but will also support the identification of opportunities for linkages and joint implementation.



- **Policies, strategies and plans:** development planning is guided by annual-, medium- and long-term policy cycles and articulated in policy documents and implementation strategies or plans. Integrating risk into policy and planning cycles and associated documents provides a strong foundation for action (UNDG, 2010). Specifically, national, sector, subnational and community development plans (including actions to address the root causes of vulnerability and promote transformative action) are critical entry points for mainstreaming. Ideally, civil society is engaged in planning and decision-making processes, and community plans (cascading up to the national plan) are grounded in community-identified priorities, needs and capacities. Where separate policies or plans for CCA or DRR (or DRM) have been developed, it will be important for key stakeholders to come together to discuss linkages, areas of overlap and their joint and unified implementation. Resilience is recognized as a unifying approach that transcends disciplines and sectors and therefore can guide the design of integrated policies, strategies and plans (United Nations, 2020).

15 UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

16 UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.



Support for this entry point will translate political commitments for DRR and CCA into road maps for action and will identify activities (aligned to development goals) for delivering risk management objectives as part of development objectives.

- **Standards:** these establish the desired characteristics of a product or process. They are not mandatory, although adherence can be a requirement of regulations or contracts (Jachia, 2014). They are an important entry point for mainstreaming as they can help authorities prevent risks (e.g. environmental standards) or reduce and adapt to risks (e.g. incorporating resilience standards into building codes or developing land management best practices that accommodate risks). They support shared responsibility for disasters and climate change and also have great potential as a means for strengthening accountability. Further, they can help raise awareness and engagement with climate and DRM by offering simple, agreed metrics put forward in a language and format that is familiar to businesses, local governments and communities (UNDRR, 2015).



Support for this entry point will help governments incorporate risk-related standards into regulations and encourage their adoption by the public and private sectors.

Finance

Purpose:

Strengthening the finance sphere of action will provide essential support for implementation. Political commitment and risk-informed policies, regulations and projects need to be backed by adequate resource allocations and innovative financing mechanisms to enable their implementation (ODI, 2014). The budget is the primary political and economic expression of a government's decisions (UNDP and UNEP, 2015). It includes decisions on both expenditure and revenue-raising and can have a positive or negative effect on disaster and climate change risk. For example, positive expenditures include retrofitting housing or forestry management, whereas negative expenditures include government-funded land clearance or planning housing or a tourist facility on a floodplain or in a low-lying coastal area.

The finance sector can be an important driver of the mainstreaming process, for example through budget circulars that set clear requirements for risk-informed investment, or by creating specific funds and incentives in support of more coherent DRR/CCA outcomes. Also, dedicated budget lines and funding mechanisms for risk are important as they require stakeholders to analyse expenditures and identify how resources can be mobilized so that the allocation of these for DRR/CCA can be more effectively mainstreamed into the budgetary process and public and private investments.

Strengthening this sphere of action will also provide essential support for securing adequate financial resources to cover residual risks and create the



right financial incentives to invest in risk reduction and prevention through support for risk financing and transfers.

Entry Points:

This sphere of action comprises four main entry points. Mainstreaming will involve support for one or more of these areas of intervention or entry points (see *annex B* for “how-to guidance” on each of these):

- **Budgeting and expenditure analysis.** Mainstreaming requires the engagement of the ministries of finance and planning – the parts of government that determine public expenditure and the fiscal policy that incentivizes the private and public sector (UNDP and UNEP, 2015). Dedicated budget lines and funding mechanisms are essential for supporting the integration of DRR and CCA into development policies, plans and programmes. However, instead of creating separate budgets for risk management, ideally, costs should be calculated as part of existing development budgets for policies, plans and programmes (with risk management measures that are built-in and costed within project proposals), including the implementation of these. Ideally, budgets for recurrent maintenance costs need to be adequate and help enhance the resilience of physical structures such as schools or health clinics (UNDP, 2015). Similarly, recurrent costs for regular capacity development and training on risk-informed development at all levels are essential. Analysis of CCA- and DRR-related spending enables decisions to be taken with a clearer understanding of the costs and potential benefits that derive from risk-related investments. The analysis also provides support and an opportunity for strengthening budget processes for risk and identifying specific entry points for reform. It also provides a platform for more explicitly allocating and monitoring resources for DRR/CCA in the national budgeting process.

Support for this entry point will strengthen budget processes for risk and ensure that risk management is costed as part of the mainstream development budget.



- **Resource mobilization.** Funding is a major challenge to implementation. Mobilization involves identifying resources from public and private funds (national, regional and international) to help the implementation of risk-informed legislation, policies, projects and programmes. Macroeconomic analysis and a clear understanding of the economic impact of disasters on development goals (and if necessary, the cost-benefit ratio for DRR/CCA investments) may be required for stakeholders to make concrete financial commitments (UNDP, 2015). Also, appropriate incentives will need to be set that promote integrated approaches to CCA and DRR mainstreaming and help realize co-benefits. Strengthening processes and mechanisms for effectively managing financial resources can also increase access to climate finance.

Support for this entry point will help governments incorporate risk-related standards into regulations and encourage their adoption by the public and private sectors.



- **Risk financing and transfers.** Traditionally, governments in developing countries relied on ad hoc financing (usually secured after an event) to respond to disasters. Disasters were seen as primarily a humanitarian issue and therefore financial management remained impromptu (GFDRR, 2016). More recently, policymakers in developing countries are recognizing the benefits of proactive planning for the financial management of disasters and identifying the need to establish financial protection measures to help manage the impact of disasters. This requires that governments assess the finance gap faced by stakeholders for DRR (before and after a disaster), usually based on a calculation of contingent liabilities. This will identify potential risk financing and transfer tools to meet the needs of the most financially vulnerable populations and segments of the economy. As a result, this approach will help increase access to risk financing and transfer tools for stakeholders that are expected to face a financing gap and are unlikely to absorb (in full or in part) the financial consequences of disasters and climate change (UNDRR, 2015).



Support for this entry point will promote and increase access to disaster risk financing and transfer mechanisms for both public and private stakeholders to reduce the financial impact of climate change and disaster hazards.

- Risk-informing investments. Strengthening this entry point is central to mainstreaming. It requires that existing development investments, public assets or services at the heart of the development process are not creating risks and are protected from new or growing risks (note, new investments are dealt with in projects and programmes). Any investment that is resilient to climate and disaster risk sets a pathway for sustainable development (United Nations, 2020). Cost-benefit analysis can show that the long-term benefits of risk-informing investments for hazard-prone areas far outweigh the cost of development setbacks and reconstruction. For example, retrofitting or upgrading hospitals and equipment, school buildings, roads and bridges, energy sources, water pipes and irrigation systems, administrative buildings and community structures including housing to resilient standards has proved cost-effective in the long run. Also, the public- and private-sector procurement process can influence risk-informed investments. This entry point cuts across sectors to ensure that wider planning processes (e.g. spatial planning, land zoning and management) are drawn upon to protect these investments (for example by flood plain management, slope stabilization and land zoning). Similarly, risk assessment, screening and risk-informed analysis and monitoring will be essential on an ongoing basis to ensure that investments do not increase existing risks or create new ones. Beyond financial and physical infrastructure investment, appropriate investment in understanding the context and tailoring the approach is vital (Harris et al., 2012).



Support for this entry point will ensure that existing development investments are risk-informed and do not increase vulnerability to existing and new risks and are protected from climate and other natural hazard-induced impacts.

Organization



Purpose:

Strengthening this sphere of action will support the implementation of risk-informed legislation, strategies, policies and investments. The integration of risk into policies, plans and associated assessment/analysis processes does not automatically result in the actual implementation of risk-informed activities. It is equally important to strengthen the organizational aspects of the development activity to ensure that development organizations mainstream risk management into their core activities, thereby internalizing and ultimately institutionalizing DRR and CCA. Mainstreaming DRR and CCA within an organization's structure and processes cannot be viewed in isolation from the broader institutional challenges a particular organization might face. Key entry points will be: (i) clearly defining roles and responsibilities, coordination mechanisms and incentives for risk management; (ii) developing the capacity to effectively carry out key roles and responsibilities relating to risk; (iii) risk-informing internal procedures and tools to ensure sustained integration into a department's responsibilities and day-to-day activities (e.g. planning, programming); and (iv) risk-informing the programme/project cycle.

Entry Points:

This sphere of action comprises four main entry points. Mainstreaming will involve support for one or more of these areas of intervention or entry points (see annex B for "how-to guidance" on each of these):

- **Coordination and responsibilities.** DRR and CCA are highly interdisciplinary functions and require the collaboration of a wide range of stakeholders. It is important to ensure that DRR/CCA strategies and plans are supported or reinforced by clear allocation and implementation of roles and responsibilities for climate and disaster risk, to avoid overlap or gaps. This means identifying the individuals or groups responsible for risk management in each ministry or agency as well as establishing or strengthening coordination platforms to bring together different stakeholders. Ideally, focal points are identified in each core government ministry/subnational unit and act as an anchor for DRR and CCA within that organization. Cross-sectoral coordination and collaboration that challenges "siloed" approaches in government will be critical to effective risk-informed decision-making (UNESCAP, 2017; GFDRR, 2016). Cross-government mechanisms are therefore commonly cited as the preferred way of organizing around climate and disaster risk, although they often difficult to achieve in practice. Further, interministerial and intersectoral coordination and collaboration is an important starting point that determines the extent to which a dialogue can be held on institutional and legal reform processes for improved risk management as well as a vehicle for developing and implementing a mainstreaming action plan (MAP).



Support for this entry point will ensure that roles and responsibilities for risk-informing development policy and practice are articulated clearly, implemented effectively and promote collaboration within and between government agencies, potentially resulting in an MAP.

- **Capacity.** Capacity development refers to the process of creating and building capacities and their subsequent use, management and retention. UNDP defines capacity development as a process through which individual organizations and societies obtain, strengthen and maintain the capabilities to set and achieve development objectives over time. It is the “how” of making development work better (UNDP, 2008). To be effective, capacity development needs to move beyond short-term, ad hoc and traditional training approaches and support more sustained changes in behaviour (UNDP, 2015; Shakya, 2018). Capacity development for DRR and CCA is likely to take several different forms, depending on the context. For example, it might involve establishing new focal points for resilient development (within core planning/finance ministries, key line ministries and subnational government) with DRR and CCA risk expertise. Conversely, existing government officers can be given the role of the focal point and they will need ongoing capacity development (e.g. training of trainers) to build their risk management skills. Government agencies can also think about supplementing capacity and outsourcing certain functions (e.g. maintaining GIS). To implement a risk-informed regulatory framework, key professionals (e.g. engineers, masons and builders) will need training, certification or technical guidance to correctly apply these risk-informed codes, standards and regulations. Adaptive governance, foresight and scenario planning capacities will be of particular importance to be able to address growing uncertainties in the risk management process. Community capacities will also need to be enhanced to ensure that community development priorities (part of the bottom-up planning process) include the identification of possible disaster and climate change risks and ways to manage these, as well as training on avoiding, preparing and adapting to climate change (e.g. climate-smart agriculture).



Support for this entry point ensures there is sufficient “in-house” capacity to drive mainstreaming from within government agencies at all levels and sufficient risk management capacity among key implementing stakeholders.

- **Procedures and tools.** Internal procedures and supporting tools are required to guide organizational action and key individuals in support of risk-informed development. Procedures are (i) routinized daily activities associated with different points of a department’s or agency’s programme cycle (e.g. development planning); and (ii) the rules governing actions between and within institutions and individuals. It is important to ensure that responsibility for climate change and disaster risk issues (including the implementation of policies and plans) are reinforced by internal procedures and incentives for individuals and organizations to engage with. This would strengthen accountability for risk-informed development. Most importantly, for DRR and

CCA to be fully integrated into an organization, procedures must exist to ensure that assessments and planning exercises for DRR do not remain one-off exercises, are fully institutionalized and are supported by relevant tools. For example, risk-screening guidelines/tools for sector planners or checklists for approval mechanisms incorporating risk.



Support for this entry point will promote risk-informed procedures and tools and their daily use as part of the “new normal”.



- **Programmes and projects.** Risk-informing the project or programme cycle will help practitioners design, implement, monitor and evaluate new projects that build disaster and climate resilience (Turnbull, Sterrett and Hillboe, 2013). This will involve risk-informing the project management activities and decision-making procedures used in the life cycle of a project, as well as risk-informing logical frameworks and related budgets, project proposal forms and appraisal checklists. Central to the process is ensuring the active involvement of “at-risk populations”, given that project effectiveness will increase if designed based on the needs of these individuals (Turnbull, Sterrett and Hillboe, 2013). This entry point will include interventions that: (i) support development (e.g. the provision of a new school or new type of crop for farmers) and include risk management measures (e.g. building the school to resilient and energy efficiency standards, or introducing a drought-resistant crop variety); (ii) address underlying vulnerability to disasters (e.g. microcredit projects, livelihood diversification); or (iii) specifically target risk reduction, climate adaptation or climate mitigation (e.g. early warning systems, reforestation, creating buffer zones, rainwater harvesting or promoting the use of renewable energy). Projects of all scales are important and can include larger joint programmes. This entry point is closely related to capacity-building among planners to risk-inform the project planning process and provide training for contractors involved in project implementation (e.g. engineers, builders) and capacity development for planners involved in post-implementation M&E.

Support for this entry point will promote the implementation of risk-informed projects and programmes based on the needs and active engagement of local communities supported by the newly developed capacity of project planners and managers.



Stakeholders

Purpose:

Strengthening this sphere of action will enable the involvement of critical actors in mainstreaming and support the implementation of risk-informed development regulations, standards, policies, plans, programmes and projects.

Governments cannot address the complexities of risk-informed development singlehandedly, as this requires an interdisciplinary, multilevel approach and needs to include the knowledge, skills and resources of different stakeholders. Evidence from 17 countries identified that repeated long-term, multi-sectoral engagement can lead to incremental progress in risk-informed planning (UNDP, 2015). It is therefore important for governments to provide incentives for the engagement of other critical actors such as civil society and the private sector. For example, local governments can regulate land use and building construction, but private companies and NGOs often deliver key services and are responsible for large infrastructure projects, while households contribute labour and assets to housing and other low-tech construction projects (Mitchell and Harris, 2012). Despite the best intentions of relevant authorities, efforts to be more inclusive of civil society and private-sector actors and to seek better representation of communities, women and vulnerable groups have often fallen short of ensuring their sustained engagement in decision-making processes and the implementation of DRR/CCA interventions.¹⁷

Strengthening this component and supporting wider stakeholder involvement will ensure broader ownership and sustainability of the mainstreaming process.

Implementing the priority entry points of this mainstreaming tool therefore requires collective action through cooperation, partnerships, consultation and negotiation at different levels (local, national and international) and between a variety of relevant actors (different government authorities, legislators, academics, the private sector, civil society and communities). This will contribute to accountability and ensure that all activities have an actual impact on reducing vulnerabilities on the ground.

Entry Points:

This sphere of action comprises four main entry points. Mainstreaming will involve promoting the engagement of each group and strengthening partnerships between these (see annex B for guidance on each of these):

- **Government.** The primary responsibility for coordination, oversight and ensuring that risk-informed plans and projects are implemented lies with governments. Decision makers, legislators and administrators at the national, sectoral and local levels have to establish the necessary regulations; provide resources and create incentives for risk-informed investments; build capacities and plan, monitor and enforce the implementation of risk reduction and adaptation activities within development. Decentralizing responsibilities and resources can help the government to respond to specific local characteristics and motivate local actors to improve the delivery of development services by



¹⁷ Ensure consultation take place when proposals are still at a formative stage; that adequate time is given for consideration and response; the consultation findings is conscientiously taken into account.

making them more resilient. This is best done by coordinating a mainstreaming baseline and action plan. However, the government will not be able to act alone but will need other actors to get involved and cooperate (UNDP, 2015), especially in fragile countries with weak state capacities. Understanding the political economy will be an important step in the engagement process.

This entry point will ensure that key government stakeholders are engaged in mainstreaming, including apex and line ministries, commissions, parliament, councils, public institutions, hydrometeorological agencies, etc.



- **Civil society engagement.** DRR/CCA is a multi-stakeholder task that needs the involvement of many stakeholder groups beyond government alone (IFRC and UNDP, 2015). Community engagement and empowerment are critical, given local knowledge and capacities: “the most critical component for mainstreaming DRR and CCA would be the community, the actual theatre for most of the activities.”¹⁸ Empowering communities (particularly groups such as women, children and youth as critical agents for change) also establishes a check-and-balance mechanism to ensure that local governments deliver and private actors adhere to DRR/CCA commitments. Similarly, NGOs play a major role as facilitators in the mainstreaming process, can support capacity development and are important actors for lobbying and campaigning for risk-informed development. Moreover, they support implementation by helping government deliver services and facilitating the participation of communities. However, financing for stakeholder engagement is essential and resources must be provided to ensure that local expertise can be harnessed (Wheeler, USA¹⁹). As identified in the knowledge sphere of action, mainstreaming will need to draw upon the work of academics and research institutes, including the many fields of science and social science dealing with all relevant issues from social inclusion issues to engineering. It may also be important for ministries to recruit technical experts to deliver certain services directly or help train stakeholders. Finally, the media is a key partner in advocacy, as it can investigate and expose poor practices, put pressure on politicians, authorities or private actors and also raise the awareness of communities and constituencies on the need for risk reduction and adaptation.

Support for this entry point will provide incentives for the active engagement and empowerment of civil society in the mainstreaming agenda.



- **Private sector.** Another important stakeholder is the private sector, given that its development activities can reduce or increase disaster and climate risks. The contribution of the private sector to risk-informed and resilient development does not just concern corporate social responsibility, but is increasingly a matter of cost-benefit analysis (i.e. avoiding damage and losses) and compliance. For example, there is a trend toward consent processes and the adoption of safeguard mechanisms (e.g. on gender, inclusion and social and environmental standards) and regulations to incorporate disaster

18 UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

19 Rob Wheeler in UNDP's online discussion on the Integrated DRR/CCA Mainstreaming Framework, <https://www.sparkblue.org/Integrated-DRR/phase3>.

and climate risk management requirements. Furthermore, public-private partnerships can provide an opportunity to combine resources and expertise to act jointly to reduce risk and potential losses. Ultimately, the private sector is a multiplier of public policy intent, tends to be market-driven and follow government-set standards and rules of engagement.



Support for this entry point will provide incentives for the active engagement of the private sector in risk-informing its own development activities and partnering with the government, bringing complementary skills and combining resources for greater effect.

- **Partnerships and networks.** Managing risk is a concern for multiple actors working from the international to the community level, often in partnerships, to ultimately help individual households, communities and societies reduce risks (Benson and Twigg, 2007). Strong functional partnerships (covering the adaptation and reduction-relief-recovery spectrum) and multi-stakeholder partnerships at all levels are needed to cross institutional boundaries, strengthen inter-agency collaboration and promote cross-sectoral relationships. Formal partnerships are specific joint arrangements that bring together the knowledge, skills and resources of different stakeholders. They improve the likelihood of effective policy or project implementation. Partnerships can be built on synergies (e.g. support for resilient development), to complement stakeholders' strengths (e.g. partnerships between research organizations), or to increase outreach (e.g. partnerships between government and NGOs). Informal partnerships, networks or alliances can be important mechanisms for pushing DRR/CCA onto the agenda or generating momentum for risk-informed development, especially in cases where formal partnerships are not possible or have stalled, such as due to the political context or organizational conflicts. Partnerships can promote the participation of civil society.



Support for this entry point will build partnerships that combine the skills, knowledge and resources of different stakeholders to increase impact and contribute to resilient development.

Exploring the dynamics of the mainstreaming process

7.1 Key observations

While the previous section presented the mainstreaming spheres of action separately, they are interrelated and their interdependence helps gain traction and increase the potential for success. The mainstreaming process is essentially a systems approach and a complex governance intervention with context-specific interactions between various entry points, institutions and actors that can dynamically influence each other, with one success leading to another.

Several case studies (see details below) have shown how working simultaneously on a small number of spheres of action can drive the mainstreaming process as these spheres reinforce one other, thus accelerating success. Case studies demonstrate the application of the mainstreaming tool to the national, subnational and sector contexts. They also highlight several valuable lessons:

- **Different starting points.** The case studies show that the starting points or triggers for mainstreaming vary among countries. For example, in Ecuador, the key impetus was the constitutional reform of 2008, which elevated DRM to a State policy. In Fiji, the mainstreaming process started with the Commissioner of the Northern Division championing risk-informed development; in Lebanon and Moldova, major flood events set off the process. In Bangladesh, a development programme (the CDMP) helped lay the groundwork for a very successful mainstreaming trajectory.

The findings suggest that starting points are context-specific, but often include (i) **analysis** (e.g. reviews of expenditure, institutional arrangements, policies) to prepare a **mainstreaming baseline**, which can be a useful starting point; (ii) **advocacy** to raise awareness of the risk-development nexus and (iii) in-house **capacity development** within the development sphere.



- **Different levels of application.** The case studies show that the mainstreaming spheres of action are equally applicable to national-level mainstreaming (e.g. in Ecuador and Moldova), subnational mainstreaming (e.g. Fiji) and district-level mainstreaming (e.g. in Ecuador). They can also be applied to sector planning (e.g. the agriculture sector in Tonga).



Mainstreaming components can be applied at different levels – the national, sector or subnational levels. However, efforts at each level must be linked to support coordination and reinforce progress.

- **Mainstreaming gaps.** The case studies suggest that the use of entry points from the financial component has been scant, based on the experience of several countries, yet this component and its entry points are key factors in successful implementation. The experience suggests that expenditure analysis can be a useful entry point for this component and/or identifying a high-level mainstreaming leader from the Ministry of Finance. Furthermore, awareness-raising and capacity development for focal points in finance ministries can also be valid entry points for this component (e.g. Ghana).



Mainstreaming risk into development finances is still a common gap, which can be overcome by identifying champions, raising awareness, developing capacity within ministries of finance and/or initiating expenditure analysis for risk.

- **Interlinkages.** The case studies suggest that the biggest success stories arise when a combination of entry points are supported, for example, the awareness and risk knowledge entry point alongside leadership and advocacy are critical for achieving buy-in and driving the mainstreaming process. Similarly, the policy component relies heavily on the organizational component, finance component and stakeholder component to secure implementation.



Significant progress is evident in several countries, including Mozambique, Solomon Islands and Kenya, where governments have focused on supporting multiple entry points usually guided by an MAP.

7.2 Country case studies

The country case studies demonstrate the interlinkages between the mainstreaming spheres of action and the different entry points (see annex D for more detailed versions of these case studies). They have been prepared for six countries, namely Ecuador, Lebanon, Moldova, Cambodia, Bangladesh and Fiji.

Ecuador

Ecuador's prominent mainstreaming narrative leans very heavily towards a combination of the **policy** and **organization** spheres of action.

In 2008, the Constitution of the Republic of Ecuador elevated DRM to State policy, supported by a decentralized and deconcentrated institutional system. This was a key [policy entry point](#) – an important foundation upon which risk was integrated into development, as reflected in the ensuing guidelines, plans, strategies and normative instruments. The elevation of DRM to a State policy was accompanied by the strengthening of the institutional framework through the creation of the Service for Risk Management (SGR). This is a [capacity entry point](#) that accompanied the abovementioned [policy entry point](#). The SGR steered the process, particularly the gradual incorporation of a comprehensive risk management approach that transcends emergency response by including development planning, prevention, risk reduction, recovery and knowledge management. This experience in Ecuador reaffirmed that the integration of risk into policies or plans does not automatically make development risk-informed: an institution championing risk mainstreaming was also required. Another foundational [policy entry point](#) was the recognition of the legal rights of nature in the country's Constitution.

The [organization sphere of action](#) was pursued in parallel in the climate change domain by the Undersecretariat for Climate Change and the National Directorate for Adaptation to Climate Change at the Ministry of Environment and Water, specifically through the [coordination and responsibilities entry point](#). These bodies led a series of initiatives, such as the Third National Communication on Climate Change. The implementation of the NAP that also contributed to the adaptation component of Ecuador's NDC.

Building on the above entry points, the Government of Ecuador generated normative instruments that allowed for the integration of both DRR and CCA in the Local Government Development and Land-Use Management Plans. This relates specifically to the [coordination and responsibilities entry point](#), through an interministerial and intersectoral coordination platform, which is an important starting point for discussion and dialogue on mainstreaming. The platform then developed a set of guidelines (known as the PDOT Guidelines) under the [procedures and tools entry points](#) to support mainstreaming. The tool development process under the [organization sphere of action](#) served as a driver for integrated and/or joined-up DRR and CCA mainstreaming in Ecuador.

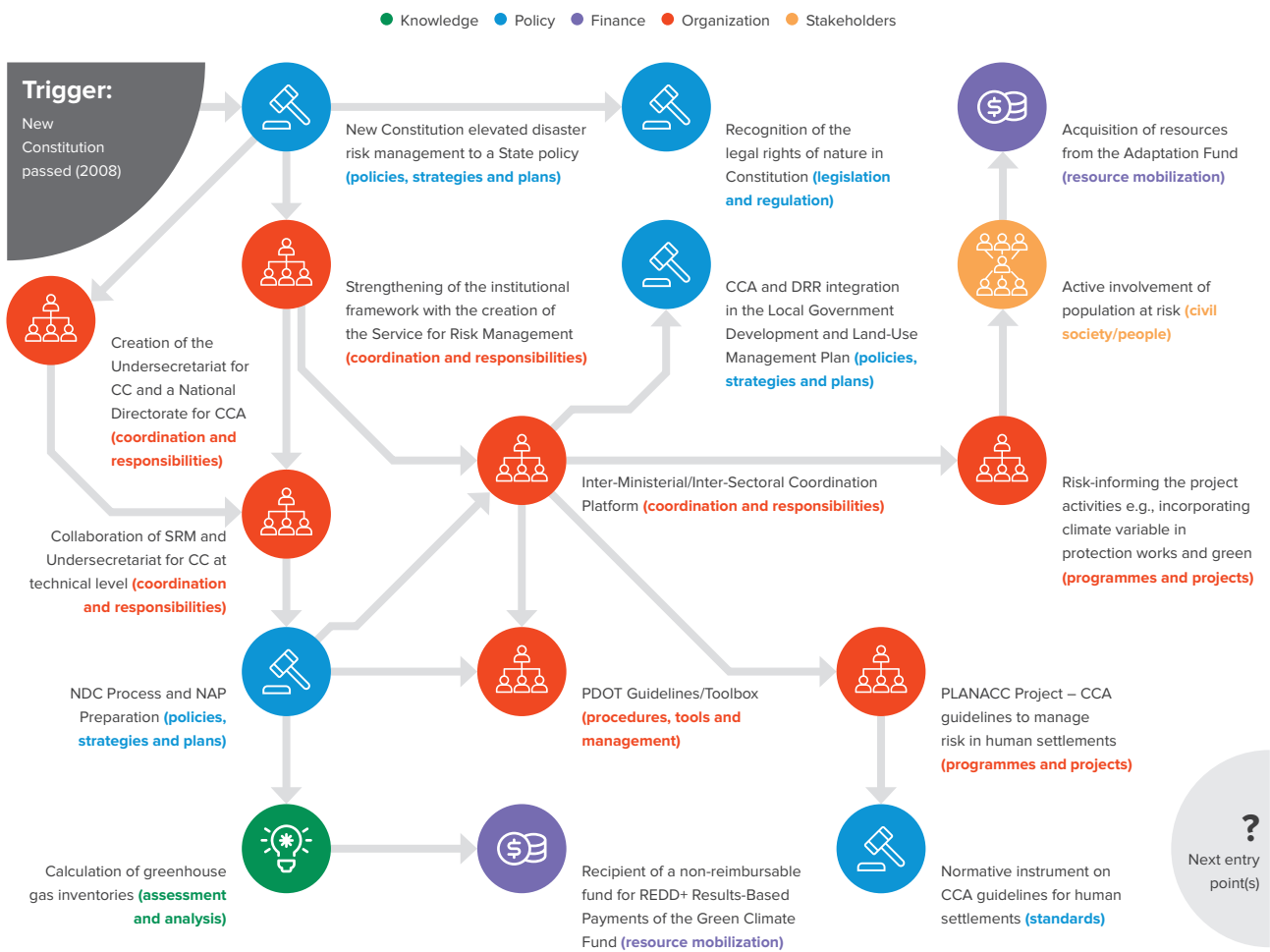
The NDC preparation process, a [policies, strategies and plans entry point](#), harnessed further progress on [coordination and responsibilities](#) under the [organization sphere of action](#), as exemplified by the collaboration between the SGR and the Subsecretariat for Climate Change, working jointly on the guidelines mentioned above. The NDC formulation process also triggered action under the [knowledge sphere of action](#), specifically the finalization of the greenhouse gas inventories ([assessment and analysis entry point](#)) for the years 2014, 2016 and 2018 using the 2006 IPCC methodology. This, in turn, prompted action in the [finance sphere of action](#), since the inventories paved the way for Ecuador to receive non-reimbursable funding for the pilot programme for the Green Climate Fund's REDD+ Results-Based Payments.

Ecuador also optimized the use of [programme and project entry points](#) in mainstreaming DRR and CCA in development, such as the PLANACC project and other ensuing initiatives. An agreement was reached between the SGR and the PLANACC Project for a new normative instrument on incorporating CCA into DRM in the context of human settlements. Again, this constitutes another stellar example of how the [organization entry points](#) for [programmes and projects](#) and

coordination and responsibilities can set the stage for the policy entry point on standards, under which the normative instrument or the CCA guidelines for human settlements may fall.

Moreover, the ongoing regional initiative implemented in the coastal city of Esmeraldas in Ecuador has capitalized on the programmes and projects entry point under the organization sphere of action, as it involved risk-informing the project activities, i.e. incorporating climate variables into protection works and green infrastructure. A key feature of the projects implemented in Esmeraldas is ensuring the active involvement of at-risk populations in the process. This is a very prominent stakeholder entry point that calls for the active participation and accountability of communities and people to ensure that all project activities have an actual impact on reducing vulnerabilities, with support from central, regional and local governments. Government collaboration at different levels allowed for the acquisition of resources from the Adaptation Fund for implementing the project, with support from CAF²⁰ as the implementing entity and UNDP as the executing entity. This exemplified how the organization sphere of action reinforced the finance sphere of action, specifically the resource mobilization entry point.

Figure 4: Snapshot of Ecuador’s mainstreaming process



20 CAF – Development Bank of Latin America is a development bank with the mission of promoting sustainable development and regional integration by financing projects in the public and private sectors in Latin America and providing technical cooperation and other specialized services.

As the above analysis shows, Ecuador relies little on the **knowledge entry point**. While the **policy** and **organization** entry points may be slowed by the upcoming election year and periods of transition immediately thereafter, this would be an opportunity to strengthen the **knowledge entry point**, specifically in relation to awareness and education and risk assessment and analysis to better inform the green infrastructure initiative, for instance. There is also an opportunity for strengthening the entry point on M&E, compliance and monitoring. For instance, this could be developed to ensure compliance, enforcement and the implementation of guidelines for local government development and land management or the CCA guidelines for human settlements. On another note, Ecuador would also do well to revisit the **stakeholder entry point** for the private sector and civil society engagement. As things currently stand, Ecuador relies heavily on the government as the primary stakeholder – the private sector and even civil society are almost entirely absent from the whole mainstreaming narrative.

Lebanon

The year 2015 was a remarkable one for development globally. During it, Lebanon adopted the triple global frameworks of the 2030 Agenda, the Sendai Framework for DRR and the Paris Agreement, setting the foundations for risk-informed development (**policy sphere**). However, it was not until 2018 that mainstreaming really gained momentum in the country. The floods in the Baalbek-Hermel region that year prompted Prime Minister Hariri to mobilize the UNDP Disaster Risk Management Unit, located at the Presidency of the Council of Ministers, to coordinate the response and take the necessary measures against future events. Circular 3/2019 issued by the Prime Minister officially mandated the DRM Unit to ensure cooperation and coordination among all public administrations, public institutions, councils and agencies in the field of DRR. The Prime Minister then launched an initiative to shift the country's approach to the problem from response to prevention and mitigation, still under the overall coordination of the DRM Unit. This was primarily responsible for oversight and ensuring that risk-informed plans and policies were implemented. The Prime Minister's personal commitment is an example of **leadership and advocacy (policy sphere)**, and the Circular fostered **coordination and responsibilities (organization sphere)** – the decisive first steps for the mainstreaming process.

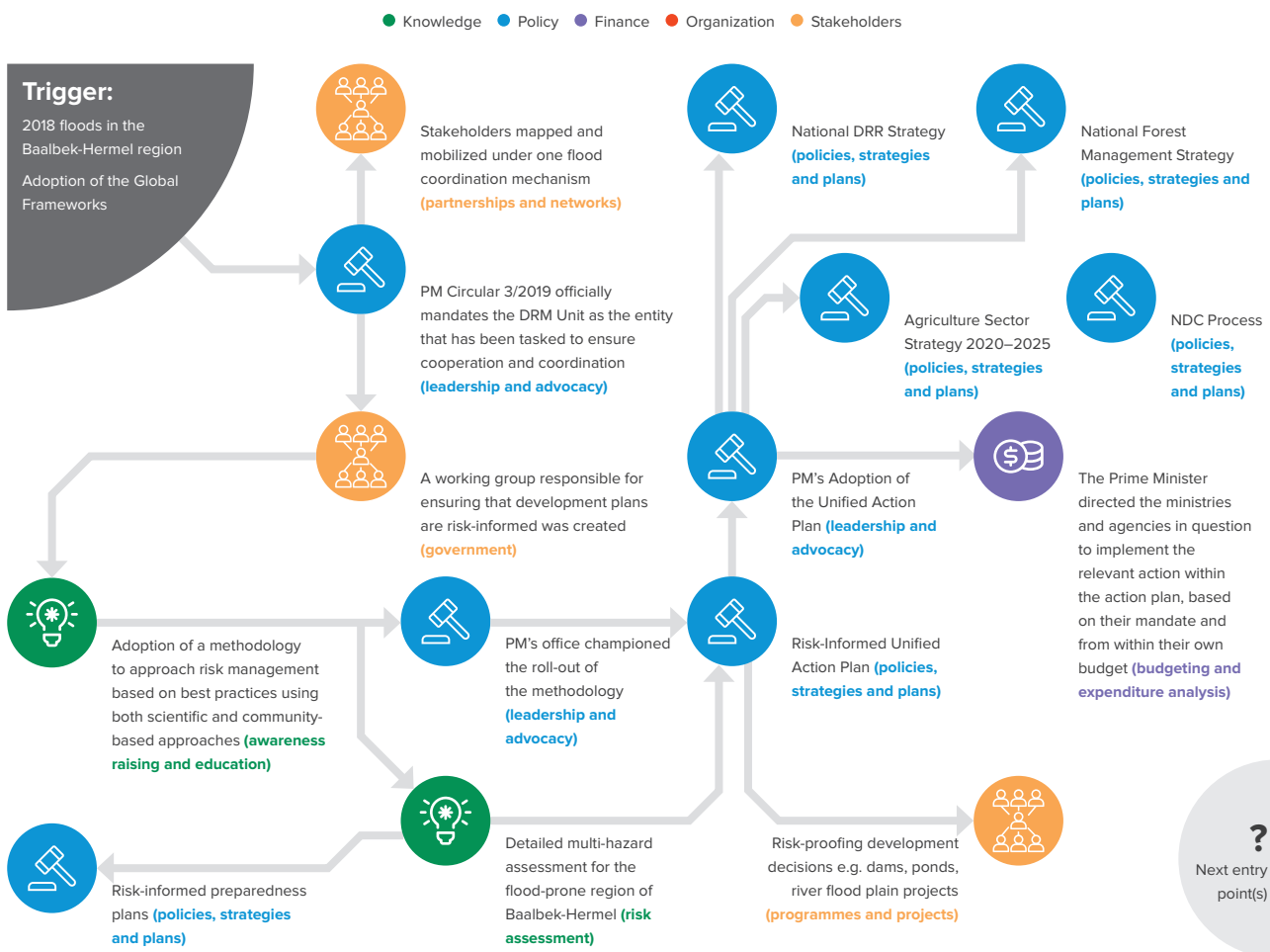
Acknowledging that it cannot singlehandedly address the complexities of risk management, the government proactively fostered the involvement of other critical actors by establishing a multi-stakeholder working group, thus capitalizing on **partnerships and networks (stakeholder sphere)**. The DRM Unit began by strengthening the group's **awareness** of climate and non-climate risks (**knowledge sphere**), which enabled the stakeholders to agree on recommendations to limit the impact of floods in Baalbek-Hermel through DRR and CCA solutions. This is a good example of how the **stakeholder** and **knowledge** spheres of action support each other.

Again taking the **lead**, the Prime Minister's office requested a detailed multi-hazard risk assessment (**knowledge sphere**) for the flood-prone region of Baalbek-Hermel, specifically the village of Ras Baalbek, which was most impacted. The assessment followed a methodology developed by the DRM Unit that combined scientific and community-based approaches. The multi-hazard risk assessment gave rise to a risk-informed action **plan** that includes measures such as clearing flood plains,

conducting a further study on building dams, and other nature-based solutions such as pond maintenance and tree planting (policy sphere). It also led to the development of some preparedness plans and measures. While the action plans are clearly related to the policy sphere of action, they also fostered consensus and a framework for coordination across different levels of government, which illustrates again how the policy and organization spheres of action can reinforce each other. This interlinking and the dynamic nature of the different mainstreaming entry points is further illustrated by the ensuing high-level adoption by the Prime Minister (leadership and advocacy entry point) of the unified action plan which requested that the recommended solutions be implemented by the relevant ministries, governorates and agencies (organization sphere).

The combination of entry points of high-level leadership championing the initiative (policy), the carrying out of multi-hazard risk assessments (knowledge) to inform the development of risk-informed action plan (policy), accompanied by the engagement of all critical actors at all levels of government, including the partnership with UNDP and a functioning working group (stakeholders) that steered the assessment and planning process (organization) resulted in the successful mainstreaming of CCA and DRR in development in Lebanon, particularly in the Baalbek-Hermel region. It is a good example of a mainstreaming process that is built around several spheres of action and entry points.

Figure 5: Snapshot of Lebanon’s mainstreaming process



Moldova

Moldova's mainstreaming journey began around 2009/2010, when CCA and DRR mainstreaming were pursued independently of each other. It was only in 2018 that a joined-up mainstreaming process was initiated.

The 2009/2010 National Human Development Report brought to the fore the fact that climate change was a threat to human development and suggested a menu of adaptation options for Moldova. This understanding was reinforced by the risk analysis in the Country's Third National Communication to the UNFCCC in 2013. Both reports featured [assessment and analysis entry points \(knowledge sphere\)](#), which informed the 2014 National Adaptation Strategy (NAS) [\(policy sphere\)](#). The approved NAS created space for CCA mainstreaming into sectors, notably the Transport and Logistics Strategy (2013–2022) and the Energy Strategy (2013–2020). It also laid the foundation for prioritizing mainstreaming in the NAP [\(policy sphere\)](#).

The next step in the NAP process entailed strengthening the [capacity](#) of different line ministries and agencies in CCA planning and implementing a cross-sectoral and multi-stakeholder [coordination](#) platform, the Climate Change Coordination Mechanism [\(organization sphere\)](#). This mechanism connects sectors during the planning and implementation of adaptation actions and required the development of a supportive M&E framework that facilitated the development of the CCA Information System, an indicator-based monitoring and reporting system. Activity in the [organization sphere](#) again fostered the [knowledge sphere](#). The government also implemented Climate Budget Tagging and incorporated this into the M&E system, which furthered [budgeting and expenditure analysis \(finance sphere\)](#).

The NAP also led to CCA being integrated into several sectoral strategies such as health, forestry and agriculture, as well as into six district-level development strategies, adaptation plans and performance-based budgets [\(policy sphere\)](#). The latter greatly improved the uptake and sustainability of the adaptation process at the local level.

To ensure the implementation of the new mainstreamed strategies and plans, several supportive [guidelines](#) needed to be developed, including guides on climate tagging for the national public budget, cost-benefit analysis, mainstreaming climate change into Moldova's plans, policies and strategies, and mainstreaming CCA measures into transport and energy sectoral policies. CCA mainstreaming at the local level likewise saw the implementation of community-level adaptation pilot [projects](#) in the most vulnerable districts of Moldova. This illustrates the close interrelationship between the [policy sphere](#) and the [organization sphere](#).

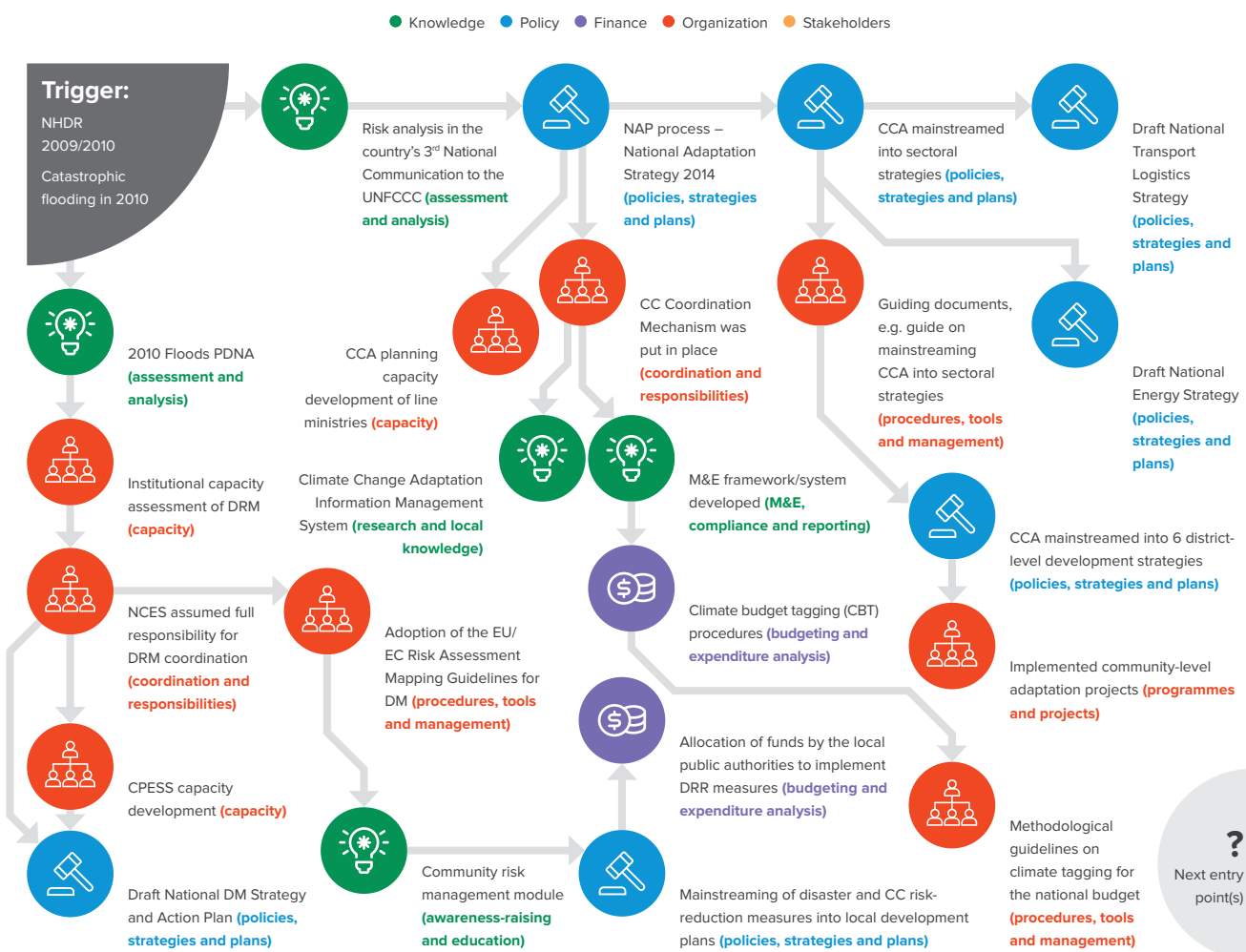
Moldova's mainstreaming trajectory also relied on the [stakeholder sphere](#), specifically the [partnerships and network entry points](#). Partnerships were established (i) between the State Hydrometeorological Service of the Republic of Moldova (SHSM) and the Central Institute for Meteorology and Geodynamics (ZAMG); and (ii) between the SHSM and EUMETNET (a network of 31 European National Meteorological Services based in Belgium). This partnership helped strengthen SHSM's institutional capacity and operations in line with WMO standards and supported SHSM in becoming a member of the EUMETNET and METEOALARM community, and was therefore critical for further traction under the [organization sphere](#).

Catastrophic flooding in 2010 triggered DRR mainstreaming in Moldova. This commenced within the **organization sphere**, specifically via the institutional DRM **capacity** assessment, which included decision makers and civil servants from all relevant line ministries and the Civil Protection and Emergency Situations Service. The capacity that was developed was instrumental to the functioning of the DRM coordination mechanism.

Institutional strengthening and the adoption of the EU/EC Risk Assessment and Mapping Guidelines for Disaster Management (**organization sphere**) supported the creation of the Draft National Disaster Management Strategy and Action Plan (**policy sphere**). The integration of DRR in local development plans harnessed the **finance sphere** through the allocation of funds by local public authorities to implement DRR measures, which have since been prioritized in their local development strategies.

Joined-up DRR and CCA mainstreaming only gained ground in Moldova in 2018, albeit at the local level. By building on risk **assessment** capacities (**knowledge sphere**), Moldova has become better able to identify the emerging climate and disaster risks affecting communities. This risk knowledge has informed local development **strategies** on the required adaptation and DRR measures to ensure risk-informed development and has led to the development of disaster and climate-sensitive **policy** frameworks at local levels that are being **championed** by the local emergency management authorities (**policy sphere**).

Figure 6: Snapshot of Moldova’s mainstreaming process



Cambodia

The year 2006 was notable for DRR and CCA mainstreaming in Cambodia, which initially relied heavily on the [policy sphere of action](#), specifically through the [policies, strategy and plans entry point](#). One notable milestone was the first National Strategic Development Plan (NSDP) 2006–2010. The NSDP is the overarching policy instrument of the Royal Government of Cambodia and is its blueprint for poverty reduction. It has brought together all key government policies, including those for economic development, education, health, agriculture, land-use planning, environmental policies and many others. Fast forwarding to the present, the current NSDP 2019–2023 contains both advocacy and guidelines for mainstreaming climate change into sector plans. It has also paved the way for mainstreaming climate change into national and subnational plans. The National Adaptation Program of Action to Climate Change (NAPA) was also formulated in 2006. The policies initiated in 2006 opened the space to more mainstreaming entry points in Cambodia. These subsequent policy instruments include the Strategic National Action Plan for Disaster Risk Reduction 2008–2013, the National Action Plan for Disaster Risk Reduction (NAP-DRR) 2014–2018, the National Green Growth Strategy and Road Map for 2013–2030 and the Cambodia Climate Change Strategic Plan (CCCSP) 2014–2023.

To support the implementation of these policy instruments, Cambodia embarked on strengthening the [organization sphere](#). The National Climate Change Committee was mandated to [coordinate](#) and monitor the implementation of the government's policies, strategies, regulations, plans and programmes in response to climate change issues. The National Council for Sustainable Development was put in place as an institutionalized mechanism comprised of high-level representatives (Secretaries and Under-Secretaries of State) from the government ministries and agencies concerned, with the Prime Minister as its Honorary Chair and the Minister of the Environment as its Chair.

In parallel with CCA mainstreaming, DRR has also started to gain traction, largely in the [policy sphere](#). The Law on Disaster Management was enacted in 2015, outlining disaster management mechanisms, disaster management framework and governance, rights and obligations and resources and funds. The law clearly states the necessity for mainstreaming DRR by incorporating this into sector-wise policies.

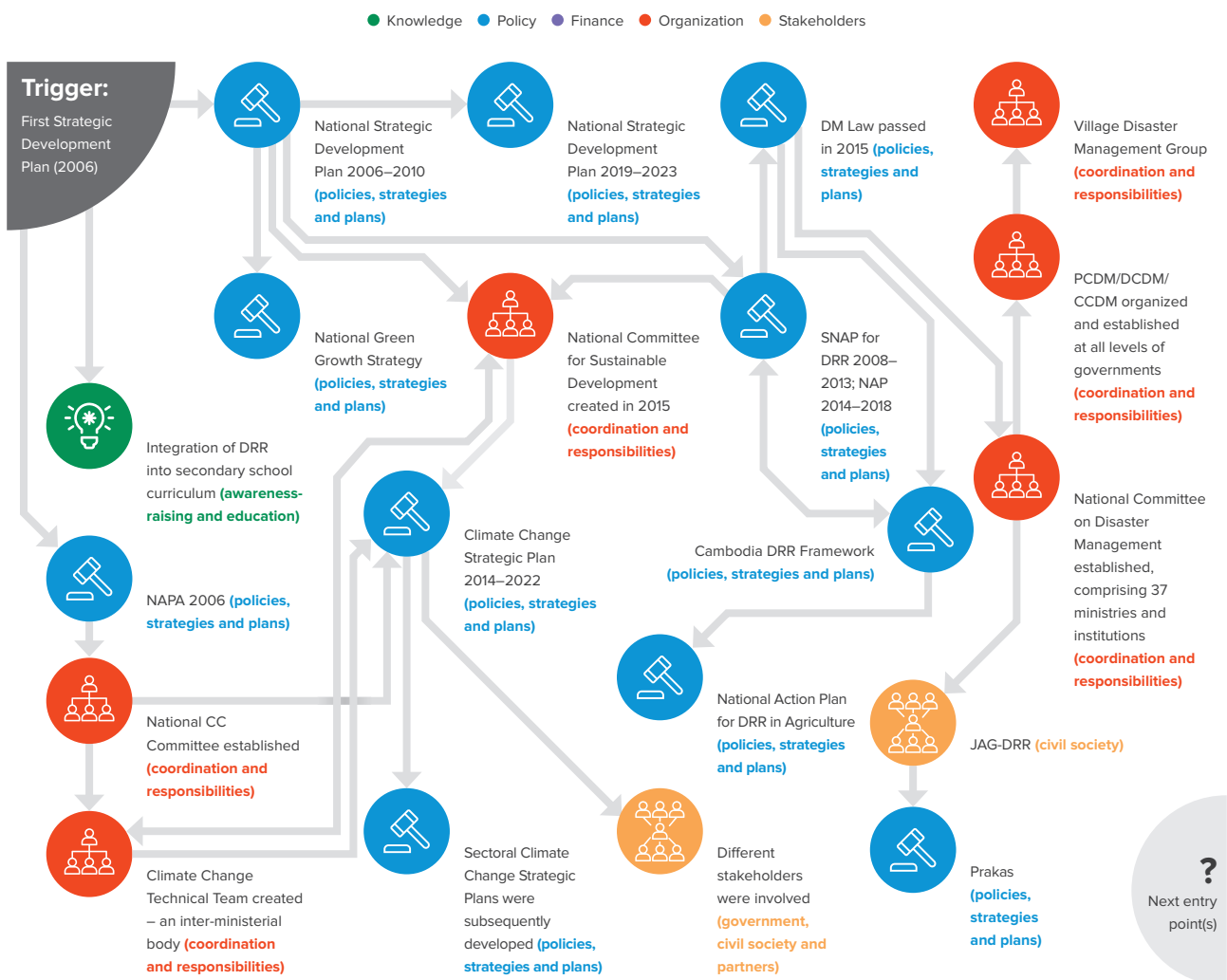
The National Committee for Disaster Management (NCDM) was assigned the function of leading, administering and coordinating all DRM activities in Cambodia ([organization sphere](#)). It is headed by the Prime Minister, who provides high-level leadership, and comprises 37 members from all line ministries and concerned agencies. The NCDM was instrumental in mainstreaming DRR into development. Cambodia also managed to involve [civil society](#) as a mainstreaming entry point at the implementation level ([stakeholder sphere](#)) through the Joint Action Group for DRR in Cambodia (JAG-DRR). In 2015, the group's members urged the government to draft *Prakas*²¹ or other legal instruments that (i) commit to integrating and mainstreaming DRR into sectoral plans at all levels, accounting for strategic links with CCA and sustainable development and (ii) commit to integrating and mainstreaming DRR into all relevant legislation to ensure overall coherence and effective implementation ([policy sphere](#)).

21 A decision/proclamation signed by the relevant ministry or, in some cases, various ministries.

Building on the **policy sphere of action** in mainstreaming, Cambodia also developed the Cambodia Disaster Risk Reduction Framework 2019–2030 and the accompanying Five-Year National Action Plan 2019–2023. This framework specifically points to the embedded interlinkages between DRR and CCA, which are highlighted in its strategic objectives. The National Action Plan for DRR in Agriculture was also developed. The 2020 NDC process in Cambodia highlighted the inclusion of DRR in alignment with the UNFCCC’s requirements, i.e. (i) developing and annually updating national and subnational multi-hazard and climate risk assessments, including identifying the most vulnerable communities; (ii) instigating national end-to-end early warning systems with a focus on effective dissemination among at-risk populations; (iii) implementing community-based disaster and climate risk management programmes; and (iv) strengthening the flood resiliency capacity of communities around Tonlé Sap (by improving access to clean water, off-grid renewable energy and waste management).

While mainstreaming in Cambodia relies primarily on the **policy** and **organization** spheres of action, as well as some **stakeholder** entry points, it might be useful to further explore opportunities related to the **knowledge sphere** to boost implementation and financing for DRR and CCA.

Figure 7: Snapshot of Cambodia’s mainstreaming process



Bangladesh

The springboard for DRR and CCA mainstreaming in Bangladesh was the **organization sphere of action** – specifically, the **programmes and projects entry point**. The UNDP CDMP-I project (2004–2009) laid the foundation for mainstreaming initiatives in the country and was succeeded by CDMP-II,²² including the National Resilience Programme (NRP)²³, IBFCR²⁴ and Local Government Initiatives on Climate Change (LoGIC)²⁵ projects.

CDMP-I opened windows for the **coordination and responsibilities entry point**, as evidenced by the establishment and operation of the Climate Change Cell at the Department of the Environment in 2004, which then led to the rolling out of climate change focal points throughout all government departments to mainstream climate change issues. CDMP-I also advanced the **knowledge sphere of action** through the Disaster Management Information Centre and the Community Risk Assessment programme. These knowledge entry points provided the foundation for measures across several other spheres of action, as illustrated by community Risk Reduction Action Plans (**policy sphere**). Through these plans, communities become eligible to apply for financing through an established fund with contributions from the government and donors (**financing sphere**). Once financing is approved, local level disaster management committees (**organization sphere**) implement DRR activities with assistance from government and national/international non-governmental organizations (Luxbacher, 2011). This is a concrete illustration of how the different mainstreaming spheres of action and entry points are interlinked and reinforced by one another.

The CDMP also paved the way for officials from the national to the local levels to receive disaster management training (**organization sphere**). The project likewise established collaborations and training partnerships that enhanced the technical capacities of government officials. The government also engaged Bangladeshi universities in the development of disaster management curricula (Luxbacher, 2011). This later led to the professionalization of disaster management, with universities offering full-time degrees and diploma courses (**knowledge sphere**).

Meanwhile, the LoGIC project also supported improved and inclusive local-level planning (**policy sphere**) and a strengthened financing mechanism for community-based CCA solutions through local government. The key results included a community resilience fund (**finance sphere**) that was operationalized to finance climate-vulnerable communities; enhanced CCA-DRR financing at the local level; climate change capacity development among local government institutions, households and other local stakeholders; the establishment of financing mechanism for implementing CCA measures and evidence-based contributions to further improvements to relevant policies, etc.

The CDMP also steered the **policy sphere of action** by influencing the drafting of the country's legal framework on DRR, including the National Plan for Disaster Management 2006–2010 and the incorporation of CCA and DRR into the country's Poverty Reduction Strategy and Climate Change Action Plan (Luxbacher, 2011). The CDMP also undertook advocacy work and provided technical policy review assistance. This included drafting sections that incorporated DRR and CCA into policies such as the National Agriculture Policy, the National Agriculture Extension Policy, the National Livestock Policy, the National Poultry Policy and the National

22 Comprehensive Disaster Management Programme Phase II (2010–2014) [http://www.undp.org/content/dam/undp/library/crisis%20prevention/disaster/asia_pacific/Bangladesh_Comprehensive%20Disaster%20Management%20Programme%20\(CDMP\)%20Phase%20II.pdf](http://www.undp.org/content/dam/undp/library/crisis%20prevention/disaster/asia_pacific/Bangladesh_Comprehensive%20Disaster%20Management%20Programme%20(CDMP)%20Phase%20II.pdf)

23 <https://www.bd.undp.org/content/bangladesh/en/home/projects/national-resilience-programme.html>

24 <https://www.bd.undp.org/content/bangladesh/en/home/projects/inclusive-budgeting-and-financing-for-climate-resilience-ibfcr.html>

25 <https://www.bd.undp.org/content/bangladesh/en/home/projects/local-government-initiatives-on-climate-change--logic-.html>

Fisheries Policy. The incorporation of DRR and CCA into the agriculture extension, fisheries and livestock policies was made even more effective by the drafting of the departmental DRR-CCA Mainstreaming Guidelines.

The series of **policy sphere actions** have opened doors for the **organization sphere**, specifically through **capacity** development at the Planning Commission. This entailed mainstreaming and institutionalizing DRR in national development planning by implementing projects at 14 government departments/ministries and training 210 planning professionals on the Disaster and Climate Change Inclusive Development Project, in partnership with the General Economics Division (GED) of the Planning Commission. This has driven the incorporation of disaster and climate risk analysis in the revised Development Project Proforma/Proposal format (**knowledge sphere**). This was a transformational step that led to the appraisal process for all new development projects now being risk-informed – in other words, the management of climate and disaster risks are now contemplated when planning for development outcomes (**organization sphere**).

The NRP initiated capacity development on disaster and climate risk-informed planning and project development for planning professionals in key sectors at the macro level (**organization sphere**). This led to the need to advance the **knowledge sphere of action** through the development of the Disaster Impact Assessment tool and guideline, a mainstreaming tool to integrate knowledge and information about disaster and climate-related events, trends, forecasts and projections introduced into Bangladesh's development planning process to minimize the loss and damage caused by disasters.

The **policy sphere of action** also drove progress in the **finance sphere**. The Ministry of Finance received support to mainstream climate change dimensions into public financial management systems. To disaggregate climate finance from the national annual budget, a robust climate public finance-tracking methodology was developed by the IBFCR project and embedded by the government in the Integrated Budget and Accounting System (iBAS++) – an IT platform used for preparing national budget and accounts. Using this approach, the budget framework for 20 ministries was made climate-sensitive.

Bangladesh also developed the Climate Fiscal Framework (CFF). This provides principles and tools for climate fiscal policymaking (CFP) that help to identify the demand and supply sides of climate fiscal funds (expenditures vis-à-vis revenue or finance, respectively) and to ensure that CFP is transparent and sustainable in the longer term.²⁶ Even before this support from the IBFCR project, mainstreaming efforts were boosted by the Climate Change Trust Fund Act of 2010 (**policy sphere**) and the establishment of the Climate Change Trust Fund, with a budget allocation of US\$100 million for 2009–2010 and US\$100 million for 2010–2011 from the government's own resources (**finance sphere**). This again demonstrates how different mainstreaming spheres can support one another dynamically.

Having made solid progress on three mainstreaming spheres (**policy, organization and finance**), the country now needs to analyse which other entry points to pursue to ensure the private sector subscribes to risk-informed development and to strengthen multidisciplinary approaches.

26 <http://nda.erd.gov.bd/en/c/publication/bangladesh-climate-fiscal-framework-cff-2014>

Figure 8: Snapshot of Bangladesh’s mainstreaming process



Fiji

Fiji's mainstreaming story is best illustrated by its experience of the process at the subnational level, specifically in the country's Northern Division. The impetus originated from the [policy sphere of action](#), specifically through the [leadership and advocacy entry point](#). This was exemplified by the Commissioner of the Northern Division, who championed risk-informing development by overseeing this innovation and continuing to influence the way development takes shape at the local levels. Leading the process of mainstreaming DRR and CCA, the Northern Division established a full-time senior government post dedicated to climate change and DRM at the Northern Commission. Community development plan facilitators were giving training on issues such as safety, unity and social inclusion by tapping on the expertise of the Ministry of Women, Children and Poverty Alleviation ([organization sphere](#)). The Northern Division also strengthened the collaboration with local government and partners ([stakeholder sphere](#)).

This chain of processes that focused on institutional strengthening and capacity development in the Northern Division led to the development and adoption of the risk-screening guidelines ([organization sphere](#)). This allowed for the risk screening of divisional development projects in the road sector and included a budget allocation for risk-screened projects, such as the Farm Access Road Construction project in Nasolo Village ([finance sphere](#)). The use of the risk-screening guidelines was cascaded to divisional levels when the Commissioner mandated the CC/DRM officers to trial risk screening in the approval process for selected public-sector investment projects in the Northern Division. The risk-screening guidelines also paved the way for risk considerations in the Project Management Cycle ([organization sphere](#)) and the involvement of the private sector ([stakeholder sphere](#)).

In the Northern Division, the Commissioner's office is now also incorporating risk into other public-sector projects, such as government stations, health and evacuation centres. The lessons learned from trialling the integration of risk management measures into the Nasolo road project are also being used to inform larger projects, such as the Seaqaqa township development ([organization sphere](#)). After training divisional planners from across Fiji, the Ministry of Rural and Maritime Development has formally adopted risk screening into its standard operating procedure as a mandatory, institutionalized part of the planning process. The Ministry of Economy (MoE) has also revised the Public Sector Investment Programme template to include risk management ([finance sphere](#)). In 2020, the MoE agreed to embed four resilient development positions within the ministry, two with the Budget and Planning Division and two within a newly established Project Development Unit (PDU) ([organization sphere](#)). The Budget and Planning Division focal points will be responsible for integrating resilience measures into the budget and planning process ([finance sphere](#)), and the PDU staff will ensure that the projects proposed by the unit contemplate current and future risks.

Figure 9: Snapshot of Fiji's mainstreaming process





8. Results of successful DRR/CCA mainstreaming efforts

8.1 Signs of progress

The case studies in section 7 and UNDP mainstreaming experiences in several other countries demonstrate some major successes and signs of progress for each of the mainstreaming components:

Knowledge: signs of progress for this component include increasing awareness among key stakeholders that a more proactive approach to both climate change and disaster risk is essential and that risk management must be dealt with as an integral part of development practice. For example, targeted awareness-raising strategies and campaigns or the incorporation of both DRR and CCA into the curricula of civil servant academies (e.g. Uganda), training institutions and schools (e.g. India and Zimbabwe). In addition, progress is evident when development decision-making is increasingly informed by research and local knowledge and communicated in user-friendly, tailored formats. For example, GIS risk mapping in Armenia and Solomon Islands, district risk profiles in Uganda, the national risk atlas in Rwanda, or the interpretation of climate data for the agriculture sector in Mozambique. Similarly, progress is made when combined climate and disaster risk assessment and analysis are an integral, mandatory part of decision-making (e.g. infrastructure design), including planning (e.g. Fiji). Further progress is demonstrated when risk is integral to ongoing M&E and reporting processes, including the development of tools, performance indicators and benchmarks to monitor progress (e.g. Moldova or climate-smart indicators in project log-frames in Kenya). Finally, signs of progress for this component include incentives and inspection procedures for risk-informed investments, which are functional and ensure compliance (e.g. Fiji).

Policy: signs of progress for this component are the presence of high-level leaders, advocates or champions at (i) the national level that have galvanized high-level commitment in cabinet and parliament (e.g. Ecuador and Lebanon) or (ii) the subnational level (e.g. Fiji). This commitment is demonstrated by the increased incorporation of DRR and CCA as integral aspects of legislation, regulations, strategies, policies and plans at all levels, for example the Ghana Shared Growth Strategy, the Agricultural Policy Framework in Zimbabwe or district-level plans in Tajikistan. This entails not just developing risk-informed outputs (e.g. policies and plans), but increasingly also incorporating risk into policy and planning processes after developing these outputs (to ensure risk will be incorporated in the future). Another example of this is the risk-informed subnational planning process and guidelines in Vanuatu. A further sign of progress with this component is compliance, in other words, when risk-informed legislation, standards and regulations are respected and enforced, including adherence to risk-related standards (e.g. building codes in Chile).

Finance: signs of progress include the mobilization of a wide range of funding options for DRR and CCA (e.g. developing capacities to access climate finance in Burkina Faso and Vanuatu). Further signs are when expenditure analysis for both climate and disaster risk is regularly undertaken as part of fiscal planning, there is a clear allocation for risk management (as part of the fiscal framework), and regular monitoring of DRR and CCA expenditure takes place as part of the national budgeting process (e.g. Moldova). Other examples are inclusive budgeting in Bangladesh, flexi-funds for DRR in India and budget allocation for DRR and CCA in Nepal (5 percent of allocations). Further signs are when existing public- and private-sector investments are risk-informed, for example by retrofitting resilience features or introducing protective measures such as slope stabilization into the surrounding environment (e.g. protecting houses in Bhutan). A final sign of progress on this component is when risk financing and transfer options are explored and used as a way to help stakeholders deal with residual risk and the financial consequences of disasters (e.g. crop insurance in Armenia or index insurance in the Philippines).

Organization: signs of progress on this component include clearly defined organizational structures, functions, roles and responsibilities and coordination mechanisms for risk. Both Ecuador and Kenya are working on CCA/DRR convergence or integration frameworks/guidelines to clarify arrangements and responsibilities for risk management, and both Ecuador and Solomon Islands have developed cross-sectoral government advisory boards or working groups to coordinate on CCA/DRR across government. In several countries, significant progress has been made developing capacity, often following capacity assessments (e.g. in Fiji and Bangladesh). A network of government CCA/DRR focal points with the capacity to drive mainstreaming from within the development sphere ensures that risk is integral to day-to-day procedures and tools. This is fundamental to sustaining the ongoing implementation of risk-informed development. For example, in Solomon Islands, Fiji, Tonga and Vanuatu, there is a growing network of risk-resilient development focal points in core planning functions, line ministries and the subnational government. This in-house capacity has been supporting ongoing risk mainstreaming into development project and programmes cycles, including screening and approval procedures. A final sign is new or updated development tools incorporating risk to support mainstreaming at different levels, although at times stand-alone risk tools might be required (e.g. Bangladesh, Cambodia and Uganda).

Stakeholders: signs of progress include the engagement of a wide range of key stakeholders from government, civil society and the private sector with formal partnerships and networks established between different stakeholders such as government, academic and research institutions. Increasingly evident are partnerships between the private and public sectors (e.g. Nepal and Fiji) and coordination mechanisms/networks between the public sector, civil society and local populations (e.g. Cambodia), or with regional networks (e.g. Moldova). Networks for the exchange of knowledge, dialogue and support for joint action are signs of real engagement of key stakeholders (e.g. Nepal). A government-led and -implemented MAP is a key sign of progress, particularly when this is continually reviewed by a cross-sectoral coordination group against a mainstreaming baseline.

8.2 Expected mainstreaming results

When applying this tool to a particular context, it is important to take into account that although tangible **outputs** are important (i.e. risk-informed policies, plans or tools), mainstreaming is an ongoing process, and less tangible **outcomes** are equally valid. These might include a shift in mindset and behaviour that ultimately aims to risk-inform development practice on a day-to-day basis. Table 3 identifies potential outputs and outcomes resulting from support for each of the mainstreaming components and subcomponents, and box 3 shares examples of how the tool will support more cohesive, integrated mainstreaming of both DRR and CCA.

Box 3: Results of more cohesive mainstreaming

- **Knowledge:** joint data collection, risk assessments, research, knowledge and M&E covering all hazards (i.e. geological, biological, climate, water, weather) and timescales (e.g. rapid-onset changes and gradual long-term changes) are regularly carried out to inform development decision-making.
- **Policy:** DRR and CCA legislation, policies and plans are better linked (and preferably joint), and these issues are ideally included as a matter of course in new or updated development legislation, policies and plans, with joint and cohesive implementation.
- **Finance:** joint expenditure analysis, budgeting, funding and risk financing opportunities for both DRR/CCA are established to more explicitly allocate and monitor resources for more cohesive DRR/CCA as part of overall national financing for development.
- **Capacity:** joint capacity is available for both DRR and CCA focal points in key development ministries (e.g. planning, finance, sectors) and at the subnational level, by allowing in-house identification of opportunities for mainstreaming (e.g. development policies, planning and implementation). Further, there is a high level of coordination on poverty/DRR/CCA with clearly defined joint roles, responsibilities, procedures, tools, programmes and projects within the development sphere.
- **Stakeholders:** development practitioners take the lead to mainstream from within the development sphere, with technical DRM/CCA practitioners providing guidance (rather than leading these separate issues).

Ultimately, however, mainstreaming is a means to an end. This tool therefore provides a mainstreaming approach that involves strengthening core risk governance components (i.e. policy, organization and finance) within the context of broader development governance, as a way of embedding risk management into the heart of development more permanently and ensuring that mainstreaming is more sustained. The ultimate aim is to achieve sustainable and more resilient development. In other words, mainstreaming is a vehicle for risk-informing the development agenda, and this tool will promote the more cohesive and unified implementation of the climate change, DRR and sustainable development agendas.

Table 1: Integrating DRR and CCA

	Main activities	Outputs	Outcomes
Knowledge			
Awareness and education	<ul style="list-style-type: none"> Raise awareness and share information on risks and their management Integrate risk into school curricula and professional education 	<ul style="list-style-type: none"> Awareness-raising and education strategy and materials Risk-informed curriculum and training courses 	<ul style="list-style-type: none"> Increased awareness and understanding of DRR and CCA and relevance for development
Research and local knowledge	<ul style="list-style-type: none"> Link knowledge providers and users Promote scientific research and technology innovation Translate and communicate technical knowledge, climate scenarios, etc. Develop knowledge-sharing platforms 	<ul style="list-style-type: none"> Targeted research on new technologies for development actors Risk communication mechanism and strategy User-friendly knowledge products (e.g. risk maps, forecasts) 	<ul style="list-style-type: none"> Evidence base for risk-informed development policymaking and planning Collaboration of information providers and users
Assessment and analysis	<ul style="list-style-type: none"> Workshop/mapping to identify existing assessment process, tools and stakeholders Develop and roll out standardized joint methodology and tools 	<ul style="list-style-type: none"> Standardized and combined risk assessment methodology and analysis tools for DRR and CCA 	<ul style="list-style-type: none"> Joint risk assessment is an integral part of development planning and decision-making
M&E, compliance and reporting	<ul style="list-style-type: none"> Review, consult and risk-inform monitoring and compliance systems Develop capacity and standardized procedures to ensure compliance and quality control 	<ul style="list-style-type: none"> Standardized M&E framework (including indicators) incorporating risk Clear roles and responsibilities for enforcement 	<ul style="list-style-type: none"> Risk is an integral element of monitoring, evaluation and compliance systems
Policy			
Leadership and advocacy	<ul style="list-style-type: none"> Identify leaders and champions at all levels (including the community) to drive the mainstreaming process 	<ul style="list-style-type: none"> Leaders/champions Advocacy strategy, advocacy messages and materials for DRR and CCA 	<ul style="list-style-type: none"> Political commitment and prioritization of risk-informed development
Legislation and regulation	<ul style="list-style-type: none"> Map existing laws and regulations, identify gaps and priorities for action Consult on proposed changes to accommodate CCA/DRR 	<ul style="list-style-type: none"> DRR and CCA incorporated in to new or updated legislation Legislation/regulation for DRR/CCA combined where possible 	<ul style="list-style-type: none"> Stand-alone and/or duplication of legislation for CCA/DRR is avoided as far as possible Risk-informed legislation is the new norm
Policy, strategy and planning	<ul style="list-style-type: none"> Map national and subnational policy frameworks, global policy commitments, strategies and planning processes and identify priorities Consult widely as part of the risk-informing process 	<ul style="list-style-type: none"> Risk-informed policy framework, strategies and plans at all levels with clear vision, objectives, roles and responsibilities, activities and resources for risk management Harmonized policies and implementation plans 	<ul style="list-style-type: none"> Widespread support for risk-informed strategies, policies and plans and their implementation
Standards	<ul style="list-style-type: none"> Increase awareness of standards, review existing standards, incorporate risk standards into regulations Facilitate access, incentives and training on standards 	<ul style="list-style-type: none"> Inclusion of standards in core regulations and capacity-building for implementation and monitoring 	<ul style="list-style-type: none"> Stakeholders are incentivized and have the capacity to comply with risk-related standards

	Main activities	Outputs	Outcomes
Finance			
Budgeting and expenditure analysis	<ul style="list-style-type: none"> • Implement integrated joint expenditure analysis and workshop with key budget decision makers to discuss findings • Develop responsive fiscal framework for climate and disaster risk 	<ul style="list-style-type: none"> • Public expenditure review recommendations • Public financial management system/ fiscal framework system which incorporates risk 	<ul style="list-style-type: none"> • <i>Sustained financing or budget allocations for DRR/CCA</i> • <i>Increased capacity of finance focal points to review and analyse budget for risk</i>
Resource mobilization	<ul style="list-style-type: none"> • Map existing and potential sources and build motivation for investing in CCA/ DRR • Prepare resource mobilization strategy 	<ul style="list-style-type: none"> • Resource mobilization strategy • Increased capacity and institutional arrangements to monitor and mobilize funds 	<ul style="list-style-type: none"> • <i>Effective use and mobilization of funds for DRR/CCA, which avoids duplication</i>
Risk-informed investments	<ul style="list-style-type: none"> • Assess and analyse priority investments to identify potential risks • Implement risk management measures, wider protection measures and ongoing monitoring 	<ul style="list-style-type: none"> • Risk-informed investment screened for risks and relevant measures introduced • Cost-benefit analysis on larger investments 	<ul style="list-style-type: none"> • <i>Existing priority investments are risk-informed, ensuring business and service continuity</i> • <i>Capacities developed to risk-inform and monitor investments</i>
Risk financing and transfers	<ul style="list-style-type: none"> • Identify risk financing and transfer tools currently available and main financing gaps • Develop a strategy for financial protection and new disaster risk transfer tools 	<ul style="list-style-type: none"> • New disaster risk financing and transfer tools (e.g. insurance, reinsurance, risk pooling), including social protection mechanisms to reduce vulnerability to risk 	<ul style="list-style-type: none"> • <i>Vulnerable stakeholders have increased access to transfers</i> • <i>Private sector is increasingly involved</i>
Organization			
Capacity	<ul style="list-style-type: none"> • Build commitment and undertake a capacity assessment • Prepare capacity development strategy to develop understanding and skills in climate and disaster risk and their management 	<ul style="list-style-type: none"> • Capacity development plan • New in-house DRR/CCA expert focal points recruited • Capacity development of existing officers newly identified as a focal point (e.g. on-the-job coaching, ongoing training) • Training programme for rolling out new risk-informed procedures and tools 	<ul style="list-style-type: none"> • <i>Behaviour change of development practitioners and new risk capacities to risk-inform development activities</i>
Coordination and responsibilities	<ul style="list-style-type: none"> • Establish a network of government focal points to champion DRR/CCA mainstreaming • Map institutional and individual functions, roles and responsibilities • Arrange cross-sectoral dialogue and coordination mechanisms 	<ul style="list-style-type: none"> • A network of focal points • Coordination mechanisms and platforms • Job descriptions include DRR/CCA responsibilities • Individual/organizational performance measures include successful risk management 	<ul style="list-style-type: none"> • <i>Institutionalized functions, roles and responsibilities for risk-informed development</i> • <i>Effective coordination mechanisms at relevant level(s)</i>
Procedures and tools	<ul style="list-style-type: none"> • Prepare an inventory of relevant procedures and risk-inform priority procedures and tools (e.g. guidelines/ checklists) • Identify incentives for adoption 	<ul style="list-style-type: none"> • Risk-informed procedures and tools (including newly developed tools) 	<ul style="list-style-type: none"> • <i>Change in behaviour to support adoption of new risk-informed tools and procedures</i>
Programmes and projects	<ul style="list-style-type: none"> • Review and risk-inform project/ programme management cycle 	<ul style="list-style-type: none"> • Project logical frameworks and monitoring frameworks incorporate risk • Capacity to review and appraise logical frameworks for risk 	<ul style="list-style-type: none"> • <i>Implementation of risk-informed projects and programmes, including those addressing underlying root causes of vulnerability</i>

	Main activities	Outputs	Outcomes
Stakeholders			
Government	<ul style="list-style-type: none"> • Hold “whole of” government meeting/ workshop • Carry out mainstreaming baseline • Develop MAP • Develop coordination mechanism 	<ul style="list-style-type: none"> • Mainstreaming baseline for identifying entry points and measuring progress • MAP • Government coordination mechanism • Engagement and awareness of all key public-sector actors 	<ul style="list-style-type: none"> • <i>Single DRR/CCA/development community</i> • <i>Active involvement of government actors at all levels in risk-informing the development agenda, guided by an action plan</i>
Civil society	<ul style="list-style-type: none"> • Map, initiate dialogue and plan engagement of communities, interest groups (e.g. women, the elderly, youth), NGOs, CBOs, media 	<ul style="list-style-type: none"> • Engagement and awareness of all key civil society actors 	<ul style="list-style-type: none"> • <i>Stakeholders at all levels are empowered to reduce risks and change behaviour</i>
Private sector	<ul style="list-style-type: none"> • Map key actors (e.g. corporations, companies, for-profit businesses, SMEs) and convene a national meeting 	<ul style="list-style-type: none"> • Internalize risk management • Private-sector engagement and sharing of funds, capacity support and expertise with the public sector 	<ul style="list-style-type: none"> • <i>Private-sector engagement</i>
Partnerships and networks	<ul style="list-style-type: none"> • Initiate dialogue and workshops • Agree on shared goals, scope, agenda or working relationship 	<ul style="list-style-type: none"> • Formal and informal partnerships • Collaboration mechanisms (e.g. communities of practice, South-South cooperation, civil society networks, academic and research networks) 	<ul style="list-style-type: none"> • <i>Partnerships and coordination mechanisms support dialogue and collaboration</i>

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Annex A: Glossary of terms

Adaptation: In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects. Human intervention may facilitate adjustment to expected climate. Climate change adaptation seeks to enable populations to cope with, adapt or potentially transform to handle future environmental conditions. It is one of the two main approaches to climate change, the other being to reduce the causes of the change – that is, greenhouse gas emissions – which is known as climate change mitigation (IPCC, 2018).

Climate change: Refers to a change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer (IPCC, 2018).

Climate extreme (extreme weather or climate event): The occurrence of a value of a weather or climate variable above (or below) a threshold value near the upper (or lower) ends of the range of observed values of the variable. For simplicity, both extreme weather events and extreme climate events are referred to collectively as “climate extremes” (IPCC, 2018).

Disaster: A serious disruption of the functioning of a community or society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts (United Nations, 2016).

Disaster risk management: The application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, which contributes to strengthening resilience and reducing disaster losses (United Nations, 2016).

Disaster risk reduction: This aims to prevent new and reduce existing disaster risk while also managing residual risk, all of which contribute to strengthening resilience and therefore achieving sustainable development (United Nations, 2016).

Exposure: The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas (United Nations, 2016).

Hazard: 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 (United Nations, 2016).

Hazardous event: The manifestation of a hazard in a particular place during a particular period (United Nations, 2016).

Prevention: Activities and measures to avoid existing and new disaster risks (United Nations, 2016).

Resilience: The ability of individuals, households, communities, cities, institutions, systems and societies to prevent, resist, absorb, adapt, respond and recover positively, efficiently and effectively when faced with a wide range of risks, while maintaining an acceptable level of functioning and without compromising long-term prospects for sustainable development, peace and security, human rights and well-being for all (United Nations, 2017).

Risk: The consequence of the interaction between a threat and the characteristics that make people and places vulnerable and exposed to that threat (UNISDR, 2015).

Risk drivers: Processes or conditions, often related to development and inequality, that influence risk levels by contributing to exposure and vulnerability or reducing capacity (United Nations, 2016).

Risk landscape: The array of risks that people are exposed to in a given context (Choularton, 2015).

Shocks: External short-term deviations from long-term trends that have substantial negative effects on people's current state of well-being, level of assets, livelihoods, or safety, or their ability to withstand future shocks (Zselezcky and Yosef, 2014).

Stressors: Long-term trends or pressures that undermine the stability of a system and increase vulnerability within it (Zselezcky and Yosef, 2014).

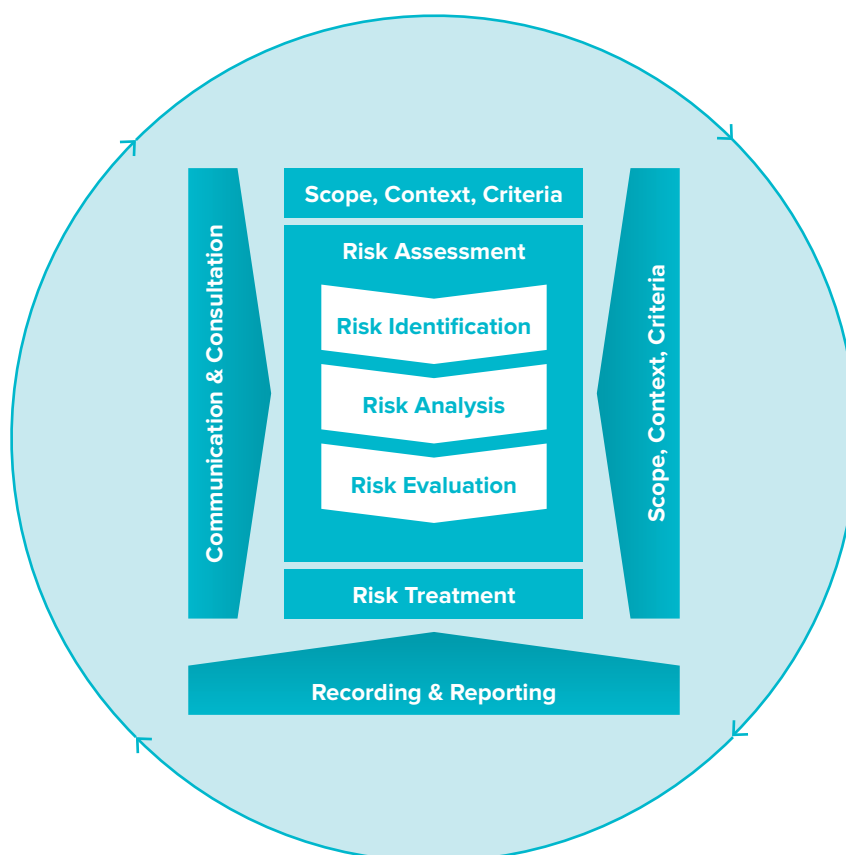
Vulnerability: The conditions determined by physical, social, economic and environmental factors or processes that increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards (United Nations, 2016).

Annex B: The risk management process

This annex provides an introduction to the risk management process, based on commonly adopted guidelines and implementation tools such as those of the International Organization for Standardization (ISO), a worldwide federation of national standards bodies whose process is usually carried out through ISO technical committees.²⁷

The **ISO guideline on risk management** is for use by people who create and protect value in organizations by managing risks, making decisions, setting and achieving objectives and improving performance. The risk management process involves the systematic application of policies, procedures and practices to communicating and consulting, establishing context and assessing, treating, monitoring, reviewing, recording and reporting risk (figure 1).

Figure 1: The risk management process (ISO, 2018)



This process contains six main areas:

1

Communication and consultation: The purpose of this stage is to assist relevant stakeholders in understanding risk, the basis on which decisions are made and the reasons why particular actions are required. Communication seeks to promote awareness and understandings of risk, whereas consultation involves obtaining feedback and information to support decision-making. Close coordination between the two should facilitate the factual, timely, relevant, accurate and understandable exchange of information, taking into account the confidentiality and integrity of information as well as the privacy rights of individuals.

²⁷ Excerpted/adopted from <https://www.iso.org/obp/ui/#iso:std:iso:31000:ed-2:v1:en>

2

Scope, context and criteria: The purpose of establishing these three factors is to customize the risk management process, enabling effective risk assessment and appropriate risk treatment. Scope, context and criteria involve defining the scope of the process and understanding the external and internal context.

3

Risk assessment: This is the overall process of identifying, analysing and evaluating risk. Risk assessment should be conducted systematically, iteratively and collaboratively, drawing on the knowledge and views of stakeholders. It should use the best available information, supplemented by further enquiry, as necessary.

- **Risk identification:** The purpose of risk identification is to find, recognize and describe risks that might help or prevent an organization from achieving its objectives. Relevant, appropriate and up-to-date information is important in identifying risks. The organization can use a range of techniques to identify uncertainties that may affect one or more objectives. The following factors, and the relationship between these factors, should be considered:
 - tangible and intangible sources of risk
 - causes and events
 - threats and opportunities
 - vulnerabilities and capabilities
 - changes in the external and internal context
 - indicators of emerging risks
 - the nature and value of assets and resources
 - consequences and their impact on objectives
 - limitations of knowledge and reliability of information
 - time-related factors
 - biases, assumptions and beliefs of those involved
- **Risk analysis:** The purpose of risk analysis is to comprehend the nature of risk and its characteristics including, where appropriate, the level of risk. Risk analysis involves a detailed consideration of uncertainties, risk sources, consequences, likelihood, events, scenarios, controls and their effectiveness. An event can have multiple causes and consequences and can affect multiple objectives.
- **Risk evaluation:** The purpose of risk evaluation is to support decisions. Risk evaluation involves comparing the results of the risk analysis with the established risk criteria to determine where additional action is required. This can lead to a decision to:
 - do nothing further
 - consider risk treatment options
 - undertake further analysis to better understand the risk
 - maintain existing controls
 - reconsider objectives

4

Risk treatment: The purpose of risk treatment is to select and implement options for addressing risk. Risk treatment involves an iterative process of:

- formulating and selecting risk treatment options
- planning and implementing risk treatment
- assessing the effectiveness of that treatment
- deciding whether the remaining risk is acceptable
- if not acceptable, taking further treatment

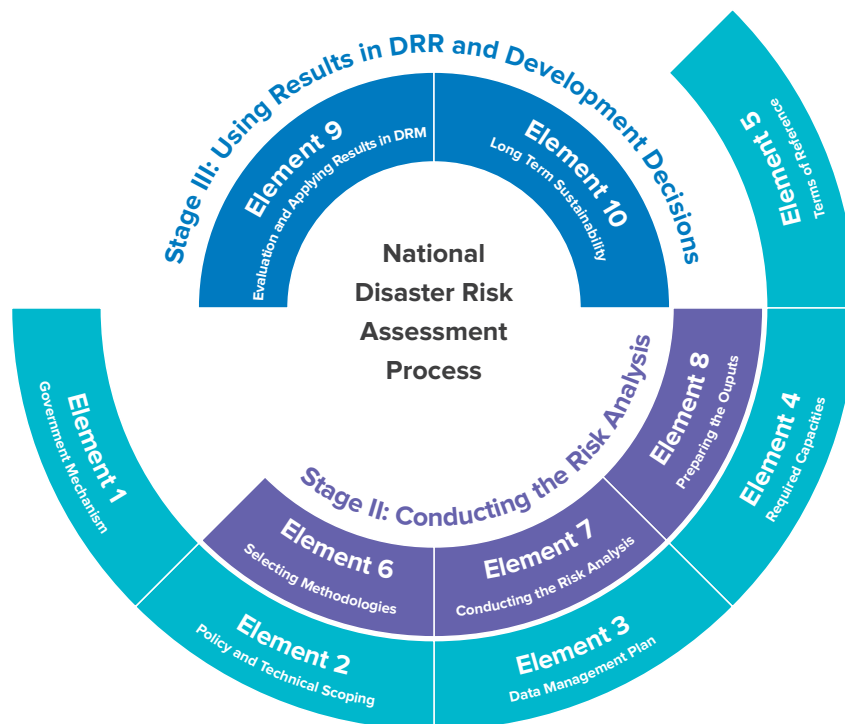
5

Monitoring and review: The purpose of monitoring and review is to assure and improve the quality and effectiveness of process design, implementation and outcomes. Ongoing monitoring and periodic review of the risk management process and its outcomes should be a planned part of the risk management process, in which responsibilities are clearly defined.

Recording and reporting: The risk management process and its outcomes should be documented and reported through appropriate mechanisms.

In addition to the generic ISO standard, various guidelines on the risk assessment process have been developed by development agencies. The United Nations Office for Disaster Risk Reduction (UNISDR, 2017) proposed 10 enabling elements of a risk assessment, which include a governance mechanism, policy and technical scoping, a data management plan, required capacities. Conducting the risk analysis has become the centre of the process (figure 2).

Figure 2: Elements that enable a risk assessment process



Selected further reading:

- ADB (2017), “Disaster Risk Assessment for Project Preparation: A Practical Guide”, ADB, Manila, <https://www.adb.org/sites/default/files/institutional-document/388451/drm-project-preparation-practicalguide.pdf>.
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- UNDP (2017), “Social Vulnerability Assessment Tools for Climate Change and DRR Programming: A Guide to Practitioners”, UNDP, New York https://www.adaptation-undp.org/sites/default/files/resources/social_vulnerability05102017_0.pdf.
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