

Required Sectoral Module

DISASTER RISK MANAGEMENT



In a resilient city, the disaster risk management system combines a well-functioning and inclusive disaster preparedness and emergency response mechanism with effective disaster prevention infrastructure (*robust, redundant and inclusive*). Such a mechanism and infrastructure is based on an integrated citywide risk assessment and is developed to prepare for, limit, and recover from expected shocks (*reflective*). In a resilient city, risk information is a necessary foundational element for institutional decision making across sectors (*coordinated*) and in particular for budget and strategic decisions for territorial planning and management of the built environment (*reflective*).

TOPIC	GUIDING QUESTION	APPLICABLE RESILIENCE QUALITY	EXPLANATION
Institutional Capacity	Does the city have a policy and legislative framework that mandates the establishment of a DRM structure and functions for carrying out risk management activities?	Robust	A policy and legislative framework that mandates the establishment of a DRM structure allows for legally binding assignment of roles and responsibilities that gives weight to DRM activities and increases accountability of assigned DRM actors.
Institutional Capacity	Is there a single parent agency in the city with mandate and capacity to coordinate all DRM activities, including risk identification, reduction, preparedness and post-disaster recovery? If yes, does this agency have sufficient financial, technical, and human resources to lead contingency planning?	Coordinated; Reflective	Coordination of DRM activities allows for better management of knowledge and resources (both human and financial) amongst relevant actors. The financial, technical and human capacity of potential coordination body should be evaluated regularly to understand whether it is well positioned to lead contingency planning.

<p>Institutional Capacity:</p>	<p>Have DRM considerations been formally mainstreamed into all city departments? Is risk reduction clearly reflected in the departments' mandates, work plans, and staff job descriptions? Are there systems for evaluation and accountability? Does the city's principal DRM agency carry out training/ capacity building activities for departmental leaders/technical staff on DRM?</p>	<p>Coordinated; Reflective</p>	<p>All departments in the city should be able to manage risks within their areas of responsibility. Appropriate DRM mainstreaming means that risk reduction is incorporated into the everyday functions of the department and responsibilities of the staff. Systems of evaluation and accountability ensure that the departments' DRM activities are monitored and objectives adequately met. The city's DRM agency regularly shares its expertise and knowledge about hazards with other departments so that they can incorporate new findings into their work programs.</p>
<p>Institutional Capacity</p>	<p>How many of the identified risk reduction and preparedness programs are already being implemented? Is there a system of program monitoring and evaluation?</p>	<p>Robust; Reflective</p>	<p>The ability to implement risk reduction strategies and disaster preparedness programs shows that a city is able to manage risks. Risk reduction monitoring is one way the city can evaluate the effectiveness of selected strategies.</p>
<p>Finance:</p>	<p>What are the funding sources for DRM? To what extent is the funding discretionary at the local level? To what degree are funding sources and DRM activities coordinated across agencies?</p>	<p>Robust; Coordinated</p>	<p>Predictable funding sources allow for continuous operation of DRM activities. When a city has discretionary control over funding for DRM, it achieves better alignment between risk reduction investments and development strategies. Where human resources and financing for risk reduction is limited, coordination of actors helps improve efficiency, targeting and flexibility of risk reduction programs.</p>

<p>Risk Identification</p>	<p>Has any natural disaster and climate risk assessment and modeling been conducted by the city? If so, at what level (i.e., hazard, exposure at risk, loss) and at what geographical scale is the assessment/modeling performed? Is the assessment/modelling sector specific or integrated? How often are the risk assessments updated (annually, biannually...)?</p>	<p>Reflective</p>	<p>Risk assessments identify the city's current and future vulnerabilities by examining historical data and/or future climate scenarios through modeling. The geographical scale of the modeling and analytical level of the risk assessment indicates the robustness of information that informs the decision-making process. Sector-specific modeling/assessment tends to have a higher granularity while cross-sectoral assessments are more integrated and holistic. The relevance of risk assessments depends on them being regularly updated to appropriately reflect levels of vulnerability and exposure.</p>
<p>Risk Awareness</p>	<p>Does the city have a local database on disaster scenarios, key responses and preparation steps concerning hazards? Does the city have asset and risk maps of the city? If so, are the database and/or asset and risk maps easily available and communicated to different levels of government, residents, private sector, civil society, etc.? Are the database and/or asset and risk maps generated collaboratively (e.g. through participatory mapping initiatives)?</p>	<p>Reflective; Inclusive</p>	<p>An emergency database containing information on potential scenarios, key responses and preparation steps is essential for preparing the public for events and ensuring efficient response when they occur. Publicly available asset and risk maps allow the government and other vested actors to evaluate potential exposure of their assets to each type of hazard. Participatory mapping of assets and risks brings the knowledge and perspectives of local communities to decision-makers. It is a culturally and socially sensitive form of mapping that result in higher granularity of spatial information.</p>
<p>Planning:</p>	<p>Does the city have a Risk Reduction Plan (e.g. per sector or cross-sectorial plan)? If so, is the plan coordinated with relevant development plans, resource allocations and programmed activities? Are climate change projections considered in the Risk Reduction Plan?</p>	<p>Coordinated; Reflective</p>	<p>In order to achieve uptake, Risk Reduction Plans should be coordinated with existing development plans, resource allocations and programmed activities. Risk Reduction Plans that are based on climate change projections can anticipate tomorrow's threats and adapt to these before they occur.</p>

<p>Planning:</p>	<p>How well are local government risk assessments and risk management plans coordinated with, and supportive of, risk assessments and risk management plans from neighboring local authorities, state or provincial governments?</p>	<p>Coordinated</p>	<p>Impacts of natural and man-made hazards are not confined to administrative boundaries. For the sake optimizing mitigation efforts, risk assessments and risk management strategies should be coordinated across city boundaries and different levels of government.</p>
<p>Preparedness:</p>	<p>Does the city have a Contingency Plan for natural hazards, and related environmental and technological hazards and risks? Does the plan identify roles and responsibilities, resources, information processes, and operation arrangements for anticipating and solving problems during a crisis? Is the plan regularly updated and exercised?</p>	<p>Robust; Coordinated; Reflective</p>	<p>Although contingency plans are designed for rare and unusual events, they need to assign roles and responsibilities, and include procedures for preventing and mitigating potentially catastrophic consequences of an undesired event. To make sure that the plan remains relevant, procedures need to be regularly exercised and roles and responsibilities updated to reflect new conditions.</p>
<p>Preparedness:</p>	<p>Does the city have early warning systems? Has the system ever failed to provide early warning during a disaster? Has the city initiated or implemented public campaigns on disaster risk? Does the city offer training to citizens (schools etc.) on disaster behavior and preparedness?</p>	<p>Robust</p>	<p>Early warning systems are essential to facilitating public safety during a disaster event by giving residents time to evacuate or protect themselves before impact. Public campaigns on disaster risk allow for widespread spread of knowledge and information about potential risks and effective response methods. Emergency preparedness and response training can be an effective way of raising risk awareness and ensuring that citizens are responding appropriately during an event.</p>

Prepared-ness:	Who in the government declares an emergency (city, regional, and national levels)? What criteria are used to evaluate whether a declaration should be made?	Robust	Having a procedure with clear criteria for declaring an emergency makes the city’s emergency response reliable and transparent. Since being in an emergency state can change how a city government rules and administers its functions, it is important that a state of emergency can only be declared to increase effectiveness of emergency response.
Prepared-ness:	In the event of a disaster, can disaster response agencies procure and contract goods and services effectively? Are key resources for effective response, such as emergency supplies, emergency shelters, identified evacuation routes and contingency plans available at all times?	Robust; Redundant	Effectiveness of response is determined by responders’ availability of key resources and ability to acquire additional goods and services in a timely fashion.
Financial Protection	Does the local government have a risk financing/insurance program in place?	Redundant	A risk financing/insurance program enables the city to transfer some of the risks of financial losses during disaster events to the private sector. Financial protection mechanisms create financial buffers by avoiding additional strains to the municipal budget during disaster events.
Financial Protection	To what extent do home-owners, private sector, etc. have access and make use of insurance coverage for catastrophic events?	Robust	Accessibility and usage of insurance coverage amongst home-owners and the private sectors acts as an incentive to invest in asset improvement and upgrading, making assets more robust to withstand future disturbances.



Recovery	Does the city have standard procedures to assess post-disaster damages and losses?	Reflective	Procedures for assessing damages and losses indicate that the city has the ability to monitor and evaluate the impact of an event, which influences decisions regarding reconstruction and risk reduction investments.
Recovery	Does the city have a post event Recovery Plan for hazards?	Robust	A post event Recovery Plan is important for ensuring quick recovery of functions.