

Reference Note on required data/information Disaster Resilience Scorecard for Cities

Preliminary Assessment

<https://www.unisdr.org/campaign/resilientcities/toolkit/article/disaster-resilience-scorecard-for-cities>



Contribution from the Action on "Making Cities Sustainable and Resilient: Implementing the Sendai Framework for Disaster Risk Reduction 2015-2030 at the Local Level", supported by the European Commission.

Essentials	Required Information	Example reference documents	Potential sources
1 Organise for disaster resilience	Existing Disaster Risk Reduction (DRR) strategies and plans and its alignment to the Sendai Framework for Disaster Risk Reduction	<ul style="list-style-type: none"> • DRR sections of the city master plans and development plans including spatial plan, infrastructure plan, environmental or sustainability plan • DRR stand-alone plans 	Local Disaster Risk Management (DRM) authorities, DRM management communities, local governments and other environment and development planning authorities
	Local Disaster Risk Management (DRM) organisational structure and coordination mechanism	<ul style="list-style-type: none"> • DRR organisation charts • Memoranda of understanding among multi-agencies • Meeting minutes and any documentation with cross-agency collaboration • Coordination mechanism • Documentation from national, regional and local platforms • Actions from organisations concerned 	Local DRM authorities, Local NGOs and other local level organisations, Local governments
2 Identify, understand, and use current and future risk scenarios	Documentation of hazards, exposures and vulnerabilities and local risk information	<ul style="list-style-type: none"> • Statistics on local hazards, exposures and vulnerabilities, • Ranking of most probable and most severe hazards in the city • Local disaster loss database • General hazard assessment • Risk, hazard, and vulnerability maps • Local risk profile 	Fire department, Environment authorities, Local DRM authorities, NGOs, academic institutions
	Documentation of critical assets and dependencies between these	<ul style="list-style-type: none"> • Critical asset maps • Risk information • Damage estimation • Scenarios of cascading impact of hazards on these critical assets 	Road development authority, Water board, Electricity board, Line agencies, Local authorities, national and local statistical office, academic institutions
	Common understanding and presentation of the scenarios and narratives of the total impact of a hazard across the city	<ul style="list-style-type: none"> • Public announcement and communication on disaster narratives and hazard statistics across the city • Sharing of risk assessment documents (online, offline via government offices and via media channels) • Plan and timeline for the update of risk assessment 	The local boards for DRM, NGOs, academic institutions, online and offline media including social media

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3 Strengthen financial capability for resilience	Information on sources of funding for DRR	<ul style="list-style-type: none"> • Ring-fenced budget for DRR or government budget for related activities • Loans, leasing and grants from development banks, aid organizations, trust funds, etc. • Government grants • Resilience bonds • Crowd funding • Tax schemes • Private sector partnership, public-private partnership agreements • Budget and capital plan documents • Profit and loss accounts on DRR 	National and local budget and financial offices, local DRM authorities, development banks, international organizations, aids organizations, international and regional trust funds, private sector
	Dedicated budget for DRR and contingency management	<ul style="list-style-type: none"> • Budgetary documents • Disaster risk management plan • Contingency plans, resource section • Financial reports 	Local DRM authorities, Public work division, Revenue and accounts division, budgetary office
	Available insurance schemes for sectors, businesses and communities	<ul style="list-style-type: none"> • List of available insurance coverage, with terms, details of assets covered • Statistics on insurance coverage for each area/sector of the city 	Local or private insurance agencies, Environment division, Local authorities, Statistics and censos department
	Documentation of any incentives or financing plans	<ul style="list-style-type: none"> • Loans, leasing, government grants, tax relief for seismic upgrades, flood protection, and other DRR initiatives • Micro-financing for household related to DRR, climate change adaptation (CCA) or enhancement of livelihoods • Tax relief and surcharges 	Local or private insurance agencies, Local DRM authorities, Revenue and accounts division, financial institutions
4 Pursue resilient urban development and design	Urban development policies and plans	<ul style="list-style-type: none"> • Land-use and zoning plans • Policies on locations for new developments • Design that helps in disaster prevention and mitigation e.g. water sensitive urban design, integration of disaster refuge areas, access and egress routes (street width) • Urban design guides e.g. engineering techniques, landscape architects • Planning and building regulations • Building control and safety 	Housing and urban development authority, Public works unit, local authorities, City planning division
	Building codes and their application (mandatory and voluntarily)	<ul style="list-style-type: none"> • Seismic resilient building code • Cyclone resilient building code • Voluntary codes (e.g. BREEAM, LEED, Greenstar, REDi) • Review & update policy • Planning regulations 	Development authority, State disaster management authority, Local authorities, Housing and urban development authority
5 Safeguard natural buffers to enhance the protective functions offered by natural capital	General knowledge on the functions of ecosystems	<ul style="list-style-type: none"> • General knowledge and information on ecosystem and its protective functions including water attenuation, food growing, fuel, carbon sequestration, air filtration, heat attenuation, pollination, aesthetic value, etc. 	Environment authority, Department of forest and agriculture, Local authorities, academic institute, media

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5 Safeguard natural buffers to enhance the protective functions offered by natural capital	Use of green and blue infrastructure in urban development and infrastructure projects	<ul style="list-style-type: none"> • Policy to support the use of green infrastructure, e.g. greening streets, squares and roadsides; greening roofs and facades; developing urban agriculture; green corridors; replace impermeable surfaces; natural water filtration; daylighting urban buildings; embankment restoration, etc. • Policy to support the use of blue infrastructure, e.g. increase river corridors, wetlands and other waterways 	City planning division, Environment authority, Department of forest and agriculture, Local authorities
	Agreements related to ecosystems among cities	<ul style="list-style-type: none"> • Transboundary environmental agreements 	Environment authority, Department of forest and agriculture, Local authorities
6 Strengthen institutional capacity for resilience	Database on available resources and required skills to reduce risks and respond to identified disaster scenarios	<ul style="list-style-type: none"> • Database or records of local human resources (public, private, individual experts), with breakdown information on skillsets and available equipments, and contact information • Agreements with private sectors, neighboring cities or authorities to access required resources for DRM 	Local DRM authorities, City's office
	Awareness raising campaign, education program on disaster risk reduction	<ul style="list-style-type: none"> • Historical records of public campaign/education program on DRR • News programme related to disaster risk information • Records of using social media and offline media in disseminating disaster risk information 	Local DRM authorities, city's office, educational department, public relation department, local media and academic institutes
	Survey and research data on disaster resilience and effectiveness, and data sharing methods	<ul style="list-style-type: none"> • City data on population, demographics, vulnerabilities, infrastructure risks, flooding, disaster event records • Communication strategy and existing web portal for sharing risk information 	Statistics and census department, Local DM authorities, GIS department National DM bodies, NGOs
	Documents related to pre-disaster training and delivery and city-to-city experience sharing and learning	<ul style="list-style-type: none"> • Training curricula • Training records & courses run • Related school and university curricula • Record of participants, with details of designation (government, private sector, NGOs, communities) • Training materials in all of the languages commonly used in the cities • Records on peer-to-peer and city-to-city exchange programs 	Local DM authorities, National DM bodies, Education and culture authorities, academic institutions, NGOs
7 Understand and strengthen societal capacity for resilience	Information about 'grassroots' or community organisations	<ul style="list-style-type: none"> • List of grassroots organisations, and information on their size, role, and how they operate, city's population they cover • Records of past DRM trainings and the number of grassroots or community organizations participation 	Local authorities, NGOs, Regional community organisations, Community leaders
	Information about disadvantage and vulnerable groups and training available for them	<ul style="list-style-type: none"> • Statistics on those in areas of high poverty, transient or nomadic communities, slum/favela residents, the elderly, physically or mentally sick or disabled, children, non-native language speakers • Records of past DRM trainings and number of vulnerable population covered in the trainings 	Statistics and censors department, Local authorities
	Information about private sector	<ul style="list-style-type: none"> • Documented business continuity plans and how often these are updated 	Local governments, Business registration department, private sector

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7 Understand and strengthen societal capacity for resilience	Techniques used to engage and communicate with citizens on disaster risk information and activities	<ul style="list-style-type: none"> • Communication plan/strategy • Records of media channels used (social, radio, email, newspaper, mobile device) • Mobile application and websites for crowd sourcing of risk information 	Local governments, public relation department, city's office, media, emergency control center
8 Increase infrastructure resilience	Disaster resilience plans for each infrastructure	<ul style="list-style-type: none"> • Data on execution of disaster resilience plan for different infrastructures 	One or more separate agencies that own the infrastructure
	Documents related to critical assets (i.e. water-potable and sanitation, energy, transport, communications, health care, education facilities)	<ul style="list-style-type: none"> • Documents on population different infrastructures serve • Documentation related to loss and damage of critical assets during past disasters 	One or more separate agencies that own the infrastructure
9 Ensure effective disaster response	Information about emergency response, earl warning systems and whom they will reach	<ul style="list-style-type: none"> • Early warning and forecasts with communication plan • Standard operating procedures for early warnings and forecasts • Disaster management, preparedness, emergency response plans 	National DM authority, Local DM authorities, Line agencies, Environment division, early warning center
	Staffing – first responders and volunteers	<ul style="list-style-type: none"> • Documents or database of staffing capabilities • Records of drills and practices and after action reviews • Triage policies for inspection • Database on trained volunteers and the roles of volunteers 	All related agencies that offer first responder services
	Information of systems where interoperability with other agencies is critical	<ul style="list-style-type: none"> • Standards adopted for interoperability • Records of evaluations, • Learning points and improvements enacted 	Local DM authorities, Line agencies, NGOs
	Emergency response equipments and relief supplies (partially for Essential 8 and partially for Essential 9)	<ul style="list-style-type: none"> • Documents or database equipments needed for emergency responses (e.g. vehicles for fire-fighting, ambulances, police vehicles; helicopters and aircrafts; emergency food and first aid stocks/supplies; shelters; back-up generators; ytility vehicles for communication, energy restoration, water and sanitation; other critical equipment such as earthmovers, trucks, winches, chainsaws, etc. • Availability of equipments • Collaboration an agreements between government, military and civilian for back up equipments • List of relief supplies needed for different disaster scenarios and their availability 	National DM authority, Local DM authorities, military, private sector/NGOs
10 Expedite recovery and build back better	Post event recovery plans	<ul style="list-style-type: none"> • Rapid damage and needs assessment • Interim arrangements for damaged facilities • Repairs and debris removal, • Economic reboot arrangements, • Community support arrangements, • Resettlement plans, • Post-recovery financial aid and distribution plan, • Best practice guide • Lesson learnt, post-disaster assessment, failure analyses, build back better guidance 	Local DM authorities, Disaster management communities, Local governments and other environment and planning authorities