Making City Resilient

Sunisa Ho

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UNDRR
UN Office for Disaster Risk Reduction

World Health Organization
Regional Office for South-East Asia

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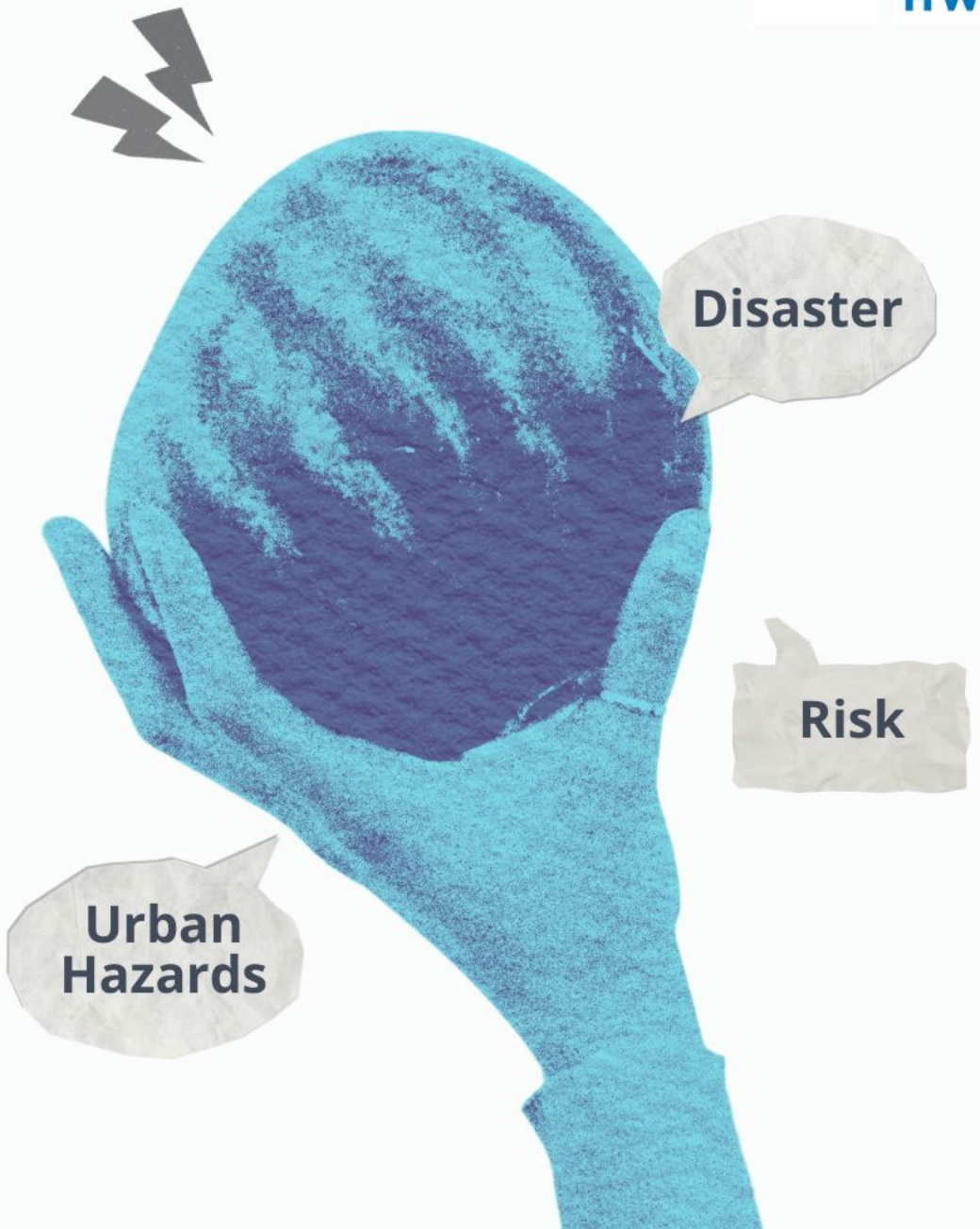
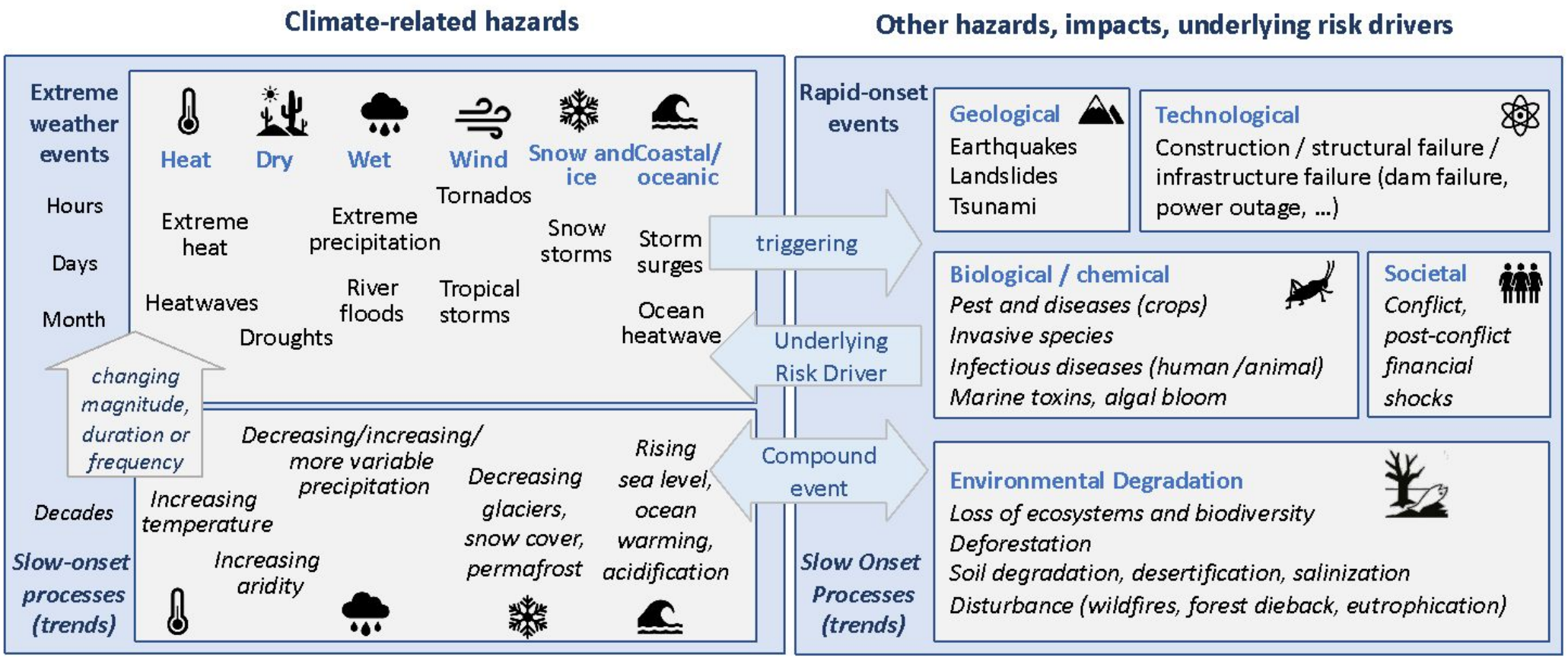


Climate change is an underlying risk driver



Climate change as underlying risk driver

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Towards Disaster Risk Management

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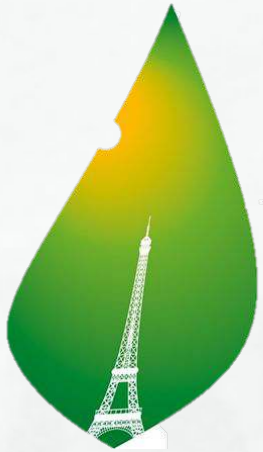
2030
Agenda for Sustainable Development

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030



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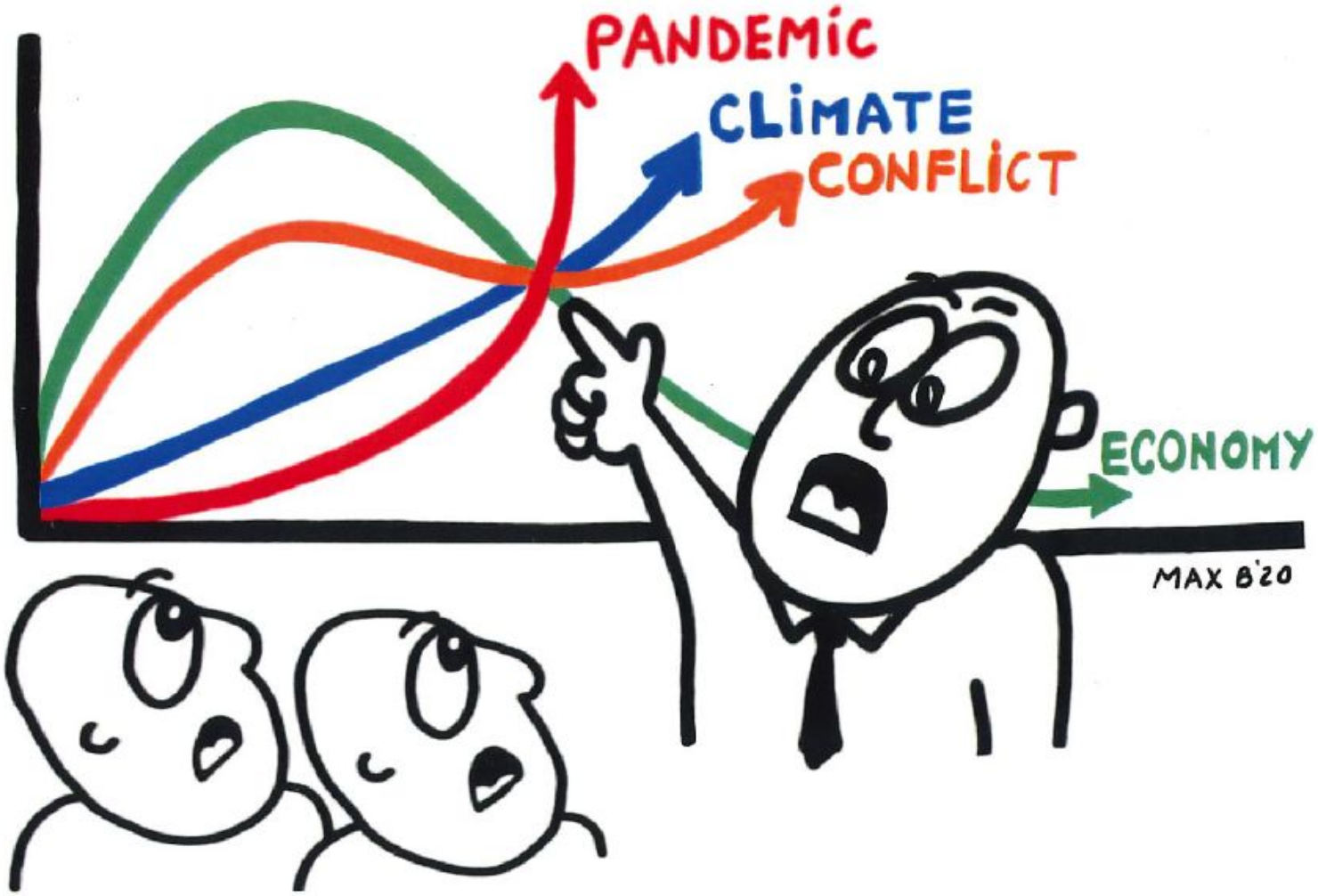
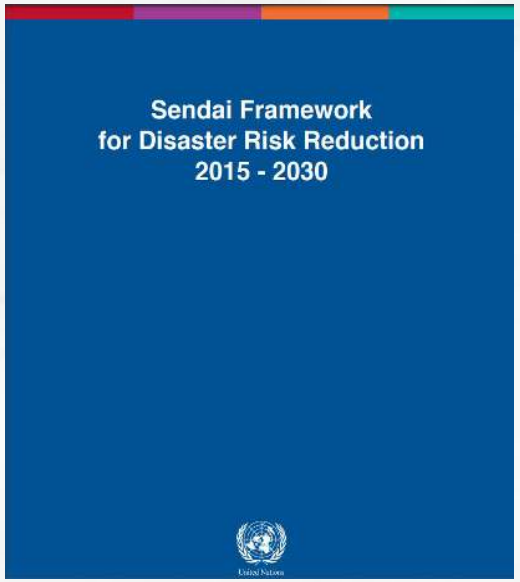


- The disasters are collaborating better than we are!

Paul M Bisca / CartoonStock.com

Mid-Term Review of the Sendai Framework (2023)



PFA2(b) Supporting and enabling all local authorities to **have disaster risk reduction strategies and local platforms for disaster risk reduction**, or similar mechanisms, in place, including by strengthening the **role of local authorities for multi-hazard risk governance** with the provision of financial assistance, technical support and capacity development; promoting local ownership through community-based disaster risk management approaches; and **participating in the Making Cities Resilient 2030 initiative to promote exchanges between cities**

Target A: Substantially reduce global mortality by 2030

Target B: Substantially reduce the number of affected people globally

Target C: Reduce direct disaster economic losses in relation to global gross domestic product (GDP)

Target D: Reduce disaster damage to critical infrastructure and basic services disruptions

Target E: Increase national and local disaster risk reduction strategies

Target F: Enhance international cooperation for disaster reduction

Target G: Increase availability and access to early warning systems and risk information

Political Declaration – Urban Resilience

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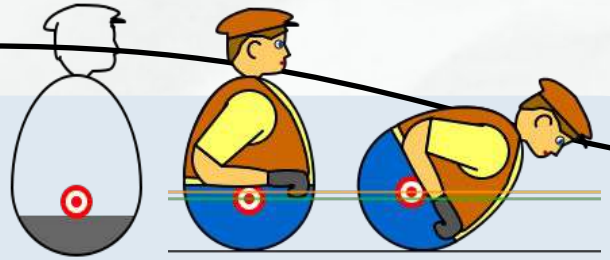
RESiLiENC &

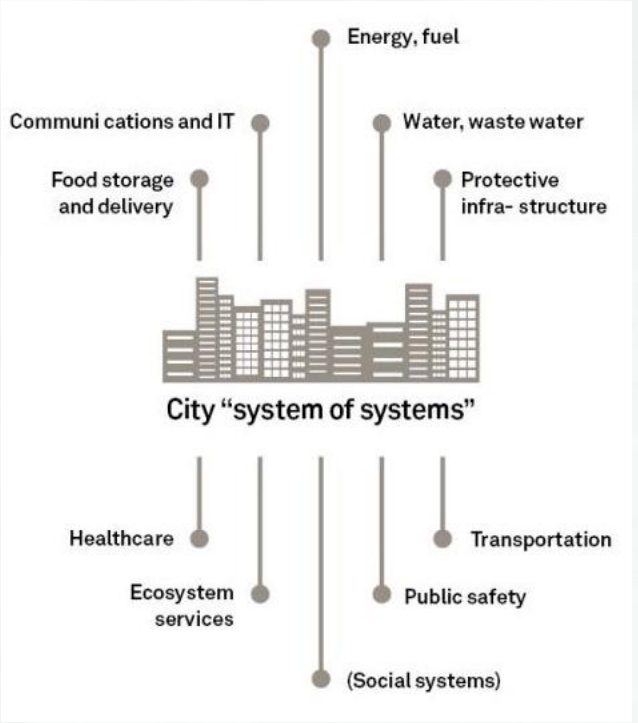
In the Context of Cities:



"the **ability to withstand and bounce back from** both acute shocks (natural and manmade) such as floods, earthquakes, hurricanes, wild-fires, chemical spills, power outages, as well as chronic stresses occurring over longer time scales, such as groundwater depletion or deforestation, or socio-economic issues such as homelessness and unemployment."

Resilience has to address the 'system of systems' that makes up a city.

- Cities are complex and are made up of different systems.
- These systems have multiple connections and interactions: causal, resources and data.
- Failure of one system may impact other systems and create cascading failures.
- A system approach must be taken in order to make a city resilient.



Because each system is owned and operated by different players and stakeholders, resilience is a multi-organizational endeavor.

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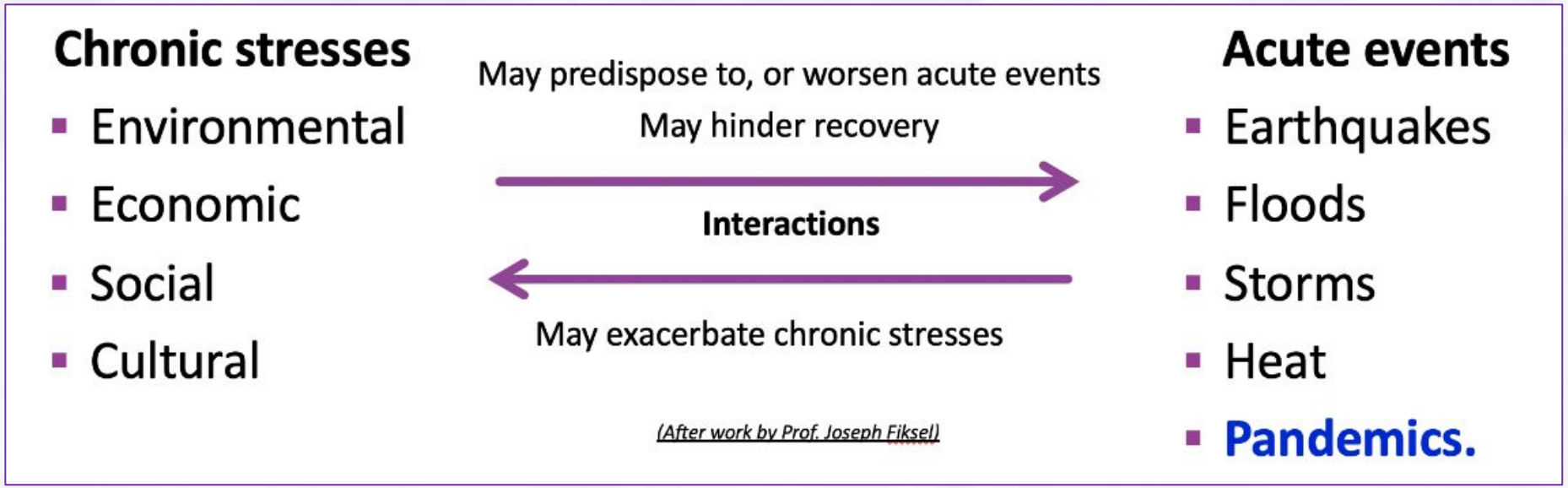
Resilience embraces

Chronic stresses and acute events



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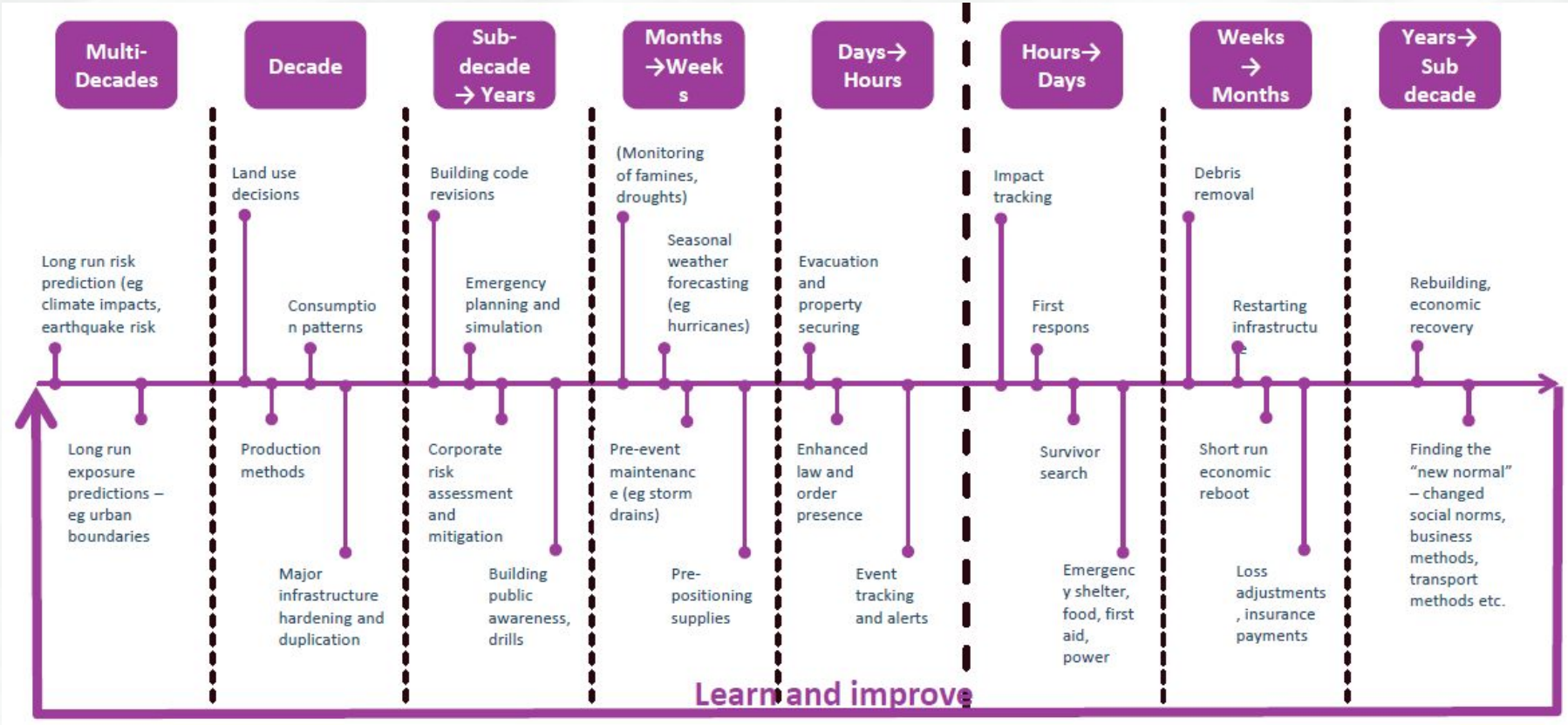
Resilience is a **long-term process** with **multiple timescales**



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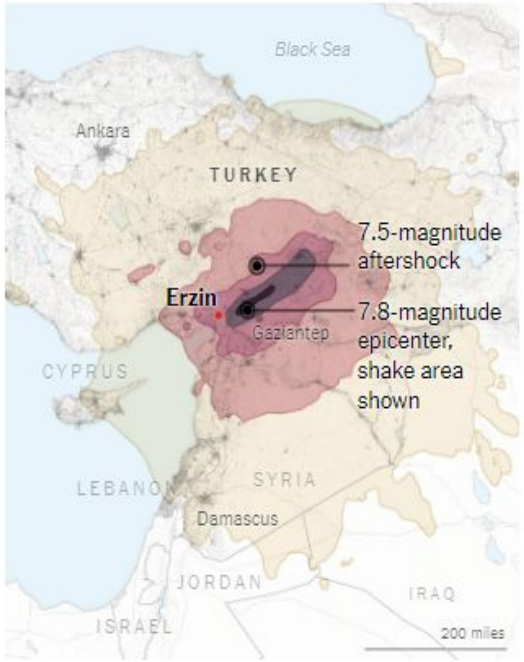
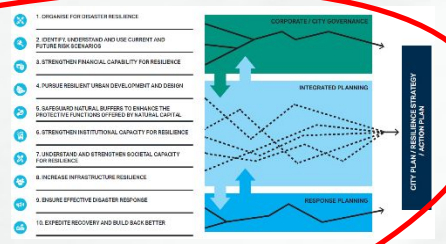
Erzin City, Turkiye

- Located near the epi-center of the 7.8 magnitude earthquake on 6 February 2023
- Population: 42,000 people
- No casualty
- Some damage to some buildings, but no building collapse
- Mayor took strict measure in building construction especially in the last 4 years
- Good law enforcement & good engineers following updated seismic codes



Source: https://www.nytimes.com/2023/02/17/world/middleeast/erzin-turkey-earthquake.html

Disaster Risk Reduction Strategies for Achieving Resilience



Organizing and Preparing for Disaster Risk Reduction

Raise awareness, plan the process, convene multi- and diverse stakeholders and relevant actors

Disaster Risk & Resilience Assessment

Conduct risk assessment, understand localized risks, identify vulnerabilities, assess gaps and possible actions to respond to disaster risks

Development DRR Strategies and Action Plans

Develop and prioritize possible interventions, identify responsible parties & time frame, establish M&E indicators, obtain political ratification, identify funding options

Implementation of DRR Strategies

Mobilize resources, implement DRR actions, ensure ownership and participation

DRR Monitoring, Evaluation and Follow-up

Monitor, evaluate and report of achievements, document lessons learned

Source: How to Make Cities More Resilient: A Handbook for Local Government Leaders (2017)

UNDRR's Assessment & Planning Tools

+MCR2030 partner tools

MCR 2030 Making Cities Resilient

https://mcr2030.undrr.org/ten-essentials-making-cities-resilient
https://www.unisdr.org/campaign/resilientcities/toolkit/

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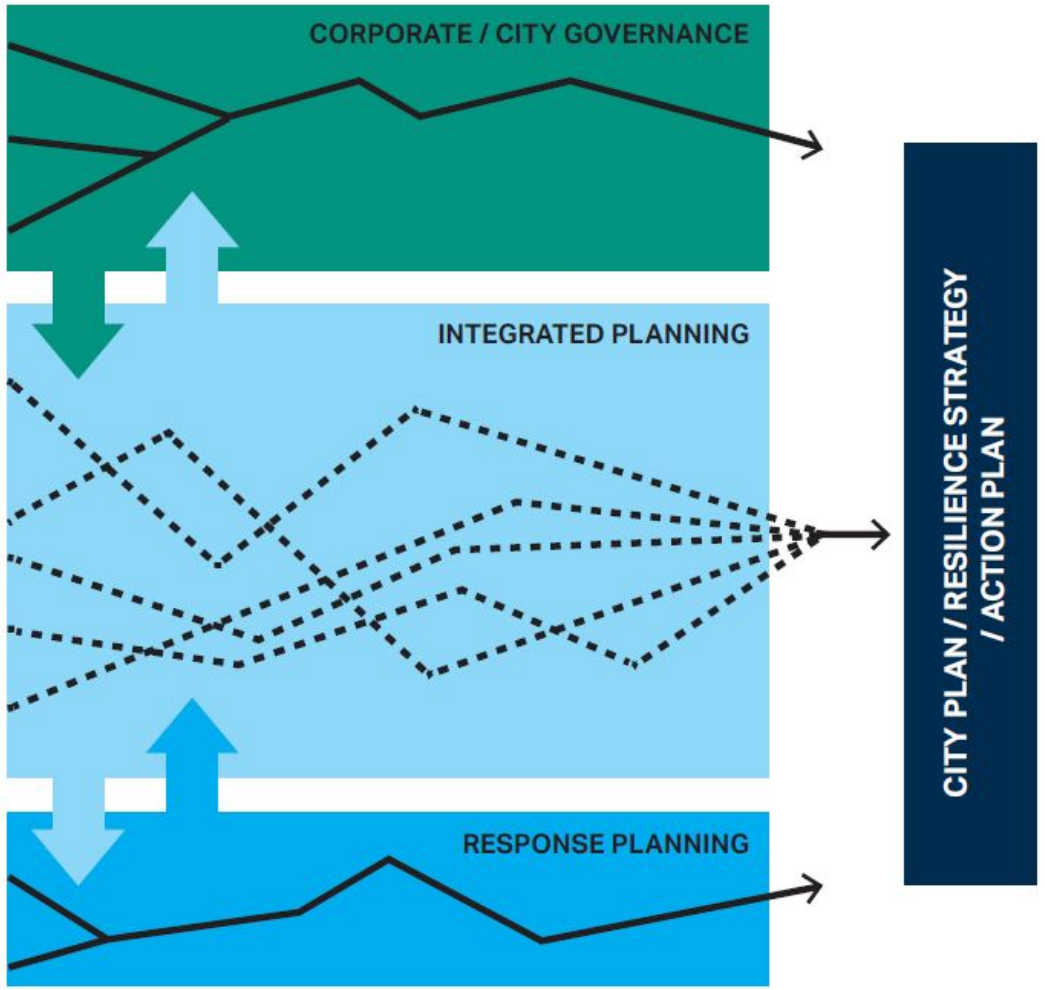
Moving towards becoming a disaster resilient city

Organizing and Preparing for Disaster Risk Reduction

Raise awareness, plan the process, convene multi- and diverse stakeholders and relevant actors

The Ten Essentials for Making Cities Resilient – the Guiding Principles

1. ORGANISE FOR DISASTER RESILIENCE
2. IDENTIFY, UNDERSTAND AND USE CURRENT AND FUTURE RISK SCENARIOS
3. STRENGTHEN FINANCIAL CAPABILITY FOR RESILIENCE
4. PURSUE RESILIENT URBAN DEVELOPMENT AND DESIGN
5. SAFEGUARD NATURAL BUFFERS TO ENHANCE THE PROTECTIVE FUNCTIONS OFFERED BY NATURAL CAPITAL
6. STRENGTHEN INSTITUTIONAL CAPACITY FOR RESILIENCE
7. UNDERSTAND AND STRENGTHEN SOCIETAL CAPACITY FOR RESILIENCE
8. INCREASE INFRASTRUCTURE RESILIENCE
9. ENSURE EFFECTIVE DISASTER RESPONSE
10. EXPEDITE RECOVERY AND BUILD BACK BETTER



Learn more about the 10 Essentials at:
https://mcr2030.undrr.org/ten-essentials-making-cities-resilient

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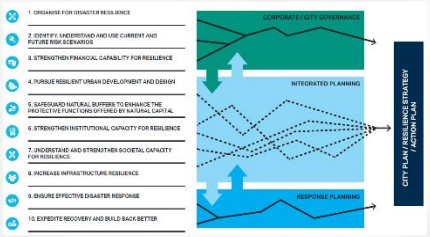
Disaster Risk Reduction Strategies for Achieving Resilience



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MCR 2030 Making Cities Resilient

Source: How to Make Cities More Resilient: A Handbook for Local Government Leaders (2017)

https://mcr2030.undrr.org/ten-essentials-making-cities-resilient
https://www.unisdr.org/campaign/resilientcities/toolkit/

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Moving towards becoming a disaster resilient city

Disaster Risk & Resilience Assessment

Conduct risk assessment, understand localized risks, identify vulnerabilities, assess gaps and possible actions to respond to disaster risks

The Disaster Resilient Scorecard for Cities (Scorecard)

A tool to support disaster risk reduction and resilience planning - to understand the cities' status on resilience building (baseline snapshot), to identify priority areas and actions for DRR and to create dialogue and help to engage multi-stakeholders in the process

https://mcr2030.undrr.org/disaster-resilience-scorecard-cities

- A set of **assessments** that allow cities to assess their disaster resilience, structured around the 10 Essentials for Making Cities Resilient
- Developed by IBM, AECOM, and UNDRR with the support from the European Commission and USAID and launched in May 2017 at the Global Platform for DRR in Cancun.
- Local government authorities should take the lead in the assessments. A multi-stakeholder dialogue and approach between key city stakeholders will be necessary to complete the Scorecard and is essential in pushing the cities towards higher resilience.

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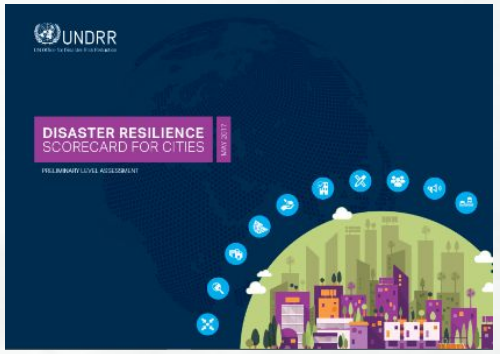
The Disaster Resilient Scorecard for Cities (Scorecard)



	Preliminary Assessment	Detailed Assessment
Launched	2017	2017
# of indicators (criteria)	**47**	**117**
Scoring	0-3	0-5
Methodology	Use in a one or 2-day city multi-stakeholder workshop	Multi-stakeholder exercise which could take 1-4 months.
Use case	High-level assessment helping to open up multi-stakeholder dialogue on disaster resilience (recommend for all questions to be scored)	Create an in-depth review, forming a basis for a detailed city resilience action plan (possible to opt out some non-relevant criteria)
More information	https://mcr2030.undrr.org/disaster-resilience-scorecard-cities	

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Thematic Scorecard Addenda

	Public Health System Resilience Addendum	Food System Resilience Addendum	Cultural Heritage Addendum	Annex for Inclusion of Persons with Disability
Launched	2018	2022	2022	2022
# of indicators (criteria)	**23**	**29**	**44**	**19**
Scoring	0-5	0-5	0-3	0-3
Methodology	Use in a full day city multi-stakeholder workshop	Use in a full day city multi-stakeholder workshop	Use simultaneously with the City Scorecard	Use in a full day city multi-stakeholder workshop
Use case	Help to amplify Essential 8 on hospitals and food distribution parts, aiming to enhance integration of public health issues in disaster risk reduction.	Structured in sections around the Ten Essentials and the issues that affect resilience in the “system-of-systems”, including food production, supplies, transport and services.	Supports the development of culture-based and people-centered disaster risk reduction and resilience strategies integrated with cultural heritage and development policies	Includes specific criteria on inclusion of persons with disabilities for each of the Ten Essentials and supports the formulation of more inclusive local strategies and plans promoting meaningful participation and accessibility
Link	https://mcr2030.undrr.org/public-health-system-resilience-scorecard	https://mcr2030.undrr.org/food-system-resilience-scorecard	https://mcr2030.undrr.org/cultural-heritage-scorecard	https://mcr2030.undrr.org/disability-inclusion-scorecard

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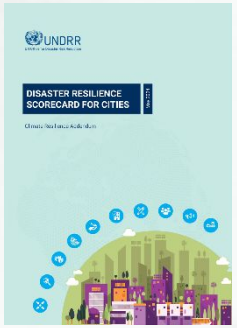
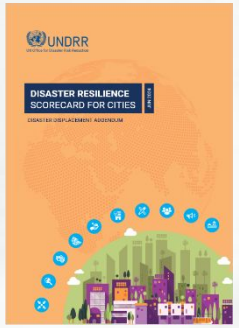
Thematic Scorecard Addenda





	Climate Resilience Addendum	Gender Equality and Intersectionality Addendum	Disaster Displacement Addendum	Multi-Hazard Early Warning System Addendum
Launched	2024	2024	2024	2024
# of indicators (criteria)	**25**	**26**	**24**	**39**
Scoring	0-3	0-3	0-3	0-3
Methodology	Use in a full day city multi-stakeholder workshop	Use in a half to full day multi-stakeholder participative workshop	Recommended for use in a two-day multi-stakeholder workshop	Use in two-day multi-stakeholder workshop
Use case	Contains questions that allow users to self-assess the interlinkages and integration of disaster and climate resilience strategies and practices at the sub-national government level.	Aims to incorporate a gender perspective (recognition, autonomy and empowerment) into DRR, acknowledging and addressing the gender-specific impacts of disasters and needs in resilience building.	Contains questions that allow users to self-assess the integration of addressing disaster displacement within wider DRR policies, management and planning process at the sub-national government level.	Supports the development of people- and nature centred, multi-hazard approaches to early warning systems, and ensure their integration in local DRR and resilience strategies, plans and policies.
Link	https://mcr2030.undrr.org/food-system-resilience-scorecard	https://mcr2030.undrr.org/gender-equality-scorecard	https://mcr2030.undrr.org/disaster-displacement-scorecard	https://mcr2030.undrr.org/MHEWS-scorecard

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Excel Tool

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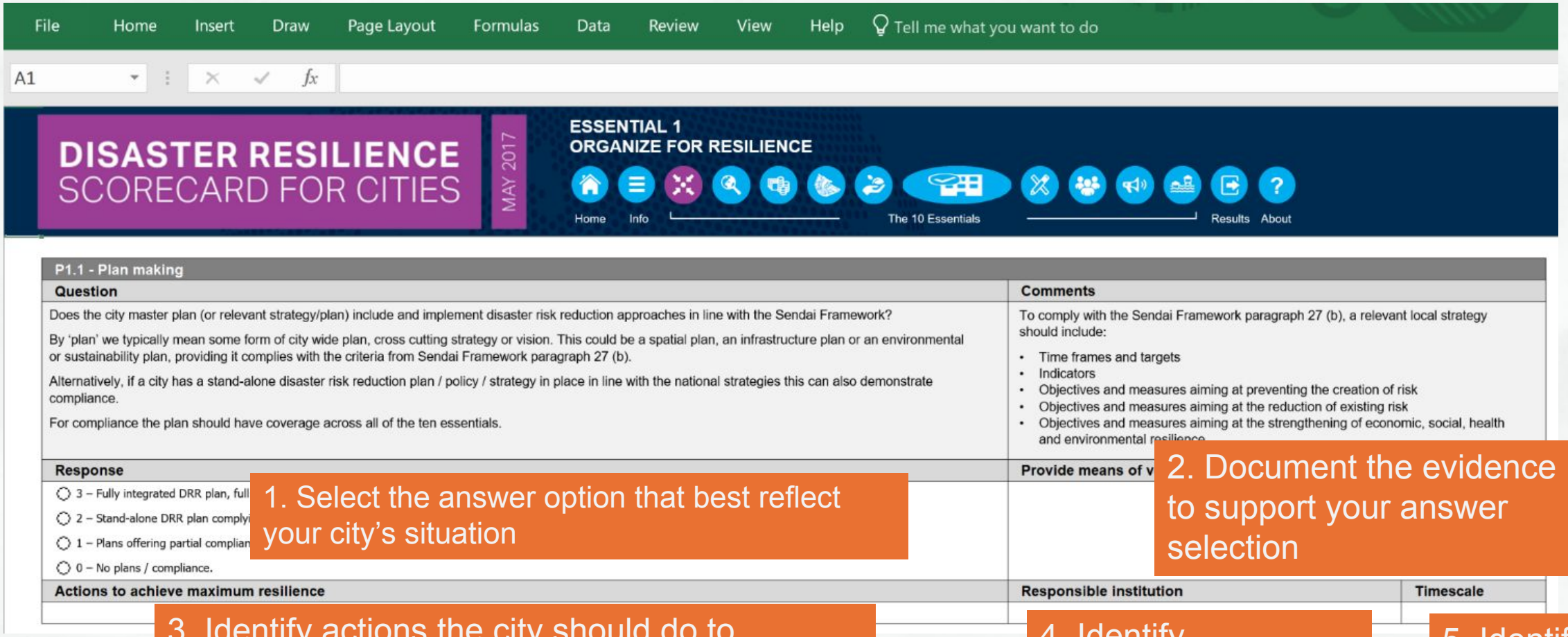
Using the Scorecard Excel Tool



1. Select the answer option that best reflect your city's situation

2. Document the evidence to support your answer selection

3. Identify actions the city should do to address the gap and advance further

4. Identify responsible entity

5. Identify timeline

Scorecard is designed to be used flexibly in the way best suits the need of the city. Cities can decide on their own 'evidence' to support the assessment. Document them in the 'Provide means of verification (explanation and evidence) □ #2 in the image above.

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Analyzing Results – Overall Score

The overall score for this assessment is 83 / 141

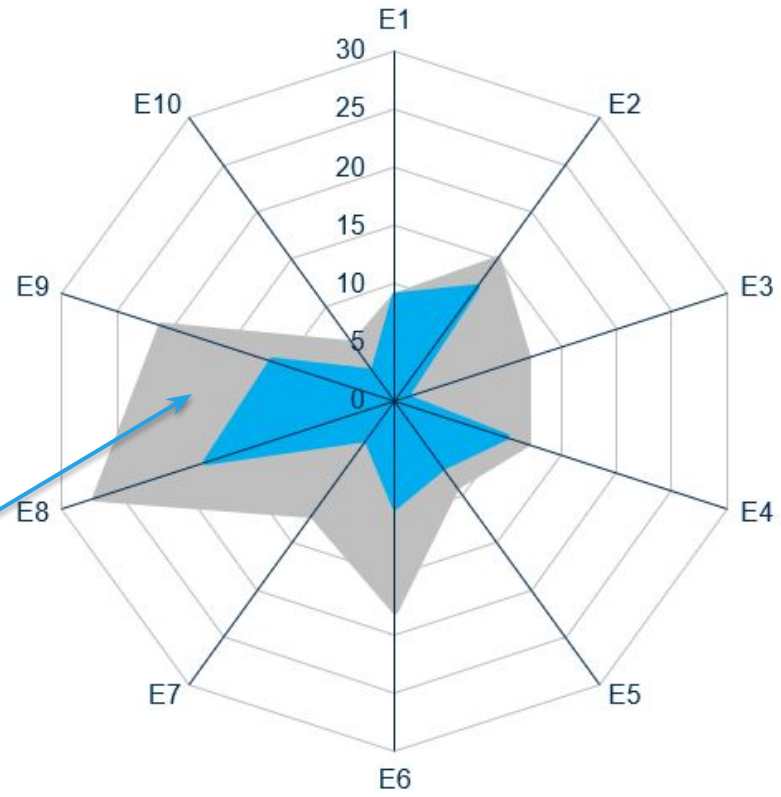
Please send the completed tool and PDF report to: isdr-campaign@un.org

Disaster Resilience Scorecard for Cities - Preliminary Level Assessment Tool, v.1.0.

© UNDRR, 2017.

Save PDF Report

Export Input Data



Actual score
(reflected in the blue area in the web diagram)

How is this city doing?

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Other Scorecard addenda in the pipeline

- Coastal Island and Community Resilience
- Climate Resilience in the Education Sector
- Chemical and waste management
- Heatwave
- ….

Example of the use cases of the Scorecard for DRR planning

https://www.preventionweb.net/publication/lisbons-resilience-action-plan

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Source: Lisbon's Resilience Action Plan

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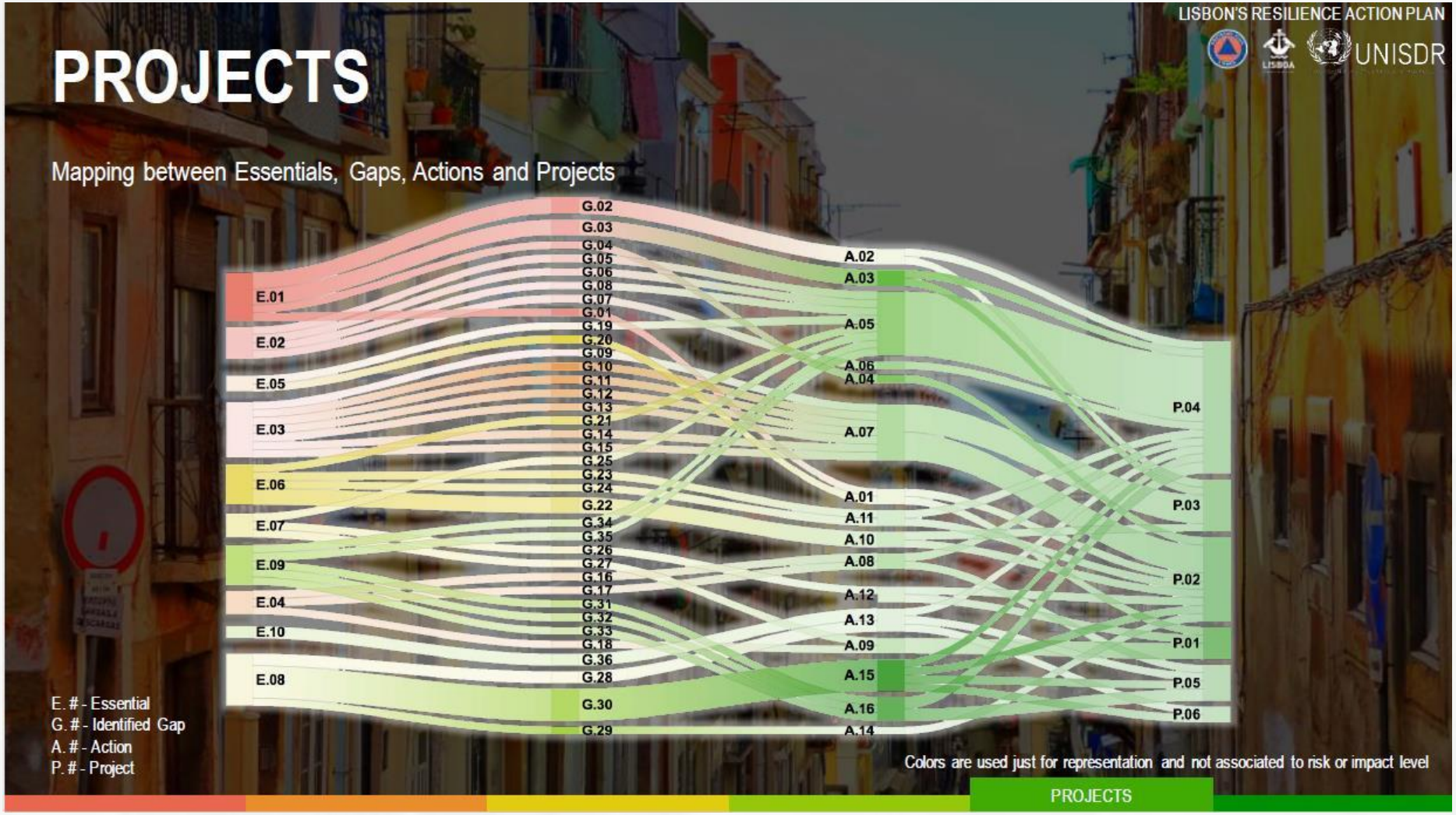

Source: Lisbon's Resilience Action Plan

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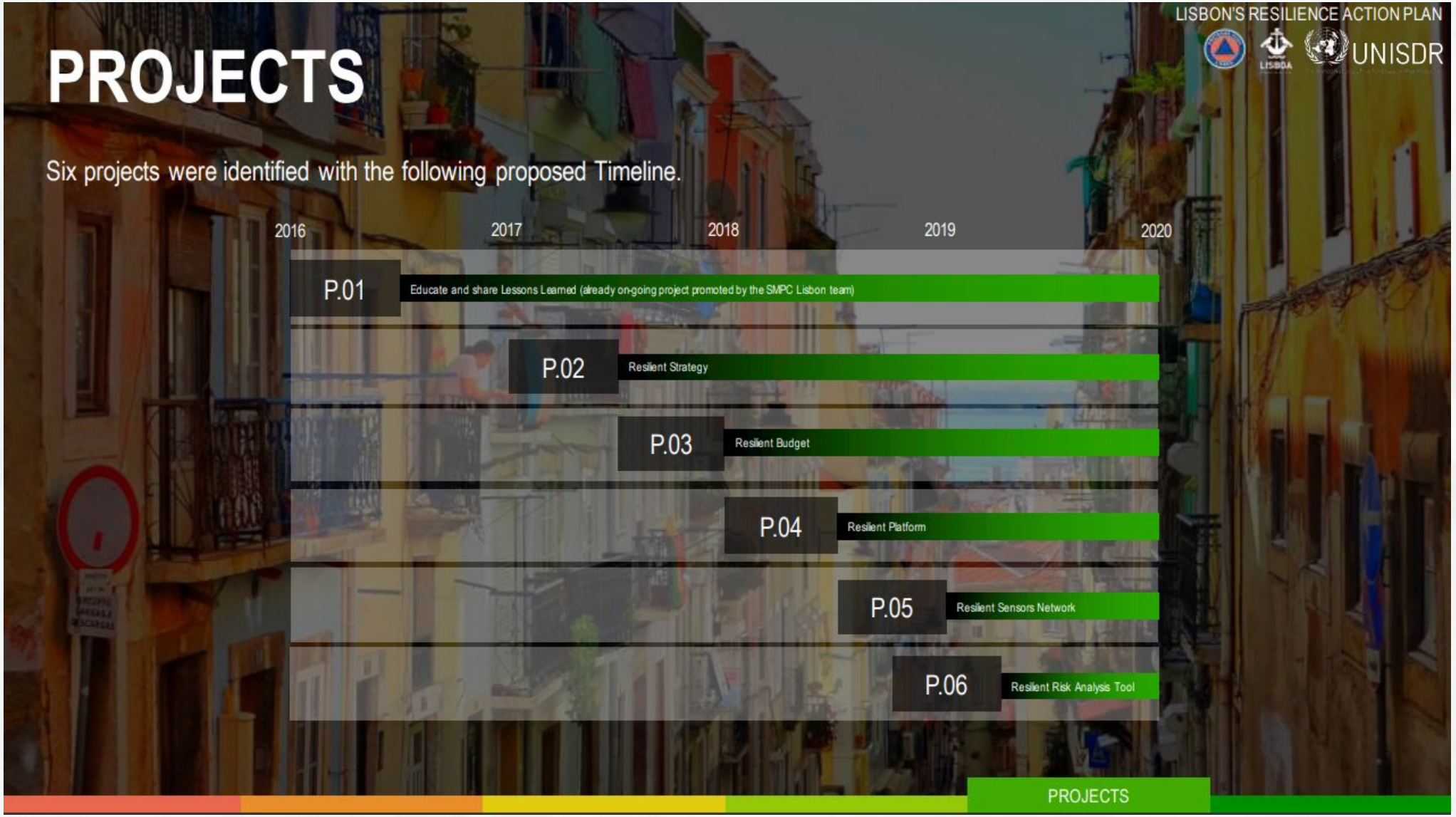

Source: Lisbon's Resilience Action Plan
https://www.preventionweb.net/publication/lisbons-resilience-action-plan

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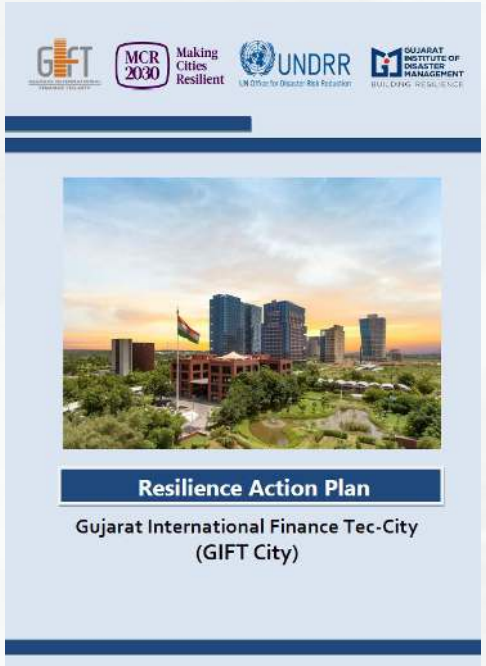
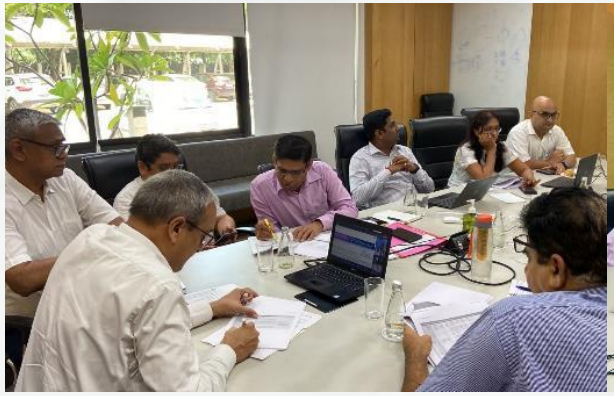
India – Gujarat International Finance Tec-City (GIFT City)

- **GIFT City joined MCR2030 with the support of the Gujarat Institute of Disaster Management (GIDM)** in mid-2022
- Initial training by UNDRR and exchange with Philippines cities in Incheon in late 2022
- **Resilience Action Plan 2024-2027** developed as a strategic blueprint for strengthening the resilience of GIFT City.
- **The Disaster Resilience Scorecard for Cities (Detailed)** was used to support the city assessment with diverse perspectives and expertise of stakeholders contributed to evaluating strengths and vulnerabilities.
- **7 projects included in the Resilience Action Plan**:
  1) Integrated DRR Framework, 2) Integration of multi-hazard risk assessment and mitigation, 3) Urban ecosystem enhancement & climate resilient planning, 4) Disaster awareness and community engagement, 5) Critical infrastructure resilience, 6) Comprehensive disaster response enhancement, and 7) Resilient Recovery and rebuilding





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Mauritius – the Municipal Council of Beau Bassin Rose Hill

- The first local authority in the Republic of Mauritius joining MCR2030 in July 2022, firstly as a **Stage B City** and has now moved onto a **Stage C** with the adoption and publication of its **Local Disaster Risk Reduction and Management Strategy and Action Plan 2023-2030**.
- The development of this Local DRRM Strategy & Action Plan was guided by a participatory and consultative process, aiming to gather diverse perspectives, expertise, and local knowledge to accurately reflect the needs and priorities of the town's local communities, and align with national and international frameworks for DRR.
- BBRH officials attended a national training of trainer session in 2019, followed by series of workshops on scorecard assessment and validation in the township in 2021-2023.
- **4 strategic priorities and 76 objectives** collaboratively developed as a roadmap for BBRH and its stakeholders in DRRM: 1) understanding disaster risk, 2) strengthening disaster risk governance, 3) DRR investments, 4) enhancing disaster preparedness for effective recovery
- The strategy is accompanied by an action plan, with financial strategy and monitoring and evaluation frameworks.

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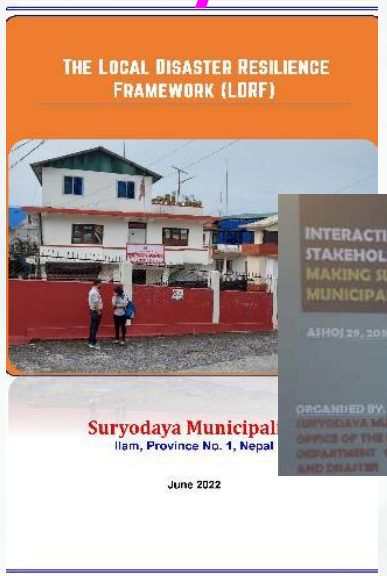
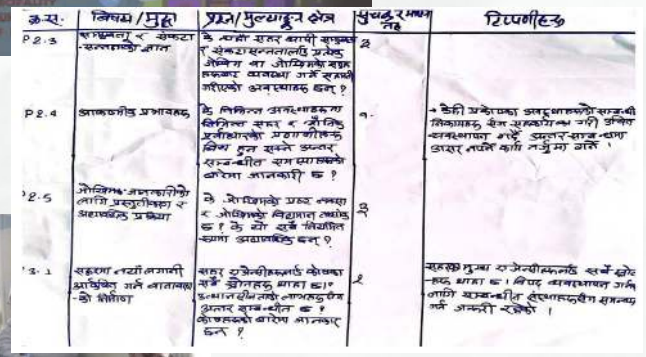
Nepal – Suryodaya Municipality

- Suryodaya joined MCR2030 in 2023 following the training on DRR and urban resilience at UNDRR GETI, Incheon.
- Post-training, Mayor set a goal for Suryodaya to be a resilience municipality and has organized a workshop with stakeholders to introduce DRR and urban resilience concepts
- Suryodaya municipality led the translation of the Scorecard (preliminary level) into Nepali and conducted the Scorecard analysis with municipal stakeholders.
- The Scorecard findings broadened Suryodaya's vision from disaster management and response to cover other aspects of disaster risk reduction, e.g. risk assessment and identification, financing for DRR, enhanced land-use planning, increased capacity building for local government officials and stakeholders, etc.
- The process guided Suryodaya to graduate from a random/ ad hoc project selection basis to having a more systematic approach to identify which project(s) to prioritized based on the needs and agreement with stakeholder groups.





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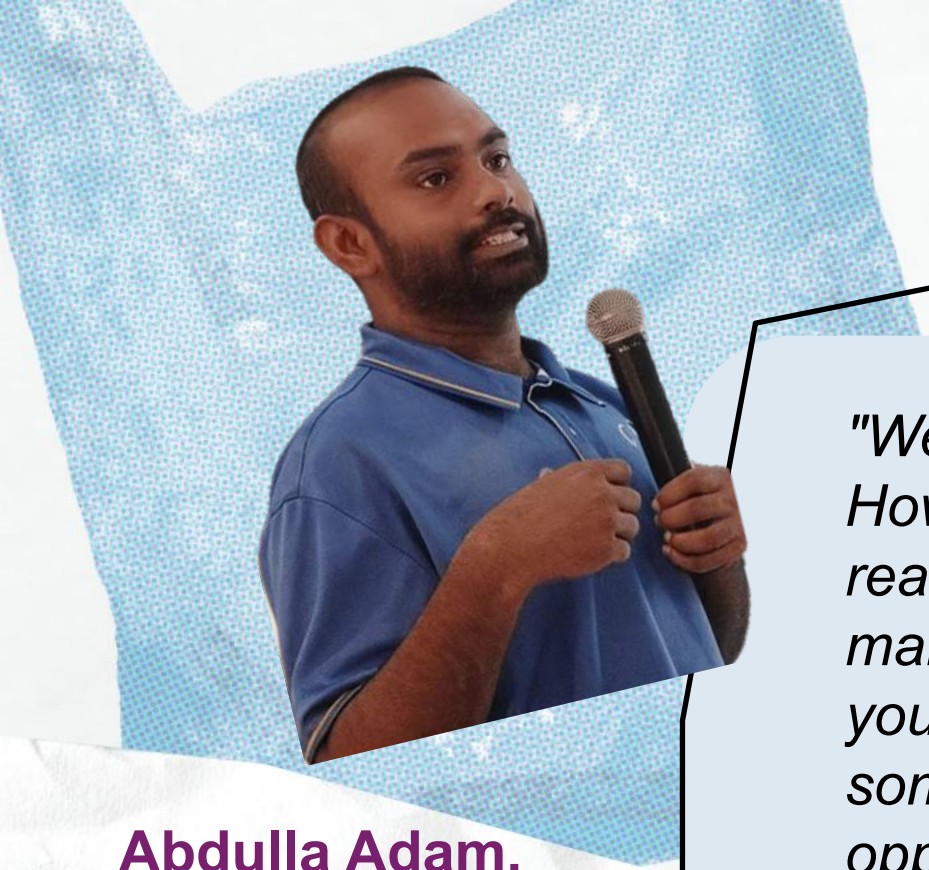

"We didn't realize we were not prepared. However, going through the Scorecard we realized there is so much work to be done to make our city resilient. If you see our scoring you would see we have rated quite low on some areas, that is because we see the opportunity we have to improve because of the scorecard. So we want to work for it."

Abdulla Adam, SECRETARY GENERAL, KULHUDHUFFUSHI CITY COUNCIL, Maldives

Key resources

- ***Disaster Risk Reduction Terminology:*** *http://www.preventionweb.net/english/professional/terminology/*
- ***Sendai Framework for Disaster Risk Reduction 2015-2030, UN:***
  http://www.preventionweb.net/drr-framework/sendai-framework
- ***Making Cities Resilient 2030 Website:*** https://mcr2030.undrr.org

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- ***A Handbook For Local Government Leaders [2017 Edition]:***
  https://www.preventionweb.net/publication/how-make-cities-more-resilient-handbook-local-government-leaders-0
- ***10 Essentials for Making Cities Resilient:*** https://mcr2030.undrr.org/ten-essentials-making-cities-resilient
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SUSTAINABLE DEVELOPMENT GOALS

Thank You

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