



URBAN RESILIENCE AND LOCALISED SUSTAINABLE DEVELOPMENT GOALS

CITY OF MELBOURNE

AND INTERNATIONAL CASE STUDIES

BRIEFING PAPER



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STUDIES

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This Briefing Paper is an output of the City of Melbourne Chair in Urban Resilience and Innovation, which is a research partnership between The University of Melbourne and the City of Melbourne. The co-funded partnership interrogates the relationships between urban decision-making and resilience, using action research to inform policy and practice.

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KEY INSIGHTS:

Sustainable development and resilience should be pursued simultaneously, to ensure that sustainable development processes are not undermined by unanticipated shocks and stresses, and that measures to improve resilience are sustainable. This report emphasises the important role of local governments in promoting urban resilience through Voluntary Local Review (VLR) of the Sustainable Development Goals (SDGs). Embedding urban resilience targets and indicators into VLRs can effectively monitor progress and highlight areas to prioritise future action. The inclusion of resilience in SDG localisation and monitoring can be enhanced by referencing urban resilience keywords in targets, measuring urban resilience more explicitly across VLR indicators, and developing additional VLR indicators that reflect urban resilience qualities. The report also suggests developing additional indicators that measure key acute shocks and chronic stresses that are important to both sustainable development and urban resilience.

INTRODUCTION

Climate change, biodiversity loss, economic inequality and social fragmentation are amongst the urgent challenges experienced by cities. Continuing to improve quality of life for citizens, within the limits of planetary systems, is the purpose of sustainable development. Preparing for shocks and stresses that could disrupt development and lead to loss of life is the purpose of urban resilience (Kuhlicke, Kabisch, & Rink, 2020). It is vital to address sustainability and resilience simultaneously, to ensure that sustainable development processes are not undermined by unanticipated shocks and stresses, and that measures to improve resilience are sustainable.

The City of Melbourne is an international leader in both sustainable development and urban resilience. In 2022 it was the first municipality in Australia to undertake a Voluntary Local Review (VLR) of the Sustainable Development Goals (SDGs). In 2015, the City was a founding member of the Rockefeller Foundation's 100 Resilient Cities (100RC) initiative (now the Resilient Cities Network). In 2021, the City of Melbourne produced an updated urban resilience framework (Lowe et al., 2021; Resilient Melbourne, 2016) and committed to a five-year Prepare Melbourne major initiative on community disaster resilience, within the Council Plan 2021-2025.

This research assessed opportunities for co-ordination between these two initiatives and to compare Melbourne to similar international cities (Barcelona, Bristol and Cape Town). The specific aims were to:

1. Determine how urban resilience has been incorporated in the City of Melbourne's localised SDGs and associated targets and indicators.
2. Identify resilience thematic gaps in the City of Melbourne's VLR that are critical to urban resilience building and monitoring.
3. Through international case studies, identify other approaches to urban resilience monitoring and ways of linking resilience and SDGs.

4. Identify opportunities to better monitor City of Melbourne's progress on urban resilience through the next VLR and other mechanisms.

URBAN RESILIENCE AND THE SUSTAINABLE DEVELOPMENT GOALS

The concepts of resilience and sustainable development are distinct but potentially mutually dependent and re-enforcing (Kuhlicke et al., 2020). The widely accepted definition of sustainable development comes from the 1987 Brundtland Report: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987, p.43). The United Nations adopted the Sustainable Development Goals (SDGs) in 2015 with the aim of mobilising efforts to achieve sustainable development, universally applied to all countries (United Nations General Assembly, 2015). The City of Melbourne completed its first Voluntary Local Review (VLR) of the Sustainable Development Goals in 2022 and plans to complete a second VLR in 2025.

Sustainable development should involve making cities resilient to acute shocks and chronic stresses that threaten their sustainability and sustainable development provides a key purpose for urban resilience (Lowe et al., 2021). Resilience also features in the SDGs, especially in the wording of Goal 9 related to infrastructure, and Goal 11 related to sustainable cities and human settlements (United Nations General Assembly, 2015).

The City of Melbourne, with the University of Melbourne, outlined an urban resilience framework for local government in 2021 (Lowe et al., 2021). The framework is intended to define urban resilience in a way that is consistent with sustainable development, and to clarify the characteristics and qualities of urban resilience as a basis from which to assess the resilience of a city (Figure 1). The framework defines urban resilience as:

“The capacity of individuals, communities, institutions, businesses and systems within a city to adapt, survive, and thrive no matter what kind of chronic stresses and acute shocks we experience, and to positively transform as a result” (Lowe et al., 2021, p.3).

Urban resilience has four core characteristics: persistence, recovery, adaptive capacity, and transformative capacity. Resilient urban systems have ten qualities: prepared, robust, spare capacity, diverse, reflective, integrated, inclusive, flexible, future focused, and innovative. Each of the ten qualities reflect one or more of the four characteristics.

SDG LOCALISATION AS AN OPPORTUNITY TO MONITOR AND EVALUATE URBAN RESILIENCE

The international case studies demonstrated that there is commonly a lack of urban resilience monitoring and evaluation linked to Resilience Strategies. Most of the urban resilience strategies acknowledged that gathering data at a local level was a key challenge and state their intended next steps to develop indicators to measure progress, in partnership with the Resilient Cities Network, international partners and academic institutions. The gap in urban resilience evaluation and monitoring may be partly due to 100RC’s funding ceasing in 2019, which reduced the

resources available for cities to implement next steps and track progress.

In this context, the global momentum to localise the SDGs through VLRs offers a mechanism to consolidate sustainable development and resilience indicators. This research examined how urban resilience is embedded within VLRs for five cities that have prioritised both resilience and sustainable development. The findings may be useful for informing development of the City of Melbourne’s second VLR in 2024-25.

WAYS TO EMBED URBAN RESILIENCE IN SDG VLRS

Urban resilience can be reflected in localised SDG frameworks in several ways (see Figure 2). First, urban resilience concepts can be explicitly referred to in Goals, targets and indicators. While explicit inclusion of urban resilience terms helps to foreground the importance of resilience-building for sustainable development and co-benefits that can be achieved, urban resilience can also be implicitly embedded in SDG VLRs, by including indicators that measure qualities of resilient urban systems, and address priority acute shocks and chronic stresses for the local area. Figure 2 shows examples of the ways in which urban resilience is reflected in Goal 11 of the City of Melbourne’s SDG VLR.

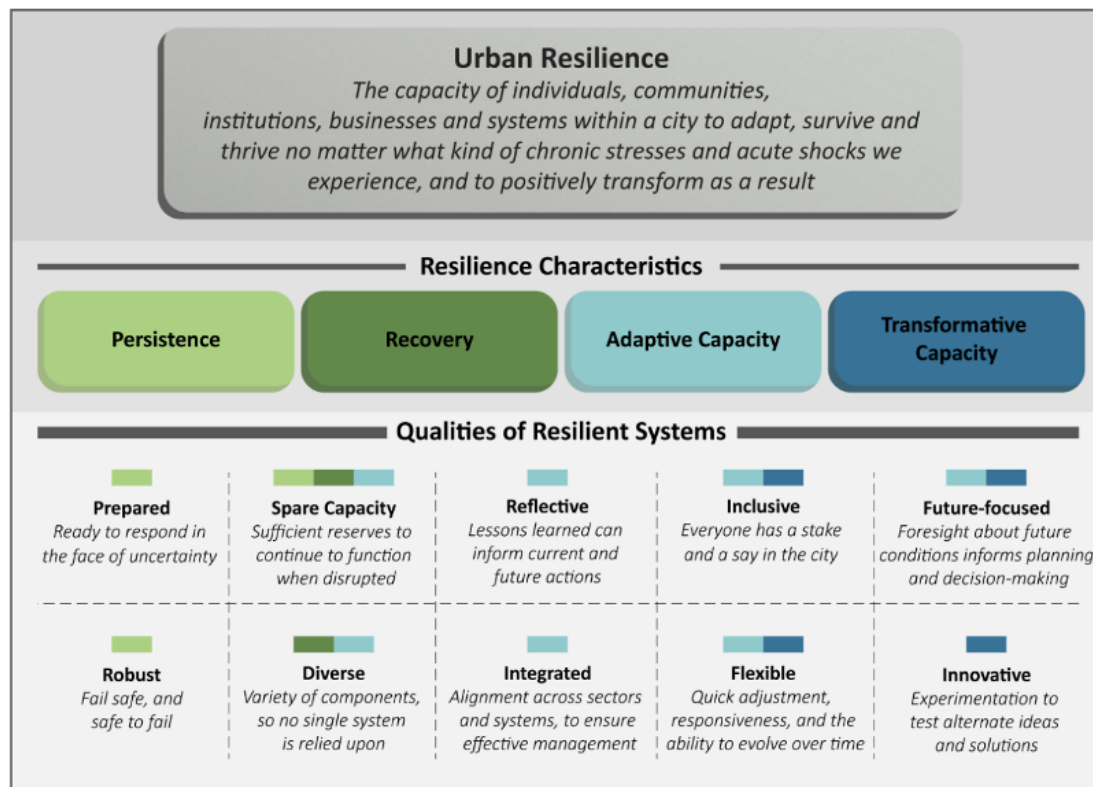


FIGURE 1. URBAN RESILIENCE FRAMEWORK FOR LOCAL GOVERNMENT (FROM LOWE ET AL., 2021)

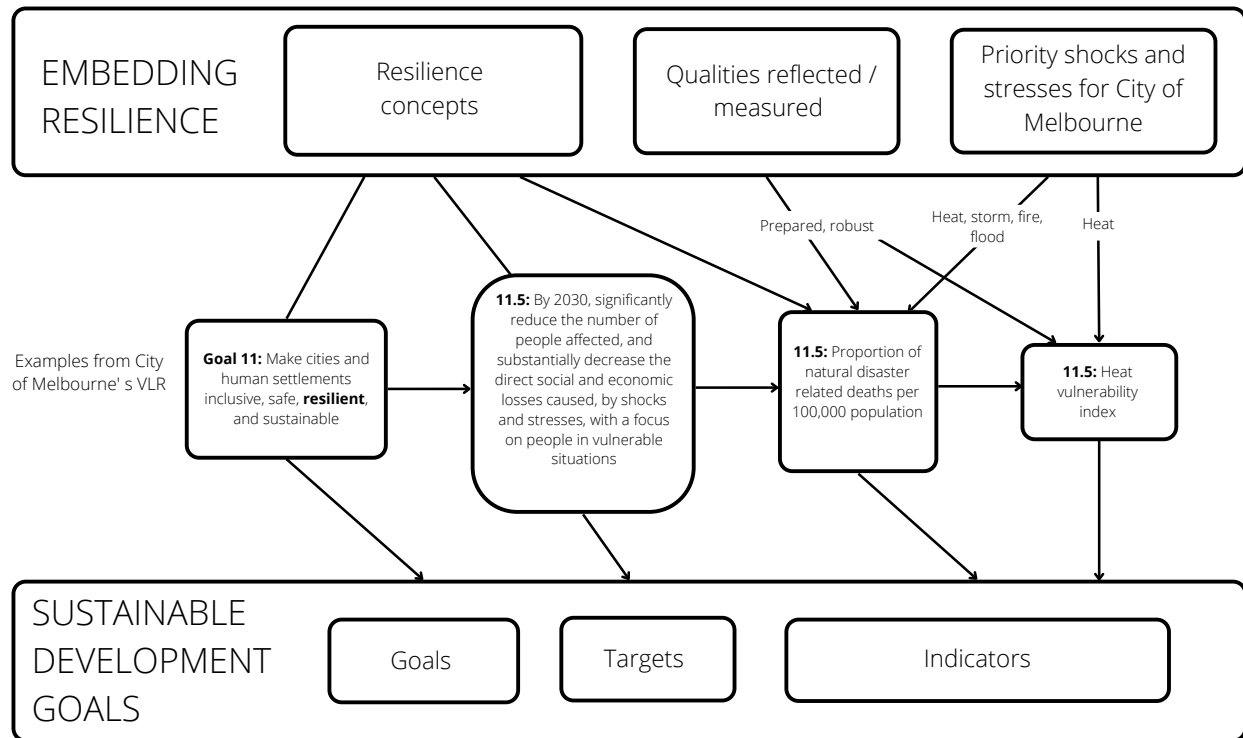


FIGURE 2: EXAMPLE OF EMBEDDING URBAN RESILIENCE INTO LOCALISED SDGS

EXPLICIT INCLUSION OF URBAN RESILIENCE CONCEPTS

Compared with the other case studies examined, the City of Melbourne had relatively widespread explicit reference to urban resilience concepts across the Goals. City of Melbourne's VLR principally included urban resilience key words and concepts in Goals 1, 2, 3, 8, 9, 11, 13, 14. There could be opportunities to include resilience more explicitly in targets for the other Goals (4, 5, 6, 7, 10, 12, 15, 16). Urban resilience could also be measured more explicitly through the VLR indicators, to help integrate resilience benchmarking with SDG localisation efforts. Currently, only one indicator (for target 11.5) directly references resilience. The international case studies offer useful examples of some additional indicators that include resilience key words, especially for Goals 1, 6, 7, 9, 11, and 13.

Of the international case studies, Cape Town had relatively frequent mentions of resilience, which may have resulted from their Chief Resilience Officer's direct involvement in developing the VLR. In some instances, resilience was referred to across explanatory text, and in targets and indicators, demonstrating that the Resilient Cities Network's efforts to broaden the approach to urban resilience at a global level has influenced SDG localisation in the VLRs.

IMPLICIT REFLECTION OF URBAN RESILIENCE

Almost all City of Melbourne SDG indicators implicitly measured qualities of urban resilience in some way. Indeed, the analysis showed that the localised SDG indicators make an important contribution to monitoring some core qualities of resilient urban systems, especially 'inclusive', 'robust', 'diverse' and 'spare capacity'.

The system qualities 'flexible', 'reflective', 'integrated', 'innovative', 'future-focused' and 'prepared' were less frequently identified across the VLR indicators. This highlights an opportunity to embed these qualities more strongly across the suite of VLR indicators, to enable urban resilience and sustainable development to be measured synergistically.

Urban resilience qualities that enable more transformational, evolutionary resilience, such as 'flexible', 'reflective', 'integrated', 'innovative' and 'future-focused', may not easily lend themselves to the type of quantitative measures included in the VLRs. These qualities relate to governance and decision-making processes that enable resilience to acute shocks and chronic stresses, by contributing to adaptive and transformative capacity. Qualitative evaluation tools, training and resources may usefully complement the VLR process, to help build the City's capacity to integrate resilience qualities into its initiatives, processes and governance, and identify resilience gaps and monitor progress,

with a focus on system transformation, leadership, and coordination.

Barcelona and Cape Town showed that indicators for Goal 17 – partnerships for the Goals can reference governance, coordination and implementation mechanisms which are integral to delivering urban resilience. Goal 17 was not included in the City of Melbourne’s VLR as the targets ratified by the UN are “difficult to translate into the local government context” (City of Melbourne, 2022, p.138). This research highlights the opportunity for City of Melbourne’s next VLR to include Goal 17 indicators that support transformative urban resilience, by reflecting qualities such as ‘flexible’, ‘reflective’, ‘integrated’, ‘innovative’ and ‘future-focused’.

The analysis also identified an opportunity for additional VLR indicators to relate to, or measure key acute shocks and chronic stresses that are important to both sustainable development and urban resilience: civil unrest, communications and phone network failures, bushfire, poor quality housing, loneliness/social isolation. For example, civil unrest could be measured under Goal 16 (peace, justice and strong institutions), communications and phone network failures under Goal 9 (industry, innovation and infrastructure), bushfire and poor quality housing under Goal 11 (sustainable cities and communities), and social isolation under Goal 3 (good health and wellbeing) and/or 10 (reduced inequalities).

SUMMARY OF OPPORTUNITIES FOR CITY OF MELBOURNE

- Explore how urban resilience concepts can be referenced more explicitly in targets for Goals 4 (quality education), 5 (gender equality), 6 (clean water and sanitation), 7 (affordable and clean energy), 10 (reduced inequalities), 12 (responsible consumption and production), 15 (life on land), 16 (peace, justice & strong institutions).
- Following the example of other cities, urban resilience could be measured more explicitly across the suite of VLR indicators, to better integrate resilience and sustainable development benchmarking and monitoring.
- Develop additional VLR indicators that reflect the qualities of ‘prepared’, ‘flexible’, ‘reflective’, ‘integrated’, ‘future-focused’ and ‘innovative’; and implement complementary qualitative evaluation tools, training and resources that could help embed urban resilience qualities in the City’s initiatives, processes and governance.
- Include Goal 17 targets and indicators in future VLRs, to help embed and monitor governance, coordination and implementation mechanisms which are integral to urban resilience.

- Develop additional indicators that relate to, or measure, key acute shocks and chronic stresses that are important to both sustainable development and urban resilience: civil unrest, communications and phone network failures, bushfire, poor quality housing, loneliness/social isolation.



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