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# The Practice of Resilience Building in Urban and Regional Communities

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## Without Abstract

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## Definition

**Resilience building** goes beyond the traditional notion of bouncing back, despite being perceived as a mechanism of recovery. It responds to vulnerability caused by structural injustices, economies of growth and political agendas, by creating conditions of adaptation related to present and forthcoming risks. Instead of placing the burden of rebuilding on the individual, resilience building focuses on a systemic preparation to adapt, which entails a careful evaluation of local, regional, and global conditions. These are examined by taking into consideration the environmental, geopolitical, and socioeconomic parameters that shape them.

## Introduction

This chapter outlines an approach to resilience building in the face of increasing global vulnerabilities by recognizing as essential the integration of a community-driven resilience strategy. Exponential population growth, urban sprawl, displacement, pandemics, and environmental degradation combined with natural and anthropocentric disasters, including climate change, generate

devastating environmental, geopolitical, and socioeconomic implications. Some challenges can be endured (repeated flooding, cyclones, storm surges, fire risk, or prolonged years of drought), some can be mitigated for or alleviated (building levee banks, strengthening sea walls, flood mitigation, constructing dams, and changing building codes and practices), while other challenges may be solved through a process of adaptation (changing farming practice and crop rotation, recycling water, and harvesting energy alternatively). Beyond these, there are evolving problems brought by the escalating effects of climate change including rising sea levels, rising temperature, and heat islanding in urban zones, making cities potentially uninhabitable in the future. Such issues make evident the need to extend the efforts of mitigating and adapting in order to include preventative measures such as managed resettlement and urban relocation. Adopting extensive interventions requires risk mapping, infrastructural planning, a careful evaluation of resources, and most importantly, community resilience rooted in interdependence.

## Resilience and the Urban/Regional/Rural Fabric

Urbanization has become the dominant mode of settlement. The global population currently stands at 7.8 billion, with population growth heavily concentrated in urban zones and more than half of the world's residents living in cities today. This figure is forecasted to increase to 70 per cent by 2050 (United Nations [2021](#)). Contemporary forms of urbanization – at all scales – are in conflict with the environment. To elaborate, the urban is not conceived as a town or city of a specific size or form, but as a phenomenon that encompasses all, forming and structuring spaces; it is complex and difficult to define and delimit. Urban zones can be the commercial center for primary industries (agriculture, mining, forestry), heavily industrialized with secondary industries (power generation, manufacturing, technology), or reliant upon service sectors (tourism, hospitality, education). An urban zone may also be defined in the context of its population density or as a center for administration and governance. Larger and wealthier cities utilize vast amounts of energy and imported resources while they export waste, which results in a flow-on causal effect of environmental degradation in distant regions. Even the smallest, remotest village does not remain untouched, as the urban fabric stretches globally, searching for resources necessary to feed, clothe, transport, accommodate, and provide labor for it to function. Henri Lefebvre ([2003](#)) describes the urban fabric as encompassing rural life. In this context, the urban is not limited to megacities, capital cities, or large regional centers, but refers to an urban mode of existence that has additionally invaded agrarian life, villages, and towns of all shapes and sizes.

To interpret the urban, regional, and rural as transitional, a conceptualization of space as dynamic and subject to deterritorialization and reterritorialization under a state of constant negotiation is necessary. Gilles Deleuze and Félix Guattari's ([1987](#)) understandings of smooth space (nomadic space) and striated space (sedentary space) demonstrate how space exists only in combination of both, constantly being transformed from one to another (Deleuze and Guattari [1987](#)). As such, urbanization undergoes continuous reconfiguration driven by a process of spatial and cultural fragmentation – examples include growth leading to simultaneous impoverishment of working-class communities, gentrification shifting disenfranchised populations to city fringes, and development further marginalizing suburbs without access to services. Under the weight of uncontrolled expansion, some cities reach critical mass, with failing infrastructure, services, and job markets being unable to provide basic living standards, having as an outcome the migration of urban denizens to regional centers. Conversely, other regional and rural areas' populations are declining as

a consequence of dying industries and struggling local businesses, with young people moving to the cities in search of employment, education, and access to better facilities.

As populations shift and reconfigure, communities become increasingly transient and disconnected. Disparities – both socioeconomic and temporal – between the rural/regional and the city are growing. Localities are divided by time, with rural/regional communities often lagging in services, infrastructure, educational opportunities, and employment opportunities. In addition to the ramifications of population movement and infrastructural dissimilarities between localities, a globalized economy further complicates the possibility for environmental, economic, and social resilience. Among the ramifications of globalization is the growing impact of transnational corporations on state governance, and the latter's diminishing connection, contribution, and responsibility toward local communities and their future generations (Bauman [1998](#)).

## Resilience at Risk

As human settlements continue to expand, so do levels of risk. Fast disasters, such as earthquakes, floods, cyclones, bush fires, and industrial accidents, are immediate, situated and can be responded to rapidly. On the other hand, slow disasters such as the effects of climate change, pollution, global pandemics, and socioeconomic decline pose a different level of complexity, large and expensive to tackle. These are usually micromanaged by treating their symptoms while disregarding their causes and long-term impact. In this respect, risk needs to be locally examined, with the lived experience of smaller communities being at the epicenter of evaluating exposure to harm. Having said this, communities should not be viewed in isolation, given their existence in an increasingly globalized world. According to Ulrich Beck, ongoing threats against natural and social ecologies pose risks that necessitate institutional preparedness ([2006](#)), which so far has not been adopted by traditional disaster management programs. The latter emphasize short-term recovery, in order for the community to preserve their known way of living. To add to the complexity of state or institutional responses, the current level of global geopolitical risks requires a coordinated approach to address challenges faced by global communities, such as the COVID-19 pandemic. The traditional strategy to undertake such issues involves separating them into recognizable problems that may be “solved” by individual governments and experts at various levels, thereby making the task somewhat manageable. However, as the recent experience of a pandemic has shown, the relationality and complexity of global problems demand a systemic modus operandi that goes beyond compartmentalizing them and temporarily contesting them.

From the existing responses to disaster management, the United Nations Sendai Framework for Disaster Risk Reduction 2015–2030 identifies four main priority framework areas: understanding the risk; strengthening disaster risk governance to manage disaster risk; investing in disaster risk reduction for resilience; and enhancing disaster preparedness for effective response and to build back better in recovery, rehabilitation, and reconstruction (UNDRR [2015](#)). This framework responds to the need for holistic disaster risk management at all levels to reduce the number of people affected by disasters and reduce global economic loss. It additionally promotes the implementation of integrated policies towards inclusion, resource efficiency, mitigation adaptation to climate change, and resilience to disasters (United Nations [2021](#)). On an institutional level, this approach aims to strengthen engagement and levels of involvement from all levels of community, including women, children, seniors, Indigenous peoples, migrants, coupled with commitment from private business, not-for-profit, and educational sectors to support the interface between science and policymaking

(UNDRR [2015](#)). Despite the principles and guidelines of the framework being promising, governments have traditionally adopted reactive instead of preventative strategies when it comes to disaster management. Repetitive patterns of rebuilding in areas impacted by floods and bushfires in Western settings as well as expanding coastal cities demonstrate the reluctance of adopting policies related to reconfiguring settlements in urban, regional, and rural contexts at-risk. The involvement of people to be, or already affected by disasters is critical considering their input based on lived experience. Traditional knowledge, local socioeconomic circumstances, and community idiosyncrasies have to be part of every discussion about identifying and mitigating risk. In this regard, grassroots initiatives around the globe have been actively seeking more citizen participation in decision and policymaking.

## The Practice of Resilience Building

Resilience is often described as the ability to bounce back or recover in times of adversity or stress. The term is dealt with in different contexts: environmental resilience in the scientific realm; economic resilience in the business realm; social resilience in the realms of government policy; and resilient infrastructure, buildings, and disaster recovery in the context of urban planning. The term ecological resilience emerged into prominence in the 1970s to describe a system's capacity to maintain itself or recover in the event of stress or disruption to the system (The Rockefeller Foundation and Arup [2015](#)). Crawford Stanley Holling ([1973](#)) introduced integrated theories of ecology and systems thinking while linking these concepts to adaptive management. A decade later, Aaron Wildavsky applied resilience thinking to risk management, public policy, and budgeting to develop a framework of resilience principles (Pelling [2003](#)). Since then, the term resilience has been applied widely across ecology, political science, psychology, sociology, engineering, economics, business administration, and more recently urban planning, disaster planning, international development, and complex adaptive systems. However, definitions, theories, and methods of understanding resilience vary significantly across disciplines (Martin-Breen and Anderies [2011](#); McAslan [2010](#); Ungar [2018](#)). Some definitions focus upon coping, survival, recovery, and maintenance. Others add adaptation and transformation into the resilience equation (Resilience Alliance [2021](#); UNHabitat [2021](#)). The Stockholm Resilience Centre ([2021](#)) takes this a step further by seeing resilience building as an opportunity for encouraging renewal and future innovation. Other approaches frame resilience in the context of system-based approaches, focusing upon individual subsystems within the larger system of the city. Still, relationality and interdependency are minimally considered between systems at varying scales and their governing structures (The Rockefeller Foundation and Arup [2015](#)). Following this, issues to be examined involve the connection of the urban to the regional and the rural in terms of transport infrastructure, access to food, facilities, and resources, the institutional jurisdictions that govern this interaction, and the limitations deriving from the lack of citizen participation in decision-making. Given the vast number of people living in urban centers, there has been far less focus on community resilience at the level of the regional and the rural/local. Another limitation of the existing approaches is in making attempts to measure resilience through the creation of vulnerability indexes, followed by the proposal of resilience frameworks and/or toolkits for administrators to apply directly to their communities. Even though these are useful tools to raise awareness within communities, create dialogue, and propose guidelines for action, it is critical that community resilience does not get diminished into ticking boxes in the name of expediency.

Community resilience has been defined as hard and soft. Hard resilience refers to the strength of structures and institutions when placed under pressure, and soft resilience denotes the ability of a community to recover without fundamental changes to its structure and function (Moench [2009](#), p. 256). To ensure the steadfastness of hard resources, which include public buildings, housing, facilities, infrastructure, and services, it is crucial for these to be combined with the scaffolding of soft resources such as employment, social economies, education, and information sharing. Tactical integration of both in a proactive plan is needed to strengthen long-term resilience. In terms of the implementation of merging hard and soft resources, there has been an emphasis on the former when it comes to designing and planning built environments. Nonetheless, examples connected to recurring drought, flooding, or conflicts have shown that it can take years or decades for communities to recover, making visible chronic issues that directly hurt soft resources involving local economies and employability. To enhance community resilience, strategic planning needs to go beyond the design of effective evacuation centers, safe construction practices, early warning systems, and so forth, and encompass a wider range of initiatives to reduce vulnerabilities. Such measures include strengthening the political agency of neglected urban, regional, and rural areas, financial scaffolding for developing nations, and giving communities the means to respond to vulnerabilities identified from within. Assessment strategies for hard resilience of communities at large require a detailed mapping of infrastructural weak points and exit plans in case of disaster, while for soft resilience, they demand a multi-stakeholder evaluation of socioeconomic and political factors interfering with communities' ability to cope following disaster. As a case in point, UN-Habitat promotes resilience building from a multiple hazard's perspective, with a focus upon both natural and human-made crises, and an objective to ensure capacity for rapid recovery from crisis events (UNHabitat [2021](#)). To achieve this, effective collaboration between community, government, non-government organizations, and private sectors has to be established, along with significant investments in long-term social resilience via programs with continuing funding. Considering the political instability both developed and developing countries are experiencing, in addition to a growing precariousness driven by climate change, it is difficult for plans like this to be implemented and sustained for an extended period of time.

Besides institutional directives and infrastructural changes to pursue resilience building, Judith Rodin ([2014](#)) argues that resilience building can also be learned as a concept and developed as a practice. Rodin identifies five essential characteristics that an entity with resilience should have: awareness, diversity, integration, self-regulation, and adaptation. To obtain these, three phases of resilience building are necessitated, characterized by readiness, responsiveness, and revitalization. Furthermore, to respond to disruption depends not only on readiness but upon social cohesion with friends, neighbors, colleagues, and strangers supporting each other and providing help in conditions of emergency. Social cohesion offers an element of resilience that influences responsiveness under stress, deriving from strong community ties and social relationships. This encourages a united front when confronted by a crisis (Rodin [2014](#)). Tony Fry ([2015](#), p. 60) also argues that resilience is not about maintaining business as usual, nor a product of policy or institutions of civil society; instead, it is the "product of the collective actions of people who are bound together by their culture and a common will to survive by transcending the conditions that threaten." This thinking recognizes resilience as an underpinning of communal self-sufficiency that diminishes the dependency on state interventions. Such reasoning applies to reducing vulnerabilities caused by both fast and slow disasters, supporting communities to face risk at multiple levels. Each community has unique strengths and the capacity to identify weaknesses based on its locality, political, and socioeconomic makeup. A preemptive planning strategy individualized and designed within each community is essential in risk reduction, mitigation, and regeneration, where decisions can be made in the best

interest of the community as a whole. In light of this, resilience is a process, not an end goal, reaching beyond the level of recovery and towards activating awareness, preparedness, and adaptation so as to fully engage with risk at all levels. Resilience building is about learning from the past, facing and overcoming challenges of the present, and prefiguring for and adapting to challenges of the future.

## Conclusion

As risk both immediate and unfolding, becomes more complex, systemic planning is required so as to move beyond the limitations of current frameworks. As highlighted in this chapter, resilience is more than recovery. Moving beyond economic rehabilitation and simulated stability, resilience is a process that involves a thorough examination of what the next steps should be to ensure survival and well-being in urban and regional communities. It necessitates a reconsideration of adaptation by prioritizing community building on the ground, and a detailed mapping of the available resources that can be maintained, relinquished, or redesigned. To accomplish this, a careful examination of contemporary infrastructures and everyday practices is needed, in order to identify these that should be preserved under the pressure of present and upcoming crises; the unsafe, which should be left behind; and the ones that should be reconfigured to accommodate new uses.

Moreover, resilience should be grounded in acknowledging the precarious state of the local within the global and identifying cultural practices and lived experience that can provide lessons for adaptability. In doing so, there must be a joint assessment by institutions and communities of fast and slow disasters and their impact on the interconnected urban, regional, and rural. In contrast to the contemporary illusion of stability, building resilience does not have a telos. Instead of focusing on an end goal, it lies in a process of constantly re-evaluating infrastructure, habitation, migration, resettlement, and communal interdependence. The latter, as an essential component of resilience, can only derive from relationships forming through participation in decision-making and self-organizing operational units with corresponding responsibilities. This necessitates opening lines of communication, authentically engaging with, and actively involving the community in reconceptualizing a vision of what an inherently resilient future could look like.

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