

Economic Development Part II: Assessing & Measuring Resilience in Regional & Local Economies

KNOWLEDGE BRIEF



INTRODUCTION

Regional and local economies, particularly in rural areas, are vulnerable to unexpected and unforeseen shocks and disturbances.¹ This can take many forms, including: the closure of a major employer, regional recessions, tourism declines, major policy changes, national currency crises, major technological advances, the collapse of a natural resource (e.g., mines, forestry, fishery), climate change, and natural disasters. In recent years, there has been a growing interest in assessing and managing the resilience of a regional or local economy as a way to address these and other types of shocks and disturbances.¹⁻²

Resilience is a term that is used in different ways. The concept of resilience was originally developed in the natural sciences to explain the ability of an ecosystem to cope with or absorb a shock or disturbance (e.g., a drought, disease outbreak, fire), and keep functioning in the same kind of way.³⁻⁴ This 'ecological resilience' idea of a system being able to absorb a shock is different from the concept of 'engineering resilience' which refers to the time it takes for a system to bounce back from a shock.^{3,5}

Social-ecological resilience expands the ecological resilience concept to include people. This opened the possibility of assessing the resilience of social and economic systems to adapt to potential disturbances

and experimenting with strategies for how to do so. Having the capacity to adapt explains why people, communities, ecosystems, and social-ecological systems can display a lot of variation, be exposed to disturbances, and cope without changing their 'identity' or becoming something else.⁴

The central notion within resilience thinking is that things change, and if you ignore or resist change instead of finding ways to adapt, then you increase vulnerability and can miss out on new emerging opportunities.⁶

The popularity of resilience thinking has grown substantially and it is now being used for assessing and managing a range of human and natural systems, including within regional and local economic development. For instance, following the closure announcement of a major employer, the District of Mackenzie, British Columbia, partnered with the Community Development Institute at the University of Northern British Columbia to develop a proactive, long-term economic renewal plan based on the principles of resilience. Their plan has since been developed into a [toolkit for rural communities](#) faced with a sudden economic crisis.⁷

The Union of BC Municipalities has also encouraged communities to build their resiliency through *“effective community engagement processes, a long-term strategic vision, collaborative partnerships, flexible planning processes, and a comprehensive and robust business development program can help weather the economic storm while also working toward the long-term vision a community sets for itself”*.⁸

The practice of managing for resilience should be understood as being a complement to sustainable development. The key to sustainability is to enhance the resilience of social-ecological systems.⁶ Resilience in itself is neither good nor bad.⁴ Both desirable (e.g., democracy, productive agricultural land) and undesirable systems (e.g., dictatorships, desertification) can be resilient. For this reason, an assessment and measurement of resilience requires answers to the following questions: resilience of what, to what, for whom, by what means, and for what purpose/outcome.^{1,9-10}

Characteristics of Social & Economic Resilience to Measure & Manage

1. Broaden participation and build social capital:
 - Actively engage all relevant stakeholders to build a high level of trust, develop social networks, and leadership in order to increase capacity to collectively respond and adapt to change.^{6,11-12}
2. Encourage diversity and redundancy:
 - Build a diversity of livelihood and economic strategies,^{6,11-12} as regional economic diversity can enhance robustness, and adaptability.¹
 - Include a diversity of stakeholder interests, values, and perspectives in planning and decision-making.^{6,11-12}
 - Include a variety of organizations (e.g., governments, non-governmental, and community groups) with overlapping jurisdiction and authority in governance and flexible institutions that are responsive to change.^{6,11-12}
 - Encourage redundancy in economic development, in which (1) certain industries or businesses can substitute for one another if some fail and (2) the region's resources can be put to related or alternative use.¹
 - Encourage specialization in multiple industries.¹

3. Manage connectivity:

- Social networks between stakeholders (including government) are important and help build trust. Adequate avenues of communication and connectedness between stakeholders should be maintained to allow for meaningful and fair communication (i.e., avoid top-down decision-making). However, it is dangerous when all stakeholders in an economy are overly dependent/connected on one another because a shock to one part impacts everyone. For example, if different local industries are too closely linked to each other it makes the structure of the economy vulnerable to a shock.¹ To minimize this risk, it is important to keep a level of modularity between stakeholders,^{6,11-12} where several smaller groups of stakeholders are highly connected within each group, but there are looser connections between each of these groups.

4. Acknowledge slow variables:

- Slow variables (e.g., legal systems, values, traditions) determine the underlying structure of a system and aren't always apparent in the short-run. These variables should be acknowledged and addressed as part of the long-term governance of a system.^{6,11-12}

5. Emphasize learning, experimentation, and innovation:

- Learning and experimentation should be actively incorporated into the decision-making process. Innovation and change should be embraced.^{6,11-12}

6. Ensure tight feedbacks:

- There should be experimentation, monitoring, and learning in order to increase capacity to detect thresholds and to respond to changes in a timely manner. For instance, too much red tape for starting up a business has the consequence of making it harder to create economic development opportunities. Experimenting with ways to simplify and shorten the process increases the likelihood of new business inquiries. However, too few restrictions in the process can also create undesirable consequences.^{6,11-12}

7. Recognize value of ecosystem services:

- Ecosystem services are the benefits humans receive from the environment (e.g., water quality, pollination, aesthetic and cultural value), many of which are unpriced. The value of ecosystem services should be recognized in development proposals and assessments.^{6,11-12}

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The Columbia Basin Rural Development Institute, at Selkirk College, is a regional research centre with a mandate to support informed decision-making by Columbia Basin-Boundary communities through the provision of information, applied research and related outreach and extension support.