



The Possibility of Resilience

What is resilience?

Many *different* things to many different people. For many, **resilience captures that positive sense of persisting and thriving in the face of adversity and unknowns.** Individuals, communities, and nations are pursuing resilience to prepare for increasing climate risk as well as to foster greater social cohesion. *For more on the meaning of and communicating effectively about resilience see Road Marker #1.*

Building resilience

Building community resilience may involve a number of steps including: 1) Forming collaborations, 2) Understanding environmental, socio-economic and other risks and vulnerabilities, 3) Determining goals & objectives, 4) Developing and finalizing plans, and 5) Implementing, maintaining and evaluating plans and actions (adapted from [NIST 2015](#)).

As such, resilience building is similar to how many other things get planned and implemented, whether it is building a new road, developing a social service program, or deciding on a new approach to protecting a community from sea-level rise.

In the context of climate change and other risks, however, **building resilience is more than the familiar process.** In the face of accelerating change, complexity, uncertainty, and—often—controversy incumbent in the “world of possibility,” standard recipes fall short. Simple checklists and guidelines won’t suffice as contexts, goals, needs and threats vary from community to community.

That said, guiding principles will be useful to set scientific guardrails, provide ethical guidance to make difficult choices, particularly, offering safeguards for the most vulnerable, and engage the diverse skill sets in science and practice necessary to effectively move forward. This Road Marker highlights three elements of this framework:

- **Embracing a “world of possibility”—a truly novel mindset for approaching societal problem solving**
- **Principles—moral, policy, and scientific—that motivate, fortify, and safeguard effective resilience practice**
- **Processes for building resilience that embrace these principles**

A WORLD OF POSSIBILITY?

Possibility, like resilience itself, evokes many connotations. It can express either the prospect of boundless potential (*the possibilities are endless!*) or crippling uncertainty (*anything’s possible, so what do I do now?*).

Climate change and other environmental and societal trends put us in a world of possibility.

Both extreme events and long-term changes force communities to confront deep uncertainty about future conditions that may inflict great harm. But in the context of change, opportunities emerge to reimagine outdated systems and build new ones. Progress here may not only allow improved performance during emergencies and natural disasters, but also better responses to chronic problems, from nuisance flooding to systemic social inequity.

Resilience in a world of possibility does not just seek to bounce back in the wake of emergencies (although swift recovery is an important goal). In this sense, resilience can engage diverse input about how to **bounce forward** in ways that are fair and equitable for the entire community.

Guiding Principles for Building More Resilient and Just Communities

MORAL PRINCIPLES

Absent clearly defined goals, values and an ethical framework, resilience lacks a clear motivation or purpose. In principle, it could be utilized to justify actions that benefit only a few and increase risks to a great many, or it could be used to improve on current injustices and maladaptive practices. Key moral principles include:

- Do no harm and limit suffering.
- Support those in greatest need.
- Safeguard against near-sighted and selfish behavior.
- Fairly distribute the costs of building and maintaining resilience, as well as its benefits so as to “bounce forward” toward more equitable social relations.



“Ancient legal and moral doctrines indicate that the most basic purpose of government and society is to stop us from harming each other. Some actions—or in some cases, refusing to act—can inflict harm on others, resulting in serious legal, equitable, social and moral consequences. We believe that institutions and government have an affirmative duty to prevent one person or group from benefiting at the expense of others.”

Ed Thomas, National Hazard Mitigation Association



“Resilient communities have the resources to overcome many challenges, including those related to climate change. Quality, affordable housing is essential to resiliency, but it’s not enough. Federal investments in communities of color and in low income communities must enable access to jobs, transportation, good schools, and all the resources necessary for community residents to participate and thrive. These actions are moral and economic imperatives.”

Angela Glover Blackwell, PolicyLink

SCIENCE-DERIVED PRINCIPLES

Scientific understanding of system dynamics and functioning suggests another set of good practice:

- Assess and evaluate the current state of your system or community and how you got here: is it in a desirable condition?
- Accept system complexity, expect tipping points, and embrace uncertainty—surprises will happen!
- Consider the interconnectivity of systems across space, levels of government, and time. It can be a resource or a liability!
- Examine the implications of more frequent and longer-lasting disturbances for recovery and investments.
- Systems with high interconnectivity, diversity, and redundancy may be more robust in the wake of disturbance.
- Recognize that resilience at one level (e.g., household, local community) may not imply resilience at other levels (neighborhood, state).
- Identify critical sources of resilience and solve multiple problems at once.

“The application of a disciplined process to define the perils, evaluate degree of preparedness and take consistent action to leverage spending to achieve maximum benefit is the key to improve resilience. Solutions must be technically achievable, economically feasible, and politically acceptable.”

Dale Sands, AECOM



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PROCESS-FOCUSED AND CONTEXT-SENSITIVE PRINCIPLES

Resilience-building efforts often fail to get started or go beyond planning because the real-world realities are disregarded. Experience teaches invaluable lessons:

- Realize there is no ideal place or time from which to start building resilience; it can—and must—be started from wherever you are: here and now.
- The passion and creativity of people shapes what can be done within the practical realities that constrain/enable the possible. Inspire people!
- Emphasize preparedness: being ready, able to respond to, and recover/rebuild better from emergencies and chronic events. Anticipate and address unavoidable trade-offs; think bigger and outside the box!
- Be inclusive of multiple interests and perspectives in developing strategies.
- Create opportunities for dialogue about people's ideas of responsibility and capability.
- Expand the base of support and improve communication through partnerships and improved community connections.
- Facilitate learning, sense- and meaning-making through dialogue and creative and supportive community engagement.
- Foster the adaptive capacity of people, groups, institutions, structures and systems.
- Invest in innovation, imagination, and creativity.

“Here in San Francisco, we’re building resilience by implementing a multi-dimensional water strategy and optimizing all resources within the urban water cycle. We’re investing in programs and projects that deliver multiple benefits: matching the right water supply resource for the right end use, pursuing creative ideas and partnerships, planning for variable outcomes, and building in room to adapt to future changes.”

Paula Kehoe, San Francisco



For more information, visit www.agci.org/resilience

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