

Values-Based Impact Assessment & Emergency Management

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Conventional emergency management practices generally focus on limiting harm to health, life, and property, even as disasters exact an increasingly profound toll across all facets of life – social, economic, and even political. Such a limited conceptual framework leaves practitioners ill-equipped to manage the resulting impact assessment needs of both traditional and emerging hazard events.

By framing the impact of disasters according to a more comprehensive set of measures captured in the community's identity and function - a construct known as Values-Based Emergency Management (VBEM) – practitioners will enhance impact assessment accuracy and effectiveness.

Why a focus on Community Values?

The principal distinction between VBEM and more traditional emergency management practices is that resilience is achieved, in part, by preserving a community's values. Typically captured in the community's vision, goals, and objectives, values represent the common "set of priorities that reflect one's feelings of connection to a community." [1]

Because so much of how a community defines itself is intangible, accurate pre-disaster risk and post-disaster impact assessments require a deep understanding of these values. People, property, the economy, and the environment are certainly important; however, devoid of a more comprehensive understanding of the community they fit into, these factors are like unassembled pieces of a larger puzzle. They offer few clues to differentiate one place or population from another and are incapable of providing a meaningful roadmap for recovery.

To strengthen community and national resilience, emergency management practitioners must redefine risk to allow a more holistic notion of disaster impact on a community. This begins with an understanding of how a given community identifies and measures its values.



Establishing Resilience as a Policy Goal aligned to Community Values

Although resilience is rooted in the concept of risk, there is no industry-standard definition for this term. Common among the many variants is the idea that risk is the product of two factors: 1) the likelihood that an adverse event will occur; and 2) the consequences that would result. This can be represented as follows:

Risk = Likelihood X Consequence [2],[3]

Despite its ubiquitous use as a planning basis [4], this measure fails to recognize that preserving community viability is the ultimate resilience motive. It is no doubt important to know how many buildings floods inundate or earthquakes topple, or the number of people drowned or crushed in such events. But if asked to define one's community, a person is less likely to inventory buildings and cite demographics than to describe its geographic setting (e.g., coastal or lakeside), its culture (e.g., an artists' enclave or a community of immigrants), its industry (a mining or farming community), or its social proclivities (e.g., environmentally-conscious or physically-active), among other intangible factors.

Communities take shape around visions from which community members can find purpose. Such visions and the values they represent are generally complex and collective (shared by community members). While it is perhaps difficult for individual community members to describe or list them all, these intangibles are fundamental to identity and inarguably valid. The loss of community character, culture, and identity, more so than any loss of a building or a person, represents a significant existential threat (which is not to suggest that human life is not valuable).

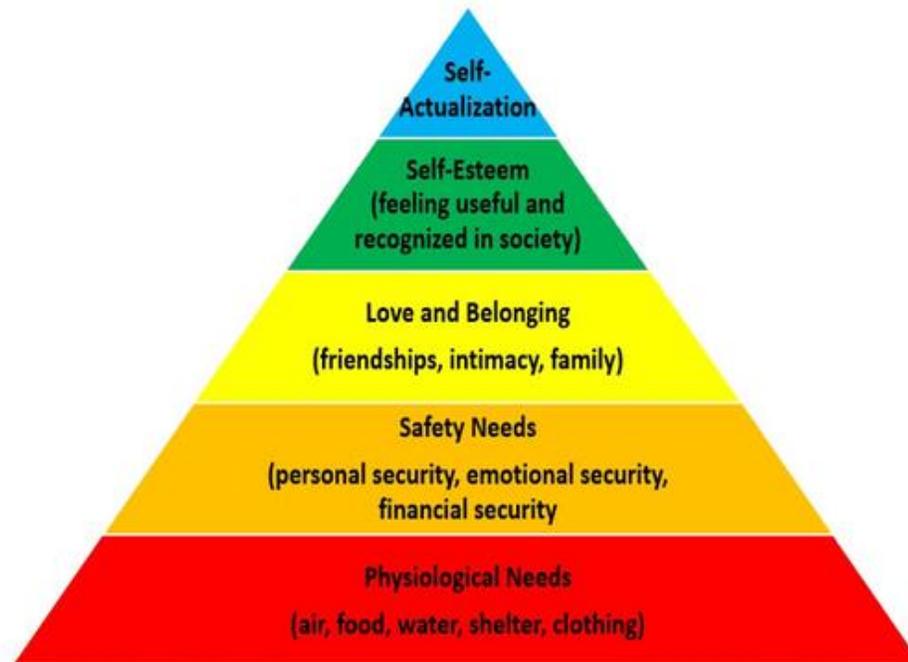
Past impact assessments have been hindered by a notion that community identity exists in the physical inventory of people, buildings, and infrastructure. This was evident in the aftermath of Hurricane Katrina, for instance, when many questioned whether it made sense to rebuild New Orleans considering the number of people who had died, and the property damages sustained. However, community leaders rejected these claims on the grounds that New Orleans holds irreplaceable value in its culture, its music, and its history – all of which lack alternatives. They argued that the city's culture must be recovered and retained, even if buildings and people continue to be threatened. Washington Post writer Adam Kushner captured these sentiments as follows:

“New Orleans has no place in a cost-benefit analysis, because what it offers — what it adds to America — cannot be counted. Its value is avowedly sentimental, and it was folly to believe that a culture could be weighed in this way.” [5]

While culture may be discounted as sentimental or impossible to monetize, it is just one of many intangible factors driving community identity. In practice, when communities are stressed, resilience quickly becomes a matter of protecting the unique way of life the community offers. The concept of a community represents the sense of belonging and purpose residents cannot find elsewhere. Its appeal forms the basis of financial and economic value - of homes, of salaries, of investment potential, and much more.

Many jobs, for instance, are intimately linked to a community's representative notions - unique features or factors that have nothing to do with the property or people quantified in traditional risk measures. Residents of oceanside communities choose to live with the threat from multiple major hazards not because they are blind to such threats but rather because they find irreplaceable value in closeness to the water. Coastal homes, moved 10 miles inland, would lose considerable appeal if all other factors remained constant.

There exist models that enable us to better understand the drivers of community value, as captured in residents' collective 'needs and wants'. At the most basic level, there are physiological needs that include affordable and safe food, clean air and water; shelter; and clothing. Our second-level needs focus on sustainment of life and survivability, and include employment, physical safety and security, and health. Together, these represent the basic needs of any society. Where community differentiation becomes more apparent is in how the community vision, goals, and objectives matches residents' higher-level expectations (what we might consider their 'wants'). This could be the enjoyment of family, the ability to form friendships, to participate and contribute to the community, or achievement of self-respect and self-actualization. Abraham Maslow captured this progression in his ['Hierarchy of Needs.'](#)



Maslow's Hierarchy of Needs

Our understanding of long-term community resilience must therefore consider the full scope of *what is at risk* if it is to effectively drive disaster management activities (including impact assessment). In the private sector, this is accomplished by defining risk not in terms of loss probabilities or impacts but by the achievability of objectives.

This represents a philosophical shift in that risk is not measured in terms of the absolute disruptive or damaging nature of an event but rather of the ability of the organization to continue *function and thrive*. For communities like Christchurch following the 2011 earthquake, just as was true in New Orleans following Hurricane Katrina or any of the tourist and aquaculture communities impacted by the 2004 Indian Ocean earthquake and tsunami, assessing impacts to long-term community viability required a far more comprehensive understanding of community values than was captured in standard emergency operations plans or as guided by standard risk assessments.

Recommendation

Rather than basing planning processes on a scoping of community hazards, communities can adopt a VBEM construct by defining community success (and the associated challenges).

Values must become the community-based equivalent to the 'objectives' that are secured through application of business risk management practices. Risk, therefore, becomes a measure of confidence that such values will persist, and not just the likelihood and inventory of physical consequences, and resilience in turn becomes a quality achieved not by simply reducing hazard risk but rather by assuring the maintenance of what the community values.

Response assessments will undoubtedly focus on the requirements associated with life saving and sustaining needs as well as limiting property damages, but long-term recovery needs to be driven by an assessment framework that reflects the foundations of community value.

References

[1] Wray-Lake L., Christens B.D., Flanagan C.A. (2014) Community Values. In: Michalos A.C. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-0753-5_482

[2] Ansell, J., Wharton, F., 1992. Risk: Analysis, Assessment, and Management. John Wiley and Sons. Chichester, UK.

[3] In some instances, vulnerability is factored into the equation, although it can be argued that this is redundant given vulnerability is the basis of consequence severity.

[4] Hazard risk, as measured using the formula 'Risk=likelihood X consequence', is a factor in most community plans, including the general plan, the emergency operations plan, all-hazards mitigation plan, resilience plan, recovery plan, land use plan, and others.

[5] Kushner, Adam, 2015. I'm From New Orleans, But I Didn't Understand Why We Needed to Save It. Washington Post. August 28. <http://wapo.st/3rF23ey>.