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Masterson, Jaimie Hicks, Walter Gillis Peacock, Shannon S. Van Zandt, Himanshu Grover, Lori Feild Schwarz, and John T. Cooper. 2014. *Planning for Community Resilience: A Handbook for Reducing Vulnerability to Disasters*. Washington, DC: Island Press. 256 pp. \$35.00 (paperback). ISBN 978-1-61091-585-4

Reviewed by: Nicola Ulibarri, *Stanford University*

Planning for Community Resilience is a handbook to help communities prepare for and respond to disasters more effectively. The authors argue that disaster is the interaction between a biophysical event, the human built environment, and human society. The social and physical vulnerabilities contributing to a disaster, such as the location of sewer pipes relative to a flood zone or the location of infirm people who cannot evacuate quickly, exist before the hazard event occurs. Therefore, while the timing and magnitude of a hurricane, earthquake, or drought may be unpredictable, communities can take actions to reduce a disaster's physical, social, and economic consequences before it hits by assessing vulnerabilities and developing mitigation plans.

To help communities develop these actions, the authors first introduce the growing need for planning processes to account for hazards and disasters, and explain why resilience is a useful metric for communities to gauge preparedness for disasters. Next, they introduce tools for communities to assess their hazard exposure, and existing physical and social vulnerabilities. The book concludes with a discussion of planning best practices, including components of effective plans, potential policy tools for mitigation and adaptation, and ideas to develop consistency with other plans existing in a community.

Throughout the book, the authors draw on their experience with hurricanes on Texas's Gulf Coast, grounding the abstract guidance with practical examples of some of the many

nuances communities might face. These examples are paired with hands-on exercises for readers to try using the tools and ideas in their own communities. These include activities to identify and map hazard exposure, physically vulnerable infrastructure, and socially or economically vulnerable populations; to identify particular hotspots where communities may want to focus their mitigation efforts; and to evaluate and prioritize planned mitigation responses. The pairing of concrete examples of one disaster type and community with hands-on exercises and numerous resources to support the exercises makes what could be a daunting task more accessible. It also makes the book flexible to the needs of diverse audiences, such as planners, community groups, municipal and regional governments, and to an array of hazard and disaster types.

For the disaster response community, the book is fairly novel. Its emphasis on including social vulnerability is an often-overlooked component of disaster planning. Individual households and businesses may have unique exposure to the event (e.g., during a heat wave, elderly or infirm people have greater risks than healthy individuals) or different access to information or technology to mitigate their exposure (e.g., households without a telephone may not receive evacuation notices). Disaster responses that overlook these differential abilities result in unintended yet preventable consequences for these populations.

Additionally, extending the scope of disaster management from short-term preparedness and response to a cycle including pre-hazard mitigation and long-term recovery gives communities a greater awareness of potential vulnerabilities as well as a larger array of tools to enhance resilience. Typical emergency response functions end after basic functionality (i.e., housing and electricity) is restored to an area. However, to be truly resilient, the authors note that communities should also work to regrow their economic, social, and physical capital; simply returning to a previous state—if that state was vulnerable—might not be helpful. By developing

a vision of what the community wants to work toward before a disaster strikes, a community is better prepared to funnel energy into the most critical or effective sectors.

Another key benefit of the book is the step-by-step guidance to work toward effective plans. As presented in the authors' analysis of sampled hazard mitigation plans, many plans currently are not based on a strong technical or information basis. Encouraging communities to start with data-driven vulnerability maps before selecting mitigation techniques could have a big impact on community resilience.

Several suggestions would make *Planning for Community Resilience* an even more useful tool to communities. First, given the book's status as a *handbook*, there was a surprising lack of attention to the planning process itself. The book is a very approachable how-to guide, but that approachability glosses over a complex factor: how the proposed participatory process should be run. The authors raise many important considerations that communities might overlook, including historical and cultural properties and low-income people or people of color with differing access to resources. However, how community members and other stakeholders might actually work toward a common plan is ignored. For all but the most homogeneous communities, the proposed goal of identifying vulnerabilities and developing mitigation procedures will likely be contentious. Different community groups often have distinct goals for participating in a process and (as the authors note) differing levels of trust in science and authorities. Questions of what to prioritize and how to protect it are ethical questions that stakeholder groups likely value differently. In this context, careful design of the interaction is necessary to enable a fruitful dialogue.

Examples of process design considerations would strengthen the book's utility. These include how to choose who to involve in planning and when to engage them in the process, how

to develop trust between stakeholders, how to enable marginalized groups to participate fully, and how to balance or meld competing priorities. These examples could come from the authors' experience in Galveston: how did the 330 citizen volunteers actually “develop . . . a vision and goals and [identify] projects” (35)? Alternatively, there is a large literature on best practices in participatory and collaborative planning. Directing readers to this literature would mean that they are not blindsided by the realities of conducting the planning process.

Second, while the book is about community, the term is never defined. The planning process and its outcomes would look very different if the community is a neighborhood versus a city versus a region. Moreover, a town may have its own water and sewer system, but may share its levies with a neighboring town, providing multiple potential scales even when working with a single community. While the guidelines seem to work across many different scales, some discussion of how different scales might alter the process and/or the pros and cons of carrying out this process at different jurisdictional levels would allow readers to more effectively implement the handbook. For example, developing individual plans for smaller-scale communities may be more efficient, but it would be important to coordinate and ensure that the multiple plans are consistent. Working at the larger city or regional scale would allow for all plans to be developed within a larger vision, but it would likely require disaggregating the community into smaller stakeholder groups clustered around particular vulnerabilities or resources. Alternatively, when identifying vulnerabilities and mitigation plans, an approach to identify an appropriate scale of community would be to think concretely about the scope of the resource and overlap between that resource and existing government jurisdictions. These individual resource/jurisdiction communities could then develop appropriate plans—provided they coordinate to ensure cross-plan congruity.

Finally, it would have been useful to disaggregate ways the model may apply differently to different types of hazards and disasters. For instance, for slow- versus rapid-onset disasters (a drought vs. a hurricane), identifying the problem's occurrence requires very different monitoring practices. Slow-onset disasters also require mitigating damage as the disaster unfolds over months or sometimes years, blurring the hazard event into the response phase. Some hazards, for example, floods, hurricanes, and earthquakes, are spatially driven, so identifying physical vulnerability is an exercise of mapping hundred-year flood plains or distance from a fault. However, disasters like heat waves, blizzards, or droughts affect a large spatial area equally; the important variation is in individual responses. Low-income residents of Boston were more affected by the blizzards of 2015, not because of where they lived but because they were reliant on public transit. For these types of nonspatial hazards, identifying vulnerabilities is more about tracing upstream and downstream supply chains than mapping spatial hazards and population distributions. Introducing these types of distinctions between hazards would enable community users to better identify how different hazards might affect them.

In conclusion, *Planning for Community Resilience* is a useful and comprehensive starting point for community dialogues about hazards and disasters. It is applicable for many different audiences at many different scales who face different types of disasters. It strikes a great balance between clear language and concrete technical guidance, making the advice both accessible and useful. However, with additional nuance of how to run the planning process and how the guidance applies to different types of communities and disasters, the book could be even more flexible and effective.