

Building Community Disaster Resilience



Highlights for Community Leaders

Efforts to build communities that are resilient to disasters cannot be managed by government organizations alone. The private sector—ranging from small, individually-owned businesses to national and global enterprises to academic institutions and faith-based organizations—has a wealth of knowledge and assets that may be of vital importance during disasters, crucial in their aftermath, and essential to building community resilience.

Collaboration between the public and private sectors can help leverage resources, knowledge, skills, and energy to ensure communities can prepare for, withstand, and recover from disasters.



The private and public sectors have complementary resources and capabilities, and access to different parts of the community. Through collective efforts to identify needs and resources, and to coordinate before a disaster occurs, a community can significantly improve its resilience to disaster.

No comprehensive framework exists to guide resilience-focused collaboration between private and public sector groups. At the request of the Department of Homeland Security, the National Research

Council convened a committee of experts to examine models for collaboration and develop the components of such a framework.

The committee held a September 2009 workshop that brought together more than 60 participants from the private and public sectors to discuss relevant issues and to develop guidelines for private-public collaboration. In addition, the committee produced an expert consensus report that outlines ways in which resilience-focused collaboration could benefit from more knowledge and identifies areas of research to target for further study. Because rigorous academic studies in this subject area are few, the committee drew not only on the available literature, but also on the workshop briefings and their own expertise to produce this report.

Key Principles of Effective Resilience-Focused Private-Public Collaboration

Achieving and sustaining community resilience is in the interest of the nation, states, communities, businesses, and citizens, and requires significant effort from all. Collaboration is more likely to succeed if the principles of comprehensive emergency management, incorporating an “all-hazards” approach in which preparations are made for any and all types of disaster, guide resilience-focused collaboration-building efforts. Here, key elements of successful private-public collaboration are presented to provide a framework for building resilient communities prepared for all stages of disaster, from mitigation through long-term recovery.

Establish Strong Collaboration Structure

Identify Leadership

The impetus to develop private-public collaboration often comes from the inspiration of an individual who sees the value of networking and building alliances. That person may already be an established leader in the community—a business leader, government official, civic-minded community organizer, or public servant—or could be a concerned citizen who builds support at the grassroots level. However, no single person or entity has the expertise, insight, or influence needed to build community resilience alone. Initial outreach, perhaps to create a small advisory or leadership team, can lay the foundation for broader, community-wide collaboration. The most effective core team will represent

the whole community and works together to identify the goals for collaborative efforts.

Decentralize Decision-Making

A structure that facilitates decentralized decision making and horizontal networks of collaborators, rather than a top-down decision making structure, is best for building sustainable collaboration. Decentralized decision making within the community encourages “buy-in” from community members with diverging interests. Decisions will be viewed as broadly based and in the interest of the community as a whole. Further, horizontal networks are more robust in disaster situations as they are not dependent on the skills, knowledge, and capabilities of any single person. Explore collaborative and decision making models in other communities to identify what might work best in your community—you don’t have to start from scratch.

Establish a Dedicated Staff of Coordinators

Cooperative associations arise for many reasons, but they are not self-organizing. Dedicated, non-partisan staff are needed to manage collaborative activities and day-to-day operations, and to seek funding and resources. This neutral body will serve as liaison between private and public sectors, increasing communication. Managing collaboration in this manner helps keep resilience a community priority, minimizes fragmentation of tasks, and makes resilience-focused collaboration a normal part of community functioning.



Loma Prieta earthquake, San Francisco
October 17, 1989



Explosions and fire, Huntington, Indiana
October 29, 2003



Tornado, Sumter County, Georgia
March 1, 2007,



Hurricane Floyd floodwaters, Patcolus,
North Carolina, September 24, 1999

▪ Integrate with Existing Networks

Efforts to mobilize individuals and groups are more successful if they recognize, respect, and integrate existing networks, and resources, including those available through religious institutions, voluntary associations, for- and non-profit organizations, and interest groups in the community. When possible, engage those with required expertise from within the community—for example community leaders, engineers, and researchers—to identify community risks, hazards, and vulnerabilities as well as the resources needed to coordinate solutions to these problems. Engaging networks and individuals within the community builds trust and a sense of community purpose.

Engage the Full Fabric of Society in Collaboration

A community is not resilient unless all its sectors are resilient. Effective collaboration encompasses the full fabric of the community and represents all walks of life, including people of all faiths, voluntary organizations, the wealthy and the impoverished, all racial and ethnic groups regardless of citizenship, the disenfranchised, children, the elderly and the disabled. These different segments of society will have different concerns and different ways to contribute.

▪ Engage all Sectors

Engage all sectors by demonstrating the benefits of collaboration. Recognizing the interconnected roles of the for- and non-profit sectors, government, faith-based, and community organizations in maintaining community-wide well-being is key to understanding how to protect a community and make it more resilient. Help individuals, institutions, and entire sectors to overcome any inaccurate and incomplete perceptions of risk or failures to recognize their responsibility in reducing risk. For example, work with business owners to help them see the ways in which their businesses could contribute to and even benefit from resilience-focused collaboration.

▪ Create Opportunities and Incentives for the Vulnerable to Participate

Disaster preparedness and resilience is not a priority for people who deal daily with problems such as poverty, crime, violence, serious illness, or unemployment. Furthermore, the most vulnerable sectors of society may be hard to engage in collaboration because they lack

What is Resilience-Focused Private-Public Collaboration?

Resilience is the continued ability of an individual, group, or system to function during and following stress such as disaster. **Resilience-focused private-public collaboration** is cooperation between organizations in the private and public sectors to improve the ability of a community to prepare for, mitigate, respond to, and recover from natural or human-caused disasters.

links to or trust in mainstream organizations that would normally be engaged. Effective private-public collaboration empowers all segments of the population to take part in decision-making processes, a powerful incentive to those who are or feel disenfranchised. Identify communication networks within vulnerable populations and engage key stakeholders within those networks to enable broad outreach.

▪ Address Risk and Uncertainty

Communities often suffer unnecessarily from disasters because they failed to understand and act on potential risks. Successful collaboration will encourage approaches like enterprise risk management¹ that can help organizations assess their risks and vulnerabilities and develop prioritized, comprehensive approaches to risk management. Community resilience is enhanced by organizational resilience which requires that individuals within organizations understand their respective roles in the continued functioning of their organization and of the community as a whole.

Encourage Communication Among Collaborators

▪ Build Trust

Diverging interests and unfamiliarity with the perspectives of people in different sectors can create barriers to interaction. Leaders and personnel in the public and private sectors may be more familiar and comfortable with top-down “command and control” management structures than with the emphasis on trusted relationships and information sharing more typical of horizontal network management. State and local agency personnel may resent what they perceive as top-down interference from their federal counterparts. Businesses may feel threatened by government regulation or controls they perceive as limiting creativity and market flexibility. Engaging at the community level and respecting the significance and diversity of local

¹ For example, see the Casualty Actuarial Society Web site (WWW.Casact.org/research/erm/; accessed June 18, 2010).



*Search and Rescue After a Tornado,
Evansville, Indiana, November 6, 2005*



*Sandbagging for Iowa River Flood
June 2008*



Floodwater Rescue Team



Albuquerque, New Mexico, Fire Academy

networks helps bridge different organizational cultures and fosters the relationships and trust needed to create resilient communities.

▪ Promote Coordination and Flexibility Among Organizations

Without coordination and collaboration among agencies and organizations at all levels, communities face difficulties acquiring the information, funding, and other resources needed to reach out broadly in support of all-hazards-focused efforts. Responsibilities in collaboration should not be compartmentalized, for example, by rigidly separating responsibility for response to anti-terrorism and natural hazards issues. Enhancing coordination, communication, and flexibility during periods of normal operation will enhance the effectiveness of responses during crises.

Evaluate the Effectiveness of Collaboration and Recognize Success

Regular evaluation of community risks and resources, and shared assessments of the collaborative structure, goals, and networks and the value they create will ensure that collaboration remains relevant and sustainable and provide tangible evidence for the benefits of collaboration.

▪ Develop Metrics for Measuring Collaboration Success

There is little long-term empirical data on the qualities that make private-public collaboration effective and sustainable. This makes it difficult to develop measures of success or to reward participation. However, public and private funding of collaborative efforts is

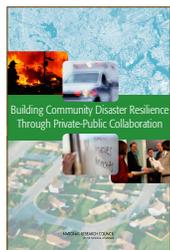
Examples of Successful Public-Private Collaboration

The Safeguard Iowa Partnership is a voluntary coalition of Iowa's public and private-sector leaders, including representatives of major Iowa businesses, the Iowa Business Council, and several state agencies. The partnership serves to integrate business resources, expertise, and response plans with those of government during all stages of disaster preparedness and recovery.

Tulsa Partners, Inc., is a non-profit organization made up of citizen, business, and agency partners working to reduce risk and assist the community in being prepared for all hazards. The organization is an outgrowth of the Tulsa Project Impact program and has effectively developed partnerships with diverse entities, both public and private, leveraging those partnerships to develop community programs in collaboration with existing partner organizations.

often contingent on being able to demonstrate evidence of success. Build sustainable and successful collaborations by producing annual plans that have well-defined, feasible, measurable objectives, that exercise new capabilities, and that deliver returns on investment to all engaged. Annual plans might, for example, aim for measurable indicators of success such as:

- The creation of a registry of private and public resources that can be mobilized in a disaster and the points-of-contact for access to those resources
- A numerical goal of private employers using collaboratively developed tools to strengthen disaster preparedness for their organizations
- A target for contributions, grants and in-kind donations to support dedicated staff and ensure the financial stability of the collaboration.



Building Community Disaster Resilience through Private-Public Collaboration

Applications of Social Network Analysis for Building Community Disaster Resilience: Workshop Summary

These publications are available from the National Academies Press, 500 Fifth Street, NW, Washington, D.C. 20001; (800) 624-6242, www.nap.edu. For more information contact, the Board on Earth Science and Resources at 202-334-2744 or visit <http://dels.nas.edu/besr>.

This pamphlet was prepared by the National Research Council based on the report *Building Community Disaster Resilience through Private-Public Collaboration*.

About the National Academies

The National Academies — the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and the National Research Council — provide a public service by working outside the framework of government to ensure independent advice on matters of science, technology, and medicine. They enlist committees of the nation's top scientists, engineers, and other experts, all of whom volunteer their time to study specific concerns. The results of these deliberations are authoritative, peer-reviewed reports that have inspired some of the nation's most significant efforts to improve the health, education, and welfare of the population.



Photo credits — Cover top ©iStockphoto.com/Rich Legg, bottom ©iStockphoto.com/Claus Mikosch; page 2 left to right: NASA, U.S. Chemical Safety Board, NOAA, FEMA/Dave Gately; page 3 left to right: U.S. Navy/Joseph C. Garza, FEMA/ Greg Henshall, NOAA, Albuquerque (New Mexico) Fire Academy. Permission for images must be obtained from their original source.