NIST Community Resilience Program - Second Stakeholder Workshop

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What is the Problem?

- Natural and man-made disasters cause an estimated $57B in average annual costs.
- Superstorm Sandy caused over $65B in losses.
- Large single events can cause losses exceeding $100B.
- Current approach of response and rebuilding is impractical and inefficient for dealing with natural disasters.
- Planning does not account for interconnected nature of buildings and infrastructure, nor for the affect on social institutions.
- Changing nature of hazards is not always considered.

Source: NIST
What is Disaster Resilience?

• The term "resilience" means the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions*

• In the context of community resilience, the emphasis is not solely on mitigating risk, but implementing measures to ensure that the community recovers to normal, or near normal function, in a reasonable timeframe.

*As defined in Presidential Policy Directive 21.
Community Needs Drive Functional Requirements for Buildings and Infrastructure
Community Resilience for the Built Environment

- Natural hazards
- Manmade hazards
- Degradation
- Climate change

- Performance Goals
- Mitigation
- Response
- Recovery
NIST Community Resilience Program

NIST is:

• **Convening** the highly diverse stakeholder interests to:
  
  – Develop the first version of a comprehensive Disaster Resilience Framework for achieving community resilience that considers the interdependence of the community's physical and human assets, operations, and policies/regulations
  
  – Establish a Disaster Resilience Standards Panel to further develop the Disaster Resilience Framework (version 2.0) and,
  
  – Develop Model Resilience Guidelines for critical buildings and infrastructure systems essential to community resilience based on model standards, codes, and best practices
  
• It is envisioned that the Disaster Resilience Standards Panel will update the framework and guidance on a regular basis and recommend improvements that enhance resilience to standards and codes.
Stakeholder Engagement is Critical

- Stakeholders include, but are not limited to:
  - Codes and standards organizations
  - State, local, and regional officials
  - Insurance/re-insurance industry
  - Architects
  - Engineers
  - Utility operators
  - Urban planners
  - Industry
  - Emergency managers
  - Relief organizations
  - Regulators
  - Academia
Federal Stakeholders

- Executive Office of the President (National Security Staff, OSTP, NSTC)
- Department of Homeland Security
- Department of Commerce
- Department of Defense
- Environmental Protection Agency
- U.S. Army Corps of Engineers
- Department of Energy
- Department of Health and Human Services
- Department of Housing and Urban Development
- Department of Transportation
- U.S. Geological Survey
- National Science Foundation
Disaster Resilience Framework 1.0

• The Disaster Resilience Framework focuses on the role that buildings and infrastructure systems play in ensuring community resilience.

• The Framework will:
  - Establish types of performance goals and ways to express them
  - Identify existing standards, codes, and best practices that address resilience
  - Identify gaps that must be addressed to achieve resilience
  - Capture regional differences in perspectives on resilience

• The Disaster Resilience Framework will be informed through a series of stakeholder workshops.
Disaster Resilience Standards Panel

- The DRSP will represent the broad interests of the stakeholder community.
- The DRSP will be:
  - open to all interested participants
  - a self-governing entity
- The DRSP will lead development of:
  - Disaster Resilience Framework 2.0
  - Model Resilience Guidelines
Workshop Plan

- First workshop held April 7, 2014 and served to kick off the development of the Disaster Resilience Framework
- The next three workshops will include focused working sessions to develop the Disaster Resilience Framework and lay the groundwork to establish the Disaster Resilience Panel
- The April 2015 workshop will be organized around the release for public comment of the draft Disaster Resilience Framework and the formal establishment of the Disaster Resilience Standards Panel
- Participation in the workshops is open to all interested stakeholders
Framework Development Process

July 2014 Workshop
• 25% Draft

October 2014 Workshop
• 50% Draft

January 2015 Workshop
• 75% Draft

April 2015 Workshop
• Release Draft for Public Comment

Community Resilience Framework Version 1.0
Disaster Resilience Framework - How to Participate

• Attend working sessions at workshops
• Chapters will be announced for each workshop when registration opens
• Review working drafts of the framework posted one week prior to each workshop
• Share your knowledge and experience
• Make others aware of the Framework, DRSP, and Workshops
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