

# THE NOVELTY OF CRISES: HOW TO PREPARE FOR THE UNPRECEDENTED

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**IN THIS ARTICLE\***, Howitt and Leonard discuss the difficulties of preparing for unprecedented crises. While routine emergencies require enormous strength, the novelty of a crisis may call upon the creativity and improvisation of emergency responders to marshal personnel and supplies, reduce immediate dangers, and save lives.

## The Core Challenges of Disaster Response

### Recognizing Novelty and Effectively Improvising Necessary Responses.

In the course of their regular work, emergency responders ready themselves for a wide range of urgent circumstances. We call these "routine emergencies" not because they are in some sense "easy," but because the predictability of the general situation permits agencies to prepare in advance and apply lessons from prior experience. By contrast, "crises" differ from

these more common (though possibly very severe) routine emergencies in having significant elements of novelty. The novel features may result from threats never before encountered: from a more familiar event occurring at an unprecedented scale, outstripping available resources; or from a confluence of forces, which, though not new, pose unique challenges in combination.

Careful preparation for routine emergencies constitutes an enormous source of strength. Responders don't need to size up the situation for an extended period, plan their response,

assemble people and resources from scratch, or divide up roles and responsibilities before taking action. But in a crisis, the elements of novelty may invalidate predetermined emergency plans even though they may function quite well in dealing with routine emergencies. Badly damaged roadways, for example, could turn a highway evacuation route into an obstruction rather than a path away from disaster.

Compared with routine emergencies, therefore, crises require quite different capabilities. In crises, responders must first quickly diagnose any elements of novelty that may invalidate their expectations and prior plans. Then they need to improvise response measures adequate to cope with the unanticipated dimensions of the emergency. These measures, born of necessity, may be quite different from or exceed in scale anything responders have done before. Responders therefore need to be creative and extremely adaptable to improvise appropriate tactics, and rough implementation may have to be good enough.

### Scalability and Surge Capacity.

In severe disasters, responders must quickly scale up operations to cope with far greater numbers of endangered people, more extensive damage, and a more extended emergency period than they usually face. If the crisis lasts for weeks, as one resulting from a major earthquake in Los Angeles undoubtedly would, responders will also have to cope with resource depletion and personnel exhaustion. But no local jurisdiction could bear the expense of stocking sufficient assets for a large-scale disaster that might never occur. What some see as a strategic reserve, others might regard as a waste of resources.

**IF** a major disaster strikes, it is virtually inevitable that affected jurisdictions will have to import and effectively absorb support from surrounding areas or—in very severe circumstances—from around the nation. Access to some resources can be arranged in advance, but the novel circumstances of a crisis may also generate unexpected demands. As

Hurricane Katrina revealed, it is far from a simple matter to mobilize and operationally deploy the right kind of resources in sufficient amounts and in a timely fashion.

### Maintaining Situational Awareness.

In any crisis, responders (both individuals and organizations) must maintain "situational awareness." That is, they need to gather and assimilate key facts—often under conditions of great confusion, poor communication, and high uncertainty. As important as good intelligence is, however, robust situational awareness involves far more. Decision-makers must also be able to project the implications of the information they have gathered, so they can anticipate the likely consequences of a fluid situation. With anticipation comes at least some possibility of changing the future before it arrives. Projecting likely consequences also provides responders with a way of tracking what actually results against what they expected, thus providing a check on how well they understand

what is truly unfolding. Finally, situational awareness involves being able to generate possible alternative courses of action and assess which hold the most promise of dealing with emergency conditions.

### Integrated Execution in Real Time.

In a major disaster, as local agencies confront extraordinary operational demands, many emergency responders from outside the area are likely to converge on the scene. This will demand skillful coordination of aid workers, equipment, and organizations coming from different professions, agencies, jurisdictions, levels of government, and the public and private sectors—even though many of these people and organizations have had little or no prior experience working together.

**IN** the early 1990s, California established the Standardized Emergency Management System (SEMS), a flexible template for leading crisis operations that enables organiza-

tions to frame and rapidly implement response actions under enormous pressure. Congress has also recognized the need for such preparation, as reflected in the 2002 statutory requirement for a National Incident Management System (NIMS) that is compatible with SEMS. However, much work remains to develop skills in many jurisdictions that make limited use of these systems or in professional disciplines that have been unaware of or unenthusiastic about them. And as Hurricane Katrina revealed, the procedures to coordinate federal agencies with each other and with state and local responders are neither fully adequate nor effectively applied when required.

### Operational vs. Political Leadership.

Widespread deployment and skillful use of NIMS is a necessary but not sufficient condition for integrated crisis response. The NIMS template has proved a highly effective technical system when goals are relatively unambiguous. By contrast, when goals are unclear or in conflict—

when difficult, controversial trade-offs must be made—NIMS lacks the political and moral authority to make the hard choices that present themselves. In the aftermath of a major Los Angeles earthquake, do response leaders—whether police commanders, fire chiefs, or public health directors—have the legitimacy to decide which areas should get resources and which should not? Do they have the community standing and ability to mobilize public support behind a difficult decision?

**WE** invest elected leaders with the authority to make key decisions about values and priorities for our society and to rally their communities behind their choices. But in a future emergency that cuts across organizational, jurisdictional, and level of government boundaries—particularly if government has been partially disabled by the crisis, as it was during and after Katrina—it may be unclear who has this authority and difficult to assemble them in the heat of the moment. The NIMS



model does not include an effective way to coordinate political leaders and operational commanders, especially when multiple jurisdictions are involved. The United States has not yet confronted this need, let alone fully thought it through and invented the emergency policy-making institutions it requires.

**Handoffs Across Boundaries.** As action in a crisis scales up and becomes more complex, political leadership or specific responsibilities may need to be transferred from those initially in charge to others with different skills or broader authority and resources. Yet frequently, as observed in the Katrina response, this produces substantial friction. In the midst of crisis, political leaders may find it personally or politically difficult to recognize or acknowledge that exigent events surpass their ability to cope; they may, in fact, resist turning full or partial responsibility over to others better situated to deal with circumstances.

Addressing in advance the possibilities inherent in disaster scenarios can reduce the chances of hesitation

or paralysis. It is not enough, however, for procedures to exist. Newly elected or appointed officials need to think through their personal preparedness—how well equipped they are to fulfill their substantive functions and moral responsibilities as crisis leaders. Institutionally, senior officials should address the conditions and procedures under which handoffs would be made, rather than addressing their obligations for the first time in the midst of catastrophe.

### Improving Disaster Response

Addressing these core problems, particularly when the novel demands of a crisis must be met, means moving forward effectively in four realms: capabilities, structures and systems, people, and coordination.

Successful disaster response critically depends on adequate surge capacity: having sufficient equipment, supplies, transportation, and trained responders able to sustain themselves in the field for the necessary length of time. In the United States, the main challenge is not lack of resources but

being able to locate, mobilize, and move resources swiftly—and to coordinate their use effectively upon arrival at a disaster scene.

Making the National Incident Management System truly operational at the local and state levels, as well as clarifying and effectively integrating it with the National Response Plan at the federal level is a critical step. It is also important to develop enhanced mutual aid agreements that authorize and make operational a wider range of cooperative arrangements between communities, states, and within regions for all emergency response functions.

**BOTH** first responders and emergency managers throughout the emergency response system have a general need for training and exercising. This training must be regular and varied, to keep skills sharp and to prepare new members of these professions for the threats they may encounter. In addition, there is a need to

develop a cadre of senior disaster managers—in cities, states, and at the federal level—who develop proficiency and deep experience in managing emergencies.

As Katrina demonstrated, crises demand levels of coordination of governmental and non-governmental resources, including many that are not part of the normal configuration of emergency agencies. Coordination, moreover, has both a technical and political component—which necessitates construction of an infrastructure of coordination along both dimensions. The NIMS system is an important step in that direction, as is the deepening web of mutual aid agreements among jurisdictions. Yet both practice and relationships are crucial to the effective use of this infrastructure. It must be given life by being exercised regularly—through simulated and real action—and by building personal relationships among the people who will be involved when a real disaster strikes. ◯

\* This article draws on work previously published by the authors in the *Fletcher Forum of World Affairs*, Vol. 30:1, Winter 2006, pp. 215–221; and the *Crisis/Response Journal*, Vol. 2, No. 2 (June 2006), pp. 52–53, and No. 3 (September 2006), pp. 54–56.