

Disasters, Catastrophes, and Policy Failure in the Homeland Security Era¹

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Abstract

The September 11 attacks triggered federal policy changes designed to influence emergency management in the United States, even though these attacks did not suggest a need for a wholesale restructuring of federal policy in emergency management. Instead, for several reasons, federal policy's emphasis on terrorism and emergency management significantly degraded the nation's ability to address natural disasters. The federal government sought to create a top-down, command and control model of emergency management that never fully accounted for, positively or normatively, the way local emergency management works in practice. The Obama administration will have to address the questions raised by the reorganization of federal emergency management responsibilities. While the context in which these changes have occurred is unique to the U.S. federal system, there are interesting implications for emergency management in nonfederal systems.

KEY WORDS: disaster and risk management, homeland security, national governance, policy change, policy failure

Introduction

Our ability to predict precisely when and where the next natural disaster, industrial accident, or terrorist attack will strike is limited. It is primarily constrained by the limits of natural and physical science, so we can only trade in probabilities.² Similarly, we trade in probabilities when dealing with other risks, but can make some educated “guesses” that improve predictability, albeit slightly. We strongly suspect, for example, based on existing terrorist-group behavior, that cities like New York, Washington, and Los Angeles are more prone to terrorism than are, say, Boise or Des Moines. We also know that hurricanes strike the U.S. East and Gulf coasts primarily during “hurricane season,” June 1 to December 1 of each year.

Beyond these limited predictions, we can make very few claims, except to note with certainty that there will be more disasters, catastrophes, and crises in the very near future.³ The trends are clear: the monetary toll of natural disasters continues to grow worldwide, as human populations continue to expand into vulnerable areas and as urbanization creates and exacerbates vulnerability (Comfort et al., 1999; Jacobs, 2005). Furthermore, the threat of terrorism became substantially more *visible* because of the September 11 attacks, although the risk of significant terrorist attacks on the United States, from either foreign or domestic sources, had been considered for some time before September 11 (Rimington, 2002; Rubin, 2000; Rubin, Cumming, & Tanali, 2002). The September 11 attacks, by themselves, did not provide a great deal of additional risk information. The attacks on Washington and New York did serve as a major focusing event that generated unprecedented interest in terrorism as a problem within U.S. national borders, and significantly changed the mass public's perception of the risk of terrorism. Of course, one can argue that attention to the terrorist hazard was “too low” before the September 11 attacks, particularly among the public (Birkland, 2006, chapter 2).

Mass casualty attacks and disasters generate domestic political pressure to “do something,” and Hurricane Katrina gained worldwide attention to the apparent inability of the most advanced industrialized nation in the world to respond to natural disaster of this scope after having remade much of its emergency management after September 11 (Cooper & Block, 2006). And while most large “focusing events” can reveal a range of policy failures and prospects for learning (Birkland, 1998; May, 1992), it is important to consider whether and to what extent the “correct” lessons were learned. Two “lessons” that policy makers derived from the September 11 attacks were the putative need to create what became the Department of Homeland Security, or DHS, and, once such an idea gained acceptance, the “need” for the Federal Emergency Management Agency (FEMA) to be a part of that agency.

In the years after September 11, the controversy over the formation of DHS has largely been forgotten. The fundamental question of that controversy was “do we need a department of homeland security?” The Bush administration was reluctant to create such an agency, and did so only in the face of political pressure. We do know that, nearly six years after the DHS was born, that it remains, to many critics, a bureaucratic morass (Glasser & Grunwald, 2005) and a “problem” that the new administration and its DHS secretary would have to address (Bender, 2008).

While these problems have greatly influenced FEMA, they are not the focus of this article; rather, I argue that, from an emergency-management perspective, there was little about the September 11 attacks that suggested major problems with emergency management in the United States that would require, *inter alia*, the inclusion of FEMA into DHS.

Emergency response in both New York City and, especially, at the Pentagon (where the Arlington County Fire Department was the incident commander), given the scale of the event, was reasonably well organized. Officials in New York were able to adapt and respond to the event in spite of failures of communications systems (Haddow, Bullock, & Coppola, 2007, p. 313) and in spite of the New York Police Department’s (NYPD) and the Fire Department’s (FDNY’s) long-standing practice of not sharing a single incident command system (Hauer, 2004; Slepicka, 2008). They were also able to, under extreme duress, relocate the city’s Emergency Operations Center first from 7 WTC to the Police Academy, and then to Pier 92. The City of New York’s size and capacity allowed for a functional computing and communications network to be established very quickly (Dawes et al., 2004). In the end, the ability to respond to such events is both a function of planning and of improvisation (Harrald, 2006; Mendonça & Wallace, 2004; Rodriguez, Trainor, & Quarantelli, 2006; Wachtendorf & Kendra, 2005), because, as the now well-worn saying goes, “no war plan survives contact with the enemy.”

Given this generally good performance, and given other, equally sound “reasons” for the nation’s failure to detect or prevent the September 11 attacks, (e.g., poor intelligence gathering; poor national security, military planning, and doctrine; poor immigration controls), why was FEMA moved into DHS? While on its face such a move might seem logical on something like “civil defense” grounds, FEMA had already been badly damaged by the Bush Administration’s failure to understand the field of emergency management and the reality of federal intervention in a system that generally works from the bottom-up, with help, when needed, from the federal government.

September 11, Katrina, and Emergency Management in the United States

The United States is a federal system, in which power is divided between federal and state governments. States, in turn, create local governments to allow for a measure of local “home rule” and to carry out state functions. The division between federal and state responsibilities is defined in the U.S. Constitution, as shaped by over 200 years of practice and changes in government philosophy. Emergency management remains the responsibility of local and state governments, with the federal government serving as a source of support for local effort. The federal government, through FEMA, also became a source of considerable encouragement for the broad adoption of programs like hazard mitigation, which are often not undertaken without some sort of incentive. Such a system differs from unitary systems, such as those in most of the European Union and Asia, in that policy making is not confined to the national government.

Hurricane Katrina revealed that this “shared governance” system (Birkland & Waterman, 2008; Gomez & Wilson, 2008; Kweit & Kweit, 2006; May & Williams, 1986; Scavo, Kearney, & Kilroy, 2008; Schneider, 1990) for disaster management was strained. Local governments and the State of Louisiana were overwhelmed (Mississippi somewhat less so), and it appeared that federal aid was not quickly forthcoming, despite Governor Blanco’s request for an emergency declaration on Monday, August 27. Indeed, defenders of the administration’s response to Katrina tend to blame Governor Blanco’s supposed failure to seek a presidential disaster declaration instead of lower-level presidential declaration of emergency. Governor Blanco’s choice appeared to stem from a belief that a disaster declaration would federalize the state’s National Guard units, something the governor did not want to do. On August 27, Blanco also wrote to the president seeking a federal disaster declaration, which was made on August 29. Indeed, even Homeland Security Secretary Michael Chertoff eventually indicated that most response problems were in FEMA, not at the state or local level (Curtius, 2005). This may be too critical of FEMA however, as New Orleans Mayor Ray Nagin and his staff failed to execute the existing emergency plan, and New Orleans’ response capacity fell far short of the needs during the storm (Cooper & Block, 2006).

Katrina may well have overwhelmed any response authority: the state, the city, county and parish governments,⁴ and even the “better” Clinton-era FEMA. This is the very argument made by the Bush Administration in its review of the overall response to Hurricane Katrina (United States Executive Office of the President, Assistant to the President for Homeland Security and Counterterrorism, 2006). Others argue that the response system broke much more thoroughly and rapidly than it would have under the “old” FEMA (Clarke, 2005; Perrow, 2005; Tierney, 2005). Under President Clinton, FEMA Administrator James Lee Witt—a former state emergency manager in Arkansas—took the helm of an adrift and dispirited FEMA in 1993 (Haddow et al., 2007; Murray, 2001a, 2001b). Witt steered FEMA away from its former civil defense orientation, and stressed intergovernmental cooperation, ideas that were successfully tested during the Midwest floods of 1993. After the floods, Witt sought to promote mitigation in concert with state and local agencies. The culmination of these efforts was Project Impact, which promoted public–private partnerships at the community level to promote hazard mitigation

(Freitag, 2001). None of this was to say that Witt's administration was perfect, but Witt was much more progressive than his predecessors, or his successors, and the Witt years marked the high point of FEMA's prestige and morale (Haddow et al., 2007; Kamen, 2008; Murray, 2001a,b; Roberts, 2006).

While this discussion of what happened in Hurricane Katrina is illustrative, one does not need the storm to advance my central argument: that FEMA was an agency in decline as attention shifted from natural hazards to terrorism, and from mitigation to response. Indeed, the decay of FEMA's reputation and authority had begun before September 11, as I show next.

The Bush Administration and the Decline of FEMA

The Bush administration eliminated Project Impact. When Michael Brown spoke to the 2001 Natural Hazards Workshop in Boulder, Colorado, in his role as FEMA general counsel, he stated that Project Impact was dropped because the administration saw little value in funding what they believed to be frivolous community-building activities. Such a position was plausible because there was scant evaluation data proving the effectiveness of Project Impact. However, the value of the *idea* of mitigation was also devalued. While the Administration continued mitigation funding under the Disaster Mitigation Act of 2000 (Haddow et al., 2007), Congress appropriated less money and made these grants competitive rather than providing funding based on recent disaster experience. Local financial contributions were also raised (Association of State Flood Plain Managers, 2006), making it more difficult for local governments to support mitigation efforts. FEMA leaders were not effective advocates for improvements in the mitigation program or for increases in mitigation funding, possibly because of its leaders' failure to understand the substantive value of mitigation. Indeed, as Tierney (2005) notes, "within DHS, the concept of mitigation has all but disappeared—except, of course, with respect to prevention and deterrence of terrorist attacks." And, of course, prevention is not really the same as mitigation.

Bush administration attitudes toward scientifically and technically sound mitigation were demonstrated well before September 11 by then-director Joseph Albaugh's castigation of Davenport, Iowa, officials for failing to build a floodwall. The city chose not to build a floodwall because it took an environmentally friendlier approach, of the sort promoted by Witt and others in the 1990s: to remove buildings from floodplains and use the land as open space (Birkland et al., 2003; Environmental Defense, 2001). The wisdom of such a decision may, in some ways, have been vindicated by the extensive failure of levees and floodwalls in New Orleans during Hurricane Katrina (Seed et al., 2006).

By mid-2001, it appeared that progress in promoting natural disaster mitigation was declining. FEMA became more concerned with emergency response rather than with comprehensive emergency management, including natural hazard mitigation based on all-hazards concepts (Department of Homeland Security, Office of the Inspector General, 2006, 135 ff). The September 11 attacks reinforced the response orientation, consonant with extensive media and policy maker attention to the efforts of firefighters, police, EMTs, and other "first responders." However, this emphasis on "response" following September 11 was not balanced by increasing

attention to mitigation. FEMA was conceived largely as a response-supporting organization when its preparedness functions were removed from FEMA under the Homeland Security Act and placed in a separate organization in DHS. The Post-Katrina Reform Act of 2006 returned these functions to FEMA.

This does not deny the need for improvement in response methods and capacities, both in New York and nationally, after September 11 (National Commission on Terrorist Attacks upon the United States, 2004; New York City Fire Department, 2005). But response was not, and is not, the only aspect of the disaster cycle worthy of attention, particularly considering how well the response worked in New York and the Pentagon under very trying conditions—and FEMA did sound work in NGO coordination and volunteer management. The post-September 11 focus on response was accompanied—perhaps not purposefully—by a decrease in attention to natural hazards in general, and to all hazard mitigation specifically (Department of Homeland Security, Office of the Inspector General, 2006).

The Focus on “Prevention”

The idea of “prevention” of terrorism is clearly desirable, but confusing this term with “mitigation,” and therefore making a parallel to natural disasters, is hard to draw, particularly because FEMA and most local emergency managers have neither the power nor the expertise to *prevent* terrorist attacks. These functions reside in national law enforcement and intelligence agencies, such as the Central Intelligence Agency (CIA) and the Federal Bureau of Investigation (FBI). In natural hazards policy, “mitigation” encompasses efforts such as building codes and land use planning to limit the extent of damage in a disaster. Such tools, such as construction codes for blast damage or for improved ventilation in the face of biological and chemical threats, are appropriate in the terrorist case. And to be fair, one cannot rely solely on mitigation because events will still occur, and response to such events is necessary: mitigation does not eliminate damage; it simply attenuates it to a greater or lesser extent. In a similar vein, we cannot *prevent* all terrorist attacks. Even with sound counterterrorism programs, a few attacks will inevitably succeed.

The very agencies that may have the greatest influence on *preventing* an attack, rather than on intercepting it, are those agencies that were *not* folded into the Department of Homeland Security, including the FBI, CIA, and important parts of the Department of Defense (Harris, 2003). By contrast with these agencies, FEMA and other organizations were politically weaker and less able to mobilize their constituencies to help prevent their absorption into DHS. Today, DHS remains a sprawling, and ineffective agency (Bender, 2008) and its development into a more effective organization will challenge President Obama and Janet Napolitano, his nominee to head the agency.

Explaining the Change in Tone and Emphasis in Emergency Management

The civil-defense and quasimilitary tone of post 9/11 emergency management discourse was dominated by rhetoric and behaviors similar to those of the Cold War-era military-industrial complex (Monahan & Beaumont, 2006).⁵ One can draw a direct line from the end of the Cold War, to the emergence of terrorism as a threat

before 2001, to the recasting of many defense and security contractors' missions as "homeland security," differing little from the national security state that preceded it (Tierney, 2005). Building on the untested belief that these consultants and firms were competent in dealing with terrorist threats,⁶ and unconstrained by government's apparent ignorance of or disdain for the decades of social science knowledge amassed on disasters, crises, and "extreme events," a new system of homeland security was created that contains, within it, (i) the assumption that September 11 revealed shortcomings in local and regional responses to disasters that required federal (i.e., top-down) policy intervention and direction; and (ii) the assumption that better planning would necessarily yield better responses. Certainly, planning for disasters is an important feature of local government and of public security, and many observers have expressed dissatisfaction with the level and pace of careful local planning for natural disasters (Berke & Campanella, 2006; Burby, 2006; McConnell & Drennan, 2006; Olshansky, 2006; Tierney, 2005). The so-called "all hazards" approach suggests that planning for disasters not be so specific that plans cannot accommodate a range of hazards, from meteorological or geophysical to accidental to intentional (Department of Homeland Security, Office of the Inspector General, 2006).

The second assumption is characterized by, first, a top-down system in which decisions are made in Washington, DC, and subordinates' compliance is expected and is gained through either coercion (the threat of taking money away) or inducements (the possibility of gaining resources, even if those resources are not quite what the community needs). We know that this top-down approach runs counter to the collaborative design of a national emergency management system more broadly and to emerging notions of networked governance as a more empirically accurate description of how public programs are really managed (Choi & Kim, 2007; Lagadec & Rosenthal, 2003; Mandell, 2001; Wachtendorf & Kendra, 2005). While no one would claim that the pre-September 11 system was perfect, it worked reasonably well on many levels, even when "ideal type" systems, such as "incident command" had not been created (Drabek, 1985; Schneider, 1992; Tierney, 2005). Through the promulgation of the National Response Plan (NRP) (which was only months old when Katrina struck), NRP's replacement, the National Response Framework (NRF), and the National Incident Management System (NIMS), the federal government sought to assert greater influence over local disaster preparedness and response.

September 11 provided the rationale for such intervention under neither the old notions of cooperative or coercive federalism. Rather, as Birkland and Waterman (2008) found, changes might well be explained under the rubric of "opportunistic federalism," which Conlan (2006, p. 667) defines as

a system that allows—and often encourages—actors in the system to pursue their immediate interests with little regard for the institutional or collective consequences. For example, federal mandates, policy preemptions, and highly prescriptive federal grant programs tend to be driven by opportunistic policy makers who seek to achieve their own policy and political goals regardless of traditional norms of behavior or boundaries of institutional responsibility.

This idea of opportunistic federalism is entirely consistent with the "opportunistic" and episodic nature of nearly all disaster policy, since change in disaster and crisis

policy is often event-driven. In creating DHS, Congress, with the president's assent, moved FEMA into the new agency without regard for its existing organizational and intergovernmental relationships, many of which were developed based on hazards experience. Furthermore, homeland security "experts" made policy without consulting the vast amounts of knowledge accumulated by social scientists and practitioners on how people and organizations actually behave in disasters (Tierney, 2005).

After Hurricane Katrina, the administration decided that the National Response Plan unwieldy, and decided to create a new National Response Framework (NRF). The federal government attempted to write the NRF with almost no input from state and local emergency managers who already had experience working under the NRP and who were beginning to gain an appreciation for its strengths and weaknesses (Hsu, 2007; International Association of Emergency Managers, 2007). The NRF process is a clear example of, again, the federal tendency to look at emergency management failures as evidence for the need for more centralized planning from the top down, rather than looking at such failures as opportunities to improve coordination and collaboration throughout the network of responsible agencies.

The legal and political authority for disaster management rests within state and local government (Waugh & Streib, 2006, p. 136). We know from extensive research in natural disasters that actual response is not hierarchical; rather, a seemingly chaotic response system emerges that ultimately reveals its logic as actors improvise to provide the goods and services—ranging from rescue to bottled water—needed in a disaster (Kendra & Wachtendorf, 2003, 2006; Mendonça & Wallace, 2004; Wachtendorf & Kendra, 2005).

The new emergency management system unduly relied on new and often unproven hardware, computing technology, systems of intelligence gathering, and the like, to predict, prevent, or mitigate future homeland security threats. The Office of Domestic Preparedness (ODP) enables localities to purchase equipment to prepare for terrorist events by providing funds for state and local governments to purchase specialized equipment for first responders in preparation for chemical, biological, radiological, and nuclear terrorist attacks (Haddow et al., 2007, p. 204). This focus on hardware and on so-called "technology" has meant that equipment was first distributed to local agencies based on a form of distributive "equity." Political debates over how funds have been or should be distributed to state and local governments for disaster preparedness had become an important part of post-September 11 preparedness, where smaller cities are flush with preparedness funds while Washington and New York are left wanting. Some of this funding has certainly been valuable, but much money has been spent on politically distributive spending, or, as known in American politics "pork-barrel spending." In 2006, the funding formula required awarding an equal amount of funds to states (Eggen, 2006). To its credit, DHS changed its practices, and

has adopted a process of continuing improvement in its methods for assessing risk and measuring grant applicants' effective use of resources. SHSP [State Homeland Security Program] and UASI [Urban Area Security Initiative] grant allocations continue to be based on a three-step process: (i) risk assessments to determine areas eligible to apply for grants, (ii) effectiveness assessments of the grant applicants' investment justifications, and (iii) final grant allocations . . . Generally, we found that DHS has constructed a reasonable methodology to assess risk and allocate funds (Government Accountability Office, 2008).

Thus, while redistributive politics played a role, at least in the funding arena, DHS gained a greater appreciation for risk, driven in large part by complaints from areas that believed themselves to be at greatest risk, which resulted in the legislative requirement that risk be accounted, as enacted in the Consolidated Security, Disaster Assistance and Continuing Appropriations Act, P.L. 110-329.

The federal government replaced an “all-hazards” framework with a homeland security framework that would then be applied, somehow, to all hazards. This is a subtle but important distinction, which helps to explain the scenario-driven basis of the National Response Framework, the National Incident Management System, the Homeland Security strategy, and other documents that place vague homeland security threats higher on the agenda than preparation for regular, but catastrophic, natural disasters. While many disaster professionals sought to promote the all hazards approach after September 11, for fear that terrorism concerns would overwhelm existing systems (and would ignore existing knowledge) in emergency management, it now seems clear that revisiting the all-hazards approach is necessary if for no other reason than to afford emergency managers the opportunity to calibrate their preparation and approaches to their communities’ most important hazards.

This sort of flexibility is contemplated in the new, less formulaic NRF, but, given the outcry the new framework elicited from professional emergency managers, it is difficult to see if this framework will be any less top-down than the National Response Plan it replaces. Following Hurricane Katrina, the NRF was heralded because DHS developed it in consultation with state and local emergency management officials, something that was not associated with the adoption of the NRP (Hsu, 2008a). Perhaps its *implementation*, if nothing else, will be open to greater flexibility and local initiative than was the implementation of the NRP.

The predicted results of these errors in thinking and planning were the damage, loss of life, and confused response to Hurricane Katrina (Cooper & Block, 2006). The poor response to this event did not serve anyone well because it suggested that, even when the threat is known—its time, place, manner, and warning period—the nation still could not rouse itself to prepare for and respond to the threat.

Prospects for the Future

The Obama administration will have the opportunity to reconsider its organization of federal support for emergency management as an overlapping, but not congruent, aspect of homeland security. President Obama has nominated Janet Napolitano to serve as Secretary of Homeland Security, although as of this writing there is little information about her stance toward FEMA and emergency management generally. There are, therefore, not yet any options that have been denied to the administration, and there are at least three possible directions that the Obama administration could take to reform and, presumably, strengthen emergency management.

In scenario 1, the new president could continue to make homeland security the primary federal concern in emergency management. In other words, emergency management, and FEMA, would continue to serve the civil defense function it filled during the 1950s through mid-1980s; the 1990s would be a historical oddity in

FEMA's history, and federal response to natural disasters would likely suffer, because terrorism would still be the prime motivator for the NRF. This scenario seems unlikely, given FEMA's continued efforts throughout the hazard and disaster cycle, but FEMA's emphasis would likely refocus on natural disasters if another major event like Katrina recurs, which is rather more likely than a catastrophic terrorist attack.

Scenario 2 would see a return to something like the way FEMA existed before it was moved into DHS. In this scenario, FEMA would be removed from DHS. It would certainly have to network with DHS, but there is no particular need to keep FEMA in DHS; indeed, there was no particular need to create DHS at all, and its components still have not gelled into a single agency, if they ever will. Even if we assume that FEMA has key homeland security functions, we also know that not all homeland security functions are contained within DHS; indeed, many of the most important are left outside DHS, such as the major intelligence services that were found so wanting after the September 11 attacks.

In scenario 3, an enlightened administration could move FEMA beyond the vision that James Lee Witt laid out for it by returning hazard mitigation to a primary goal of national policy. Innovative tools for promoting mitigation, such as fully funding the pre- and post-mitigation grant programs, encouraging something like Project Impact, and working as a *partner* with local emergency managers would characterize the new agency. The agency would support efforts to build community *resilience* and to reduce vulnerability through some form of sustainable development or "smarter growth" practices (leaving aside for now the problems of defining "sustainability"). FEMA could continue to offer technical support to state and local government through units such as the U.S. Fire Administration, but it would emphasize partnership and assistance, not command and control.

In the first scenario, current trends that promote vulnerability will continue unabated. There will be more catastrophic natural disasters because of increased population growth in vulnerable areas of the nation. Better responses will be a function of better state and local preparedness and mitigation efforts, such as those in California, Florida, and North Carolina, states with substantial disaster experience (Birkland, 2006). In other states, disasters and catastrophes will exist and may worsen because few attempts have been made by the federal government to encourage states and localities to recognize their vulnerabilities, assess hazards, and take disaster mitigation steps. With no incentives to mitigate—and plenty not to, such as the relentless pressure to develop real estate (Burby, 2006)—communities will become more vulnerable. The federal executive branch will continue to use copious amounts of disaster relief as a political and economic palliative, while states and local governments follow local political and near-term economic incentives to rebuild as quickly as possible in the same vulnerable ways and places. Economic activity and tax revenue return to the status quo ante, but vulnerability exists or even increases.

Scenario 1 describes what happened on the Gulf Coast after Katrina. In Biloxi, for example, victims have sold their damaged properties (sometimes for handsome sums) to growing, larger Gulf Coast casinos or high-rise luxury condominium developers. While these new buildings are somewhat more robust than the ones they replaced, vulnerability will increase as higher population densities are placed

near hurricane zones; at the same time, tourists, a challenging population, must be encouraged to be vigilant and to evacuate in a timely manner.

In the second scenario, a new FEMA administrator, reporting to and supported by the president and separate from DHS and its inexperienced top leadership would return FEMA to the prestige and competence it enjoyed in the 1990s. Incompetent political appointees would be replaced by competent emergency managers, not just at the Administrator's level, but throughout the agency. FEMA would return to its pre-2001 role as the main federal *coordinator* of efforts to prepare for, mitigate, respond to, and recover from all manner of disasters, but would seek to work more cooperatively with local and state governments based on *their* assessment of their needs. While separate from DHS, FEMA would work closely, under the NRF, with other federal agencies to assist state and local government in disaster response. FEMA's primary responsibility would be in predisaster mitigation, preparedness, and postdisaster consequence management. To the extent that a terrorist attack leaves evidence, FEMA would yield to law enforcement and intelligence agencies, but it would be well-understood that, in the immediate aftermath of a disaster, protecting human life is of paramount importance, and that state and local emergency response agencies, aided and supported by FEMA, would be the principal parties at the scene.

The third scenario would yield improvements far beyond the state of the art. In this scenario, not only would FEMA be separate from DHS and have the president's ear, but FEMA and the president would support initiatives that explicitly seek to improve community disaster resilience through efforts to reduce vulnerability. A key way to do this would be to embrace, as a national policy goal, efforts to induce communities to plan land use and economic development in a sustainable manner. As Dennis Mileti (1999) argues:

Natural hazard mitigation will not be successful at reducing losses and disruption in the long term until it is integrated into the considerations of the daily activities of everyone who has an influence on disaster losses. This, in turn, will not be possible until hazards mitigation is housed within a redesigned national culture that favors sustainable development and people are reorganized to support that cultural shift.

Of course, the very meaning of "sustainable" is open to question, and as an organizing principle, this term has gained very little traction among disaster planners and emergency managers. But the essential argument is correct: long-term losses will increase unless everyone with a role to play in increasing or decreasing vulnerability incorporates disaster resilience as a part of what they do. FEMA, along with other national level agencies—the Environmental Protection Agency, the Geological Survey, the Forest Service, the National Oceanic and Atmospheric Administration, among others—could partner in providing the sort of assistance that communities can use to plan better for disaster *resilience*, not just response.

Critics of the scenarios offered here would rightly ask "what about homeland security?" Homeland security is clearly important; no one in New York, London, Madrid, or Washington would deny the importance of counterterrorism. But regardless of how much time, money, and effort we spend, some terrorist attacks will still occur, which is why preparedness and response are also important. This was as much as admitted in the administration's 2002 Homeland Security strategy

(Office of Homeland Security, 2002), even as presidential candidate John Kerry earned ridicule for saying the same thing (Bai, 2004; CNN, 2004). Catastrophic terrorism is certainly possible, and its catastrophic force may be a function of technological changes that have improved terror groups' access to weapons of mass destruction, coupled perhaps with the shift to mass casualty terrorism as a particular goal of terrorist attacks. The logic is that the larger, more spectacular, and more fatal the event, and the bigger the impact of the attack, the greater its intimidation value, which, in turn, leads to the sociopolitical changes sought by the attackers.

However, many of the things that make terrorist attacks more catastrophic, such as tightly connected, but not resilient, infrastructure—are also the same factors that have made communities more vulnerable to natural disasters, including vulnerable and unsustainable urban forms that rely on outmoded methods of transport, communication, and the provision of public utilities (Aguirre, 2006; Buckle, 2005; Coaffee & Rogers, 2008; Rose, 2007; Vale & Campanella, 2005). The *consequences* of natural disasters are therefore similar to the consequences of terrorist attacks. And the predisaster planning for these events—training for “first responders,” structural and nonstructural mitigation efforts, intergovernmental planning, establishment of communication and warning systems, and so on—are not so different that they cannot be addressed, with minor changes in doctrine and tactics, by emergency managers who are already familiar with a broad range of hazards (Perry & Lindell, 2003). Resilient communities that seriously adopt the all-hazards approach will therefore be able to respond to and bounce back from terrorism as well as from natural disasters.

Since September 11, 2001, however, emergency management expertise has been turned on its head. The real experts, the state and local officials who are first to the scene of natural disasters, and from whom we have a great deal to learn, have been subordinated to the “expertise” of federal law enforcement officials, military officers, and, often, civilian contractors, many of which have little to no experience in any sort of disaster or emergency management. Federal policies have focused more on distributive spending—that is, pork (de Rugy, 2005; Roberts, 2005)—turf battles and on contractor relationships in the new “homeland security complex”⁷ than on efforts to improve response and resilience.

Because the second and third scenarios are currently unlikely to happen, we can be reasonably certain that future disasters will become more common, and catastrophic disasters are more likely to occur, as more places become more vulnerable to major disasters. In the United States, the most likely catastrophic natural disasters are hurricanes and earthquakes. Terrorism may pose catastrophic risks, but the risk of terrorism is not yet well understood. While catastrophic terrorist events will remain rare, their possibility distorts federal decision making out of proportion to the relative risk of any community from a terrorist attack compared with the risk of major natural disasters.

Future disasters and catastrophes will be more damaging and will yield longer recovery times because the federal government has provided confusing mandates and poor planning direction for state and local governments. Federal funding priorities further distort local planning efforts, causing more attention to be paid to less likely terrorist incidents than to more likely natural disasters.

The outcomes of disasters and catastrophes will be variable; some states have undertaken their own efforts to prepare for, mitigate, and respond to disasters, while other states still lag behind.

Past research suggests that these trends toward greater vulnerability will continue unabated, because disaster-relief programs are very popular among politicians, the general public does not give much thought to disaster policies until disasters happen, and many communities lack the political will or legal powers to shape development and planning in ways that would reduce overall community vulnerability. In this environment, the putative public interest will always be subordinate to narrower interests, like builders and real estate agents, who are motivated by short-term profit rather than community resilience.

These are sobering trends, but failing to recognize them and correct problems now will yield worse disasters later. The “window of opportunity” for major policy change in the wake of the apparent post-Katrina failures has closed. Over three years have elapsed, and the national agenda has been, and is likely to be, dominated by news of major economic dislocations and of the continued anti-insurgency efforts in Iraq and Afghanistan. It is unlikely that the new administration will make more than a marginal difference in the actual management of the emergency management system, regardless of the location of FEMA or other agencies in the greater DHS system.

Notes

- 1 This is an expanded article first presented at the 2008 conference on “Surviving Future Disasters: Identifying critical challenges and effective strategies for transboundary disaster management,” at the Stephenson Disaster Management Institute, Louisiana State University, Baton Rouge, April 2008. The opinions expressed herein are solely those of the author. I thank Kristin O'Donovan for research assistance, and Arjen Boin and two reviewers for their comments.
- 2 Interestingly, the initial enactment of the National Earthquake Hazard Reduction Act (NEHRA, PL 108-360, 1977) included a program for advancing earthquake prediction, but such prediction is beyond our reach scientifically, and, even if we had probabilistic earthquake forecasting available in the same way that weather forecasting is available, the response to such forecasts would likely be very disruptive to local communities and the economy (Lomnitz & Gibowicz, 1995; National Research Council, Committee on Socioeconomic Effects of Earthquake, 1978). Hurricanes can be forecast to hit within a certain area (the “cone of probability”) within a certain period, but these forecasts are available hours, not weeks or more, in advance.
- 3 There is a qualitative difference between a disaster which affects a relatively small area and affects, but does not overwhelm, regional capacity to respond, and a catastrophe, which is so large that even regional resources must be augmented by outside help (Perry & Quarantelli, 2005). Hurricane Katrina was, by this standard, a catastrophe (Quarantelli, 2005).
- 4 Every state in the United States, with the exception of Alaska and Louisiana, is organized into counties. The equivalent unit in Louisiana is the parish. Orleans Parish and the City of New Orleans are essentially the same jurisdiction.
- 5 To confirm this claim one need only review DHS's list of prime contractors at http://www.dhs.gov/xlibrary/assets/opnbiz/OSDBU-DHS_Prime_Contractors_List.pdf
- 6 An assumption tested by, for example, Boeing's failure to deliver a “high tech” virtual fence between the United States and Mexico (Hsu, 2008b).
- 7 A term used by critics to point out the similarities between the new system and the Cold War “military industrial complex,” but also adopted by DHS as a less critical term for the broader community of scholars, contractors, decision makers, and the like in the homeland security field. See “Department of Homeland Security Broad Agency Announcement: Initial University-Based Center of Excellence” at http://www.dhs.gov/xnews/releases/press_release_0220.shtm/

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