



FEMA's Pathway to Resilience

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Abstract: *The purpose of this paper is to explore the Federal Emergency Management Agency's (FEMA) past decade of mitigation weaknesses and areas of improvement during Hurricane Katrina, the Northridge Earthquake, and Hurricane Ike. This outlines which best practices have been ignored, utilized, and forgotten through FEMA's mitigation efforts. Primarily the National Response Framework (NRF) has been placed on the backburner throughout the years despite a prior big push to implement the steps outlined by the NRF into all emergency responses. Mitigation efforts have made successful strides with the assistance of the new FEMA Director, Craig Fugate. Past and current FEMA directors are evaluated along with the roles that those individuals have played in historical natural disasters. Previous FEMA directors such as Robert Paulison and Michael Brown had limited emergency management expertise and misled FEMA, which became evident as natural disasters unfolded in the last decade that showed a lack of preparedness and planning on FEMA's part. Craig Fugate is the most recent FEMA Director and holds the knowledge that can bring future success to FEMA. In addition, this paper suggests where improvements can be made in regard to mitigation and examines what FEMA has done to improve itself throughout the years.*

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Mitigate, prepare, respond, and recover. These are the four steps of emergency management where agencies focus their mission statements. Specifically, FEMA's mission is to "support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards" (FEMA, 2013). Over the last 10 years FEMA has undergone scrutiny for a lack in preparedness and utilization of mitigation best practices in a variety of natural disasters. The agency has undergone a variety of developments in the last decade that have led to an improvement in their focus, particularly in mitigation. This paper explores FEMA's role in Hurricane Katrina, the Northridge Earthquake, and Hurricane Ike in an effort to establish where FEMA's mitigation practices went wrong, what their successes were, and what they are doing to improve and become more resilient as an emergency management agency.

Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters (FEMA, 2013). In every facet of FEMA's mission, be it preparedness, response or recovery, mitigation is applied. That being said, it is important that best practices be utilized and that the agency be flexible and adaptive. This year alone, there have been a total of 85 disaster declarations. This is the lowest number since 1997. Does this mean that FEMA has defined which procedures and processes are classified as best practices? There are many forms of mitigation, all of which are dependent upon the type of disaster anticipated. Generally, mitigation entails a risk analysis, a risk reduction, and national flood insurance plans (FEMA, 2013). Specifically mitigation involves: having current building codes that can withstand disasters that threaten the area; development of regulations, such as zoning and subdivision ordinances; capital improvement programs; land and property acquisition, taxation and fiscal policies that persuade

home buyers to build in less hazardous areas; and public awareness (Schwab, Eschelbach, & Brower, 2006).

FEMA has many grant programs to fund mitigation. Under the Hazard Mitigation Assistance (HMA) Program there are the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), and Flood Mitigation Assistance (FMA) programs. HMGP provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. PDM provides annual funding for mitigation planning and projects in order to partially free up federal money. FMA is another annual fund that reduces or eliminates risk of flood damage to buildings insured under the National Flood Insurance Program. Additionally there are the Repetitive Flood Claims (RFC) and the Severe Repetitive Loss (SRL) grants. The RFC was created for insured individuals with one or more claims for flood damage in an effort to “reduce or eliminate the long-term risk of flood damage”. Finally the SRL grant program is for individuals with four or more claims for flood damage (FEMA, 2014).

FEMA’s failures and successes are evident in their responses to Hurricane Katrina, the Northridge Earthquake, and Hurricane Ike. In order to improve, an agency must be aware of their weaknesses. Delving into the activities of the aforementioned disasters will allow readers to see the progress FEMA has made over the last decade. When Katrina swept through the Gulf, FEMA was in the initial stages of transitioning to under the Department of Homeland Security’s (DHS) umbrella along with 21 other agencies. Their goals, values, and mission statement were compromised as FEMA was absorbed into DHS. The increased focus on terrorism after 9/11 terrorist attacks diminished the planning and mitigation efforts by FEMA with respect to natural disasters. Mitigation was not forefront primary goal for FEMA at this time; their efforts were

focused more towards combating terrorism. FEMA Director Michael Brown was the poster child of unpreparedness and lack of planning through poor on-sight management during Hurricane Katrina. When Katrina hit on September 29, 2005 DHS had been fully operational for almost three years, since early November 2002. FEMA was incorporated into DHS as a stand-alone agency adoption, with all the moving parts in place since 1979. When DHS took FEMA under its wing, they accepted the responsibility of some of FEMA's anti-terrorism responsibilities. Director Brown dropped the ball and the consequences and repercussions were evident as the events of Hurricane Katrina unfolded.

While FEMA was not entirely to blame for the lack of effective mitigation in the aftermath of Katrina, they did hold some fault. Some mitigation efforts were attempted; for example, there was a practice hurricane exercise called Hurricane Pam, prior to Katrina. Interestingly enough, the second portion of the exercise was never completed. It is difficult to say if the second portion of the Pam exercise would have set mitigation in motion or not. The Hurricane Pam exercise did not predict that the levees would not withstand the extreme flooding of Katrina. Risks and warnings to New Orleans were not acknowledged and mitigation concerns were left unattended. Some FEMA officials, including Joe Allbaugh and other engineers, echoed concerns for the city (Parker, Stern, Paglia, & Brown, 2009). Previous hurricanes that had threatened the city left trepidations about the future resilience of New Orleans. Mitigation efforts need to be all encompassing. In the case of considering a hurricane where flooding is likely, levees should not have been overlooked. This is especially the case in this instance, because it was common knowledge that New Orleans sits below sea level. The Army Corps of Engineers attempted to stabilize levees. However, Mayor Nagin allocated a large portion of the federal dollars toward other projects that forced the levees to be placed at a lower priority. Following the

debacle with Katrina, Michael Chertoff told EHS Today that, “FEMA’s logistics systems ‘simply were not up to the task of handling a truly catastrophic event. FEMA lacks the technology and information management systems to effectively track shipments and manage inventories’” (Smith, 2006).

The Northridge Earthquake showed some of FEMA’s weaknesses and strengths. Building codes were not up-to-date to withstand the 6.7 magnitude earthquake and potential damage was not accurately assessed. A main issue that arose from this disaster was the welded steel moment resisting frame system of California structures, which is constructed in buildings so as to resist the symptoms of earthquakes. However, FEMA did make several satisfactory decisions when handling Northridge. In conjunction with the California Office of Emergency Services (OES), they opened 20 Disaster Application Centers.

The response time to Hurricane Ike was much swifter than with Katrina, partly due to the Fusion Centers that were created in response to Hurricane Katrina in 2006. According to DHS, Fusion Centers “serve as focal points within the state and local environments for the receipt, analysis, gathering, and sharing of threat-related information between the federal government and state, local, tribal, territorial and private sector partners” (DHS, State and Urban Area Fusion Centers, 2013). During both Hurricane Ike and the Northridge Earthquake, the National Response Framework (NRF) was available and had transitioned from the National Response Plan (NRP). The NRF is a set of guided principles for emergency management agencies to create a timely uniformed response.

However, “Some instances decisions were made outside of the NRF command and control structure”, this caused an overabundance of ice and “base camp capacity exceeded demand” (FEMA, 2009). If FEMA had utilized NRF, they would have saved almost \$18 million

dollars. FEMA did not communicate at the local level in regards to gathering resources such as water and ice. In addition, the Disaster Recovery Centers were opened for an inappropriately extended amount of time. FEMA directly stated in their *Management Advisory Report: FEMA's Response to Hurricane Ike*, that they needed to reinforce the key principles of the NRF, and strengthen the authority of regional and joint field office (JFO) emergency managers to manage disasters at the lowest possible level within the unified command structure. Overall, the response to Ike was successful despite the few expensive mistakes. Moving forward, improved communication and adherence to the NRF are keys to success, especially in adherence to Emergency Support Functions (ESF) #2 (Communications), ESF #5 (Information and Planning), and ESF #7 (Logistics) in the report.

FEMA will not always be the least respected agency under DHS. Their mistakes have been under scrutiny intermittently for at least the last decade, but they have made successful attempts to improve.. On February 6, 2013 FEMA participated in a "Think Tank" conference that included over 800 people via telephone and Twitter. Craig Fugate, FEMA Administrator, set goals to bring a Whole Community Approach to emergency management. This ne Some of the ideas pertinent to mitigation include: the use of new backup communications systems in disaster zones, discussion of electrical alternatives for individuals that use power dependent medical equipment, and collaboration on increasing efficient evacuations (FEMA, 2013). Janet Napolitano, the recent Secretary of the Department of Homeland Security said that FEMA has founded the FEMA Corps, DHS Surge Capacity Force, and innovation teams (Napolitano, 2013). FEMA Corps aim their effort towards mitigation work and DHS Surge Capacity Force has their efforts focused on the response phase. The FEMA Rumor Control Initiative also was established in the past year in an effort to abolish rumors in social media and disseminate the truth.

Hurricane Sandy was one of the first disasters that FEMA attacked with a Whole Community focus. Implementation of the Whole Community approach was there, but the follow through was not present in this case. Unfortunately FEMA still struggled with implementing the NRF and coordinating with state and local agencies. FEMA was able to successfully integrate an online crisis management system that allowed for coordination of federal response operations (DHS, Hurricane Sandy FEMA After-Action Report, 2013). In addition, FEMA also distributed Flood Hazard Mapping for areas that would be threatened by Sandy and urged citizens to purchase flood insurance. In the aftermath of Sandy's destruction, FEMA offered rebuilding tips that explained the concerns of building in areas that are most vulnerable to disaster.

FEMA has made great strides in a multitude of areas. First, in an effort to redirect FEMA's focus as an emergency management agency under control of a DHS, the Post-Katrina Emergency Management Reform Act was passed. Now FEMA has a clear mission which again includes mitigation and preparedness. In addition, at the time of Hurricane Katrina the National Response Plan (NRP) was not completed, currently however it is finished and has been renamed the National Response Framework. Since mitigation occurs in all aspects of emergency management, it is critical to understand the importance of utilizing After-Action Reports (AARs). By reviewing AARs, FEMA and other emergency management agencies can reflect on occurrences surrounding the disaster and highlight strengths and areas of improvement. This allows FEMA to see how their actions impacted outcomes, and to recognize patterns and trends in an effort to improve (FEMA, 2008).

More importantly, employing a director of FEMA who leads by example is a new strategy that is proving successful. Craig Fugate was an exceptional choice as the new director. Early in his emergency management career, he was a volunteer firefighter, paramedic and a

Lieutenant of Alachua County Fire Rescue. Later Fugate became the Emergency Manager for Alachua County in Florida, and then was the Bureau Chief for Preparedness and Response and the Chief of the State Emergency Response Team. Under Fugate's management this is the first time FEMA has implemented a whole community approach to emergency management, which allows for incorporation of local and state voices in federal-level emergency management.

Fugate has extensive experience as a first responder, thus bringing a fresh and under-utilized perspective to FEMA.. His repertoire of experience in managing the hurricane-prone state of Florida as Emergency Management Director supplied knowledge and expertise in areas that FEMA was lacking in prior years. The prior two directors were Robert Paulison and Michael Brown, neither of whom played significant roles as first responders. Paulison was the Chief of Miami-Dade Fire Rescue Department. Brown's resume was limited to "Assistant City Manager with emergency services oversight" in Oklahoma (Fonda & Healy, 2005).

FEMA has a plethora of mitigation planning guides at their disposal. These guides cover the spectrum of mitigation. FEMA appears to be improving in the area of flexibility and adaptation in many ways, including obtaining new materials for improving mitigation practices. Of the 16 planning guides available, 3 were updated in 2013 and 1 guide was introduced just this year. The most recent introduction to the library of mitigation guides was the *Local Mitigation Planning Handbook* (FEMA, 2013). Once again, it is important to utilize best practices; however, they are only the best until a better practice is discovered. When that time comes, replacements must be made which is evident in the FEMA Mitigation Planning Guide library (FEMA, 2013b) on their website.

There is still room for improvement within FEMA. With a decreased pre-disaster mitigation budget (FEMA, 2012), this can prove to be difficult. However, there are problems that

can be tackled that do not call for expending budget money. For example, relationships with first and second responders need to be enhanced; Fugate's past experiences give him the knowledge and ability to do so. The NRF is a guiding standard for how to implement a Whole Community Approach to emergency management, and following its principles would greatly decrease the weaknesses that are debilitating to FEMA. Utilization of NRF principles needs to be increased because NRF was created to aid in response and recovery, and FEMA is selecting when and what they practice. Past failures as recent as Hurricane Sandy indicate the need for further training in Emergency Support Functions: Communications (#2), Information and Planning (#5) and Logistics (#7).

In terms of the Systems Approach, improvements within FEMA will only lead to a butterfly effect: as improvements are made they will begin to effect other areas causing further improvement. As FEMA develops their skills it would allow for improved relations with first responders and other agencies that are important to the emergency management scene. Improvements would assist in reaching goals that are rooted in the mission FEMA established: lessening the impact of disasters.

FEMA assessed needed improvements in the *FEMA Strategic Plan Fiscal Years 2011-2014* (FEMA, 2011). Mentioned is a need to be flexible and adaptive in FEMA's practices, foster a Whole Community Approach to Emergency Management Nationally, build the nation's capacity to stabilize and recover from catastrophic events, build unity of effort and common strategic understanding among the emergency management team, and to enhance FEMA's ability to learn and innovate as an organization (FEMA, 2013). Current news releases from FEMA are overwhelmingly mitigation focused, and so they should be given that every dollar spent on mitigation saves \$4 in the event of a disaster (FEMA, 2012). FEMA's main focus at this time is

to “rebuild stronger”. In an effort to include all interested parties, DHS and FEMA collaborated to implement the Homeland Security Enterprise to reach out to all stakeholders including local, state, regional, federal, private and non-governmental organizations (NGOs). Every disaster is local; we need to foster resilience so our communities can withstand and survive disaster.

Resilience is our nation’s emergency management goal and FEMA offers tips to accomplish this.

In summation, FEMA has come far in the last decade. They have learned from some of their mistakes during Hurricane Katrina, the Northridge Earthquake, and Hurricane Ike. There are still areas of weakness that Fugate is working to improve. The NRF should be of utmost importance on FEMA’s pathway to resilience. More development will come through After-Action Reports and improving relations with first responders. As rudimentary skills are developed and improved, FEMA will continue to regain respect from the people they serve.

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