

Hurricane Katrina

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The disaster triggered by *Hurricane Katrina* raises many questions. How could the most technologically advanced and richest country on earth allow a highly vulnerable population to be left in a well documented high risk area? How could there be such a massive systemic failure across three levels of government? What may be the implications for disaster management practice? In fact it is the characteristics, rarity and complexity which make disasters so prone to myths and behaviours based on inappropriate assumptions.

If people have to make judgements based on very limited direct experience then this is where research can provide assistance in enhancing practice. If disaster management as a field is to add value to society then there must be strenuous efforts to integrate research findings and emergency management practice.

The *Times Picayune*, a New Orleans newspaper, ran a special edition in June 2002 called "Washing Away" from which the following quotes were extracted. They generate a whole series of questions to be addressed by researchers.

Left Behind: Evacuation is the most certain route to safety, but it may be a nightmare and 100,000 without transportation will be left behind.

The Federal Emergency Management Agency is preparing a plan for the unprecedented response that would be needed if the New Orleans bowl flooded.

In 2002 Michael Lowder FEMA Chief of Policy and Planning asserted "In concert with state and local officials FEMA is studying evacuation procedures, post disaster rescues strategies temporary housing and

technical issues such as how to pump out water trapped inside levees."

"Catastrophic disasters are best defined in that they totally outstrip local and state resources, which is why the federal government needs to play a role"

Joe Allbaugh FEMA Director stated.

"There are a half dozen or so contingencies around the nation that cause me great concern, and one of them is here" (New Orleans).

To people outside New Orleans the level of violence was surprising, however when taken in context it is hardly surprising. But was this reflected in planning assumptions? A few indicators that may help put the disaster into perspective include:

- In 2004 university researchers conducted an experiment in which the police fired 700 blank rounds in a New Orleans neighbourhood in a single afternoon. No one called to report the gunfire.
- New Orleans has a homicide rate 10 times that of the American average and 42 per cent of serious crimes were deemed by prosecutors as not suitable for court so no action was taken.
- About 27 per cent of the population of 484,000 are living under the poverty line. In 65 per cent of families living in poverty, there is no husband present. 35 per cent did not have cars.

The actual level of violence is being contexted and only time will tell what really happened.

What about the mitigation activities in this well-documented high risk area? Settlers built the original city on a curve of high land that the Mississippi River had deposited, hence the nickname Crescent City.

By the mid 19th century, developers began clearing and draining swamps behind the crescent, even dumping landfill into Lake Pontchartrain to extend the city. Most of the city is below sea level, sinking at a rapid rate. Some sites have subsided as much as two feet in 60 years. This legacy is apparent in a study conducted by a team of geotechnical experts into levee failures. One of the levee failures was caused by deep, soft peat rich soil that extended below the sheet piling that makes up the core of the levee. This soft wet material slid sideways and the levee failed under pressure.

Levees can be useful in dealing with some aspects of flooding, the crucial disaster management issue is to manage the risks of the levees failing or being overtopped.

There are a very wide range of research projects to address issues generated by *Katrina* and there is much anticipation as to the outcomes.

References and further reading

- John Barry (1997), *Rising Tide: The Great Mississippi Flood of 1927 and how it changed America*. Simon and Schuster.
- Eric Auf der Heide (2004), *Common Misconceptions about Disasters: Panic "the Disaster Syndrome and Looting*. Available at http://atsdr1.atsdr.cdc.gov/emergency_response/common_misconceptions.pdf.
- Association of State Floodplain Managers, Hurricane Katrina and Rita Information and Resource Page. Available at www.floods.org.
- "Washing away" June 2002. Available at www.nola.com/hurricane/?/washingaway/.