



## **MOOC 1**

### **Learning Unit 1**

#### **The case of Katrina Hurricane: a bad practice of emergency communication**

##### **Scenario**

On August 29, 2005, Hurricane Katrina struck the Gulf Coast of the United States forcing over 100,000 people from their homes, claiming thousands of lives and devastating an entire city.

Hurricane Katrina, which had been a Category 5 storm but weakened to Category 3, moved onto the Louisiana and Mississippi coast with a storm surge, supplemented by waves, reaching up to 8.5 m above sea level along the southerly-facing shallow Mississippi coast. In New Orleans, the surge reached around 5 m, overtopping and breaching sections of the city's 4.5 m defences, flooding 70 to 80% of New Orleans, with 55% of the city's properties inundated by more than 1.2 m of water and maximum flood depths of up to 6 m. In Louisiana 1,101 people died, nearly all related to flooding, concentrated among the poor and elderly.

The centre of the storm passed east of New Orleans on 29th August 2005. By the time Katrina hit, an estimated 1 million people had fled the city and surrounding areas, with another 25-30,000 remaining in the city.

By the 31st of August 2005, 80% of New Orleans was flooded with some areas under 15 feet of water. The extensive flooding trapped many people, some were stranded on top of houses, some inside houses and some trapped inside attics unable to escape. Most major roads were damaged.

As reported by the media, the hurricane had a long lasting and dramatic impact on New Orleans and surrounding areas. The loss of life from the hurricane was expected to be in the thousands, no clean water or electricity were available. Communication infrastructure was also severely damaged, telephone, cell phones and internet, all local TV stations disrupted.

Katrina was the most destructive and costliest natural disaster in the history of the United States. It was the first to affect the central urban area of a great city. Before Katrina, the residential asset in the New Orleans region consisted of a mix of single- family dwellings, multi-dwelling units and mobile homes. The damage was estimated at over \$80 million. It also claimed over an estimated 1,800 lives (direct and in direct), most of which were lost in Louisiana.

Emergency response intervention included:

- emergency shelters set up for those who couldn't be evacuated, (e.g. if they didn't have transport)
- search and rescue teams, medical teams sent by FEMA
- 58,000 National Guard troops deployed from all over US to evacuate people and rescue.
- over \$4 billion in donations from the public to provide aid collected by Charities

Shortly after Hurricane Katrina struck, the Federal Emergency Management Agency (FEMA) provided temporary emergency housing, drawing from its existing inventory of temporary trailers and the purchase of 102,000 additional travel trailers. FEMA trailers were a mix of new and used small trailers, larger travel trailers, and even larger mobile homes designed for mobility and rapid deployment, the trailers had wheels for ease of movement into trailer parks or onto individual lots (Tiefenbacher, J., 2013 *Approaches to Disaster Management: Examining the Implications of Hazards, Emergencies and Disasters*. BoD–Books on Demand). To meet high demand, new trailers were made using the least expensive and most readily available materials and methods. In addition to the trailers, FEMA had also ordered 25,000 Building America Structural Insulated Panel (BASIP) homes. These houses were different from travel trailers in terms of both dimension and design.

In order to achieve a more effective sustainability, BASIP houses use prefabricated insulation panels for walls and the roof that allow greater energy efficiency and enhanced durability. Other innovations were introduced including special shutters to provide future hurricane protection and solar shading, a retractable awning for solar shading and an additional square area. Even though FEMA travel trailers were widely criticized for providing less than desirable temporary housing,

two years after the hurricane, 60,000 people were still living in ‘temporary’ shelter FEMA trailers in Louisiana and Mississippi.

During the early phases of emergency response intervention, the working conditions of the rescuers were difficult, with very high humidity and dehydration. Disaster response intervention was also compromised by coordination and leadership issues between federal agencies and organizations, private and non-government organizations (NGOs). Between them there was a lack of clarity regarding roles and functions. Moreover as frequently stated by leading members of FEMA, when Hurricane Katrina struck the United States, FEMA was not optimally operating: “FEMA was operating as a politically motivated, fragmented and disenfranchised agency when Hurricane Katrina wreaked havoc on multiple states” (Buxton, J., Ondracek, J., Saeed, M., & Bertsch, a. FEMA leadership and Hurricane Katrina). The FEMA leading team received no appropriate training to adequately manage the crisis event, leaders had no management skills and were unable to address conflict. Evacuations were improperly managed, the levees failed, and attempts to deliver aid were delayed or sabotaged. This resulted in delayed relief, high losses to New Orleans’ population, and the collapse of public trust.

As revealed in several reports provided by FEMA itself, the agency demonstrated a competing negotiation style. During early phases of the Hurricane Katrina disaster they refused to allow thousands of volunteers to assist with the recovery process, delaying critical assistance (Farazmand, 2009). Later FEMA interfered with other agency attempts to assist victims. In one case (as described by Sobel and Leeson, 2006) FEMA confiscated a parish gasoline delivery.

Due to the total collapse of the state and local emergency infrastructure the leading coordinators and emergency agencies were not able to provide a clear and unified leadership. Many state, federal, and local officials were unable to coordinate with the appropriate authorities at FEMA or the state. This failure to establish a unified command resulted in lack of coordination, ambiguity and chaos (Moynihan, D. P., *From forest fires to hurricane Katrina: Case studies of incident command systems*. Washington, DC: IBM Center for the Business of Government).

FEMA’s poor responses to Hurricane Katrina made evident that the leading coordinators of the agency completely failed to demonstrate appropriate leadership skills and competences (as well as emotional intelligence, empathy, relationship skills). Subsequently this failure resulted in a

complete reevaluation of FEMA priorities, funding, and organization, specifically about communication and coordination management in a mass crisis intervention.

## References

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**Note:** Learners will find this same scenarios as case study in Psyc.E.In. MOOC 2, Learning Unit 6 How to teach Emergency management, Chapter 3.