

A case study on the hurricane katrina critical thinking examples

[Religion](#), [Bible](#)



This organization is known as Centre for Research on the Epidemiology of Disasters (CRED). From 1988, CRED collaborated with the World Health Organization to establish and maintain an Emergency Events Database EM-DAT. The World Health Organization (WHO) together with the Belgian Government offered the initial support for the establishment of EM-DAT.

This database is crucial in offering humanitarian based action both at the national and international levels. It provides information instrumental in making decisions on the disaster preparedness of individuals and countries. It also helps in evaluating the vulnerabilities facing various countries and regions and coming up with better priorities. The information provided by this database has been of much importance in helping establish trends for certain disasters. It equips people with knowledge on what to expect and what to do in case of such catastrophes. Essential data on the occurrence and impacts of various disasters is the subject of this database. (Em-Dat, 2012).

The data contained in this database is of high quality. This is guaranteed by the credibility of the sources from which the data is obtained. Such sources include: insurance companies, UN agencies, Non-Governmental organizations, Press agencies and research institutes among others.

There are many reasons why it is difficult to account for disaster losses. Some of them include:

Lack of proper mechanisms of collecting information on such disasters.

When a disaster strikes, people tend to be more concerned with offering help than on taking the statistics of the loss encountered.

Major loss is emotional and cannot be quantitatively accounted for. For instance, what value can be given to a person who losses their whole family in certain occurrence?

Sometimes, if accurate information of the loss is given, the effect would be very traumatizing on the people. This may make those responsible for the information to conceal some of it.

Lack of proper mechanisms to ensure collection of accurate data during such events.

This paper provides a detailed analysis of the Hurricane Katrina. This was among the most destructive hurricanes experienced in the history of the United States. It occurred during the 2005 Atlantic hurricane season and was the most severe compared to others that had occurred before. Hurricane Katrina also cost the United States so much and is considered among the costliest in history. The total property destruction was quoted at around \$81 billion. In terms of lives, Katrina left behind more than 1833 people dead (Rodger, 2007).

This Hurricane was initially experienced over the Bahamas but at a lower magnitude. It however, strengthened and rapidly proceeded to the Gulf of Mexico (Thomas 2006). As the flooding continued, almost 80% of the New Orleans area, and Louisiana became flooded. This flooding continued for weeks before it finally settled down. As expected, the coastal towns

experienced a lot of property damage, such as the Mississippi beachfront towns.

Apart from the loss of lives, the Hurricane had other more severe effects such as on the economy and the environment. Infrastructure was widely destroyed and this greatly hampered transport and communication. Export of commodities was greatly affected and this negatively affected the economy. Oil platforms and oil refineries were also destroyed and majority of them were closed down. Large tracks of forestland in Mississippi were destroyed, negatively impacting the forestry industry. Beaches on the coastal town were eroded by the Hurricane, with majority of them getting completely destroyed.

It is widely believed that much of this loss could have been avoided had the government heeded to warning signs. Information had been released months before the occurrence that there was a likelihood of a high scale hurricane hitting the area. However, this information was ignored, and no specific measures were taken to avert the danger. A lot of outrage was directed towards the government for the perceived lackluster performance.

Mitigation procedures that were in place before the Hurricane

Several measures were instituted by the authorities to help deal with the hurricane Katrina. This was following information received from the National Hurricane Center warning about the possibility of the occurrence. Some of them include the following:

On August 27th, a state of emergency was declared by President Bush in Louisiana, Mississippi and Alabama. This was two days before the first sign of the Hurricane was observed.

The state also ordered mandatory evacuations of all people in the high risk areas. This was in the coastal cities of Mississippi, Alabama and Louisiana.

The railway services in the region were also suspended in anticipation of possible destruction from the Hurricane. It was feared that the loss could be grave if such a facility could be affected.

Truckloads of essentials such as foods and water were also delivered to help feed the evacuated people.

There was a mobilization of homeland security workers by FEMA to help providing necessary assistance.

'Refuges of last resort' were established where residents were transferred to prior to the Katrina. One of such was the Louisiana superdome

Geographic technologies used to assess the mitigation procedures:

Given that the Hurricane affected the coastal towns, evacuation had to be done to relocate people to safer areas. These towns are largely below the sea level and as a result, the effect was expected to be grave. Authorities responded by moving people to areas above the sea level where the Hurricane was not expected to hit. Superdomes were also established to house people. It is from here that people received humanitarian aid and government supplies such as food and water.

Window of opportunity presented by the Hurricane Katrina

As much as this disaster brought great losses, it provided an opportunity for both the authorities and individuals to learn certain things. It was a sort of an eye-opener especially to the authorities in a number of ways. It helped inform them on the best courses of action to pursue in the event of similar disasters. As a result of this disaster, it became crucial that modern and protective structures needed to be in place. These are the structures which come in handy when there is an occurrence of an event such as flooding or sea waves. Apart from being modern, these structures need to be maintained and repaired to ensure that they are constantly in good form. This is to ensure that losses will be limited in future disasters.

The Hurricane Katrina also provided an opportunity to the authorities to improve the infrastructure of the city. It became crucial that important infrastructure such as roads, electric lines and communication facilities need to be properly established. Due to low hanging electric lines, there was a massive destruction of the electricity supply system after the Hurricane. A lot of residents stayed for long without electricity after this. There was a need to come up with ways to avoid this in the future.

Criticism of the mitigation procedures

After the Katrina, a lot of discomfort was expressed on the way the authorities responded to the disaster. People were not happy with the way the disaster was handled. There was a general feeling that much of the damage would have been avoided had there been a proper response.

First, the evacuation plans were not comprehensive enough. It did not

adequately address all the issues that could make the evacuation a success. For instance, there were no adequate plans to relocate those who had no private means of mobility. The homeless were also not included in the plan. For this reason only the poor and the elderly were left in the city after evacuation of the others. This exposed them to a lot of harm and put them at high risk.

The federal government's response to the disaster was slow. It was after 4 days of the occurrence that President Bush signed the \$10.5 billion as a relief package. Troops were also allowed to the coastal city 4 days after the disaster. FEMA's response to this crisis was not immediate and this is what partly aggravated the crisis. The amount of destruction experienced would be minimal if the response had been fast enough.

Having been aware of the possible effects of a Hurricane from simulated researches, the government failed. It was expected that adequate measures should have been instituted to help prevent the occurrence of the Katrina.

The information the government had been sufficient. It was never understood why actions to prevent such a disaster were not taken.

Recommendations of various reports were never implemented.

One of the mitigation procedures was the building of safe and modern structures to counter the Hurricane. However, the structures which were built were not capable of withstanding the great force of the earlier predicted Katrina. The levees protecting the New Orleans city were not adequately maintained and repaired. It was for this reason that the Katrina causing the great havoc destroyed them.

Critique of the use of geographical technologies

The geographic technologies used in the mitigation of this Hurricane were not of much help. It was expected that with the application of high-level technology, the number of lives lost would be low. However, the death toll from this disaster was still high. It was a wakeup call to the relevant authorities to ensure that proper technologies are in place to help mitigate losses in future occurrences.

Mitigation changes that were made after the Hurricane Katrina

The post Katrina disaster has seen the adoption of a risk-based approach to flood management by the authorities. This is because the city of New Orleans continues to sink while the sea level rises. The low-lying Mississippi river delta is vulnerable to storm surges and hurricanes as water bodies such as lake Borgne, Mississippi River and Lake Pontchartrain surround it can flood anytime. Among the risk-based approaches that have been adopted to flood management, include significant reconstruction and strengthening of levee systems in New Orleans that has cost billions of dollars. These strengthened structures have demonstrated positive results. For instance, the Hurricane Gustav of 2008 failed to overtop the protective T-Wall barrier along the New Orleans inner harbor navigation canal.

How social vulnerability helped in creating the disaster.

The New Orleans city was not one of the richest during this time. Majority of the families were middle level earners. However, there were scores of others who were homeless and not able to access essential services. Others had no

private mobile means of transport, and relied on the public means. This caused a problem during the evacuation exercise. Those who were car-less encountered many challenges at this time and many were left behind. Those who were elderly were also victims of the evacuation challenges.

The government policies were not adequate to help properly mitigate the disaster. There had been several warnings by relevant authorities that the New Orleans area needed to be protected from category 3 and 4 earthquakes. This warning was not taken into consideration as nothing much was done to avert the underlying dangers. It is said that the adverse effects of the earthquake would have been avoided had the government been responsive.

Another issue that may have led to this disaster is poor crisis management. Policies ought to have been in place to foresee and mitigate the risk of such occurrences. The mitigation policies that were instituted by the authorities were either inappropriate or inadequate. This is what ought to be avoided in the future as we try to eliminate or at least reduce the impacts of such occurrences.

Another issue is that of reduced funding towards disasters. The government had considerably reduced the funding allocated towards prevention and mitigation of such risks. This played a crucial role in bringing about the Katrina, as adequate resource to ensure avoidance lacked.

Lessons learnt that could inform disaster risk reduction

The Hurricane Katrina formed a crucial base of evaluating the disaster preparedness of the United States. It confirmed that the country was not as equipped to deal with disaster as it had been assumed. It was noted that despite the strong economic standing of the country, something could happen which could have a very drastic effect. It was a great learning experience for the authorities and everyone in general that much needs to be done to avoid any future loss of lives and destruction of property.

One of the main lessons learnt from the incident was that it is not only the government which has the responsibility of mitigating risks. It emerged that everybody has a role to play in a bid to ensure disaster-free nation (Palser, 2007). As much as the government needs to do much, everything cannot be left at its hands. It emerged that at times the government may not have the capacity to do everything to the expectations of everyone. It may sometimes be expected that the public must chip in to create the environment they want. During this disaster, the government was not adequately able to take care of everybody's needs. This was received with a lot of outrage from the general public.

Another important lesson was that there needs to be proper infrastructure in place. This will ensure that in case of any disaster, it will be possible to carry out rescue operations. The roads system needs to be well maintained to allow swiftness during such times. Things like electricity need to be well and fully installed to ensure that such disasters do not throw everything out of proportion. Circumstances like what was witnessed after the Katrina should

be minimized. After the Hurricane had destroyed the electricity supply systems, some neighborhoods stayed for long without electricity. This served to worsen the problem as it interfered with rescue operations. Such are the things which need to be avoided in the future.

The disaster also required that extensive and systematic studies needed to be carried out. This would ensure that in the event of such a disaster, those responsible do not lack information on how to go about the same (Palser, 2007). Institutions such as the military and other relevant ones must carry out proper training to ensure that troops are well prepared. This helps to carry out the evacuation and rescue operations more expeditiously. The result would be reduction in the number of casualties and less damage to property.

The Hurricane also made the authorities understand that adequate and timely funding must be directed towards such issues. After this incident, the Bush government took time before approving the funding needed to facilitate the recovery process. This in a way aggravated the problem, and lead to more casualties and more damage. For this reason, funds must be availed in time to allow a smooth recovery from a disaster. The funds also need to be adequate.

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