Disaster Life Cycle Stages

Joplin Tornado

Continuous Assessment/ Evaluation

According to a weather report, about an hour before the impact of the tornado, the local news displayed a visual of its severity and direction. The news channel displayed Joplin in the path of this lethal tornado, ultimately advising residents to be aware of the upcoming danger.

Mitigation

Being located in the middle of Tornado Alley, a strip along the central area of the U.S., Missouri residents are already cognizant that they are prone to dangerous tornadoes. Therefore, residents are naturally aware of actions that should be taken, such as building and utilizing shelters.

Preventative Action

No preventative measures were really taken because a tornado cannot be stopped. People can protect themselves by seeking underground shelter from the destructive winds of the tornado. Upon short arrival of the Joplin Tornado, residents heard sirens which served as a warning of natural disaster. However, most residents belittled this indicator due to unawareness of its true severity. Although the destruction could not be prevented, several valuable lessons were learned from this disaster. Some examples of these lessons are as follows: how to better alert the public of such a serious storm, how to fundraise for relief efforts, and how to come together as a community and help others. These lessons will have a decisive role in the long-term outcomes for the people of Joplin.

Disaster

The Joplin tornado was an F5 tornado capable of producing wind gusts of 261-318 mph. The tornado itself was about one mile in diameter and traveled twenty-two miles on the ground. Cars and other large objects became projectiles. Steel-reinforced concrete structures provided little protection against the high winds and heavy projectiles. The tornado caused 161 casualties, 1371 injuries, and cost $2.8 billion in damages.

Relief

An estimated 130,000 volunteers from all over the country came to Joplin to help in any way they could. These selfless volunteers spent hundreds of thousands of hours helping to rebuild Joplin.

Rehabilitation
Many people still did not have a house to live in one year after the tornado. Rehabilitation is always a slow process. Hundreds of families lived in FEMA-provided trailers until they could afford to rebuild a house.

**Recovery Phase**

Recovery efforts raised $39 million dollars within one year for the people of Joplin. This is a large amount of money, but it will only be useful in short-term outcomes, because it will be used quickly for reconstruction purposes.

**Reconstruction**

Rebuild Joplin is a program that rebuilds destroyed houses for residents. This program seeks donations and volunteers. Another program is Habitat for Humanity. Habitat for humanity builds homes for displaced families. They have a goal of building thirty-five homes per year in Joplin.

**Kuwait Oil Fires**

**Continuous Assessment/ Evaluation**

Iraq left Kuwait at the end of the Gulf War. Everyone knew that Iraq was pursuing a war on oil. After leaving Kuwait, Iraq decided to burn the majority of Kuwait’s oil. This is better known as the scorched oil policy.

**Mitigation**

Kuwait relied on the help of its allies to take control of situation and try to extinguish the fires. This had a negative, long-term outcome for the people of Kuwait because the fires were not dealt with quickly and therefore caused more damage.

**Preventative Action**

There was not much that Kuwait could do at this point. The oil fires were burning out of control and in such large quantities that they were too hot to deal with. Luckily, Kuwait had a very small population. On the downside, they relied heavily on their allies for support. These oil fires were a blatant act of war, which did not allow for and preventative action.

**Disaster**

It is estimated that five million barrels of oil were lost per day of the Kuwait Oil Fires. The fires burned for 10 months straight. It cost Kuwait a total $1.9 billion in damages and lost
oil. A total of 610 out of 749 oil facilities were burned during the fires. Kuwait lost 1,000 civilians during this disaster.

Relief

Boots and Coots, a U.S. based national oil well Control Company, and Bechtel, a large U.S. based engineering company, extinguished 90 percent of the 1991 fires that were predicted to burn naturally for two to five years. About two to five fires were extinguished per day. “Operation Desert Hell” was the nickname given to the task of putting out the fires. It required 200,000 gallons of seawater per day.

Rehabilitation

During the rehabilitation period, a low production of gas translated to higher gas prices for the world. Bechtel Oil Company brought in 16,000 workers to restore the oil fields. These efforts took about 3 years to complete.

Recovery Phase and Reconstruction

Bechtel built docking facilities, field hospitals, warehouses, portable homes, and dining halls that served 30,000 meals a day. Bechtel really took it upon themselves to restore the Kuwait citizens’ livelihoods and oil fields. They spent nearly one billion dollars in reconstruction and recovery efforts.

Bibliography

Joplin Tornado Links
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http://www.bechtel.com/projects/kuwait-reconstruction/