Disaster Lifecycles

Naturally caused: Hurricane Ingrid and Tropical Storm Manuel , Mexico September 20, 2013.

Hurricane Ingrid/ Tropical storm Manuel was a tropical cyclone that caused flooding all across Mexico. More than 200,000 people were affected.

1. Mitigation: In 1959, Mexico had a prior hurricane along the same coast. Mexico was warned on September 10, that they were expecting low pressure. A tropical wave was moving off the west coast of Africa in August, it entered the Caribbean Sea and then to Central America on September 10. An area of low pressure was introduced into the Tropical Weather Outlook (TWO) with a 20% chance of formation in 5 days at 1800 UTC 7 September. The Mexican government late Saturday issued a hurricane warning for the country’s Pacific Coast from Lazaro Cardenas to Manzanillo. Although, Mexico was warned, they were expecting the storm to weaken as it hit the coast, not knowing what was to come. The hurricane was not well predicted.

2. Preparedness: An "orange" alert of high risk was issued in southern Michoacán, and "yellow" alert, moderate risk, was in place for the rest of Michoacán and Guerrero. Other lower level alerts were issued in the more southern parts. Before Manuel hit, 25 families were evacuated from certain cities. After the storm turned into a hurricane, 13 municipalities were set on alert. Ports were closed along the coast and more alerts were placed. 700 people were evacuated. Other than alerts and evacuations, Mexico did not have any known preparation tactics like food supplies or shelter.

3. Response: The ADRA, Adventist Development and Relief Agency, was one of the first responders to this storm. Nearly 400,000 people affected with tens of thousands evacuated and most living in shelters and the current death toll at 139 and may continue to rise. After the storm, the ADRA was on the ground investigating the damages. They said that Mexico would have economic, social, health, education and political problems due to this storm. The Mexican Red Cross was also there to help. They activated all of their branches and sent out volunteers to the affected regions. Search and rescue teams were deployed Guerrero and Tamaulipas. The Mexican Red Cross opened centers with stocks of cleaning, hygiene, and relief supplies in multiple locations. Over 3,000 people took refuge in the wooded areas by them. World Renew focused their response on areas with prior extreme poverty. They provided food, hygiene essentials and cooking utensils. Other organizations like these responded to Manuel. Donation links were available on the websites of these organizations to help the people of Mexico.

4. Recovery: An estimated 1.2 million people total were affected by these pair of storms, 165 deaths and displaced an estimated 14,000 people into evacuation shelters. Approximately 40,000 acres of agricultural land in the Tierra Caliente region were damaged. An estimated 22,000 homes in the state of Guerrero were also damaged. To date, the ADRA (from previous) was able to help 8,000 people, and ADRA Mexico has been key with the on-the-ground implementation supported by initial funding from the local office, ADRA International, and ADRA Inter-American Division. The Mexican Red Cross has collected and distributed 7,700 tons of
humanitarian aid, including food, hygiene kits, household cleanup kits and kitchen sets to help affected populations rebuild and recover. The American Red Cross contributed an initial $150,000 in September to procure kitchen kits, clean up kits and hygiene kits. In total, the American Red Cross and The Mexican Red Cross put in 790,000 dollars into relief for Mexico. Also, the Mexican Army troops and the marines went into Mexico to help families whose homes were flooded. A military airbase was installed to transport aid. Power services were restored on September 19th. In addition to all the flooding and people losing everything, this caused crime and violence throughout Mexico. People robbed stores and homes. One person who was affected by Manuel said "The truth is, I don't even know what to tell you," he said. "The government ignores us. They help everyone else, but they've forgotten about Renacimiento". This is just one city in Mexico that felt forgotten. Federal Officials say at least 97 people were killed by Manuel. The government has proposed a budget deficit for the next year due to the prediction of economic downfall due to all the damage to roads, schools, homes, etc. All in all, the country experienced serious damage to not only the physical aspects like roadways, bridges, cities, homes, schools, etc. but also their economy. Mexico is still trying to recover from the flood effects and rebuilding their damages.

Although Mexico was not well prepared for this storm, maybe due to all the damage of Hurrican Ingrid and Tropical Storm Manuel, they will have more resources to prepare for another storm if warned. This pulls in the aspect of a lifecycle of a disaster. The disaster hits, then there is aftermath and then follows recovery which leads to preparedness for another disaster to come. When the next storm hits, people and the government will expect the worst and be ready to defend themselves against these disasters.

References:


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Man-made Disaster

BP-Oil Spill 2010

Mitigation- There were no safe guards in place to stop the oil rig from exploding or breaking the pipe line. This was not a foreseen disaster so when it occurred it became much worse than many had expected. There were a few safety valves that were closed once the spill occurred but these did not stop the oil from leaking into the Gulf.

Preparedness- This human disaster was like many other human disasters and was not expected. This oil rig was about 47 miles off the coast of Louisiana when it exploded. At first this was all that was thought to have occurred but once a robot was sent in to check on everything, the rig was found to have a pipe that was leaking. Since no one expected this to occur it took them a while to find the right plan of action to close the pipe and then clean the oil that was released. This spill resulted in about 4.9 million barrels of oil being released into the Gulf of Mexico.

Response- When the explosion first occurred BP and other government agencies tried to control the spill by putting floating booms and chemical oil dispersants to break down the oil that was underwater. To actually remove the oil from the water there were a few approaches. One was combustion where scientists tried to burn the oil off the top of the water. This method removed about 265,000 barrels. The second way to remove the oil was through offshore filtration. This was done by taking skimmers to the water and skimming the oil off the top of the water. This could later be processed by BP. This method removed about 890,000 barrels. The response to the leaking pipe took a lot of time because the first two attempts at a fix were failures. The pipe which was reported to be completely closed on September 19 2010. This is up for debate because many people believe that the pipe is still spilling oil into the Gulf.

Recovery- This effort was focused on cleaning up the beaches as well as making the water safe enough for marine life again. This was a huge task because so many animals were affected by this oil spill. Birds and sea turtles were among the two effected species from the oil spill. The birds had to be cleaned with soap and checked for any other damage. The beaches were also another issue. Oily material that washes up on the beaches needs to be collected so that it doesn’t have an adverse effect on the wildlife of the beach so this took many man hours to clean up. The cleanup is still going on today 4 years after the spill and leaked occurred. The lack of preparedness and the hasty response to the pipe leak allowed millions of gallons of oil to poor out. This had a huge effect on the environment and even the economy of the southern state in the US.