2011 Tohoku Earthquake and Tsunami

One significant and devastating natural disaster occurred on March 11th, 2011 in Japan. The natural disaster encompassed a 9.0 earthquake and deadly tsunami that ripped apart the community, killing over 15,000 people and dislocating over 228,000 people. In addition, over 127,000 buildings fully collapsed while nearly one million buildings half-collapsed/partially collapsed. Disasters can be viewed in terms of principal lifecycle stages: mitigation, preparedness, response, and recovery.

Mitigation, or the actions taken prior to a disaster to avoid/reduce the impacts of disasters, can help a community be prepared in the long run. For instance, knowing Japan’s location along the Ring of Fire effects the way their buildings are structured. In addition, forty percent of Japan’s coast has a sea wall, which usually protected communities. However, the walls failed during this massive disaster. Taking mitigation into consideration during the design of infrastructure throughout the country may decrease the negative outcome of a devastating disaster. Although making the seawalls higher or the buildings stronger may have helped decrease devastation, some events are simply unstoppable. Knowing that over a million buildings were damaged during this disaster, perhaps buildings could have been built with even more support or anti-seismic features.

The second principal lifecycle stage is preparedness. Most natural disasters are unpreventable but being prepared can decrease devastation. Because earthquakes are so difficult to predict, people have little time to prepare. Japan has warning systems, but residents only had little time to prepare. However, knowing what to do when it does happen can help tremendously. For this reason, schools and communities practice drills and inform people on how to prepare.

The third principal lifecycle stage is response. Response occurs when the disaster has struck. This stage includes taking shelter, efforts to save lives, and efforts to prevent further damage. In the Tohoku Earthquake, response efforts were not very effective to the severity of the disaster. However, some survivors managed to live by taking shelter in sturdy structures and seeking higher ground once the tsunami struck.

The fourth principal lifecycle stage is recovery. Once the disaster has occurred, recovery is extremely important. To this date, thousands of houses and buildings are still destroyed and abandoned. Although the disaster is still noticeable through destroyed buildings and vegetation, recovery efforts were/are being made. For example, eight months after the disaster, community leaders
organized an effort to relocate and rebuild their communities. In addition, Japan had a tremendous amount of help and donations from other countries, including the United States.

One particular stage that may have played a decisive role in short and long term outcomes for people and society was the preparedness stage. Unfortunately, the Tohoku Earthquake came so quickly that there was little time to prepare and seek safety which led to the enormous amount of casualties. If people could have known what devastation was on its way, perhaps they could have been more prepared. Hopefully improvements in technology will continue to improve warnings so people can prepare better.

Sources

https://recoveringtohoku.wordpress.com/


http://www.telegraph.co.uk/news/worldnews/asia/japan/9920042/Tsunami-two-years-on-Japan-finally-gets-warning-system-that-would-have-saved-hundreds-of-lives.html