Trident University International

Module 1: SLP#1 Disaster/Hazard And Vulnerability Analysis

MHE503: Introduction to Cybersecurity

**Disaster Analysis**

The country chosen for this assignment is China. The country has had tremendous economic developments over the past few decades. To an extent, it is considered a rival to the superpower position against the United States. China currently has the fastest growing economy globally, and it plays a huge role in the world’s economy, culture, and population. The country is home to more than 1.3 billion people, and its vast expanse of land gives the government the diversity and character to make it stand out (Embassy of the People's Republich of China in Malaysia, 2020).

However, even as China continues to grow economically, it has had its fair share of challenges and disasters that have impacted its economic and social growth. In terms of political landscapes, the country is led by a communist, which has stirred many controversies politically, socially, and business-wise between China and other countries. For instance, China and the USA's recent trade war over privacy concerns in using devices produced in China (Cambridge Innovation Institute, 2021). Another challenge facing the country is the prevalence of natural disasters, with the country has had six of the world’s top 10 deadliest natural disasters (Rij, 2016).

According to GFDRR (2020), climate change, fast urbanization, and economic growth increase the country’s resource strain, ecology, and environment. Some of the country’s natural disasters include earthquakes, ocean disasters, meteorological disasters, and biological disasters. According to the report, the government has been hit by over 100 types of natural disasters. One natural disaster that has not hit the country for many decades is volcanic eruptions. According to the report, more than 30 percent of Chinese communities face the risk of flooding. Also, the eastern and the southern coastal regions are often faced with threats of tropical cyclone disasters.

With two-thirds of the country suffering from the negative effects of the threat of flooding, the government needs to look for ways to mitigate such disasters. Disasters such as droughts, cyclones, landslides, grassland fires, and storms can cause some significant damage to people’s property and caused the loss of many people’s lives. According to Hui (2020), natural disasters killed or caused the missing of 909 people in 2019 and led to the evacuation of 5.29 million people. The natural disasters also resulted in more than 130 million people being adversely impacted by the disasters. In light of the above statistics, it is essential for China to develop a comprehensive disaster management plan, to decrease the death toll, damage to property, minimize the effects of the

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| --- | --- | --- | --- | --- | --- | --- |
| Disaster 1 | Frequency 2 | Magnitude | | | Advance Warning  6 | Priority   7 |
|  |  | Killed 3 | Affected 4 | Cost 5 |  |  |
| Flood | 1 | 1 | 1 | 1 | More than 24 hours' warning | 1 |
| Storm | 1 | 1 | 1 | 1 | More than 24 hours' warning | 1 |
| Earthquake | 2 | 1 | 2 | 1 | From 1 hour to 24 hours' warning | 1 |
| Landslide | 2 | 3 | 3 | 2 | More than 24 hours' warning | 1 |
| Extreme temperatures | 3 | 4 | 4 | 3 | More than 24 hours' warning | 2 |
| Wildfire | 3 | 3 | 2 | 2 | From 1 hour to 24 hours' warning | 1 |
| drought | 3 | 2 | 1 | 1 | More than 24 hours' warning | 2 |
| Volcanic eruption | 4 | 3 | 4 | 4 | From 1 hour to 24 hours' warning | 1 |

(Rij, 2016)

From the above table, China is affected by floods. According to a report by Rij (2016), the type of flood that affects China can be classified as general floods entailing rising levels of inland water sources such as lakes, rivers, and groundwater. For areas near such water bodies, floods can be expected and can last several weeks to even months. According to Rij (2016), from 1980 to 2013, floods have resulted in 42,000 deaths and affected 1.9 billion people. Additionally, more than 40 million people have been rendered homeless from floods, thus making it one of the country's common and catastrophic disasters. Considering the weather forecast can predict the rain, warnings should be made a few days prior so that communities living near water bodies can evacuate or plan for floods.

Another disaster that can cause significant damage to the environment is wildfires. These wildfires can substantially cause damage to forestry, agriculture, and infrastructure. Such disasters have been most common in northern and western China. The disaster has affected more than half a million people and resulted in more than $110 million in economic damage. Fire can cause significant damage and should be given priority to keep people safe. Another natural disaster that has affected the country is storms. With over 224 storms reported in the past three decades, the storms have had a devastating impact on the Chinese people's economic and social lives. In the past three decades to 2013, over 12,470 people have been killed in the storms.

According to Rij (2016), storms significantly affect people's livelihoods, with over 478 million Chinese being affected over the decades. One of the common types of storms is the tropical clone. Heavy rains and wind in the country contributed to hurricanes and even typhoons, which have had deadly aftermaths. Also, since storms are weather-related, meteorologists should give warnings a few days before to prepare.

Landslides, which refers to the movement of mass debris, earth, or a mass of rock, have also affected China. According to Rij (2016), landslides are a secondary disaster to another. They still account for 3% of deaths since 1980. When there is too much rain in various parts of the country, rainwater may build-up, causing mud and debris to slide down mountains and hills. The dirt and debris can cover houses around the area, thus destroying property, causing injuries and death. According to Rij, the economy loses almost $759 million US, which is a significant amount. Since landslides are weather-related, scientists can try to predict rain better to alert individuals living near hills and mountains.

Earthquakes are deadly and can cause significant damage to property and other items. Some of the earthquake incidents are difficult to predict, thus resulting in unexpected disasters. However, some can be detected earlier, and the people have worn a few hours before it strikes. According to Rij, the Chinese government is trying to tackle this problem by developing and promoting earthquake-resistant constructions. The Chinese government has constructed millions of earthquake-safe houses to encourage the country to embrace the same.

Droughts have for most times been thought to be a problem affecting developing countries. However, thirty cases of draught have been reported in the last three decades, which most did not have significant effects. However, the droughts have affected more than 460 million people and resulting in economic damage worth $36 billion. Another related event is extreme weather conditions. When the weather is extremely dry or cold, it can affect farming practices, especially for those communities dependent on farm produce for a living. If the food runs out, the country may lose out on productivity.

**Conclusion**

In conclusion, China is a country that has tremendous progress in its economy and still keeps striving to become the best market. Even with its success business-wise, the government has been faced with natural disasters that have tremendously affected the country. The disasters include earth quicks, flooding, wildfires, and landslides, among others. China needs to develop a disaster response plan to prevent and mitigate the disasters to reduce the impact.

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