

Hazard and vulnerability analysis



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Hazard and Vulnerability Analysis Vulnerability can be defined as the potential for loss (Cutter Vulnerability is an important concept in the area of hazards research as helps in the development of strategies meant for hazard mitigation at the local, national as well as the international levels.

Vulnerability assessment is used by policy makers to help determine the potential loss of life and any other kind of damage caused by extreme natural disasters (3). Since vulnerability is an important aspect of mitigation during natural disasters, it is important to address the issue of social vulnerability to hazards. Hazard vulnerability analysis is defines as the identification of potential disasters or emergency situations and the effects, both direct and indirect, that these situations may have on operations (Cutter 9).

The main purpose of hazard and vulnerability analysis is to help the affected community to make the right choices that will help them address the vulnerabilities that they face. The analysis also helps in mitigating hazards and in the preparation for response and recovery efforts. Every emergency program should have a mechanism for hazard and vulnerability analysis (Wisner, Blaike and Cannon 17).

Data collection

In order to make accurate predictions for future events, it is important that the analysts collect the relevant information from different sources. This information should be relevant to the current situation and it should help in the creation of mitigating measures. The kind of data that should be collected during analysis includes everything about the nature and the causes of previous events. The frequency and/or intensity of previous disasters, as well as their magnitude should be included in the analysis.

Information about the effects that the disaster may have had in a given area is also important for the purpose of analysis of the current situation (Turner and Kasperson 37).

When the data has been collected, it is easy for the analyst's to map the location of the potential and past hazards. This way, it easy to get information through the use of satellite images, aerial photography and remote sensing technology (Cutter 52). Predictive information can be derived from hydrology, seismology, meteorology and volcanology data. This kind of information can be found in most government agencies and some private institutions (Wisner, Blaike and Cannon, 47). Other data can be found in core databases to help in decision making (Turner and Kasperson 42).

Disaster Analysis Table

Disaster

Frequency

1= most frequent

4= least frequent

Deaths per Disaster

1= highest

4= lowest

No. of People affected per disaster

1= highest

4= lowest

Average Cost per disaster

1= highest

4= lowest

Warning time

1= no warning

2= 1-24 hr warning

3=> 24 hrs warning

Disaster Rank

1= highest priority

Blizzard

0

0

0

0

0

Drought

1

2

2

2

3

2

Earthquake

2

3

1

1

2

2

Flood

2

1

2

1

2

2

Ice Storm

1

2

2

2

2

2

Hurricane

2

3

3

3

2

1

Infectious Disease

3

2

3

3

2

3

Landslide

1

1

Snow Storm

1

2

1

3

2

2

Tornado

3

2

2

2

2

1

Volcano

4

4

3

4

3

4

Wild fire

0

0

0

0

3

3

Sectors Most Vulnerable to Earthquakes

The business sector is most likely to be affected by earthquakes. This is because earthquakes destroy not only the environment, but buildings, roads and other infrastructure as well. Most of the businesses that are based in heavily constructed areas would come to a standstill if and when the earthquake happens. Businessmen and women would lose the things they need for work. When roads are destroyed, it will be hard for people to go to work, putting the business sector at a risk of running losses. If a strong earthquake was to come to pass, a lot of lives would be lost, and this would have a negative effect on the business sector as there would not be enough people to work.

Works Cited

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