1) Discuss the nature and types of man - made disasters.

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**Man-Made and Technological Types of Disasters**

- Hazardous materials
- Power service disruption & black out
- Nuclear power plant and nuclear blast
- Radiological emergencies
- Chemical threat and biological weapons
- Cyber attacks
- Explosion
- Civil unrest

Disasters also can be caused by humans. Hazardous materials emergencies include chemical spills and groundwater contamination. Workplace fires are more common and can cause significant property damage and loss of life. Communities are also vulnerable to threats posed by extremist groups who use violence against both people and property.

High risk targets include military and civilian government facilities, international airports, large cities and high profile landmarks. Cyber-terrorism involves attacks against computers and networks done to intimidate or coerce a government or its people for political or social objectives.

Man made disasters are also known as anthropogenic disasters and they as a result of human intent, error or as a result of failed systems. As mentioned earlier, these are broken down into several categories and while this is the case, there are some that cause more pronounced damage when compared to others. A good example is to look at man made disasters such as transportation. These are divided into different categories which include aviation, rail, road and space among others. Often these are as a result of neglect or ignorance and over the years, they have claimed several lives.

Another type of disaster that falls in this category is nuclear bomb. When this occurs, it is often as a result of intent and the end results are even more catastrophic with a large percentage of those involved losing their lives or alternatively ending up with major defects or long term injuries.

Other types of man made disasters which are just as catastrophic include chemical spill, oil spill, arson and terrorism. There are also some technological hazards which include power outages structural collapse, industrial hazards and fire. In cases of the last example, thousands of kilometers of land can be destroyed and anything else that is in the wake of the fires path.

Over the years, fires have come to be known as rampant man made disasters and they are also divided into different categories such as bush fires, mine, wild and firestorms. One of the most famous man made disasters in the form of fire was the Pennsylvania fire which was recorded in 1962. It left major distraction in its wake by destroying a town and to date, such fires continue to burn. Whenever people suffer injuries due to any of the mentioned man made factors, the condition is further aggravated if they don’t get any immediate health care. It is for this reason that it is considered important to take learn more about fire preparedness and the most logical strategies to use to reduce causalties percentages and aggravation of the situation.

The extent of damage caused by man made disasters varies greatly and while this is the case, it is important to state that others have notably high costs when compared to others. This is especially true when it comes down to responding and recovering. When you carry out a basic search, you will come across several resources that highlight these costs and hence, this will give you a clearer glimpse of what damage is caused by such occurrences. Additionally, there are different factors which influence the costs such as location. For instance, if this were to occur in densely populated but wealthy countries, the end result might prove to be huge. However, if the same were to occur in densely populated but poor countries, the after effect costs might prove to be lower and this is in part closely tied to insurance.

The death toll caused by man made disasters will also vary in accordance to geographical location and in this regard, the poorer countries are hardest hit when compared to the richer ones. This is attributed to the fact that the richer countries have what it take to respond with speed to calls of distress, and can implement the proper safety measures needed from a distance to handle things safely and rapidly. Modern technology plays a very important part in the way you respond and prepare for disasters. With financial backing, it is easy to meet this end. On the other hand, the poorer countries have no resources or assets to respond with. There are several resources that categorically highlight the casualties in such incidences and it is advisable to look into the same in order to become more informed.

2) What are the major causes and effects of biological disasters?

**Ans:** In general, biological disasters develop when some form of malignant agent (usually bacteria or virus) enters a population that is vulnerable to its actions and which lives in an environment that is conducive to the agent’s propagation. Not all sources of biological disasters are known, and there is no clear consensus on precisely when an outbreak becomes an epidemic and when and epidemic becomes a disaster.

Some of the most notable biological disasters were caused by the movement of people to and from places where they never ventured before. One of the best examples of this was the plague (or Black Death) during the middle ages. The plague most likely originated in western Asia, and was carried by Asian brown rats aboard a cargo ship that traveled between Italy and the eastern Black Sea. Once it reached Europe it encountered a lot more people (potential victims) than it did in the sparsely populated black sea area, and that new population was not resistant to the disease.

AIDS (HIV) likely was spread in a rather similar way. In deep Africa the virus might have lived among apes and other animals but the human population was pretty sparse. With merchants and tourists traveling to and from deep Africa, however, someone picked up the virus unknowingly and brought it back with him. Once it was introduced into the Western world, it encountered very little resistance.

Even a small-scale biological attack with a weapon grade agent on an urban center could cause massive morbidity and mortality, rapidly overwhelming the local medical capabilities. For example, an aerosolized release of little as 100kg of anthrax spores upwind of a metro city of a size of Washington D C has been estimated to have the potential to cause up to three millions of deaths.

Biological Disaster imposes heavy demands on the National health care system and it will be the public health system that will be called upon to handle the consequences. An effective public health system with component of a strong disease surveillance mechanism, facilities for rapid