


MAN-MADE DISASTERS



DISASTER

- A **disaster** is a serious disruption, occurring over a relatively short time, of the functioning of a community or a society involving widespread human, material, economic or environmental loss and impacts, which exceeds the ability of the affected community or society to cope using its own resources.
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- Disasters are seen as the consequence of inappropriately managed risk. These risks are the product of a combination of both hazards and vulnerability. Hazards that strike in areas with low vulnerability will never become disasters, as in the case of uninhabited regions. Developing countries suffer the greatest costs when a disaster hits – more than 95 percent of all deaths caused by hazards occur in developing countries, and losses due to natural hazards are 20 times greater (as a percentage of GDP) in developing countries than in industrialized countries.

CLASSIFICATIONS

- Researchers have been studying disasters for more than a century, and for more than forty years disaster research. The studies reflect a common opinion when they argue that all disasters can be seen as being human-made, their reasoning being that human actions before the strike of the hazard can prevent it developing into a disaster. All disasters are hence the result of human failure to introduce appropriate disaster management measures.



DISASTERS

- Disasters are hazards that cause destruction or environmental changes.

The types are

- Natural disasters
- Man made disasters



MAN MADE DISASTERS

- Man made disaster is a threat having an element of human intent, negligence, or error, or involving a failure.
- Man made disasters are hazards caused by human action or inaction. They are contrasted with natural hazards. Man made disasters may adversely affect humans, other organisms and ecosystems. The frequency and severity of hazards are key elements in some risk analysis methodologies.

List of few man made disasters

- The nuclear bombing
- Terrorism
- Oil spill



The atomic bombing

- The first two atomic bombs were used by the USA to end the war against Japan in 1945.
- The first one was called Little Boy and dropped by a flight called Enola Gay on Hiroshima with a death toll of around 166,000 on 6 August 1945.
- The second was named The fat man and was dropped by a plane called Bockscar on Nagasaki with a death toll of around 80,000 on 9 August 1945.
- If Japan did not surrender the USA planned to continue dropping atomic bombs until they did.

The image shows a dramatic scene of the September 11 attacks. In the center, a massive fire and explosion are visible, with bright orange and yellow flames and thick black smoke billowing upwards. The two towers of the World Trade Center are visible on either side of the explosion, their upper sections partially obscured by the smoke and fire. The sky is a clear blue. The overall tone is somber and catastrophic.

Terrorism

- 9/11 is the big act of terrorism on US
- On September 11th, 2001, 4 flights were hijacked 2 of them hit the twin towers in New York and third flight hit pentagon, in Washington DC killing
- 4th flight, passengers attacked the hi-jackers and crashed the flight down.
- 4th flight was believed to have a target of White house or the Capitol.

Deepwater Horizon oil spill

- The oil spill flowed for 3 months without being stopped.
- About 780,000m³ oil is estimated to have flowed out
- 17 people were killed in the explosion that released the oil.



SOME OF OTHER MAN MADE DISASTERS

- Societal hazards
- Hazardous materials
- Transportation



SOCIETAL HAZARDS



SOCIETAL HAZARDS

- Criminality
- Terrorism
- War
- Industrial hazards
- Engineering hazards
- Waste disposal
- Power outage
- Fire



SOCIETAL HAZARDS

- A failure to notice or by purposeful intent by human inaction or neglect, consequences as a result of little or no pre-emptive actions to prevent a hazard from occurring. Although not everything is within the scope of human control, there is anti-social behaviour and crimes committed by individuals or groups that can be prevented by reasonable apprehension of injury or death.



1. CRIMINALITY

- Behavior which puts others at risk of injury or death is universally regarded as criminal and is a breach(breaking) of the law for which the appropriate legal authority may impose some form of penalty, such as imprisonment, a fine, or even execution. Understanding what makes individuals act in a way that puts others at risk has been the subject of much research in many developed countries.





2. TERRORISM


- The common definition of terrorism is the use or threatened use of violence for the purpose of creating fear in order to achieve a political, religious, or ideological goal. Targets of terrorist acts can be anyone, including private citizens, government officials, military personnel, law enforcement officers, fire fighters, or people serving in the interests of governments.





حتى تكسح الحرب لوزارها. هيلال كهن عليہ السلام

3. WARS

- War is a conflict between relatively large groups of people, which involves physical force inflicted by the use of weapons. Warfare has destroyed entire cultures, countries, economies and inflicted great suffering on humanity. Other terms for war can include armed conflict, hostilities, and police action. Acts of war are normally excluded from insurance contracts and sometimes from disaster planning.
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4. INDUSTRIAL HAZARDS

- Industrial accidents resulting in releases of hazardous materials usually occur in a commercial context, such as mining accidents. They often have an environmental impact but also can be hazardous for people living in proximity. The Bhopal disaster(Dec 3, 1984) saw the release of methyl isocyanate into the neighbouring environment seriously affecting large numbers of people. It is probably the world's worst industrial accident to date.



5. ENGINEERING HAZARDS

- Engineering hazards occur when structures used by people fail or the materials used in their construction prove to be hazardous.



6. WASTE DISPOSAL

- In managing waste many hazardous materials are put in the domestic and commercial waste stream. In part this is because modern technological living uses certain toxic or poisonous materials in the electronics and chemical industries. Which, when they are in use or transported, are usually safely contained or encapsulated and packaged to avoid any exposure.



6. WASTE DISPOSAL

- In the waste stream, the waste products exterior or encapsulation breaks or degrades and there is a release and exposure to hazardous materials into the environment, for people working in the waste disposal industry, those living around sites used for waste disposal or landfill and the general environment surrounding such sites.







7. POWER OUTAGE

- A **power outage** (also called a **power cut**, a **power blackout**, **power failure** or a **blackout**) is a short-term or a long-term loss of the electric power to a particular area. Power failures are particularly critical at sites where the environment and public safety are at risk. Institutions such as hospitals, sewage treatment plants, mines, shelters and the like will usually have backup power sources such as standby generators, which will automatically start up when electrical power is lost.

8. FIRE

- Bush fires, forest fires, and mine fires are generally started by lightning, but also by human negligence . They can burn thousands of square kilometres. If a fire intensifies enough to produce its own winds and "weather", it will form into a firestorm.





HAZARDOUS MATERIALS



HAZARDOUS MATERIALS

- **Toxic metals**
- **Radioactive materials**
- **CBRNs**



TOXIC METALS

- Many metals and their salts can exhibit toxicity to humans and many other organisms. Such metals include, Lead, Cadmium, Copper, Silver, Mercury etc..



RADIOACTIVE MATERIALS

- Radioactive materials produce ionizing radiation which may be very harmful to living organisms. Damage from even a short exposure to radioactivity may have long term adverse health consequences.



CBRN

- *CBRN* is a catch-all acronym for chemical, biological, radiological, and nuclear. The term is used to describe a non-conventional terror threat that, if used by a nation, would be considered use of a weapon of mass destruction. This term is used primarily in the United Kingdom. Planning for the possibility of a CBRN event may be appropriate for certain high-risk or high-value facilities and governments.



TRANSPORTATION



TRANSPORTATION

- Aviation
- Rail
- Road
- Space
- Sea



AVIATION

- An aviation incident is an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations, passengers, or pilots. The category of the vehicle can range from a helicopter, an airliner, or a space shuttle.





RAIL

- The special hazards of travelling by rail include the possibility of a train crash which can result in substantial loss of life. Incidents involving freight traffic generally pose a greater hazardous risk to the environment.





ROAD

- Traffic collisions are the leading cause of death, and road-based pollution creates a substantial health hazard, especially in major conurbations.





SPACE

- Accidents can occur on the ground during launch, preparation, or in flight, due to equipment malfunction or the naturally hostile environment of space itself. An additional risk is posed by (unmanned) low-orbiting satellites whose orbits eventually decay due to friction with the extremely thin atmosphere. If they are large enough, massive pieces travelling at great speed can fall to the Earth before burning up, with the potential to do damage.





SEA TRAVEL

- Ships can sink, capsize or crash in disasters. Perhaps the most infamous sinking was that of the Titanic which hit an iceberg and sank, resulting in one of the worst disasters in history.



