Types of Disasters

Disasters can take many different forms, and the duration can range from an hourly disruption to days or weeks of ongoing destruction. Below is a list of the various types of disasters – both natural and man-made or technological in nature – that can impact a community.

Natural Types of Disasters

- **Agricultural diseases & pests**
- **Damaging Winds**
- **Drought** and water shortage
- **Earthquakes**
- Emergency diseases (**pandemic influenza**)
- **Extreme heat**
- **Floods and flash floods**
- **Hail**
- **Hurricanes and tropical storms**
- **Landslides & debris flow**
- **Thunderstorms** and **lighting**
- **Tornadoes**
- **Tsunamis**
- **Wildfire**
- **Winter and ice storms**
- **Sinkholes**

Hurricanes and tropical storms are among the most powerful natural disasters because of their size and destructive potential. Tornadoes are relatively brief but violent, potentially causing winds in excess of 200 mph. Both earthquakes and tornadoes strike suddenly without warning.

Flooding is the most common of natural hazards, and requires an understanding of the natural systems of our environment, including floodplains and the frequency of flooding events. Wildfires are more prevalent in the event of a drought. Disasters impacting food supply can be extremely costly; American officials say that a food contamination scare similar to the one that hit the Belgian poultry industry in the 1990's could jeopardize U.S. agricultural exports in excess of $140 billion.

Man-Made and Technological Types of Disasters

- **Hazardous materials**
- Power service disruption & **blackout**
- **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.

http://restoreyoureconomy.org/disaster-overview/types-of-disasters/

Quick Evacuation Efforts Help India Minimize Deaths From Cyclone

NEW DELHI — The powerful cyclone that struck **India**'s eastern coast this weekend washed away thousands of mud homes, knocked down power lines, blocked many of the region's roads and damaged crops and fishing boats. But reports from the region on Sunday showed the success of one of the biggest and most rapid evacuations in India's history, an operation that moved more than 800,000 people to safety.

Just 14 years ago, a cyclone in roughly the same place killed more than 10,000 people, and over the past century, the storms that have roared out of the Bay of Bengal have left much death and destruction in their wake. But while an accurate assessment of the damage caused by this weekend's storm will probably take weeks, the official death toll reported Sunday evening was 17, an astonishingly low number considering that 12 million people live in the storm's path.

The success of the evacuation operation was possible largely because of vast improvements in the country's physical infrastructure and communication systems, although the police found it necessary, at times, to coerce reluctant villagers to leave their mud and thatch homes, which were vulnerable to high winds and drenching rain, local officials said.

Most of the deaths were attributed to falling trees and collapsed houses, officials said. The cyclone, named Phailin, was expected to drop up to 10 inches of rain over two days in some areas. By late Sunday night, it had been downgraded from a cyclone to a depression, with sustained winds of 25 miles per hour and gusts of 34 miles per hour.

Change can come slowly to India. The caste system still predominates, grinding poverty remains endemic and clean water is rare. But the effective response to the threat this weekend demonstrates that Indians are transforming their country, particularly in the ways that they communicate and get their news.

Nearly a billion people routinely use cellphones in India, up from fewer than 40 million a decade ago. Even many of the poorest villages now have televisions, and India's numerous 24-hour news channels have blanketed the nation's airwaves with coverage of the storm.

As the cyclone approached, many villagers tried to stay behind to safeguard their land and livestock during the worst of the storm, according to local news reports, but almost none were unaware of the coming danger. And that is a huge change. Another crucial change has been a boom in the construction of cement houses, schools and businesses that provide crucial shelter in even the remotest areas. Villagers who stayed until the last moment had somewhere to go for safety.

K. Baliah, a district official from Srikakulam in Andhra Pradesh State, said that some of the 60,000 people evacuated in the district did not leave their homes willingly. All were allowed home on Sunday, he said.

“People are complaining that they knew nothing would happen, but officials forced them to move anyway,” he said with no apology.

With at least 1,000 acres of farmland submerged and many thatched homes and fishing boats destroyed, officials said their coercion proved effective. But Mr. Baliah said that because the cyclone was not as severe as predicted, officials would have a harder time persuading large numbers of people to evacuate in the future.

Dr. Jibanananda Mohanty, a retired veterinary surgeon from Bhubaneswar in the state of Odisha, said by telephone on Sunday that he had spent a harrowing night listening to howling winds and crashing trees outside, and that his home remained without electricity and water. But he had days to store enough water, milk, vegetables and other supplies to carry him through.

“Because of the advanced warning, we were prepared for this situation,” Dr. Mohanty said. “I haven’t heard of any loss of life in my neighborhood.”

India’s state and central governments spent days preparing for the worst. Prime Minister Manmohan Singh said in a statement on Saturday that he had been briefed on preparations for the storm and had directed the central government to extend all needed assistance to state officials.

Service members from the country’s army, air force and navy were deployed to help with rescue and relief operations, said A. K. Antony, India’s defense minister, and hundreds of shelters were set up.

Visakhapatnam, in Andhra Pradesh and near the center of the storm, experienced little damage apart from a collapsed sea wall. By 9 a.m., the sun was shining, businesses had opened at their usual times and traffic had resumed its usual chaos. People emerged from their homes on Sunday with a sense of relief and, in some cases, an “I knew it all along” attitude.

Tousis Ahmed, 30, who is employed in India’s emerging technology industry, stayed out late on Saturday night and even swung by the beach, which had been cordoned off, to check on the ocean.

“The waves were calm, so I went home and had a sound sleep,” Mr. Ahmed said.

B. Murkandarao, a fruit vendor, said he stayed open for business on Saturday night until his usual hour and was back on the street again on Sunday morning. “They tried to scare us on TV, but I was never worried,” he said.

The Bay of Bengal region is among the most vulnerable in the world to the effects of climate change, and experts have predicted that storms are likely to become more intense. India and Bangladesh together have more people at risk from rising sea levels than any other place in the world. So the government’s relatively effective response to the most recent storm is an encouraging sign.

Malavika Vyawahare and Hari Kumar contributed reporting from New Delhi, and Vivekananda Nemana from Visakhapatnam, India.

http://www.nytimes.com/2013/10/14/world/asia/india-cyclone.html?nl=todaysheadlines&emc=edit_th_20131014

Information about Disasters

Disasters fall into two major categories. These include man made and natural disasters. There is a major difference between these two and it is important to learn more about the same in order to increase your knowledge on the occurrence and causes of each and hence ensure that your disaster preparedness is heightened.

For starters, natural disasters are brought about by change in natural phenomenon or what is known as acts of God. The extent of loss experienced is dependent on the vulnerability of the population. As such, this means that this can only occur in areas that are susceptible to vulnerability. On the other hand, man made disasters are influenced by humans and they are often as a result of negligence and human error among other factors.

- *Natural disasters:* Natural disasters include things such as floods, volcanic eruptions, earthquakes, floods, tornadoes, landslides and hurricanes.

- *Man made disasters:* These can be divided into different categories and they include technological hazards, sociological hazards and transportation hazards among others.

Despite the difference between these two, it is ideal to note that they can cause irrevocable damage if the right measures are not put in place to avoid the same. This is where the need for disaster preparedness comes in. It goes a long way to cushion people from the after effects of such happenings. There are several sources that provide useful resources that make it possible to meet this end.

Whether the disaster is natural or man made, the manner in which action is taken goes a long way to determine how people fair from the experience. In both instances, casualties should be treated immediately and the best way to meet this end is placing the necessary measures in place that counteract this. Note that the costs associated with handling of the man made and natural disasters run to billions of shillings every year and this negatively affects the economy.

Man Made Disasters

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 causalities 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 distasters. 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.

Natural Disasters

 The causes of natural disasters are as mentioned earlier. Disasters only occur when hazards come face to face with vulnerability. As such, when natural occurrences that bring about damage and there are no casualties, then it is not referred to as natural disasters. There are people who are of the school of thought that there is a difference between hazards and disaster and while this is the case, the after effects and casualties are almost always the same.

There are some which have been termed as the most famous natural disasters and by learning more about them it becomes easier to handle the calamity when disaster strikes. In this category, some of the popular incidences include fires, tsunami, earthquakes, tornadoes and the floods. As a matter of fact, there are incidences when it is important to expound on some of these natural disasters in order to ensure that in case of any eventuality you are well prepared.

For instance, earthquakes are known to occur in areas that are earthquake prone. This is defined as the shaking of earth crust and it is brought about by shifting of the tectonic plates. While this is a sudden and unanticipated shake, the magnitude varies and this is what determines the after effects and whether or not a large percentage of the population suffers from the same. Additionally, earthquakes are known to affects humans and animals alike.
While the earthquake itself is not responsible for this, secondary effects which occur after the quake do. In most cases, this leads to collapse of buildings, triggering of fires and volcanoes among other man made disasters. Some of the quakes that went down history books as worst natural disasters include the Indian Ocean quake which is the third strongest world wide.

It had a magnitude of 9.1-9.3. It is known to have triggered one of the most major tsunamis which claimed the lives of more than 229,000. The most recent one has to be the 2011 Tohuku quake and this one recorded a magnitude of 9.0. The death tool in this case is recorded to be

more than 13,000 and to date more than 12,000 people are still recorded as missing. Other quakes worth noting include the java earthquake in 2006, the Chile quake in 2010. The last one was accompanied by tsunami that claimed more than 550 lives. Large buildings like land based casinos were reported to have been torn down like they were made of paper, as one **online casino directory site** reports.

Floods are also known to cause some of the worst natural disasters and this is especially true when they are accompanied by hurricanes. Hundreds of thousands of lives have been lost due to this and consequently, it is ranked among the most dreaded occurrences. These often occur in areas that are flood prone and for this reason it is always advised to avoid living in such areas. Other types of natural disasters that are just as disastrous include blizzards, droughts, fires, health disasters and space disasters among others. The manner in which each of these incidences is handled varies in accordance to the magnitude of the natural disaster and how well people cope with the same.

While natural disasters are an act of God and unstoppable, having the necessary precautionary measures in place to ensure that people are well prepared for the same goes a long way to ease the burden associated with such burdens making it less difficult to handle. What is more, if more people seek to get educated on such aspects, it becomes easier to handle any eventualities. The same could not be said about our **ancestors** before us. It is precisely due to these facts that the importance of preparedness cannot be overstressed. To cap it all, the world should unite in handling such occurrences to ease the burden placed on individual countries and especially those termed as third world countries.

http://www.disasterium.com/

10 Worst Natural Disasters

Over the centuries there have been many natural disasters or “acts of God” that have stolen human lives and left destruction and havoc for the survivors. Sometimes these incidents are ranked based on damage, loss of lives or the amount of money that it cost to rebuild. Therefore defining the 10 worst natural disasters of all times is subjective and depends on the criteria used. However, these ten natural disasters resulted in over one hundred million deaths over the years.

1. The Deadliest Earthquake in History

In July 5, 1201 in Egypt and Syria, the deadliest earthquake in recorded history struck making it

one of the 10 worst natural disasters of all times. This disaster rocked the eastern Mediterranean and killed over 1.1 million people, destroying countless homes. Nearly every major city within the near east felt the effects of this quake.

2. The Black Plague

The bubonic plague or "Black Death" killed almost 33 percent of the entire population of Europe when it struck between 1347 and 1350. It also affected millions in Asia and North Africa. Scientists believe that the plague was a zoonotic disease caused by Yersinia pestis bacterium and spread due to poor hygiene and fleas carried by rats.

3. Indian Famine

In 1769 in India, a great famine took over ten million people's lives. This was nearly one third of the population of India at the time. It was caused by a shortfall in crops followed by a severe drought. As populations were devastated by the deaths, many areas returned to jungle, further decreasing food supplies. This famine lasted until 1773.

4. The Potato Famine

The Irish Potato Famine of 1845 to 1848 took over a million lives. Irish farmers were dependent on their potato crops and most of the rural poor relied on these crops for nourishment. When a late blight water mold fungus struck, the crops were ruined and the British provided little aid. In addition to the lives that were lost, the Irish Potato Famine also caused as many as two million people to immigrate to other countries.

5. The Deadliest Drought

In 1876 to 1879, China recorded the deadliest drought in history making it one of the 10 worst natural disasters of all time. The rivers ran dry killing crops and livestock. Over 9 provinces were affected by the lack of food production and the drought ended up killing over nine million people.

6. The Flu Pandemic

In 1918 and 1919, the flu struck across the world resulting in between 35 million and 75 million deaths. Some reports even estimate that this viral illness killed nearly a 100 million people. In

India alone, there were over 16 million deaths. The hardest hit by this were young children and the elderly.

7. The Yangtze, Yellow and Huai River Floods

After experiencing a severe drought from 1928 to 1931 in China, torrential rains suddenly appeared from July to August 1931. Because of this, the Yangtze, the Yellow and the Huai rivers flooded killing nearly 4 million people and affecting 51 million people by destroying the rice crops and creating famine and disease which ultimately killed even larger numbers of the population.

8. Chinese Famine

Over 20 million people died of famine from 1959 to 1961. This incident is debated as a natural disaster though and may in fact be a result of politics rather than decreased food production. This is because the Mao government reported inflated food production and then took 50 percent of the harvests. However, because the reported harvest was inflated, it resulted in the government taking the entire production leaving the people to starve.

9. African Drought

In 1981 to 1984 Africa suffered from severe drought in twenty nations. As rivers and lakes dried up, crops and livestock died resulting in up to 20,000 people starving to death each month. Other nations saw the need and came to Africa's aid. However, by the end of the crisis, over a million people had succumbed to death.

10. North Korea Famine and Floods

A combination of political problems and natural disasters resulted in over 3 million deaths in North Korea from 1995 to 1998. With a period of industrial decline, North Korea was unable to keep up with food production and began rationing food consumption. Soon the distribution channels began to collapse though and a series of floods devastated nearly 40% of their farm land. This led to starvation throughout many of the rural areas.

Natural disasters often affect millions of lives through disease, devastation and starvation. Human behavior can also contribute to how severe the problem is and may add to the death toll. These 10 worst natural disasters of all time each stole over a million lives.

10 Worst Manmade Disasters

Mankind has frequently created catastrophes that devastate the environment and taken lives. The 10 worst man-made disasters of all time are difficult to determine with so many blunders. However, excluding the loss of life resulting from war, terrorism or transportation disaster, this list includes the incidents that have had the most affect on people and the environment.

1. London's Killer Fog

With the advent of industry, London's population was accustomed to seeing foggy, pollution laden air. In 1952 however, this pollution took a tragic turn. This winter, the weather was cold and residents burned more coal in their fireplaces to alleviate the chill. The smoke laced with sulfur dioxide, nitrogen oxides and soot, and left London encased in a black cloud of near total darkness and killed over 12,000 people.

2. The Al-Mishraq Fire

Another of the 10 worst man-made disasters of all time was the Al-Mishraq fire on June 24, 2003. This fire at an Iraqi sulfur plant burned for about a month releasing sulfur dioxide into the atmosphere. Sulfur dioxide can kill people by causing respiratory problems and also creates acid rain which destroys crops.

3. The Nuclear Power Plant Explosion in Chernobyl, Russia

On April 26th 1986, the Chernobyl Plant in the Ukrainian Soviet Socialist Republic had a major meltdown which resulted in the atmospheric release of radioactive material four hundred times

more radioactive than Hiroshima. Since the accident there have been countless children with birth defects, a sickening increase of cancer sufferers and many other health issues as well. It is estimated that the disaster could result in nearly 100,000 fatal cancers, and the area won't be safe for any activity, including farming for up to 200 years.

4. The Kuwait Oil Fires

The Gulf War oil spill is the largest oil spill in history making it one of the 10 worst man-made disasters of all time. In 1991, following the invasion of Kuwait, Hussein sent men in to blow up the Kuwait oil wells. They managed to set over 600 ablaze and these burned for over seven months. The oil spill that resulted from the fires caused considerable environmental damage.

5. The Destruction of the Aral Sea

The Aral Sea was one of the four largest lakes at one point in time. However, in the 1960's, the Soviet Union diverted the waters from the rivers that fed the lake to irrigation projects. The sea has now shrunk by 90 percent and the salt and sandstorms that the devastation created kill plant life and have negative consequences for hundreds of miles around.

6. The Exxon Valdez Oil Spill

On March 24, 1989, the American oil tanker the Exxon Valdez collided with the Bligh Reef. This created an oil spill with far reaching consequences in the Prince William Sound in Alaska. Over 11 million gallons of oil spilled over nearly 500 miles polluting the coastline. Over a quarter million birds were killed and countless other wildlife. Over 11,000 people aided in the clean up process.

7. Dioxin Pollution

On July 10, 1976 in Meda, Italy, a reactor in the ICMESA chemical company exploded. This led to a toxic cloud of dioxin being released into the atmosphere. Dioxin is one of the most toxic chemicals known to man. While no one died as a direct result of the accident, many children were affected by the serious skin disease chloracne from the accident.

8. The Love Canal

In the 1940's a strange smell enveloped the area around the Love Canal near Niagara Falls. Residents also began to notice an odd seepage leaking into their yards and people began to fall

ill. In addition, many women began to have miscarriages and give birth to babies with birth defects. Upon inspection, it was discovered that there was over 21,000 tons of toxic industrial waste buried below the surface of the town by a local company.

9. The Union Carbide Gas Leak

On the night of December 2, 1984, the Union Carbide pesticide plant in Bhopal, India began to leak methyl isocyanate gas and other poisonous toxins into the atmosphere. Over 500,000 were exposed and there were up to 15,000 deaths at that time. In addition, more than 20,000 people have died since the accident from gas-related diseases.

10. The Three Mile Island Nuclear Explosion

In Harrisburg, PA on March 28, 1979, the Three Mile Island nuclear reactor experienced a partial core meltdown. While little radiation was released from the accident thanks to a working containment system, this accident became the rallying call for fears about the nuclear power industry. Livestock deaths, premature deaths and birth defects have been attributed to the nuclear melt-down.

Man can have a devastating effect on the environment and the 10 worst man-made disasters of all time have had a negative effect on the environment for decades afterwards. Frequently these disasters are related to poor industrial oversight within developing countries. However, even with regulation a catastrophe can strike.

15 Facts about Disasters You Didn't Know

Disaster can strike anytime, anywhere. They can be natural disasters or created by man. This can also bring out the best of human nature and show the worst side of mankind. These 15 facts about disasters are shocking and demonstrate that anyone can be affected.

1. Every year over 25.8 million people are affected by a natural disaster across the world.

2. Avalanches travel at speeds of over 200 miles per hour. In 1962 in Peru, several tons of ice and snow slid down Huascaran Peak in the Andes Mountains and killed over 4000 people.

3. The state that has the largest risk for tsunamis is Hawaii with over one a year.

4. On December 26, 2004 a tsunami triggered by a 9.0 magnitude earthquake caused the most devastating tsunami in history killing over 226,000 people in Indonesia, Sri Lanka, India, Thailand and the Maldives. In addition, millions of others were displaced.

5. The "Dust Bowl" of 1934 created a period of famine and drought in the United States in the 1934 Great Plains as land that had once been fertile was covered with huge clouds of dust lifted by heavy winds.

6. 1959 to 1961 was a period of famine for China. This was brought about by crop failure and lead to starvation, disease and cannibalism. However these disaster facts were not revealed to the world until 1981 by the Chinese government.

7. In 1099 a flood caused by a combination of storm waves and high tides washed across the coastal areas of the Netherlands and England killing over 100,000 people.

8. Floods are the number one deadly disaster in the United States accounting for over 46 percent of disaster related deaths according to disaster facts.

9. In 1815 in Tambora, Indonesia the Mount Tambora volcano exploded resulting in the deaths of 92,000 people, mostly due to starvation.

10. Cyclones, hurricanes and typhoons are the same thing. Different names are used in different parts of the world. In the Atlantic Ocean they are known as hurricanes, in the tropics they are known as tropical cyclones, in the Indian Ocean they are known as cyclones and in the Pacific Ocean they are known as typhoons.

11. The deadliest Western Hemisphere hurricane on record was in Barbados, West Indies in 1780. It killed nearly 22,000 people and completely devastated Barbados, Martinique and St. Eustatius.

12. Earthquakes are not generally killers according to disaster facts. The events afterwards are the cause of death including buildings collapsing, tsunamis and volcanoes.

13. Up to 10,000 people die a year as a result of an earthquake.

14. Nearly 90 percent of all volcanoes are in the “Ring of Fire,” a group of volcanoes that circle the Pacific Ocean.

15. Hurricanes have winds of at least 74 miles per hour.

A disaster can devastate a community and the after affects can lead to drought, famine and disease. The understanding the facts about disasters can help to make sense of what is occurring.

Timeline: Deadliest stampedes (Tragedies)

14 January 2011, Kerala, India

More than 102 pilgrims are crushed to death while returning from the Hindu shrine of Sabarimala. The shrine is in a remote, mountainous, area of dense forests.

22 November 2010, Phnom Penh, Cambodia

More than 375 people die in a stampede on a bridge on the Tonle Sap river during celebrations of the annual Water Festival. Prime Minister Hun Sen described the stampede as the "biggest tragedy" to hit Cambodia since the Khmer Rouge.

30 September 2008, Rajasthan, India

More than 220 people die in a stampede at the Chamunda Devi Hindu temple inside Jodhpur's famous Mehrangarh Fort.

3 August 2008, Himachal Pradesh, India

At least 140 people die in a stampede at a hilltop Hindu temple in northern India. A rain shelter on a mountain path to the Nainadevi temple collapsed in bad weather, causing panic. Dozens more pilgrims were hurt.

12 January 2006, Mina, Saudi Arabia

At least 364 die in a crush during the annual Hajj pilgrimage to Mecca. Officials say the stampede happened after pieces of luggage spilled from moving buses in front of one of the entrances to the bridge of Jamarat, causing pilgrims to trip.

31 August 2005, Baghdad, Iraq

Up to 1,000 Shia pilgrims are trampled to death or drown in the Tigris River after rumours of a suicide bombing sparked panic. Many of the dead are women and children.

25 January 2005, Maharashtra, India

Up to 300 Hindu pilgrims die in a stampede during a Hindu pilgrimage to the remote Mandhar Devi temple. Many pilgrims are crushed and burned to death as fires in roadside stalls force crowds into a narrow stairway leading to the hilltop temple.

1 February 2004, Mina, Saudi Arabia

Some 251 pilgrims are trampled to death in a 27-minute stampede during the Hajj. Officials say many of the victims were not authorised to participate in the Stoning of Satan ritual, after new procedures were introduced following previous stampedes.

9 May 2001, Accra, Ghana

Some 126 die at the Accra Sports Stadium after a match between rival teams Accra Hearts of Oak and Asante Kotoko. The Ghanaian police are blamed by many survivors for causing the stampede by firing tear gas in the packed and locked stadium, after angry demonstrations by fans of the losing side.

9 April 1998, Mina, Saudi Arabia

At least 118 pilgrims die and more than 180 are hurt during the Stoning of Satan ritual. The pilgrims, mostly from Indonesia and Malaysia, are trampled to death after panic erupts when several people fall off an overpass.

2 July 1990, Saudi Arabia

Some 1,426 pilgrims, mainly Asian, die in a huge crush in a tunnel leading to Mecca's holy sites. The authorities say most died of asphyxiation after the tunnel's ventilation system broke down.

http://www.bbc.co.uk/news/world-11819540

Uttarakahand floods a man-made disaster, not natural. Know how

HEADLINES TODAY | **HEADLINES TODAY** | NEW DELHI, JUNE 27, 2013 | UPDATED 01:31 IST

On 14th June, the Indian meteorological department predicted heavy to very heavy rainfall in the hilly regions of Uttarakhand in during next 48-96 hours. But they miserably failed at sounding a timely alert indicating the magnitude of the massive disaster.

While nature may not always be predictable, Indian administrative machinery is. Governments may change, Babus get promoted, but the people continue to pay for their follies.

This radar could have saved thousands as a dark storm brewed over the hills of Uttarakhand. Had it not been caught in red tape, the Doppler radar could have sent out timely warnings and thousands could have been evacuated in time.

Under modernization of the IMD, 55 Doppler radars were approved by Government of India

way back in 2007-08. The IMD was to furnish an estimated price which would then go to the Ministry of Earth Sciences, which in turn sends it to Planning Commission for approval. But in these six years, the file is shuttling between three departments, moving at a snail's pace and net result is zero.

Dr. Chandan Ghosh, Head of the Geo Hazards, National Institute of Disaster Management said, "Uttarakhand govt had placed request of Doppler radar (which can forecast cloud burst when attached to supercomputer) with Centre but the same couldn't be installed due to bureaucratic hurdles."

It is a surprise that in the first phase of installation of these radars, Uttarakhand got the miss. Seventeen radars were installed at various locations but none in Uttarakhand. Isn't this utter neglect on the part of the Centre?

"The defaulter is our leadership at the state and centre. It is these men who are to blame.. for each person dead in the Uttarakhand tragedy. For years ministers and babus simply looked the other way as experts urgently clamoured for deployment of weather radars," said Satish Bhatia, Scientist F, Upper Air Instruments Division.

"Tragedy could have been avoided if weather radars had existed at local level. Tragedy highlights need for sensors at local/state level to detect micro-climate and forecast phenomena such as cloudbursts. Overall satellite picture doesn't give specific data required to forecast such disasters," Avinash Chander, DRDO chief.

Despite being prone to frequent cloudbursts, flashfloods and landslides, Uttarakhand has virtually no system in place for early warnings, weather forecasts or even dissemination of rainfall and landslide related data. What is worse, despite the assurances, it may take over an year before the system is deployed in the misery struck hills.

http://indiatoday.intoday.in/story/uttarakahand-floods-a-man-made-disaster-not-natural.-know-how/1/285692.html

Man-made reasons for Uttarakhand disaster

Author(s): **Jyotsna Singh** **@singh_jyotsna** , **Soma Basu** **@sbasu_in**

Expansion of hydel projects, roads and tourism is making the Himalaya in Uttarakhand crumble.

Uttarakhand and Himachal Pradesh, two hill states in the Himalayan range, are so far the worst hit by the extreme rains that struck northern India in the wake of monsoons that set in early this year. Media reports say nearly 60 persons have died in Uttarakhand, and an estimated 60,000 pilgrims are stranded. Heavy rainfall has wreaked havoc on the region because of the fragile nature of the Himalayan range and poor soil stability in its steep slopes. But it is man-made factors that have compounded the scale of the disaster. Unabated expansion of hydro-power projects and construction of roads to accommodate ever-increasing tourism, especially religious tourism, are also major causes for the unprecedented scale of devastation, say experts.

Date: Jun 18, 2013

"The valleys of the Yamuna, the Ganga and the Alaknanda witness heavy traffic of tourists. For this, the government has to construct new roads and widen the existing ones," says Maharaj Pandit, professor with the Department of Environmental Sciences in Delhi University. He says that a study should be conducted to assess the carrying capacity of the Himalaya and development should be planned accordingly.

Roads destabilising mountains

"A new (mountain) range like the Himalaya will remain steady if not tampered with much. But the huge expansion of roads and transport is bringing the mountains in Uttarakhand down," says Pandit. Road, he says, is a major destabilising factor for a mountain and it is a new phenomenon for the Himalaya.

Pandit, who is in Uttarakhand for a research project, recounts an observation. "I was sitting at the Prayag bridge for tea and started counting the number of buses crossing it. Withing seven to eight minutes, 117 buses crossed," he says.

Data with the Uttarakhand State Transport Department confirms this. In 2005-06, 83,000-odd vehicles were registered in the state. The figure rose to nearly 180,000 in 2012-13. Out of this, proportion of cars, jeeps and taxis, which are the most preferred means of transport for tourists landing in the state, increased the most. In 2005-06, 4,000 such vehicles were registered, which jumped to 40,000 in 2012-13. It is an established fact that there is a straight co-relation between tourism increase and higher incidence of landslides.

Threat from dams

The Ganga in the upper reaches has been an engineer’s playground. The Central Electricity Authority and the Uttarakhand power department have estimated the river’s hydroelectric potential at some 9,000 MW and have planned 70-odd projects on its tributaries. In building

these projects the key tributaries would be modified—through diversion to tunnels or reservoirs—to such an extent that 80 per cent of the Bhagirathi and 65 per cent of the Alaknanda could be “affected”. As much as 90 per cent of the other smaller tributaries could be “affected” the same way.

Pandit says that rampant construction, be it of roads, or dams, has led to land use change and the cumulative effect is getting reflected in the extent of damage rains have caused.

Landslides more frequent now

“Our mountains were never so fragile. But these heavy machines plying everyday on the kutcha roads have weakened it, and now we suffer landslides more often,” says Harish Rawat, a BSc student in Uttarakhand’s Bhatwari region that suffered a major landslide in 2010.

Rawat lost his home to the landslide when a major part of the main market and 28 shops were wiped out by the landslide. About 25 other houses were destroyed completely.

Another local resident, Ram Prasad Tomar, a driver by profession in Uttarkashi town, says it is road cutting that has made the mountains so weak. He says the way mountains are cut to make roads has rendered the mountains unstable. “Road contractors, who come from outside, do not understand the mountains. Most of the expressways that are being constructed now are tangled in legal cases. After cutting of mountains, landslides continue for up to four years, and contractors go bankrupt clearing the debris,” he says.

Environment engineer and Ganga crusader, G D Agarwal, says that construction along the Ganga has certainly cost a lot more if one includes the cost of damage to environment. People have completely destroyed the ecology of the mountains. “We see more landslides nowadays because of unplanned development in the hills,” he says.

Experts say promotion of the state as a tourist destination is coming in way of sustainable development.

http://www.downtoearth.org.in/content/man-made-reasons-uttarakhand-disaster