

# Natural Disasters Notes



# **INTRODUCTION**

**Nature exists all around us and due to nature there is life on the earth. Human being, the most powerful animal on the earth, dominates and exploits nature according to his needs. When the balance of nature is disturbed, we face the fury of nature. The terrible outcome of selfish human activities is what we call the man-made disasters, for example serious accidents, bomb explosion etc. while there are other disasters which occur naturally. These are called natural disasters and potentially more dangerous and damaging. Earthquake, volcano eruption, tsunami, flood and drought are some examples of natural disasters.**





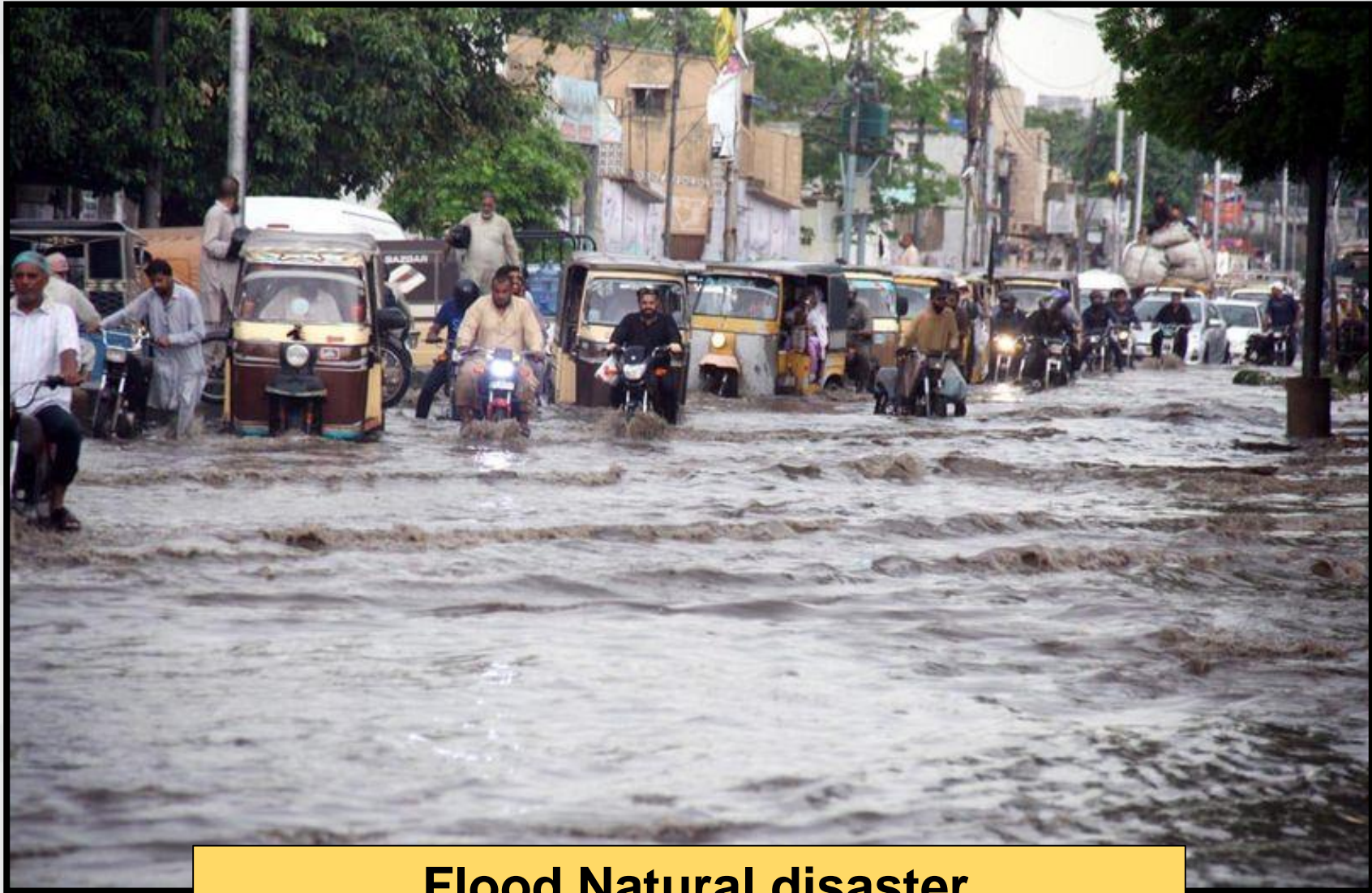
Hiroshima bomb explosion  
Man-made disaster





**Earthquake Natural disaster**

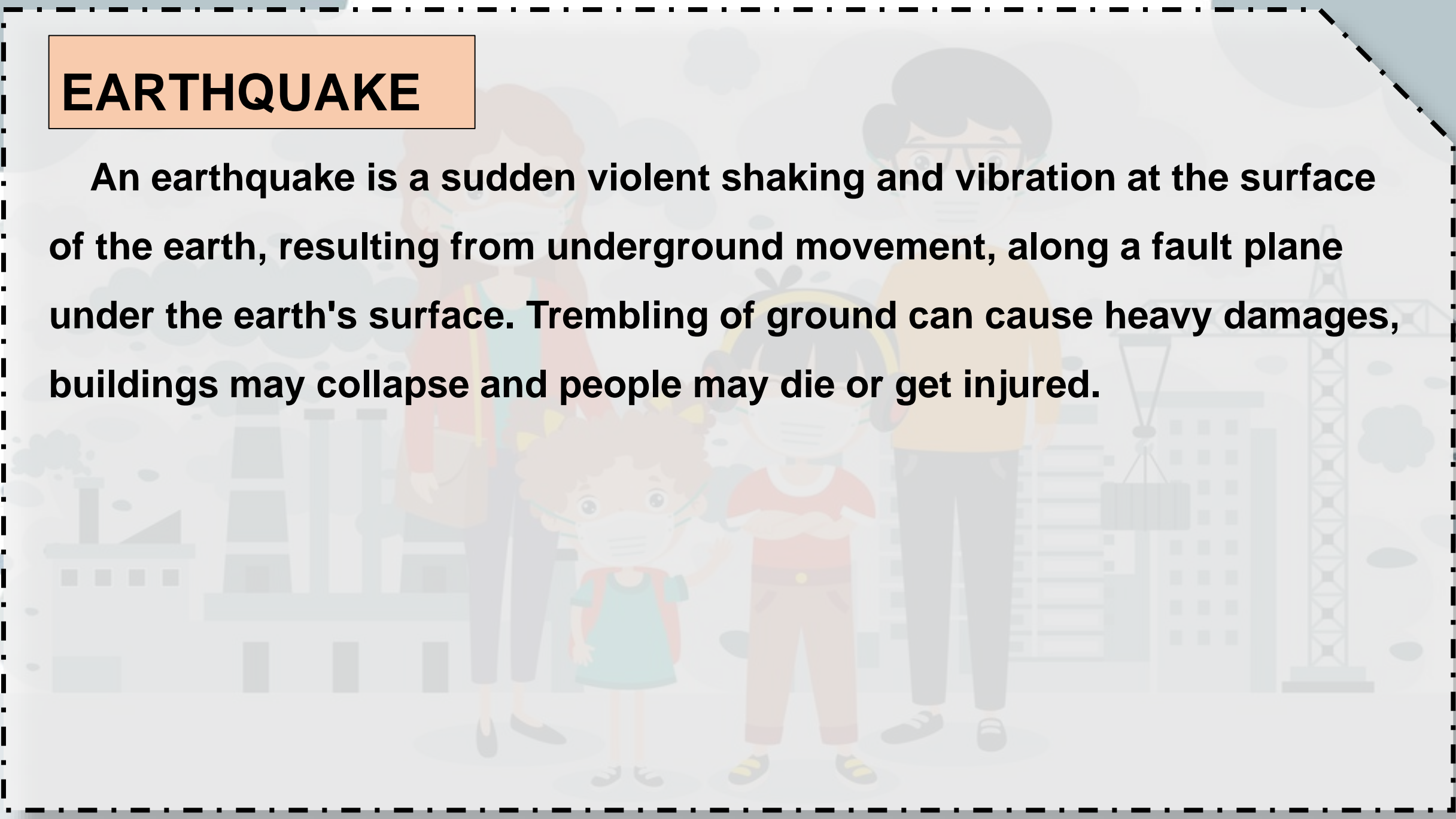




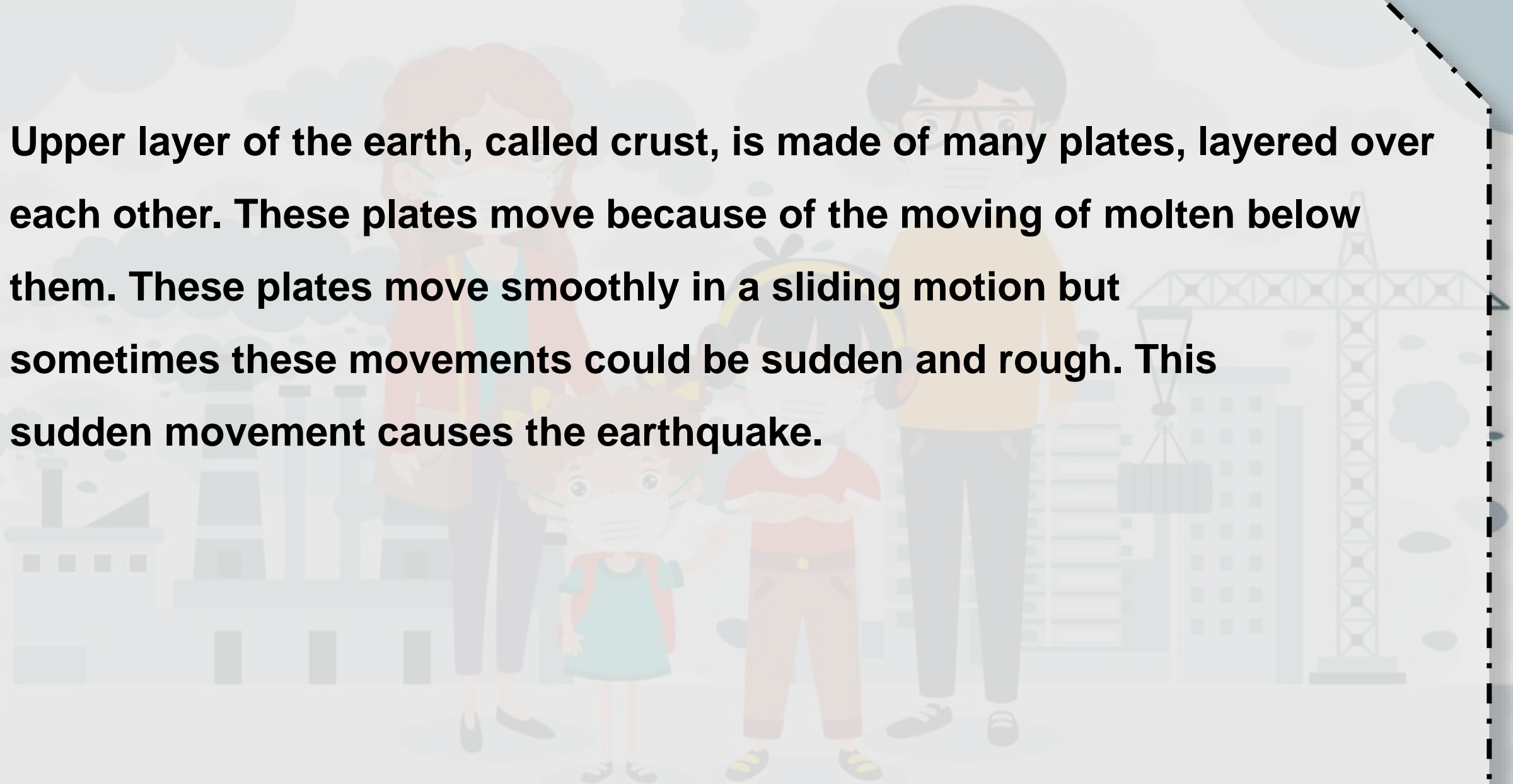
**Flood Natural disaster**

# EARTHQUAKE

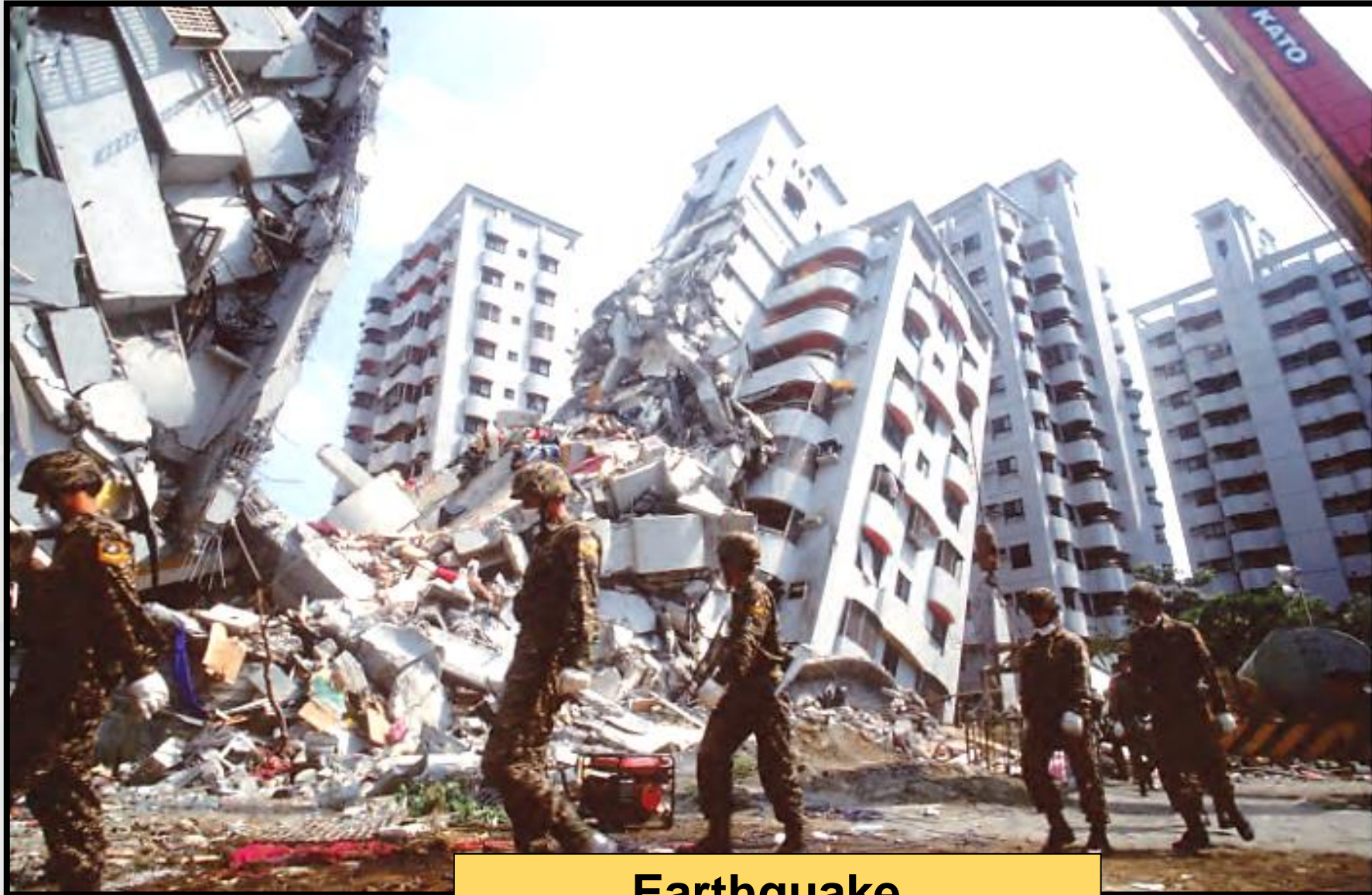
**An earthquake is a sudden violent shaking and vibration at the surface of the earth, resulting from underground movement, along a fault plane under the earth's surface. Trembling of ground can cause heavy damages, buildings may collapse and people may die or get injured.**



**Upper layer of the earth, called crust, is made of many plates, layered over each other. These plates move because of the moving of molten below them. These plates move smoothly in a sliding motion but sometimes these movements could be sudden and rough. This sudden movement causes the earthquake.**



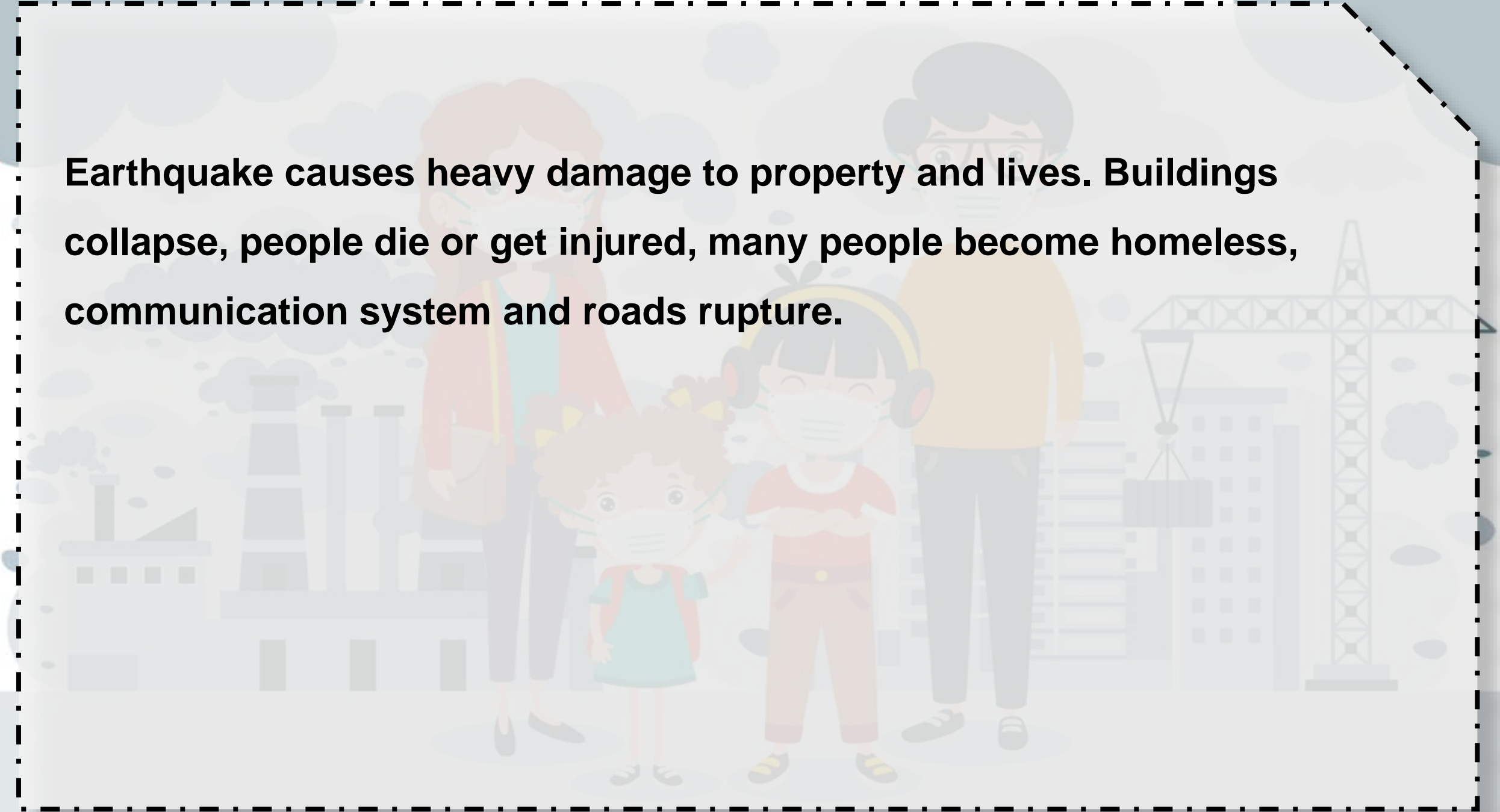




Earthquake



**Earthquake causes heavy damage to property and lives. Buildings collapse, people die or get injured, many people become homeless, communication system and roads rupture.**





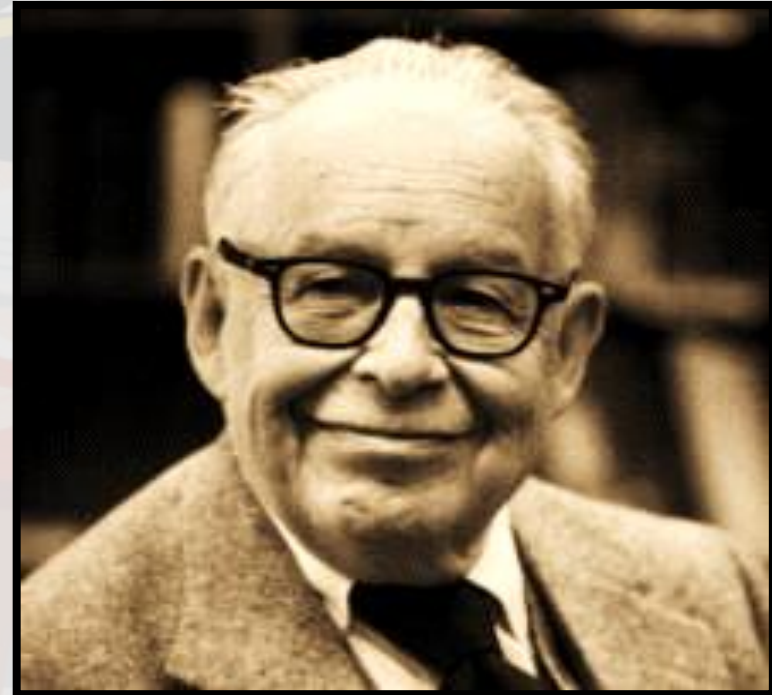
**Lesser damage by weak  
earthquake**





**Disaster by strong earthquake**

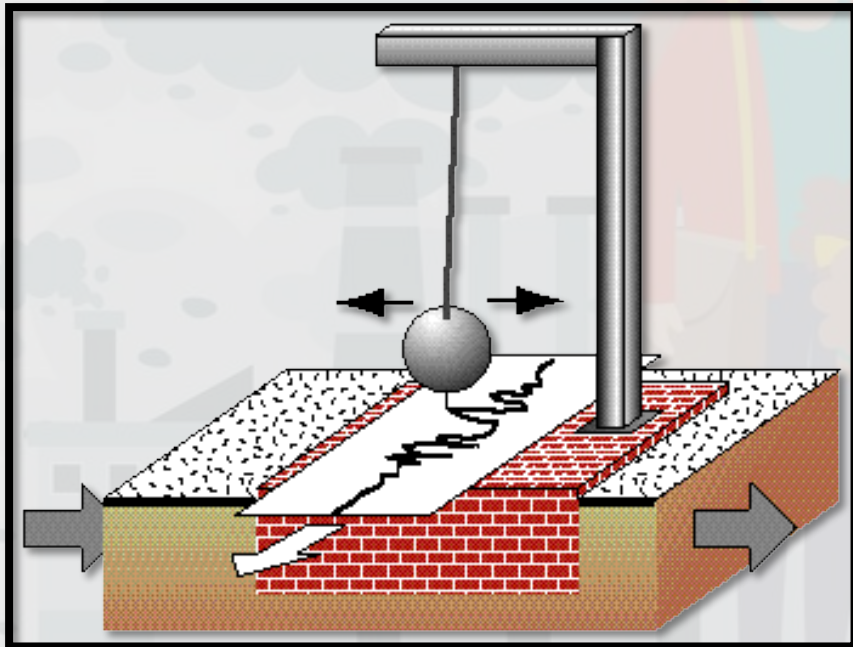
**People who study, research and predict about earthquakes are called seismologists. Earthquakes are measured on a scale called Richter scale, invented by Charles Richter in 1935.**



**Charles Richter**



**Seismograph is an instrument used to measure the intensity of the earthquake. Seismograph**

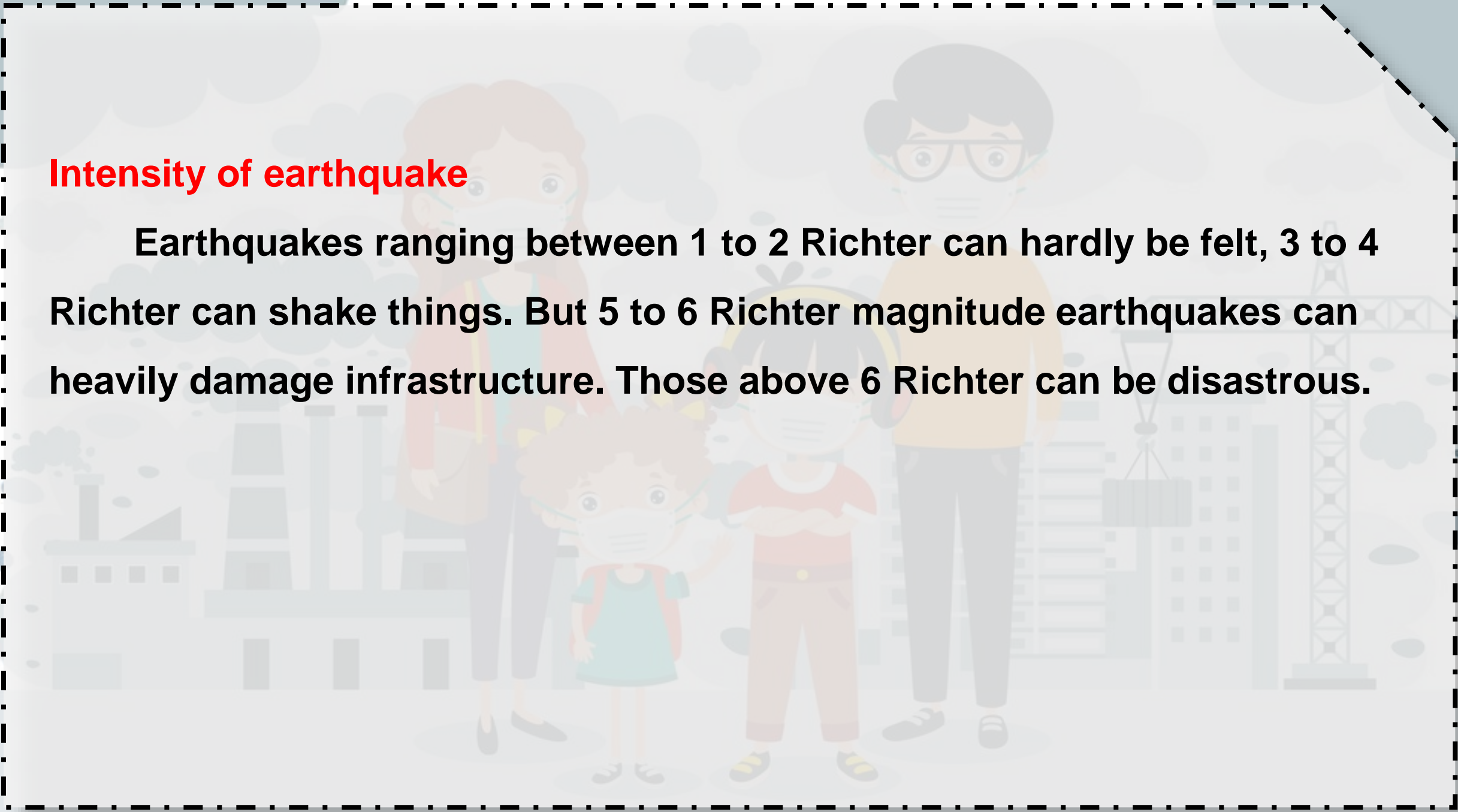


**Seismograph**

**having frame around it, is made of a stone, a drum, a pen and paper. As the ground trembles, the spring vibrates the pen over the paper wrapped on the drum. This reading made by the pen is called seismogram.**

## **Intensity of earthquake**

**Earthquakes ranging between 1 to 2 Richter can hardly be felt, 3 to 4 Richter can shake things. But 5 to 6 Richter magnitude earthquakes can heavily damage infrastructure. Those above 6 Richter can be disastrous.**





# **VOLCANO**

**A volcano is an opening in the earth's crust which allows hot magma, volcanic ash and other gases to escape from the interior of the earth. Molten lava comes out through a tunnel opening on a mountain called vent. Hot molten magma when comes out is called lava. It covers the whole region and burns down anything which comes in its way.**



Volcano eruption



**Volcanoes can also form in the interiors of the earth where earth's crust is stretching and thinning.**

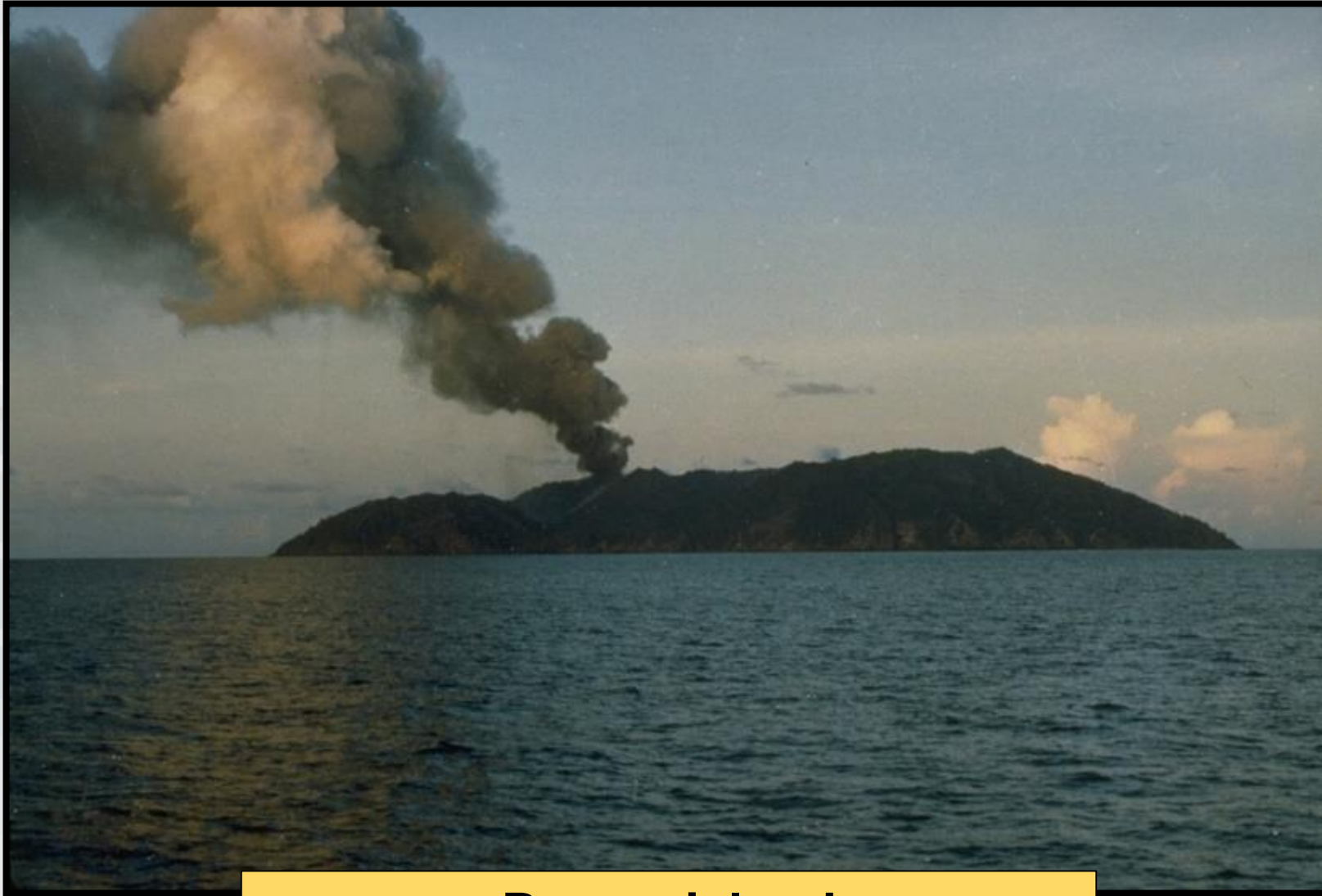


The background features a faint, stylized illustration of a family consisting of a mother, a father, and two children, standing in front of a city skyline with various buildings and a crane. The entire scene is enclosed within a dashed black border.

**On the basis of the eruption volcano can be classified as: Active Volcano, Dormant Volcano and Extinct Volcano.**

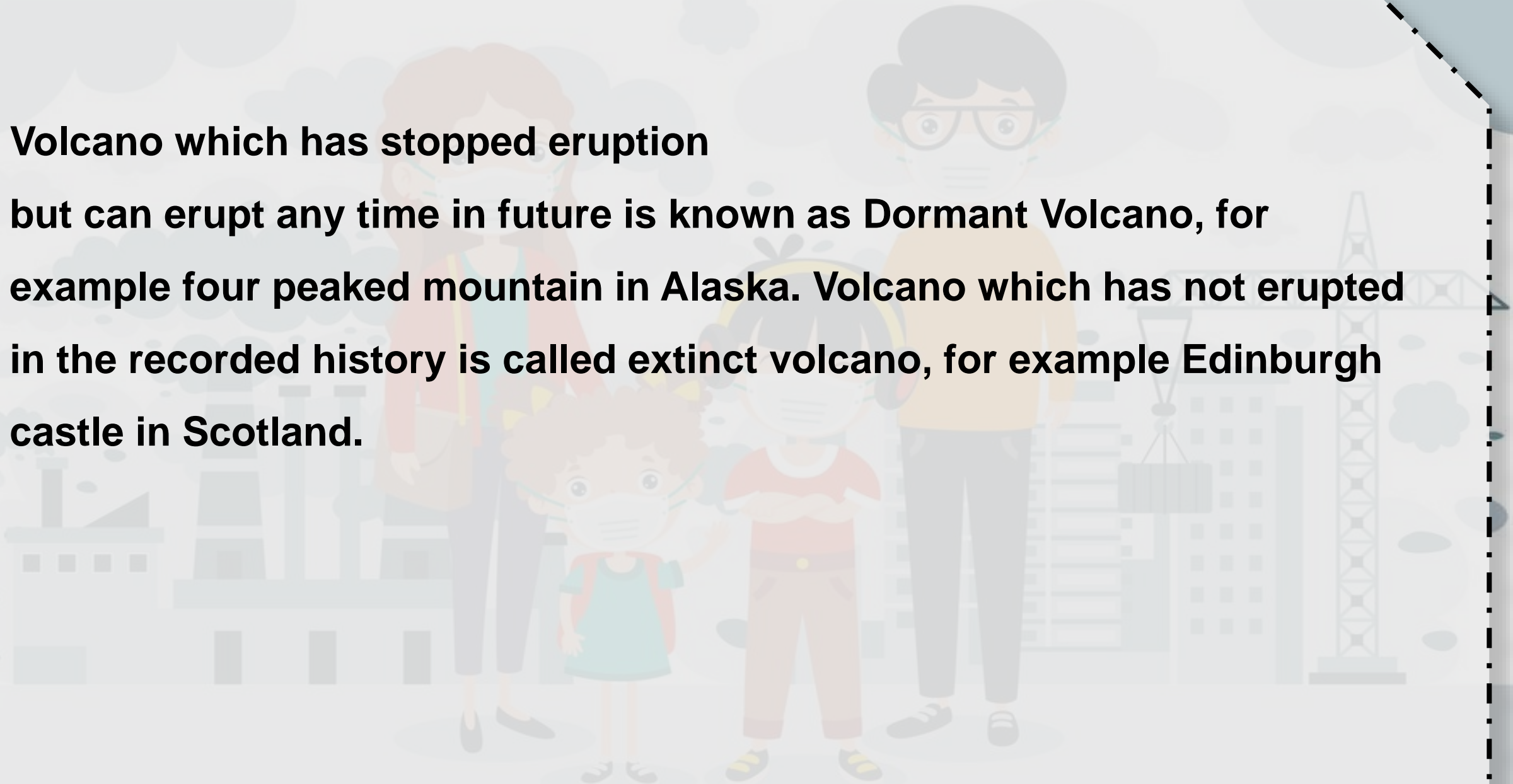
**Active volcano is the one which erupts regularly. Some active volcanoes in the world are Mount Etna , Mount Vesuvius, Mount Fuji and Mount Erebus. The only active volcano in Indian subcontinent is the Barren Island in Andaman and Nicobar islands.**





Barren island

**Volcano which has stopped eruption but can erupt any time in future is known as Dormant Volcano, for example four peaked mountain in Alaska. Volcano which has not erupted in the recorded history is called extinct volcano, for example Edinburgh castle in Scotland.**

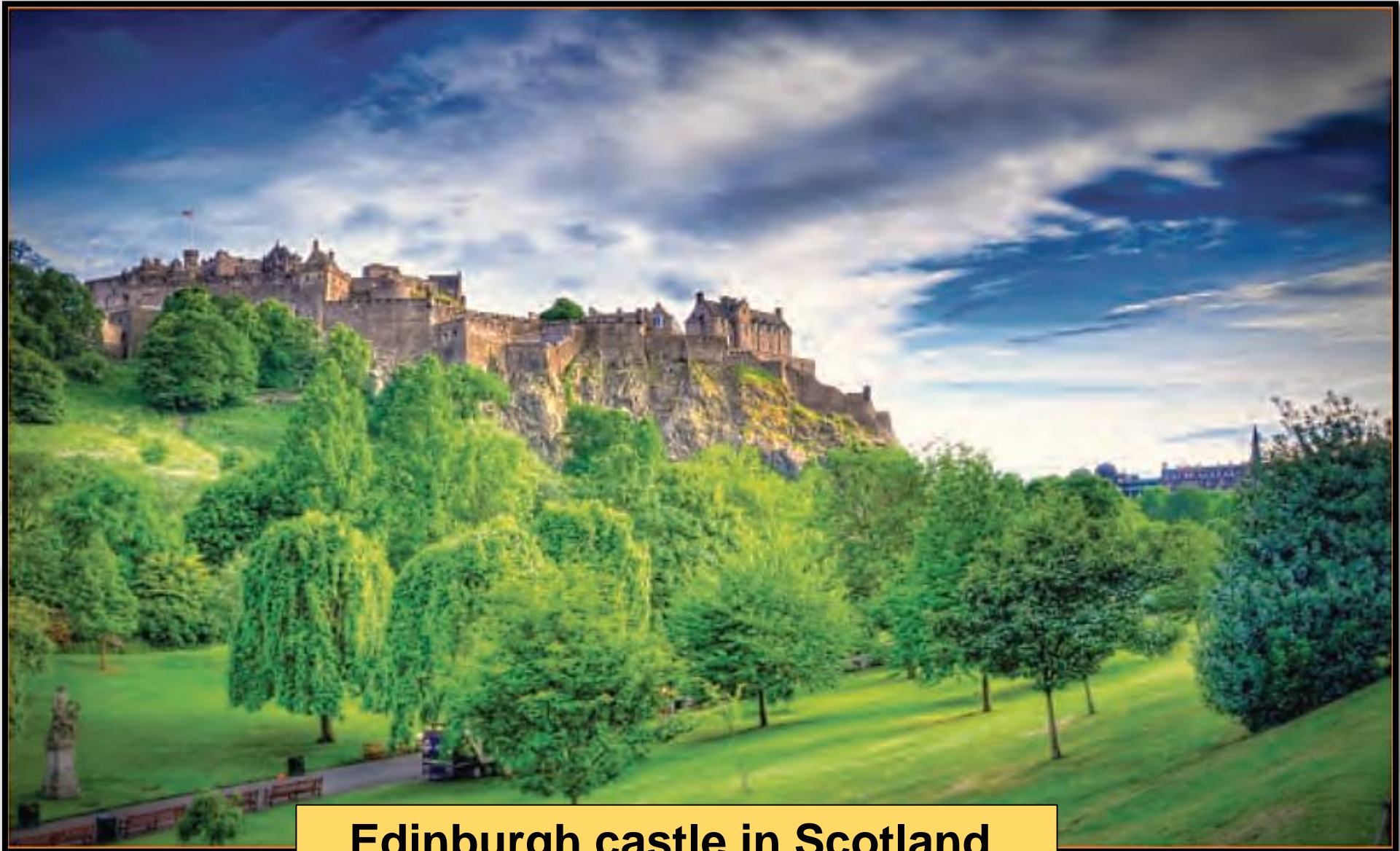






**Four peaked mountain in Alaska**



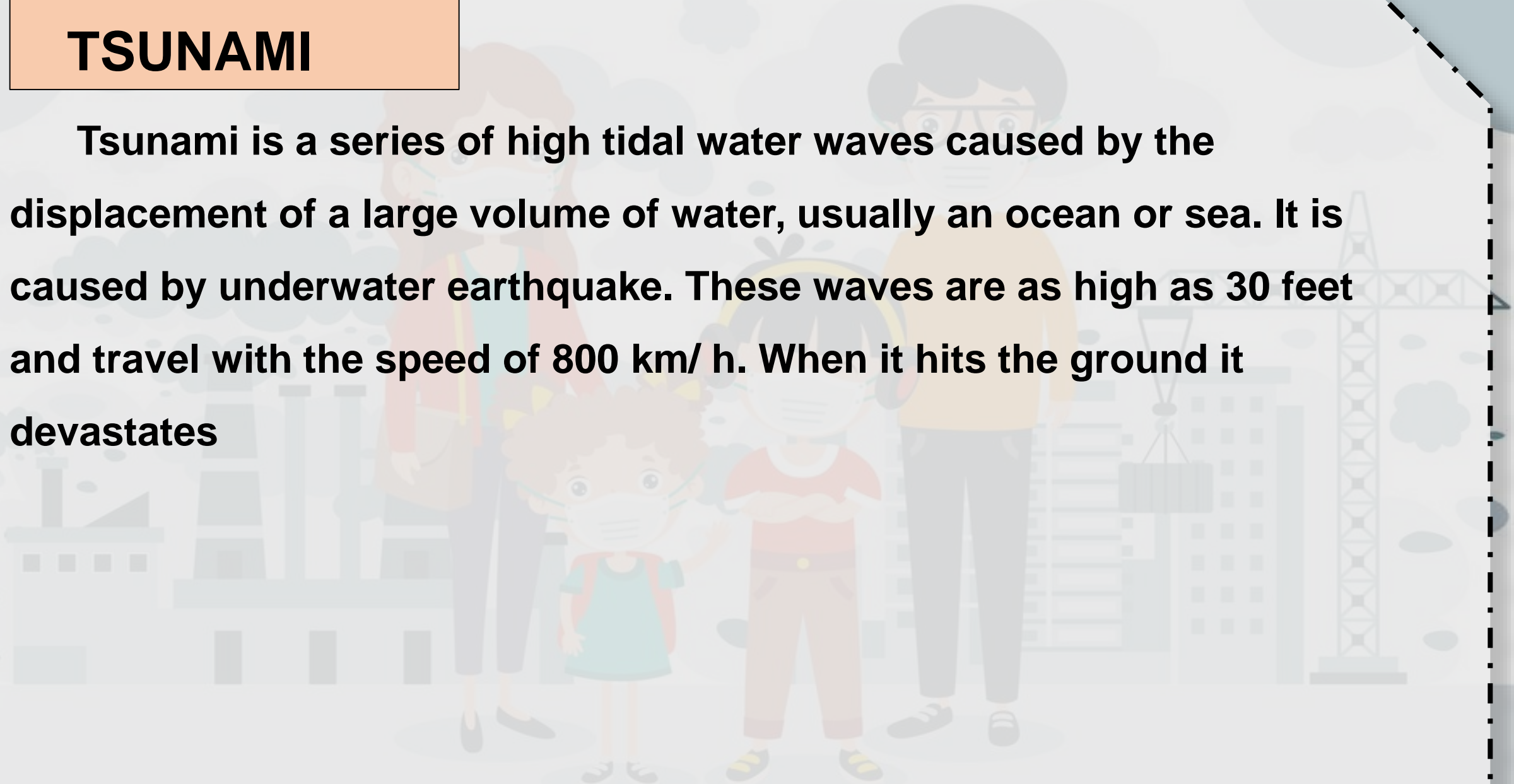


**Edinburgh castle in Scotland**



# TSUNAMI

**Tsunami is a series of high tidal water waves caused by the displacement of a large volume of water, usually an ocean or sea. It is caused by underwater earthquake. These waves are as high as 30 feet and travel with the speed of 800 km/ h. When it hits the ground it devastates**

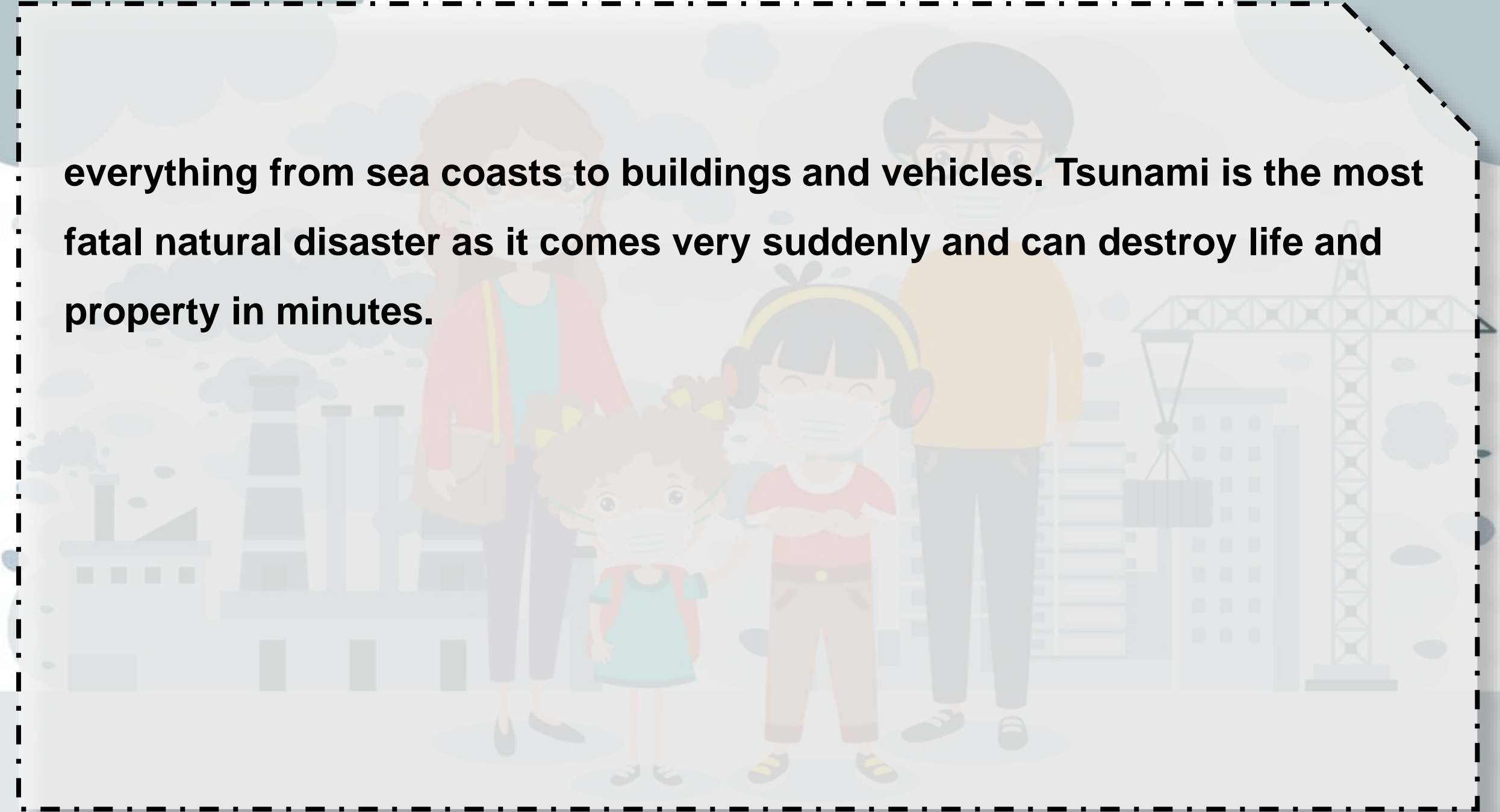




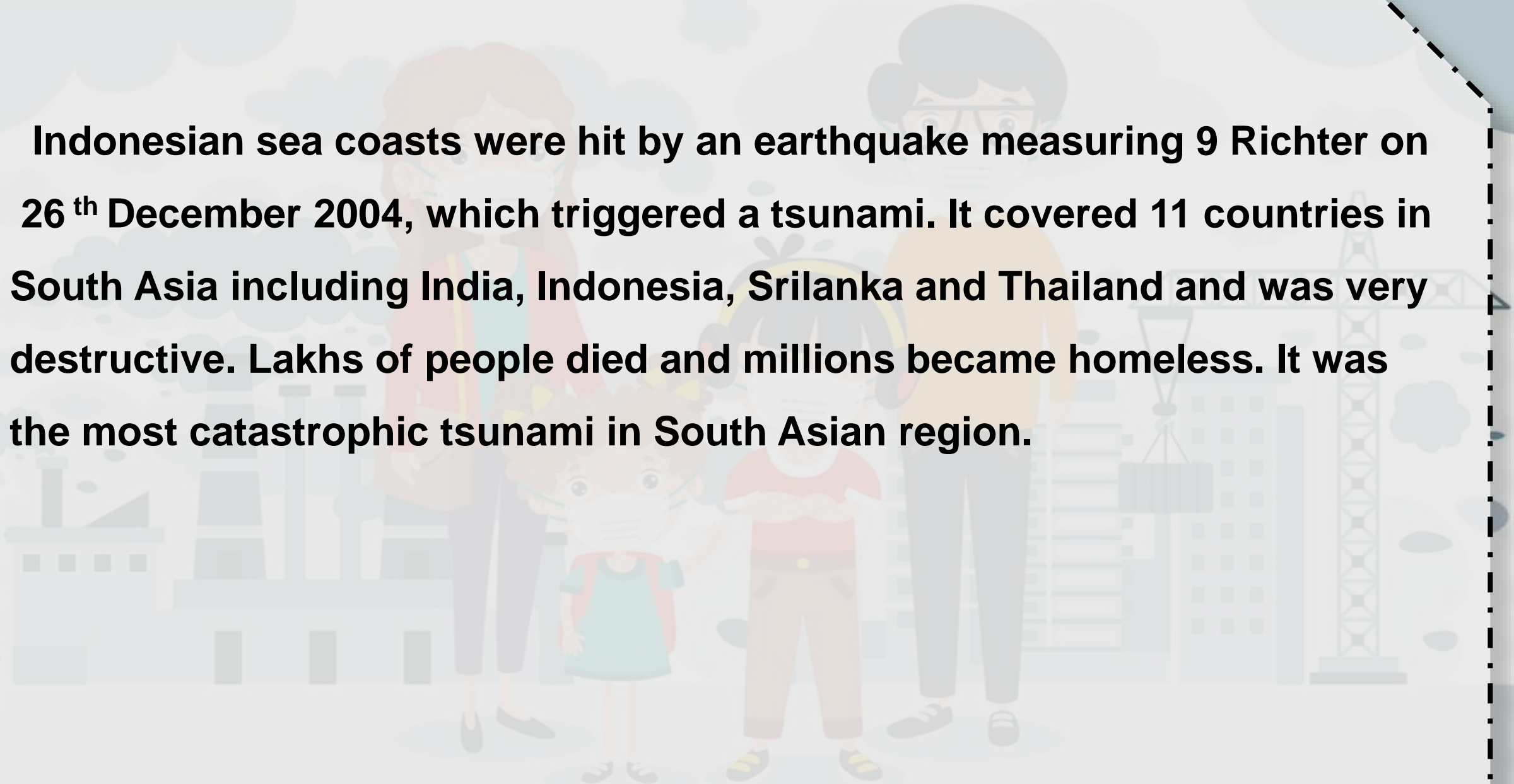
Tsunami waves



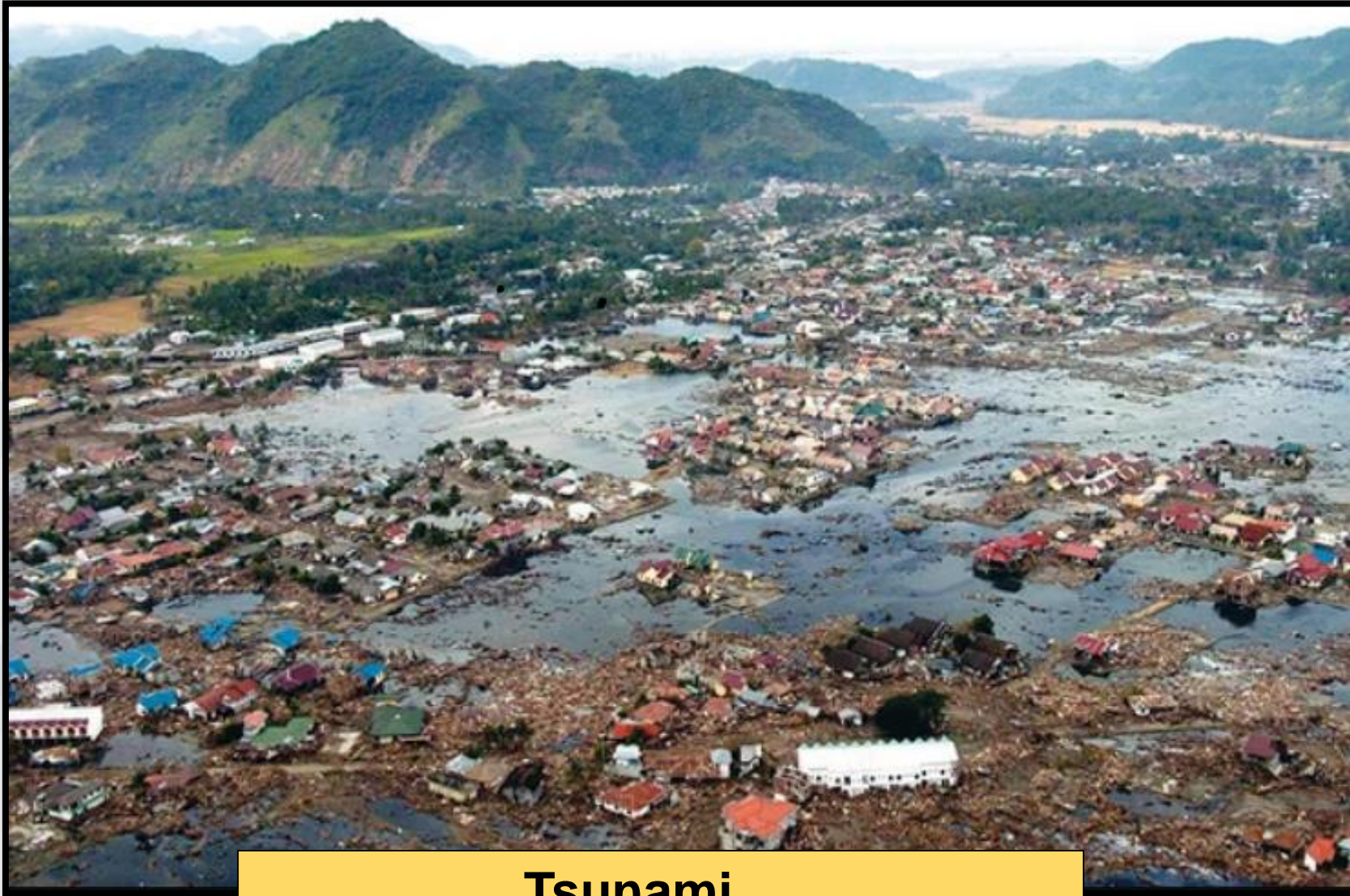
**everything from sea coasts to buildings and vehicles. Tsunami is the most fatal natural disaster as it comes very suddenly and can destroy life and property in minutes.**



**Indonesian sea coasts were hit by an earthquake measuring 9 Richter on 26<sup>th</sup> December 2004, which triggered a tsunami. It covered 11 countries in South Asia including India, Indonesia, Srilanka and Thailand and was very destructive. Lakhs of people died and millions became homeless. It was the most catastrophic tsunami in South Asian region.**



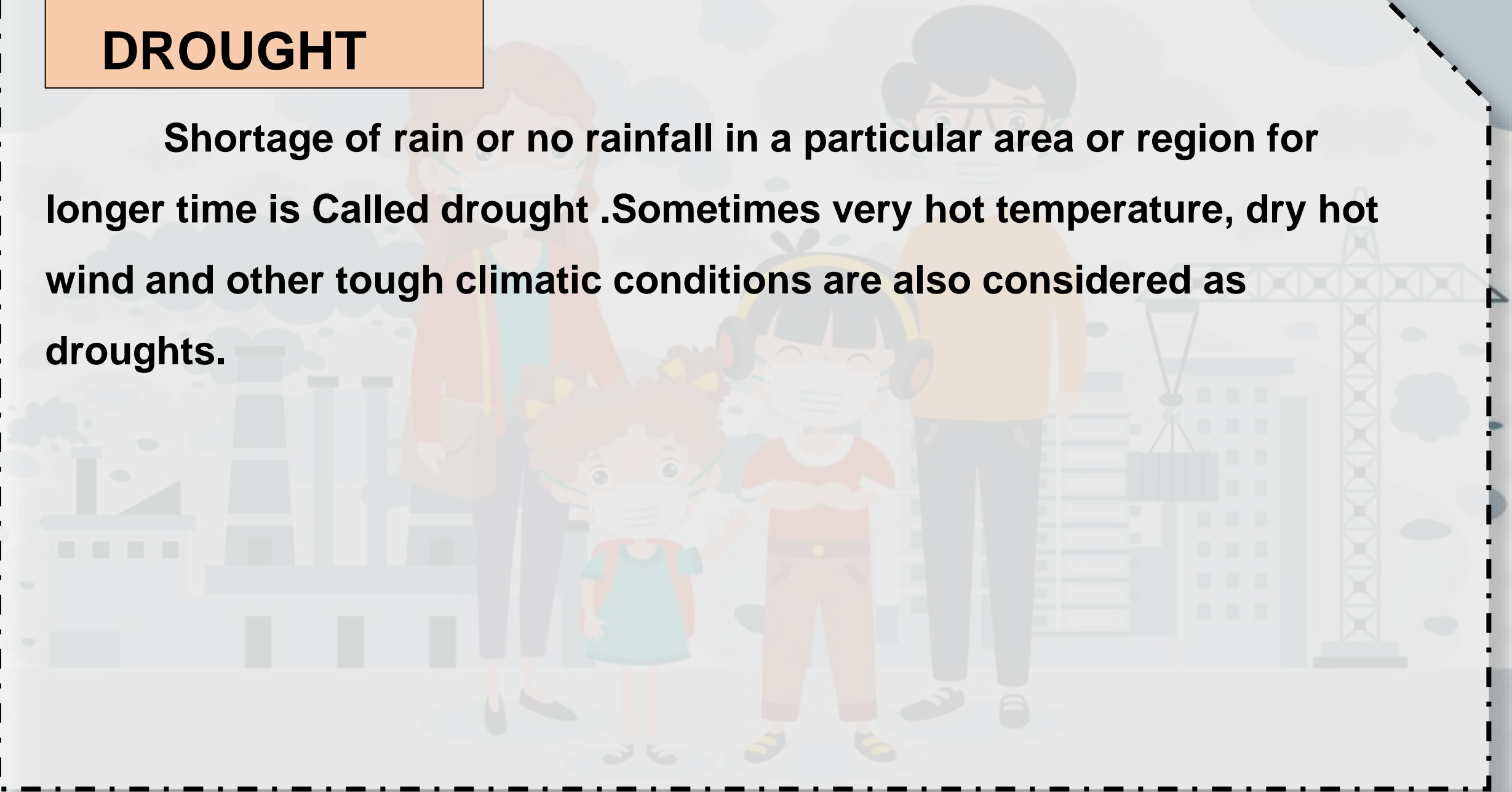




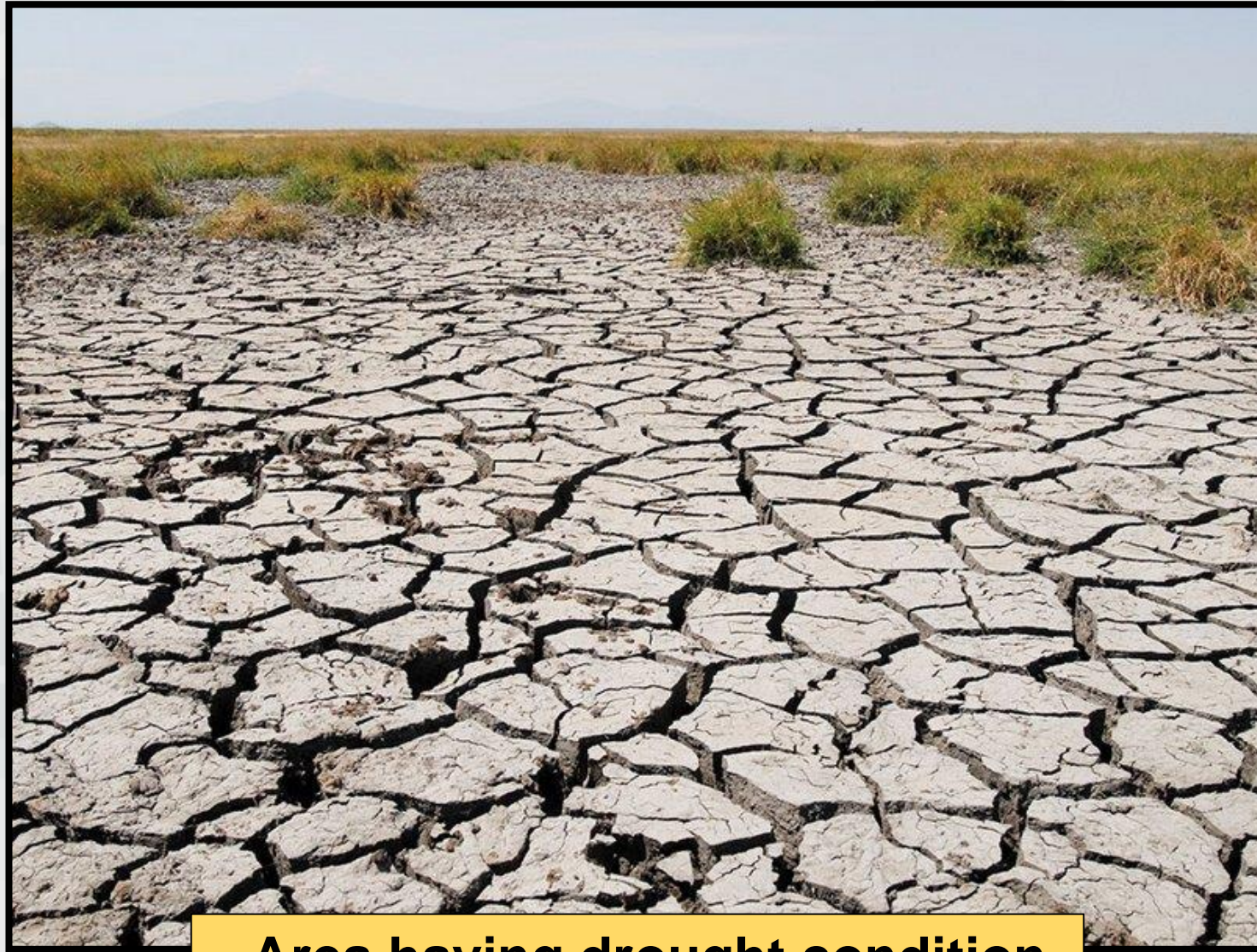
Tsunami

# DROUGHT

**Shortage of rain or no rainfall in a particular area or region for longer time is Called drought .Sometimes very hot temperature, dry hot wind and other tough climatic conditions are also considered as droughts.**



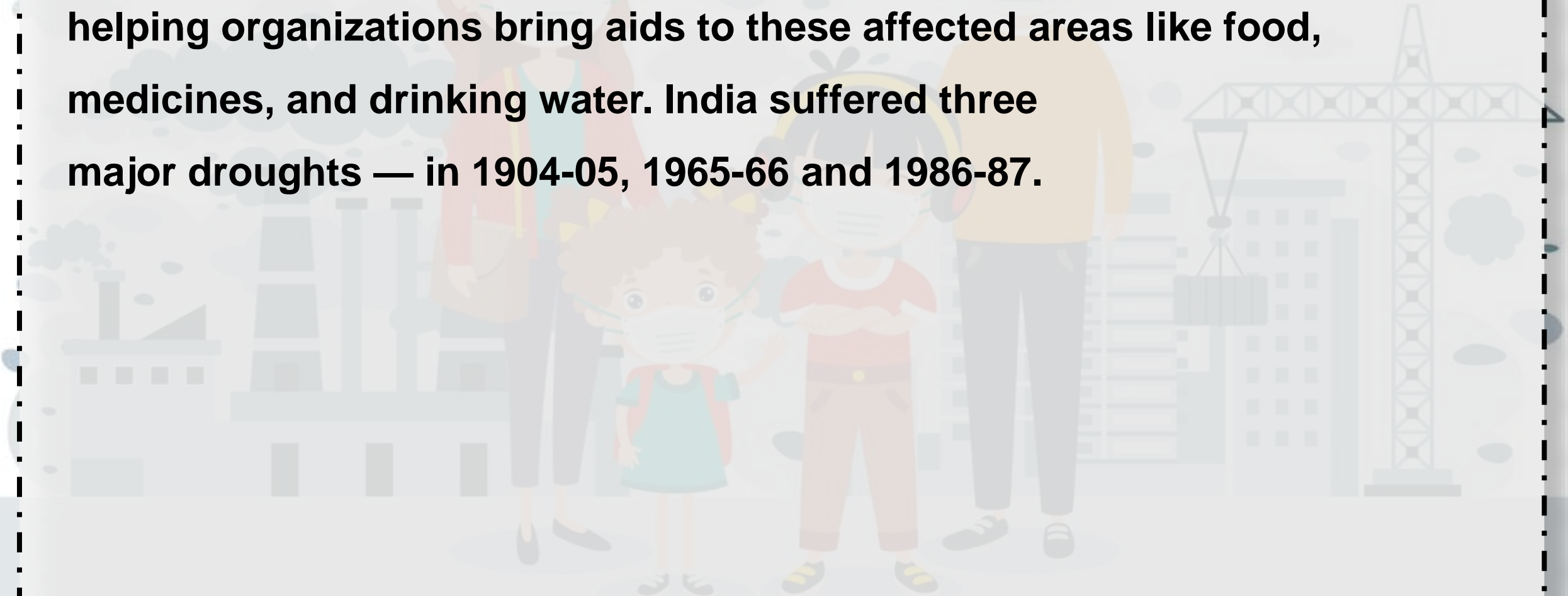


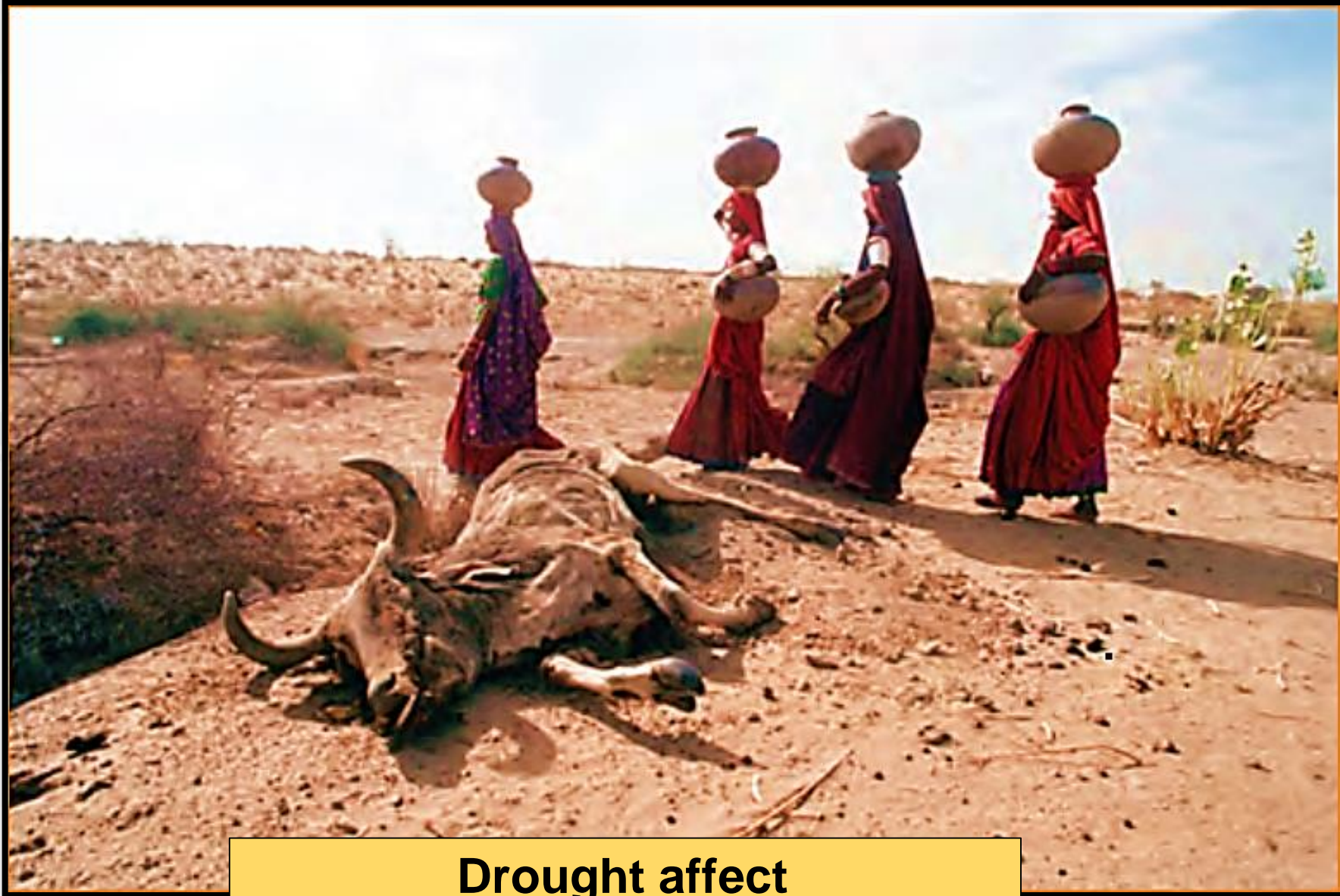


**Area having drought condition**



**Drought affected regions usually suffer from famines. Many agencies and helping organizations bring aids to these affected areas like food, medicines, and drinking water. India suffered three major droughts — in 1904-05, 1965-66 and 1986-87.**



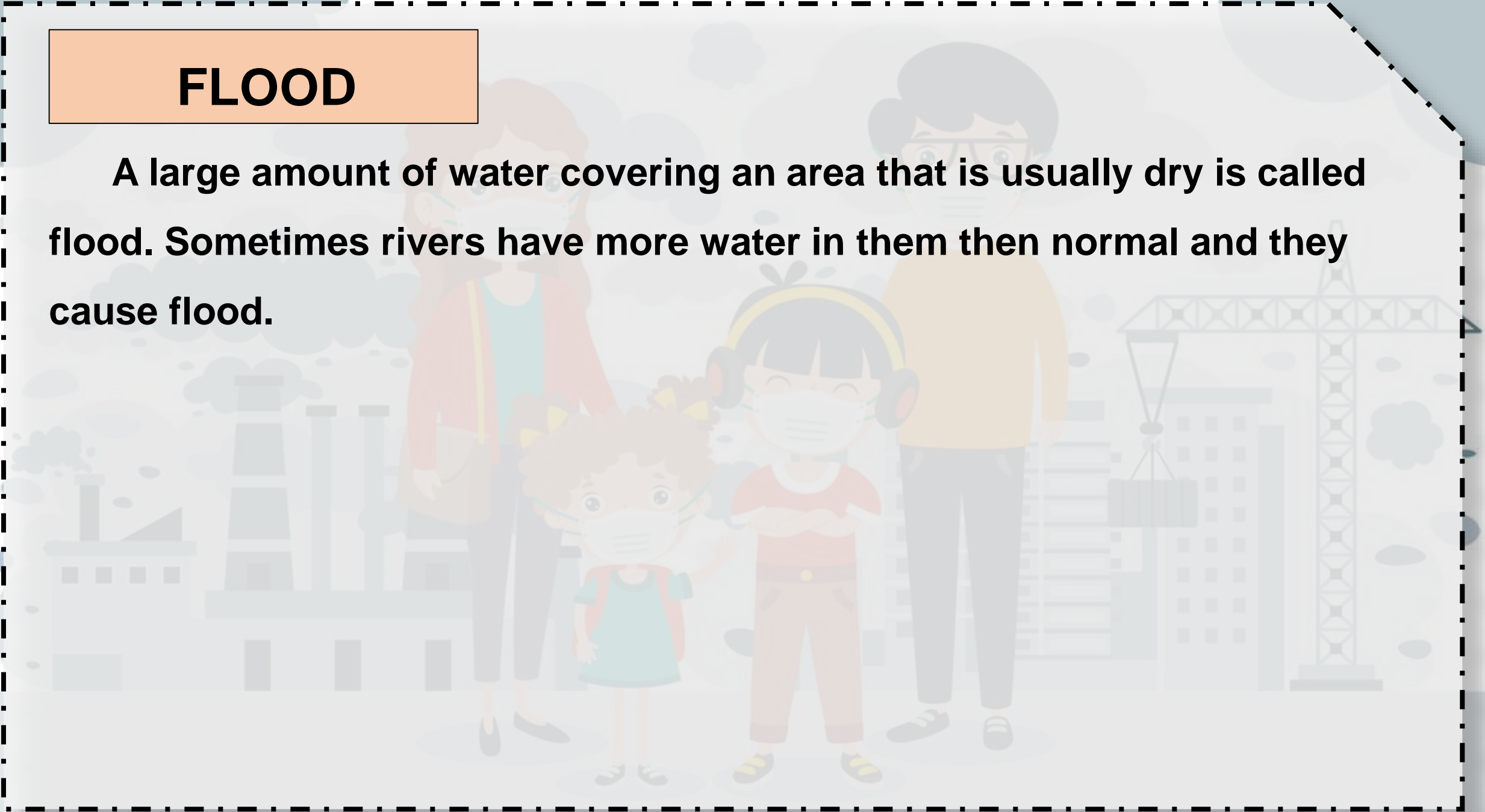


**Drought affect**



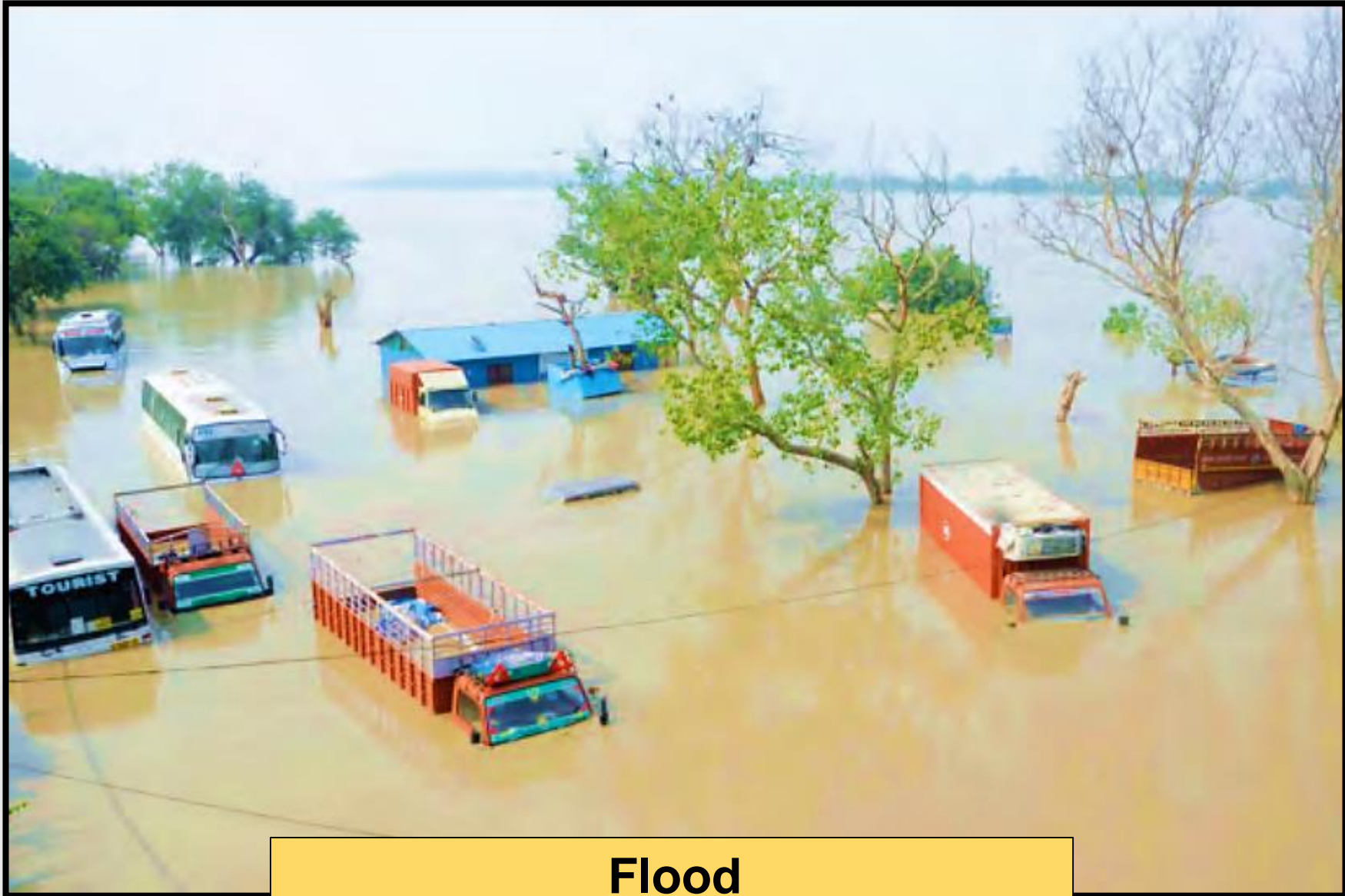
# FLOOD

A large amount of water covering an area that is usually dry is called flood. Sometimes rivers have more water in them than normal and they cause flood.



**Flood affected areas face loss of life, property, crops, shortage of drinking water etc.**



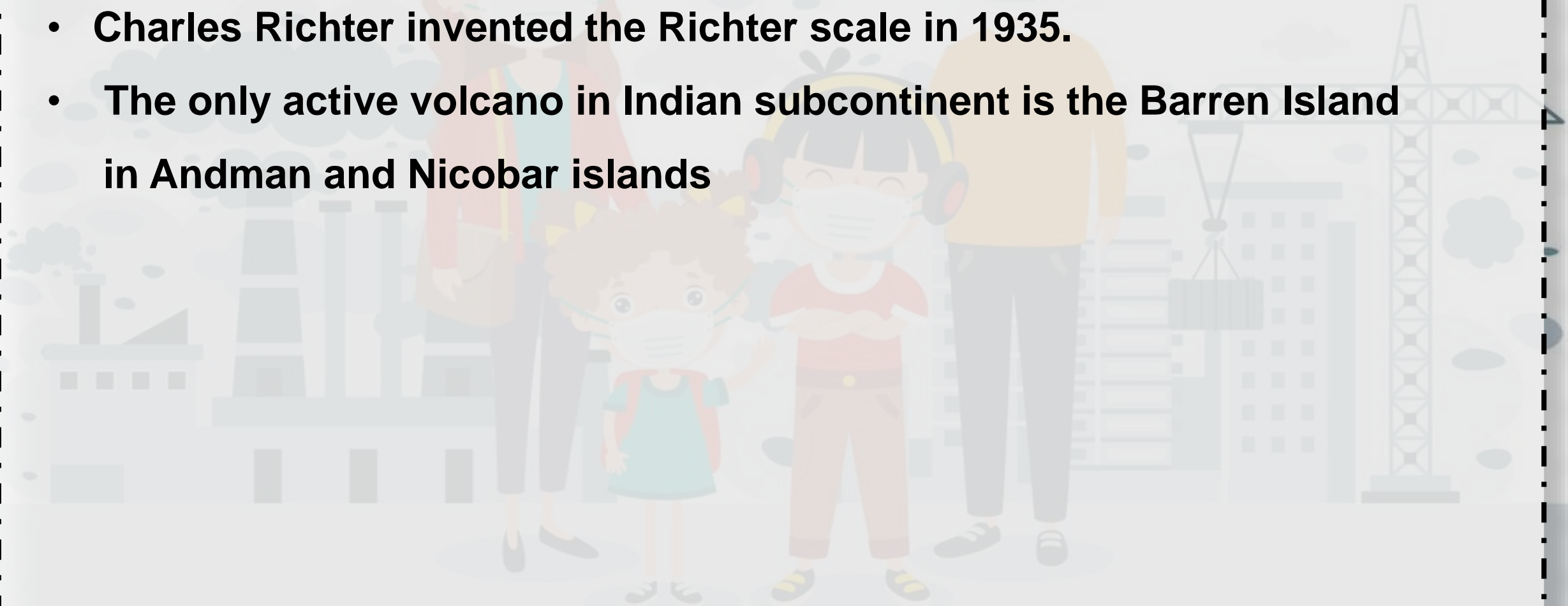


**Flood**



## Fact File

- Earthquakes are measured on a scale called Richter scale.
- Charles Richter invented the Richter scale in 1935.
- The only active volcano in Indian subcontinent is the Barren Island in Andman and Nicobar islands



## Things to Remember

- **Seismograph is an instrument used to measure the intensity of the earthquake.**
- **The molten lava comes out through a tunnel opening on a mountain called vent.**
- **Active, dormant and extinct are the three types of volcano.**
- **Tsunami is caused by underwater earthquake.**
- **Drought conditions are mainly found in the areas of no or less rainfall.**
- **Some times rivers have more than normal water which causes flood.**