

The Challenge of Natural Hazards

Learning Objective:

- **Analyse** the risks of hazards to people and property

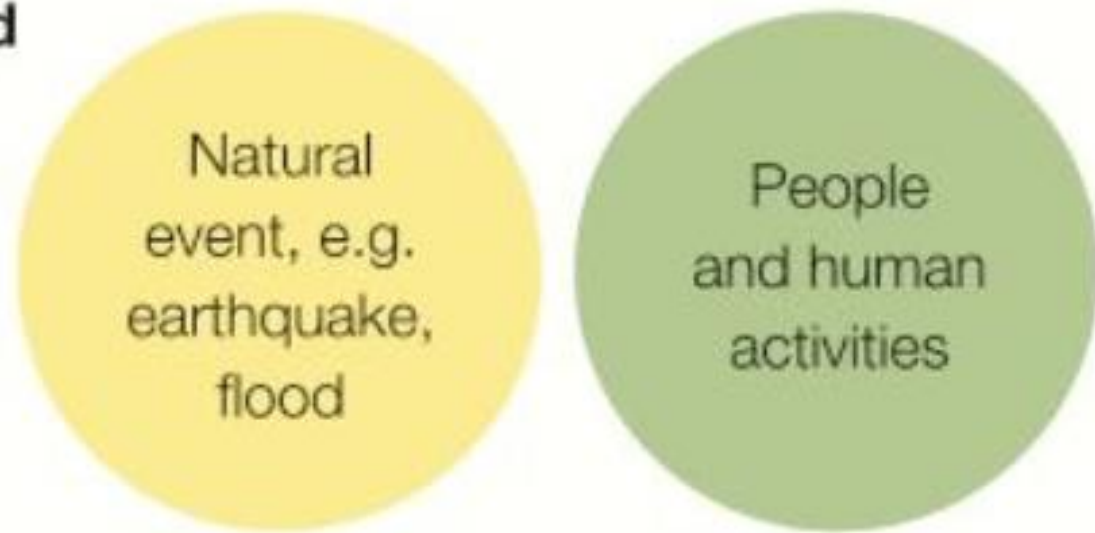


Learning Outcomes:

- **Define** a natural hazard
- **Classify** types of hazards
- **Assess** the factors affecting natural hazards



No hazard



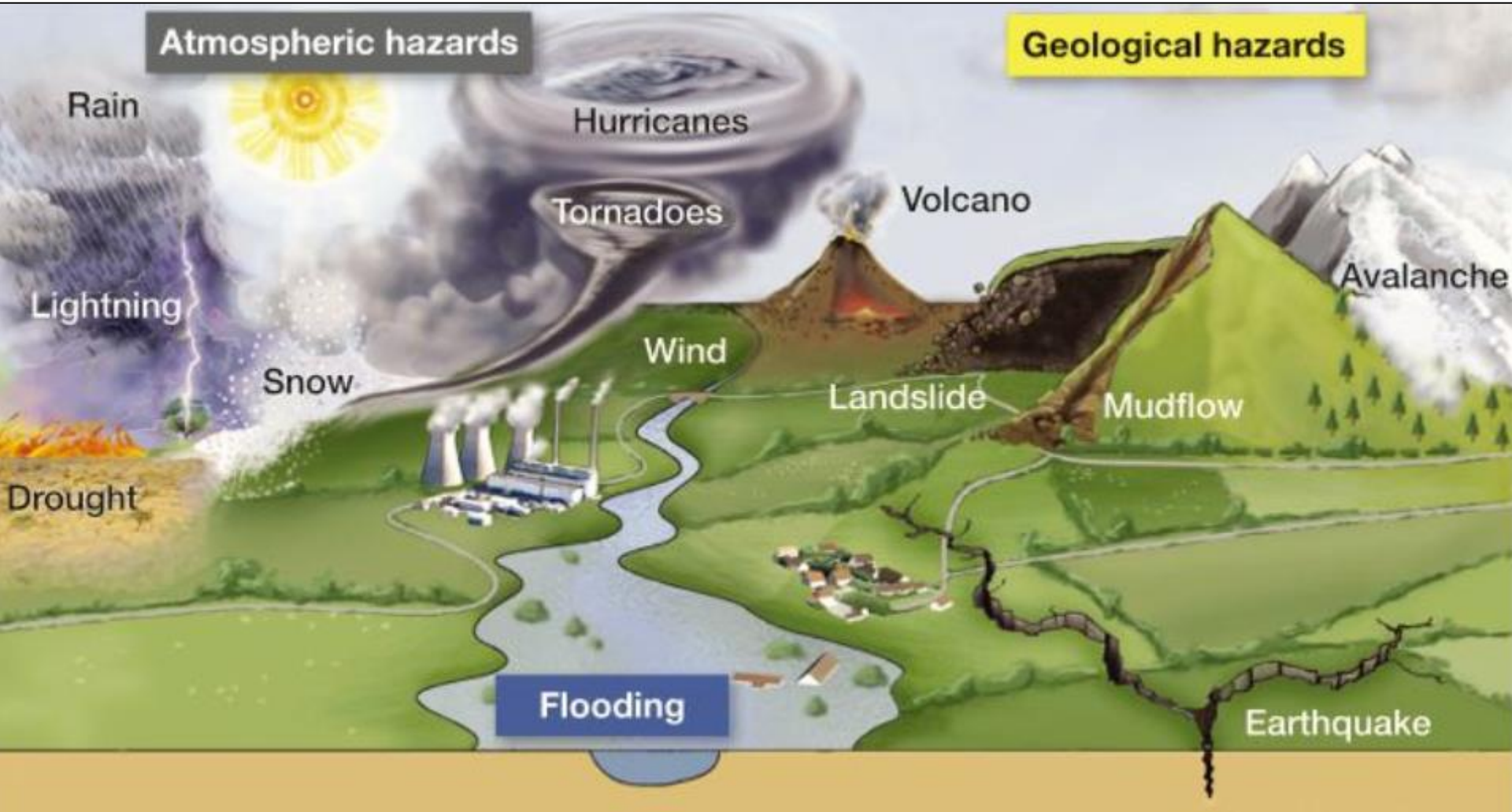
Hazard or disaster





Atmospheric hazards

Geological hazards



Rain



Hurricanes

Tornadoes

Volcano

Lightning

Snow

Wind

Landslide

Mudflow

Avalanche

Drought

Flooding

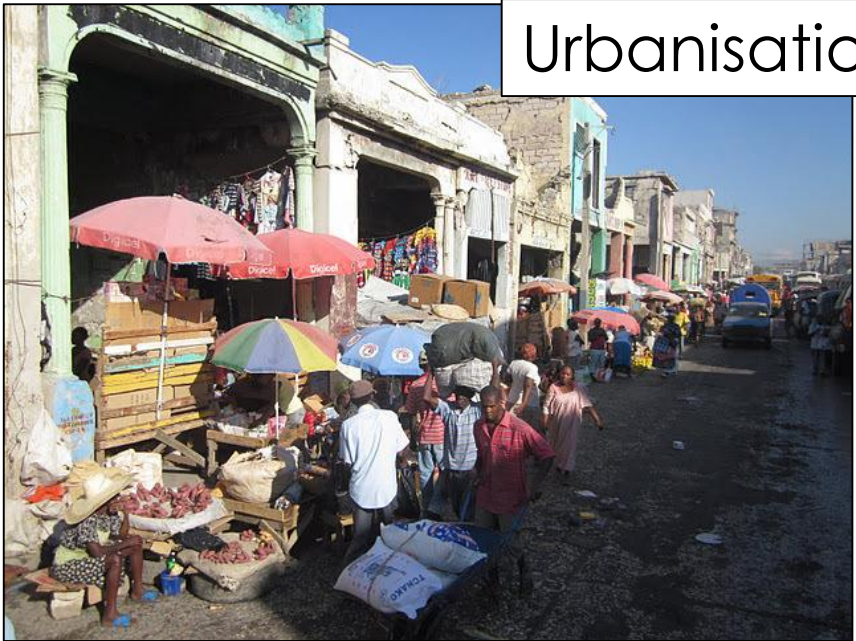
Earthquake

Hazard risk?

The chance or probability of being affected.

Where in the world are you most likely to be risk?

Urbanisation



Poverty



Factors increasing the risk from natural hazards

Climate change



Farming



Factors increasing the risk from natural hazards

Urbanisation

Over 50 per cent of the world's population now live in cities. Some of the world's largest cities (for example, Tokyo, Istanbul and Los Angeles) are at risk from earthquakes.

Densely populated urban areas are at great risk from natural events such as earthquakes and tropical cyclones. The 2010 Haiti earthquake destroyed much of the capital Port-au-Prince killing some 230 000 people.

Poverty

In poorer parts of the world poverty may force people to live in areas at risk. This is especially true in cities such as Lima in Peru or Caracas in Venezuela. Here, a shortage of housing has led to people building on unstable slopes prone to floods and landslides.

Climate change

In a warmer world the atmosphere will have more energy leading to more intense storms and hurricanes. Climate change may cause some parts of the world to become wetter with an increased risk of flooding. Other areas may become drier and prone to droughts and famines.

Farming

When a river floods it deposits fertile silt on its floodplain, which is excellent for farming. But when people choose to live there they are putting themselves at risk. In low-lying countries many people may live on floodplains, like that of the River Ganges in Bangladesh.

Explain two human developments that would increase the risk of people being affected by natural hazards. (4 marks)

- Must refer to *two* examples of human developments that have increased hazard risk to people. Reference to only *one* restricts the answer to level 1.
- Generic developments such as population density or size of the land area restrict the answer to level 1.
- Command word 'explain' means there must be some indication of how a human development can increase the risk to people.
- Possible examples: urban growth on floodplains to meet increased demand for homes brings higher flood risk; in LICs, squatter settlements often develop illegally on steep slopes, with risk of mud flows that destroy houses and cause loss of life; in Indonesia, farming takes place on fertile slopes of active volcanoes, but eruptions can have disastrous effects on people and livelihoods; pressure on land makes coastal areas