

Earthquake Effects



Identifying earthquake effects



The impact of earthquakes

The impacts caused by earthquakes can often be split into three categories:

- physical
- social
- economic.

Does an earthquake's magnitude affect its impact?



The higher the magnitude of an earthquake, the greater the physical, social and economic impacts.

Physical and **human** factors will also have an effect on the scale of the damage caused by the earthquake.



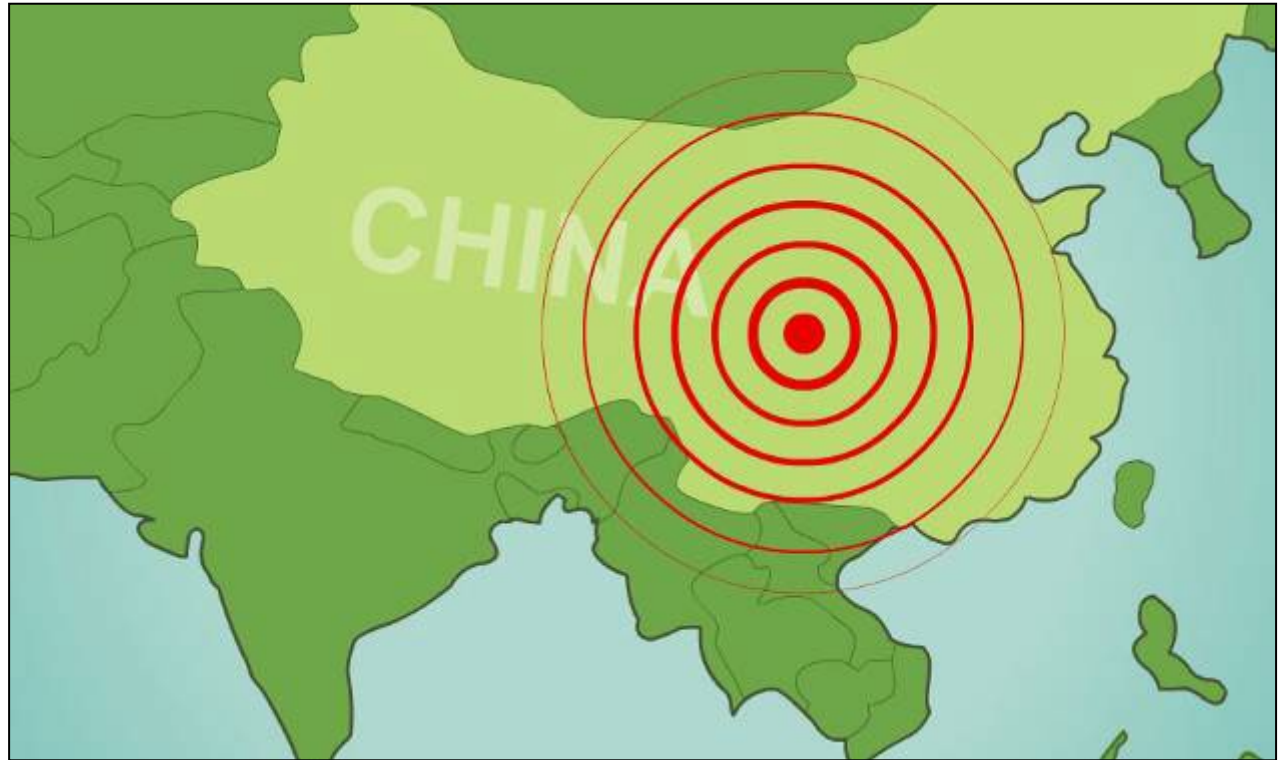
Physical and human factors



Sichuan earthquake, China 2008

Earthquake Fact File

Location:
northwest of
Chengdu, the
capital of
Sichuan
Province, China



Date: May 12th 2008

Magnitude: 7.9 magnitude

Time: 2:28pm (local time)

Deaths: 68,712 people
(18,000 still listed as missing).



Impacts of the Sichuan earthquake



Kobe earthquake, Japan 1995

Earthquake Fact File

Location:
20 km from
Kobe, the
capital of Hyōgo
Prefecture,
Japan



Date: January 17th 1995

Magnitude: 7.2 magnitude

Time: 5:46am (local time)

Deaths: 6,434 people
(22,000 injured).



Impacts of the Kobe earthquake



The Sichuan earthquake had such a severe impact due primarily to the magnitude of the earthquake. The Chinese government's rapid response was widely praised, but experts blamed poor quality design and construction of buildings.

The Kobe earthquake had such severe impacts because the focus was only 30 km below the earth's surface and situated close to Kobe, a very densely populated city. The devastation occurred in spite of high quality building design, seen by Japan as a necessity due to its location near three plate boundaries.



How might earthquakes be better managed?



Indian Ocean tsunami 2004



Physical impact



The tsunami caused devastation all across the Indian Ocean, destroying homes, businesses, schools, hospitals and other infrastructure. Local industries, particularly fishing, plantation farms and tourism were badly hit, damaging economies. Roads were destroyed and the coastal railway in Sri Lanka was wrecked.

The **World Bank** estimated that Sri Lanka alone would need \$1.5 billion to rebuild housing, transport links and local industries and infrastructure.



What other impacts did the tsunami have?
How was the tsunami managed?