Mexico Earthquake 1985

Date and Time:
The Mexico earthquake at 7:19am on the 19th of September 1985. The earthquake took place near the world's 2nd largest city - Mexico City. Mexico City has a population of 18 million people.

The Cause of the Earthquake
The earthquake was caused at a destructive plate boundary. The Coco’s plate was forced underneath (subducted) the North American plate. The Coco’s plate is a dense oceanic plate; the North American Plate is a less dense continental plate.

The plates were stuck together. Pressure continued to build up until the pressure and friction was overcome and the plate jerked 20km down into the mantle.

The shockwaves first reached the surface at the epicentre located 50km off the west coast of Mexico. The shockwaves raced outwards and reached the surface travelling at 25,000km/h. On the Richter scale the earthquake was measured at 8.1. The earthquake lasted only 3 minutes, 36 hours later after the earthquake the area suffered after shocks measuring at 7.6.

Prediction of the Earthquake
Scientists knew that the earthquake would happen in Mexico because it lies on a destructive plate boundary and it was also known to be an ‘active fault line’ because in past years the crust had moved and earthquakes have occurred. Scientists believed that the next earthquake would happen between 1984 and 1990 because the past earthquakes had been recurring at 5-11 years.
This prediction was accurate but it was not good enough as people didn’t know when it would happen between 1984 and 1990. If they had been able to predict what day or week, lives would have been saved. Despite authorities knowing an earthquake is likely, Mexico is a poor country and couldn’t afford to build or upgrade building to be earthquake proof.

The main effects on the people, landscape and buildings:
Landscape:
The west to the east coast of Mexico was devastated, 20 metre high tidal waves crashed into hotels, in the country side areas, villages were cut off. No-where was able to receive help because telephone lines were destroyed, roads were blocked and railway lines collapsed. Mexico city was not supposed to be badly damaged but shockwaves sent water toward the surface. Over 1000 buildings such as, schools, hospitals and apartments blocks collapsed. While all this was happening, electricity cables snapped and gas pipes burst causing fires to break out. Fire services found it difficult to put out fires because the earthquake had severed the water pipes.

People:
Nearly 20,000 people were killed. The coast sides people were drowned and in the countryside's people were buried alive in landslides. In the city area of Mexico, people were crushed by falling buildings. 60,000 people were injured and some died from these injuries because they couldn't receive any proper medical treatment. Over a million people lost their jobs. Sewage was travelling into the streets contaminating water, there was large cases of cholera and typhoid.

Short Term Aid
The short term aid included:
- Search and rescue teams – these were local volunteers and international volunteers and Red Cross workers. This process took time, and efforts were ruined by the severe aftershocks.
- USA and the UK sent equipment e.g. cranes, bulldozers to help find the trapped bodies and people
- Mexico used 50,000 troops, police and firemen to help rescue trapped people and put out the fires caused by broken gas pipes.
- Medical supplies were needed to treat the injured.
- The Red Cross provided doctors and nurses
- Water, clothing and tents were given to people that were homeless.

Long Term Aid:
Mexico was already in £50 million of debt when the earthquake. The World Bank gave £200 million loan to help repair and rebuild damaged buildings, homes, hospitals, factories etc. They also needed to replace basic things like gas pipes, water pipes, sewage pipes and telephone lines. The money soon ran out and because it was a loan it meant that Mexico would have to pay it back with interest – this meant it took Mexico years to recover from the earthquake. This long term aid was essential in returning the economy back to normal, getting people back to work, back in their homes and taking less pressure of the government to look at the people affected by the earthquake.