

**Case Study:**

**HIC – New Zealand:** 14th November 2016

*Causes:*

On a destructive plate boundary of the Indo-Australian and Pacific Plate. The magnitude 7.8 earthquake close to the town of Kaikora in the Southern part of the Island.

*Impacts:*

* Two people died and 57 injured.
* State Highway 1 and railway lines blocked and damaged.
* Two homes collapsed.
* Services cut off e.g. electricity.
* Loss of income due to lack of tourism.
* 8ft Tsunami hit the east coast.

*Responses*:

* Evacuated all of Kaikora.
* 12km of railway repaired.
* Tsunami warning so people could move to higher ground.
* The Royal New Zealand Air Force dispatched 5 helicopters to provide supplies and rescue people.

**Case Study:**

**LIC - Nepal:** 25th April 2015

*Causes:*

On a conservative plate margin, involving the Indo-Australian & Eurasian plates.

The magnitude 7.8 earthquake was only 80 KM from the Kathmandu.

*Impacts:*

* Approx. 9,000 people died and 22,000 injured.
* 3 million affected. Many emotionally affected.
* 1 million homes collapsed or were damaged. Millions homeless.
* Rubble blocked roads and shut down ports.
* World Heritage building collapse e.g. Dharahara Tower – reduction in tourism.

*Responses*:

* Individuals tried to recover people.
* Many countries **responded with appeals** or **rescue teams**.
* Heavily relied on **international aid**, e.g. from the Indian and UK.
* **Many still** remained homeless after **6 months**.
* UK and France designed earthquake resistant buildings.

**A natural hazard is a natural process which could cause death, injury or disruption to humans, property and possessions.**

**Earth’s structure and movement:**

**Structure** - Crust, Mantle, Outer Core, Inner Core.

**Convection Currents** – magma in the mantle moving in a circular direction.

**Plate margin/boundary** – where two plates meet.

**Conservative** – two plates moving side by side.

**Constructive** – two plates move apart.

**Destructive** – the oceanic plate sinks beneath the continental plate.

**Collison** – two plates of similar density collide – make fold mountains.

**Earthquakes** are caused when two plates become locked causing friction to build up. From this stress, the pressure will eventually be released, triggering the plates to move into a new position. This movement causes energy in the form of seismic waves, to travel from the focus towards the epicentre. As a result, the crust vibrates triggering an earthquake.

* The point at which pressure is released
* is called the **FOCUS**.
* The point directly above the focus
* is called the **EPICENTRE**.
* **SEISMIC WAVES** (energy waves)
* travel out from the focus.

**KS4 Natural Hazards - Tectonic**

**Geography**