

Restless Earth Case Studies

Topic	Case Study 1	Case Study 2
LEDC Earthquake	<p><u>Haiti</u></p> <ul style="list-style-type: none"> • Tuesday 12th January 2010 at 16:53 • 7.0 magnitude on the Richter Scale • Primary Impacts: <ul style="list-style-type: none"> ○ 316,000 deaths and 300,000 injured ○ Economic losses of £8.5bn ○ 1,300 schools & 50 hospitals damaged • Secondary Impacts: <ul style="list-style-type: none"> ○ 1 million people were made homeless ○ Damage to roads and ports stopped trade ○ Spread of cholera due to the poor sanitation and lack of clean water 	<p><u>Kashmir earthquake</u></p> <ul style="list-style-type: none"> • Saturday 8th October 2005 • 7.6 magnitude on the Richter Scale • Primary Impacts: <ul style="list-style-type: none"> ○ 75,000 deaths and 75,000 injured ○ Collapsed buildings & damaged roads ○ Disrupted water and electricity supplies • Secondary Impacts: <ul style="list-style-type: none"> ○ 2.8 million homeless ○ Deaths from exposure to the extreme due to homelessness ○ Disease through contaminated water supplies
MEDC Earthquake	<p><u>The Loma Prieta earthquake, California</u></p> <ul style="list-style-type: none"> • Tuesday 17th October 1989 at 17:04 • 6.9 magnitude on the Richter Scale • Quiet rush hour as many people were watching the World Series Baseball game • Primary Impacts: <ul style="list-style-type: none"> ○ 63 deaths and 3,757 injured ○ Fires from burst gas mains ○ Destroyed buildings ○ Property damage at \$10 billion • Secondary Impacts: <ul style="list-style-type: none"> ○ 12,000 people made homeless 	<p><u>Canterbury, New Zealand</u></p> <ul style="list-style-type: none"> • 4th September 2010 at 04:30 • 7.1 magnitude on the Richter Scale • Primary Impacts: <ul style="list-style-type: none"> ○ No deaths but 100 injuries ○ £1.8bn property damage • Secondary Impacts: <ul style="list-style-type: none"> ○ Major aftershock, 6.3 magnitude, occurred in February 2011 near Christchurch killing 185 people
Volcanic Eruption	<p><u>Montserrat, 1995</u></p> <ul style="list-style-type: none"> • Composite Volcano • Had been dormant since the 17th Century • Between 1995 and 1997 it erupted huge quantities of lava, ash and extremely dangerous pyroclastic flows • Impacts: <ul style="list-style-type: none"> ○ An island of 100km² previously had a population of around 10,500, now it has 5,000 ○ The remaining people on the island have had to relocate to the north of the island ○ Devastating social and economic impacts 	<p><u>Laki, Iceland, 1783-84</u></p> <ul style="list-style-type: none"> • One of the most devastating eruptions in human history • The major eruption poured out an estimated 14km³ of basaltic lava and clouds of poisonous compounds • No system of international aid • Impacts: <ul style="list-style-type: none"> ○ No deaths because the volcano is located in a remote area ○ The poisonous dust cloud half of Iceland's livestock killed leading to famine which killed around a quarter of the population ○ Dust cloud is also believed to have reduced temperatures in Europe for several years

<p>Immediate response and relief efforts</p>	<p><u>Izmit Earthquake, 1999</u></p> <ul style="list-style-type: none">• The Izmit earthquake struck 55 miles east of Istanbul, Turkey near the industrial city of Izmit on August 17th at 3:02am local time• When the earthquake struck self-built and illegal housing collapsed leaving people trapped inside• Immediate Response and Relief efforts:<ul style="list-style-type: none">○ International Aid○ A Swiss team of 98 rescue experts and 18 dogs○ The EU said it was sending \$2.1 million in aid○ Many of the survivors were left to help with the rescue effort○ Hospitals made triage and were poorly prepared lacking basic medical equipment○ Canine search + rescue• Criticisms of the Turkish Authorities:<ul style="list-style-type: none">○ Inadequate detection system which resulted in relief agencies sending too little aid○ Government responded slowly○ Failure to provide maps, interpreters and information to foreign aid helpers.	<p><u>Haiti, 2010</u></p> <ul style="list-style-type: none">• Strongest earthquake in Haiti since 1770 at 7.0 magnitude on the Richter Scale• 10 miles west of the capital of Haiti, Port-au-Prince, with its 2 million inhabitants• 3 million in need of emergency aid• Immediate Response and Relief efforts:<ul style="list-style-type: none">○ The Red Cross dispatched a relief team from Geneva○ The UN's World Food Program dispatched two planes with emergency food aid○ The NGO, World Vision, provided food to 1.2 million people, emergency shelter for 41,000 families, delivered 16 million litres of clean water, installed 300 showers and 240 toilets in dozens of camps○ The Inter-American Development Bank approved a grant of \$200,000 for emergency aid• Most of the help was provided by NGOs and not governments• In 2012 Haiti was still recovering from the earthquake – only 18% of the required homes had been built and there were 350,000 people still living in tents
---	---	---