**Fact File (Hazards)**

**Case Study Earthquake: New Zealand (2010)**



**Location:**

New Zealand is located in the Pacific Ocean in the continent of Oceania. It is South East of Australia and consists of a North and South Island. New Zealand`s capital is Wellington. It covers 267,710 square kilometers making it the 76th largest nation in terms of land area. New Zealand has a population of 4,327,955 people.

**Causes:**

The 6.3 magnitude earthquake struck New Zealand at 12:51 on 22 February. The epicenter was 6 miles Southeast of Christchurch and the focus was very shallow at 3.1 miles. The Earthquake occurred on a conservative plate margin where the Pacific Plate slid past the Australian Plate in the opposite direction. A larger earthquake occurred in 2010 so the second earthquake was technically an aftershock, but the impacts were more severe.

**Effects:**

|  |  |
| --- | --- |
| **Primary (caused directly by the earthquake)** | **Secondary (result from primary effects)** |
| 181 people were killed and around 2,000 were injured | Business were put out of action for long periods causing losses of income and jobs |
| 50 per cent of Central buildings severely damaged including the city’s cathedral  | Damage to roads through liquefaction (where the ground gets saturated and loses strength) made it difficult for people and emergency services to move around |
| Hundreds of kilometers of water and sewage pipes were damaged | Schools had to share classrooms due to the damages of other school buildings |
| Part (size of 20 football fields) of the country’s longest glacier was broken off creating a large iceberg | Christchurch could no longer host Rugby World Cup matches so lost the benefits, e.g. tourism and income, they would bring |
| 80 per cent of the city was without electricity |  |

**Development:**

1. the GDP per capita was $27,700 per person each year.
2. the life expectancy was 81 years.
3. there were 2.4 doctors per 1,000 people.
4. adult literacy was 99% over 15 years old can read/write
5. 100% of people have access to clean water

**Responses:**

|  |  |
| --- | --- |
| **Short term** | **Long term** |
| cared for the most vulnerable people and ensured people were safe from dangerous buildings | paid $898 million in building claims |
| chemical toilets were provided for 30,000 residents | provided temporary housing and ensured all damaged housing was kept water tight |
| Areas were zoned to classify damage/cost of repairs | water and sewerage system were restored for all residents by August |
| international aid was provided in the form of money (around $6-7 million) and aid workers | roads and houses were cleared of silt from liquefaction by August and 80% of roads 50% of footpaths were repaired |