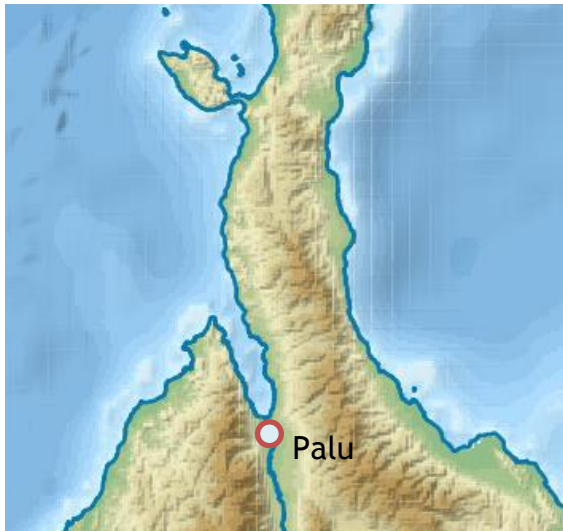


Indonesia earthquake information race



Date: 28th September 2018

Time: 18:02

By the 10th October 2018 the death toll was confirmed at 2045, with a further 5000 people missing. More than 70 000 people had been displaced and up to 1.5 million people had been affected.

The worse affected areas were Donggala, Palu, Parigi Moutong and Sigi.



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<p>The iconic Kuning Ponulele bridge in Palu was destroyed.</p> <p>Roads to and from the city were damaged. This affected how quickly help was received in Palu.</p> <p>Hospitals were damaged. The director of the Palu Undata Hospital opted to treat victims outside of the hospital as it was safer.</p> <p>A prison in Palu reported that more than half of its 560 inmates fled in panic when the prison walls collapsed. In Donggala the prisoners set the prison on fire and at least 100 prisoners managed to escape.</p>	<p>The Indonesian President called in the armed forces to help with an emergency response. He declared a state of emergency and called the earthquake and tsunami a major disaster.</p> <p>Helicopters and ships were deployed from Borneo by the Indonesian National Search and Rescue Agency.</p> <p>Makassar Red Cross sent 12 personnel and ambulances to affected areas.</p>	<p>On the 30th September the President accepted aid from other countries.</p> <p>South Korea provided \$1 million in humanitarian assistance.</p> <p>Singapore sent two C130 aircraft from the Republic of Singapore Air Force to deliver humanitarian aid, water, meals, tents and medical supplies.</p> <p>Taiwan sent 36 specialists and six sniffer dogs to help search for trapped people. They also donated supplies and a medical team along with 10000 blankets from the Taiwanese Buddhist Humanitarian Organisation, the Tzu Chi Foundation.</p> <p>The Philippine government pledged \$300000 worth of humanitarian assistance.</p> <p>Other countries and organisations also pledged money and humanitarian aid including the EU, UK and the USA.</p>
<p>Parts of Sulawesi were hit by major mudflows. The worse affected areas were the Petobo sub-district in southern Palu and the village of Balaroa.</p> <p>In Petobo at least 34 Indonesian students were killed whilst they were on a bible camp.</p> <p>The village of Balaroa almost disappeared when the ground collapsed. Many people were declared missing with at least 600 people being killed due to the mudflows.</p>	<p>The delivery of aid was difficult due to the destruction of local infrastructure (the roads, ports and airports).</p> <p>Many of the airports are also small making large deliveries difficult.</p> <p>A month after the earthquake over 200 000 people had fled and were made refugees.</p> <p>Many people did not get the healthcare they needed and therefore suffered infection and disease.</p> <p>The water supply was not fit for consumption.</p>	

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The earthquake caused major soil liquefaction in and around Palu. This led to mudflows in two separate locations. Many buildings became submerged and this led to further deaths.

More than 70 000 homes were damaged, which led to tens of thousands of people to live in shelters and tents.

One the oldest shopping malls in Palu collapsed trapping a lot of people.

The Roa-Roa hotel, which is eight storeys tall, collapsed. At the time of the earthquake 76 of the 80 bedrooms were occupied.

Before the earthquake there were a series of foreshocks. These are tremors before the main earthquake event. Some of the foreshocks were powerful and shallow leading to strong shaking and the destruction of buildings.

The main earthquake event happened at 18.02 Indonesian time. The shaking was felt on other Indonesian islands.

Violent shaking was reported in Donggala and Palu.

Blackouts occurred and telephone lines went down. More than 500 wireless communication towers had been damaged.

The Mutiara SIS Al-Jufrie Airport was forced to close. Huge cracks had opened up in the runway, one of them was 500 m long.

The navigation system was damaged at the airport.

The roof of the airport terminal caved in.

The airport was reopened, but only offered a limited service, on the 29th September 2018.

The earthquake also triggered a tsunami. A tsunami warning was issued in Palu and Donggala at 18.07 Indonesian time. Warnings were sent by text message. Donggalan residents were told to expect tsunamis of 0.5 to 3 metres. The actual tsunami was much taller than expected.

Tsunami alarms were not activated; therefore, many people were still on the beaches. It was estimated that hundreds were swept away by the waves.

The tsunami detectors were damaged in the earthquake in Palu. The waves there were over 5m tall.

Student question sheet: Indonesian earthquake 28th September 2018

<p>1. Give three social effects of the earthquake.</p>	<p>2. Give three economic effects of the earthquake.</p>
<p>3. What was the final death toll?</p>	<p>4. Why was it difficult to get supplies and help to the people that needed it?</p>
<p>5. Why did the tsunami affect so many people?</p>	<p>6. How did prisoners manage to escape?</p>
<p>7. Give three ways in which other countries helped.</p>	<p>8. Name three buildings / features that were destroyed.</p>
<p>9. What was triggered by the earthquake?</p>	<p>10. What is a foreshock?</p>
<p>11. What happened to the runway at the airport?</p>	<p>12. How tall were the tsunami waves?</p>

<p>13. How many homes were destroyed?</p>	<p>14. Why was it difficult for people to communicate?</p>
<p>15. What time did the main earthquake event occur?</p>	<p>16. What caused the mudflows?</p>
<p>17. How many people were affected altogether?</p>	<p>18. Why were the armed forces called?</p>
<p>19. What did the director of the hospital opt to do?</p>	<p>20. What happened at Balaroa?</p>

Any additional notes:

Teacher notes

Starter:

What do you already know about earthquakes? Students to create a spider diagram or list to show what they already know. This can then be shared on the board, with students adding to their ideas with the ideas of others.

Main:

Discuss the Indonesian earthquake. This should generate some discussion around other earthquakes that have happened there in 2018 and previously, e.g. Boxing Day tsunami. Watch the YouTube clip of some of the impacts of the disaster.

Show students the world tectonic plate map and ask them why the earthquake occurred. They should be able to point out where Indonesia is and that there are plate boundaries nearby. Reveal the information to students. They may wish to write notes.

Show students the Ring of Fire map and set the describe / explain task. Students should write in full sentences in their book.

Introduce the information race. Print off the information sheets and put them at the front of the room. Students are to work in their table teams to answer the questions on the sheet. Only one student can go up at once, they cannot take the sheet or writing equipment with them, they also cannot shout across the room. They have 5 minutes to answer as many questions as they can.

Answers: (examples)

1. Deaths, homes destroyed, people stuck on holiday, hotels destroyed, people missing.
2. Cost of re-building, reduced tourism, debt, increased need for healthcare costs.
3. 2045 people.
4. Roads, airports and ports were destroyed so it was difficult to get to people.
5. The tsunami warning didn't go off so people were still on the beach.
6. Walls of the prison were destroyed and prisoners rioted.
7. Provided aid, sent planes, sent healthcare teams, provided shelters, provided water and food.
8. The Mutiara SIS Al-Jufrie airport, the Kuning Ponulele bridge and the Roa Roa hotel.
9. A tsunami and mudflows.
10. A tremor before the earthquake.
11. Huge cracks opened in it.
12. In some places they were as high as 6m.
13. More than 70 000.
14. The telecommunications lines were down and there were power outages.
15. 18.02 Indonesian time.
16. Soil liquefaction.
17. Up to 1.5 million people.
18. To help the people and keep law and order.
19. Operate outside because it was safer.
20. The whole village almost disappeared as the ground collapsed.

Task:

TV report. Students are to use the gathered information to create a TV report to show the rest of the class. You can either give specific roles to students or let them pick from the ones on the board. There are success criteria for this task for students to follow. This can be peer or teacher assessed.

Plenary:

3, 2, 1 pyramid. Students to give information for each category.