Super El Niño 2026-2027 Answer sheet

Royal Geographical Society with IBG

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Answers

1. The El Niño-Southern Oscillation (ENSO) is a natural climate cycle involving changes in Pacific Ocean temperatures and atmospheric circulation. Its two main phases are El Niño and La Niña, which produce contrasting weather patterns across the world.
2. El Niño develops when trade winds weaken, allowing warm surface water to move eastwards across the Pacific Ocean. This increases sea surface temperatures in the central and eastern Pacific and alters atmospheric circulation.
3. The Pacific Ocean covers over 30% of Earth's surface, so changes in ocean temperatures affect atmospheric circulation, jet streams, rainfall patterns, temperatures, and storm tracks worldwide.
4. Indonesia will experience more wildfires due to drier conditions, causing severe air pollution, respiratory illnesses, environmental damage, transport disruption, and losses to agricultural production.
5. Indonesia produces about 60% of the world's palm oil. Lower production can increase global food prices and place greater demand on alternative oils such as soybean and sunflower oil.
6. Heavy rainfall can cause flooding, landslides, and infrastructure damage. Warmer ocean waters also reduce nutrient-rich upwelling, leading to declining fish stocks and losses in Peru's fishing industry.
7. Droughts in major agricultural regions such as Australia and India can reduce crop yields. Flooding in South America can also damage farmland, reducing global food supplies and increasing food prices.
8. Monsoon rainfall has been below average, particularly in eastern and north-eastern states such as West Bengal, Bihar and Assam, which are all major rice-producing regions. Reduced rainfall lowers yields and harvested area.
9. The UK may experience a wetter and stormier autumn and early winter because of a stronger Atlantic storm track. Later in winter there is an increased likelihood of colder conditions and occasional cold snaps.
10. A colder and less windy winter could reduce electricity generation from wind power while increasing heating demand. This may require greater use of imported liquefied natural gas (LNG) to meet energy needs.