

FAST FACTS



On climate and temperature rise

1. The Earth is now about **1.1°C warmer** than it was in the 1800s. We are not on track to meet the Paris Agreement target to keep global temperature from exceeding 1.5°C above pre-industrial levels. That is considered the upper limit to avoid the worst fallout from climate change.
2. 2015-2019 saw the **five warmest years on record** while 2010-2019 was the warmest decade on record.
3. Global surface temperature has increased faster since 1970 than in any other 50-year period over at least the **last 2000 years**.
4. On the current path of **carbon dioxide emissions**, temperature could increase by as much as 4.4°C by the end of the century.
5. In 2019, **greenhouse gas concentrations reached new highs**. Carbon dioxide levels were 148 per cent of preindustrial levels.
6. Greenhouse gas concentrations, already at their **highest levels in 2 million years**, have continued to rise.
7. Since the mid-1980s, **Arctic surface air temperatures** have warmed at least twice as fast as the global average, while sea ice, the Greenland ice sheet and glaciers have declined over the same period and permafrost temperatures have increased.
8. **Emissions must drop 7.6 per cent per year** from 2020 to 2030 to keep temperatures from exceeding 1.5°C and 2.7 per cent per year to stay below 2°C.
9. The **emissions gap in 2030**, or the difference between necessary carbon dioxide reduction and current trends, is estimated at 12-15 gigatons carbon dioxide equivalent (Gt CO₂e) to limit global warming to below 2°C. For the 1.5°C goal, the gap is 29-32 Gt CO₂e, roughly equivalent to the combined emissions of the six largest emitters.
10. To follow a 1.5°C-consistent pathway, the world will need to **decrease fossil fuel production** by roughly 6 per cent per year between 2020 and 2030. Countries are instead planning and projecting an average annual increase of 2 per cent, which by 2030 would result in more than double the production consistent with the 1.5°C limit.

