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

2. 2015-2019 saw the while 2010-2019 was the

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,**

7. Since the mid-1980s, **Arctic surface air temperatures**
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.

WMO (1, 9, 10), IPCC (1, 3, 4, 6), WMO (2, 5, 7), UNEP (8)