



Plan Zero - Climate Change - Data sources and References

"When sunlight hits the earth, about 30% of solar energy is reflected back into space. The other 70% gets absorbed by our oceans and land, which also radiate heat into the atmosphere."

Reference: NASA Earth Observatory

Link: <https://earthobservatory.nasa.gov/features/CarbonCycle/page5.php>

"Without the greenhouse effect, the earth's average surface temperature would be -18C – pretty chilly. Instead, today it's a rather pleasant 15C"

Reference: NASA Earth Observatory

Link: <https://earthobservatory.nasa.gov/features/GlobalWarming/page2.php>

"the concentration of carbon dioxide in Earth's atmosphere was stable for 800,000 years. But then, in the 18th century, the Industrial Revolution happened and carbon levels began to climb."

Reference: NOAA, 2020

Link:

<https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide>

"Since then, they've risen by over 40%."

Reference: BBC, 2017 (40% increase from 280ppm pre-industrial to 400ppm in 2015)

Link: <https://www.bbc.co.uk/news/science-environment-41671770>

"And we're burning them quicker and quicker, causing carbon dioxide concentrations to increase 100 times faster than the natural rate."

Reference: NOAA, 2020

Link:

<https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide>

"Half of all the carbon emissions released since 1751 have occurred in the past 30 years!"

Reference: IEEP, 2020 (based on IPCC First Assessment Report data)

Link:

<https://ieep.eu/news/more-than-half-of-all-co2-emissions-since-1751-emitted-in-the-last-30-years>

"19 of the 20 warmest years ever recorded have occurred since 2001."

Reference: NASA

Link: <https://climate.nasa.gov/vital-signs/global-temperature/>

"Up to one million plant and animal species face extinction, many within decades, because of human activities such as changing land use and cutting down forests



and plants."

Reference: UN IPBES Report 2019

Link:

<https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>

In the heat wave of summer 2020 in the UK, 2,556 excess deaths were recorded due to heat stress alone.

Reference: Carbon Brief 2018

Link:

<https://www.carbonbrief.org/expect-tens-of-millions-of-internal-climate-migrants-by-2050-says-world-bank>

"Emissions pathways and levels of warming"

Reference: Our World in Data (based on Climate Action Tracker data)

Link: <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions>

Impact of climate change at 1.5 degrees vs 2 degrees

Reference: WRI, 2018. Carbon Brief, 2018 (all based on IPCC 1.5 Special Report 2018)

Link:

<https://www.wri.org/blog/2018/10/half-degree-and-world-apart-difference-climate-impacts-between-1-5-c-and-2-c-warming>

https://interactive.carbonbrief.org/impacts-climate-change-one-point-five-degrees-two-degrees/?utm_source=web&utm_campaign=Redirect

"The Committee on Climate Change says that to reach net zero, 62% of emissions reductions require a combination of societal and behavioural change"

Reference: UK Climate Change Committee, 2019, Figure 5.6

Link:

<https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>