

1 / CLARIFYING CLIMATE CHANGE

Temperatures are rising globally at a rapid rate, due to increased greenhouse gas emissions in our atmosphere, such as **carbon dioxide, nitrous dioxide** and **methane**.

Human activity is contributing to this increase. Most greenhouse gases are created by our transport, how we consume products, how we make and distribute things, mining, factories, deforestation, farming and landfills, etc.

The current rise in CO₂ is at least 300 times faster than the combined effect of natural processes over the last ten thousand years. (Atmospheric carbon dioxide has risen from 364ppm to 416ppm in the last 20 years).

The increase of industry and modern living have increased CO₂ by about 50% since the pre-industrial era, with billions of tonnes more being released each year.

Globally, the 10 warmest years have all taken place in the last 15 years. We can see the impacts already with increased storms, floods, wildfires, and drought. If we carry on this trajectory, humans and nature will experience catastrophic warming, with worsening droughts, greater sea level rise, wild-fires, and mass extinction of species. With more severe weather patterns our most marginalised communities are often the most at risk, with negative impacts on homes, livelihoods, and health.

The cost impact of climate change to health is estimated to be \$4 billion a year by 2030.

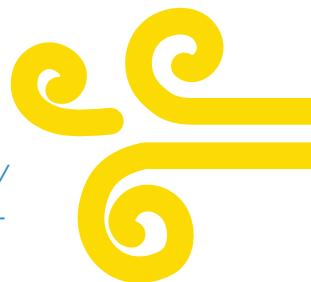
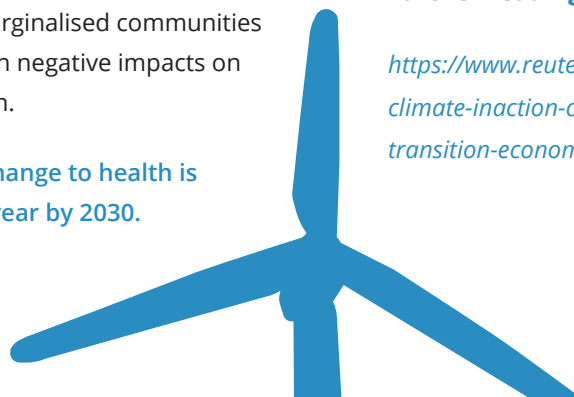


The Intergovernmental Panel on Climate Change (IPCC) state that every additional tenth of a degree of warming will take a serious toll on people's lives and health.

Numerous estimates place the cost of reaching net-zero carbon emissions between 1-10% of global GDP to 2050, compared to 10%-18% economic cost of inaction.

Further reading:

<https://www.reuters.com/business/cop/climate-inaction-costlier-than-net-zero-transition-economists-2021-10-25/>



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WHAT IS CLIMATE CHANGE?

Climate is defined as the average weather in a place over many years. Climate change is a shift in those average conditions.

The rapid change we are experiencing is due to burning fossil fuels, which release greenhouse gases - mostly carbon dioxide (CO₂). These gases trap the Sun's heat and cause the planet's temperature to rise.

Methane gas (CH₄) has a much higher potential to heat the atmosphere. (CH₄ is 25 times greater than CO₂ over a 100-year period, or 86 times greater over 20 years).

Temperature rises must slow down drastically if we want to avoid the worst consequences of climate change. Scientists urge us that global warming needs to be kept to 1.5C.

However, unless further action is taken, the planet could still warm by more than 2C by the end of this century.

If nothing is done, scientists think global warming could exceed 4C, leading to devastating heatwaves, millions losing their homes to rising sea levels and irreversible loss of plant and animal species.

There are many things that we can do to act. See Eco Tips under Resources.

