

Carbon

This is one of four short documents setting out the strategic approach of the Friends of the South Downs to tackling climate change.

Why is carbon a problem for the future of the planet? Why do people talk about reducing our 'carbon footprint' and why do they talk about 'zero carbon' targets? Carbon emissions into the atmosphere are a serious matter. Since the Industrial Revolution carbon gas emissions, (commonly called greenhouse gases, such as carbon dioxide and methane,) into the atmosphere have increased and in the last few decades this increase has been dramatic. So, where do these greenhouse gases come from? Most of them come from burning gas, oil and coal in power stations and by using petrol and diesel vehicles. To a lesser extent some are also given off from industrial processes like cement, steel and aluminium manufacturing because these processes usually use gas or oil to power the furnaces etc.

Should greenhouse gas emissions continue at their current rate, 'global warming' could cause Earth's surface temperature to exceed historical values in a few decades, with potentially harmful effects on ecosystems, biodiversity and human livelihoods.

So why is it so important to limit the temperature of the earth's atmosphere? In the past people have said it will make the climate more habitable in colder countries. That may be the case in the short-term, but in the next few decades the danger is that rising atmospheric temperatures mean the temperature of the sea goes up to such an extent that fish can no longer breed. Rising temperatures will also cause the melting of ice caps and that means sea levels will go up, threatening many low-lying areas around the world. But worse still, if temperatures continue to rise, we may get to a 'tipping point' when the changes will accelerate and cannot be reversed.

Already the tundra is beginning to melt across Canada and Russia. This will mean that methane gas will be released (which has been stored for millions of years). Methane gas is 28 times worse than other greenhouse gases in the effect it has in heating the atmosphere. If the atmosphere heats up too much, then plant and insect life will be affected dramatically, and it will become more difficult to grow crops and feed the world's population. At the same time, we will see more extremes of temperature causing the expansion of deserts and more storms and flooding. The melting of the ice caps in, for example Greenland, not only has the effect of raising ocean levels, but also means there is no snow to reflect the sun's rays, which will cause even more temperature rise.

If these statements don't worry you then the final point to make is that, as greenhouse gases grow, there will be less oxygen in the atmosphere to sustain life.

So what do we do? We believe we should change over to using renewable energy as soon as possible. We don't have to use fossil fuels. Already the UK produces about 30% of its energy from renewable sources such as wind and solar energy. We just need to do more of it and more quickly.

See also our strategic approach to tackling climate change in our linked documents: Sustainability, Environment and Education.

[See also our planning policy documents.](#)