

Global Dimming and Global Warming:

How the Two Are Connected

To battle Global Dimming we could try to reduce aeroplane contrails and we wouldn't have to give up coal or oil, just burn them more cleanly. But unfortunately it is not that simple. Just from the experiment carried out in the three days after 9/11 we can see what would happen if we removed just one factor that causes Global Dimming. If this were to be done on a Global scale we would see a large increase in Global Warming. It seems that even through Global Dimming is a major threat to humanity, it has been covering up something much worse.

If we solve the problem of Global Dimming the world would get considerably hotter. This is not just a theory. It has been happening already across Europe. Western Europe has taken steps to reduce air pollution; there has been a noticeable improvement in quality of air and a slight reduction in Global Dimming. But summer temperatures have started to rise considerably, especially in the year 2003. If we reduce Global Dimming but not tackle the cause of Global Warming then the results would be devastating.

The warming caused by greenhouse gases has been hidden by the cooling effect of Global Dimming. By just tackling Global Dimming we could be in a situation where the cooling pollutant is decreasing while the warming pollutant is going up. We will get accelerated warming.

Scientists have now also begun to worry about just how strong Global Warming is. The strength of Global Dimming was underestimated; it is competing with Global Warming. In the last 100 years the climate has moved to a warmer state by 0.6°. This means Global Warming is 'winning the competition' with Global Dimming. This means that Global Warming has also been underestimated. This is terrible because this means our climate is more sensitive to CO₂ than thought. The models used to predict climate change may be not sensitive enough and can only predict a maximum warming of 5° by the end of the century. These models may now be incorrect. Temperatures could rise twice as fast as thought and the damage could be irreversible in just 25 YEARS!

Scientist, Dr Peter Cox predicts that if we don't do anything by 2030 the world's temperature could rise by 2°. At this point the Greenland ice sheet would start to melt away, and could not be stopped. Sea level would rise by 7 or 8 metres.

After the Greenland ice cap has gone the world's rainforests will wither and die. By 2040 the temperature could be 4° warmer. The Amazon Basin would dry out and that would make the forest unsustainable. The forest would probably catch fire turn into savannah and possibly desert. As the trees are burnt massive amounts of CO₂ would be released speeding up Global Warming even further. In just a century the world could be 10° warmer.

If this increase happened the British Isles would be completely transformed. Our normal lush climate would change to the likes of North Africa. We would be living in a country of extremes, flooding in the winter and dust storms in the summer. This rise in temperature could be even worse elsewhere. In countries where the temperatures are already high, they would become uninhabitable.

Just when it seems like it could not get worse; a 10° warming in the far North could cause a massive store of methane gas to be released. Methane stored at the bottom of the ocean in methane hydrates, could be released, all ten thousand billion tons of it. Methane is a greenhouse gas that is 8 TIMES stronger than CO₂.

Whatever we tried to stop our emissions by then it would be far too late. The Earth's climate would spin out of control and there would be temperatures unseen in 4 BILLION YEARS! If we just continued to keep on polluting and hope that Global Dimming will protect us that would be a catastrophe.

To save our planet we will have to tackle both problems at the same time. The recent discovery of Global Dimming shows us just how little time we have left.