

Climate Change Update

Presented to Simon Hart MP on 26th of June 2015

The scientific evidence that human activity is changing the climate is so overwhelming it is accepted by all world governments and Academies of Science; global and national economic and business bodies, such as the World Bank, IMF, Bank of England, CBI and the Federation of Small Businesses; health experts such as the World Health Organisation and the BMA; military experts such as the MoD and the Pentagon; trade unions and farming unions; sports organisations such as the WRU; development organisations such as Oxfam and The Save the Children Fund; the WI etc etc.

Margaret Thatcher, in 1988, warned that climate change was as great a risk as nuclear warfare.

David Cameron jointly signed, with Ed Miliband and Nick Clegg, in February this year, a pledge to tackle climate change in order to protect national security and boost economic prosperity.

Yet, despite this overwhelming consensus of expert opinion, a Populus survey of UK MPs last September showed that only three in ten Conservative MPs believed that man-made climate change is a scientific fact while almost one in five thought it was pure propaganda.

Global warming over the last century means that heat extremes are happening 4 to 5 times more often, according to a study published in Nature Climate Change in April this year (Guardian 27th of April 2015).

Last year was the warmest on record globally, with 13 of the 14 hottest years occurring since 2000.

In the UK, 2014 was our warmest year on record with the eight warmest years having taken place since 2000. Because warmer atmosphere holds more water, we are also experiencing heavier rainfall. The winter of 2013/14, which saw devastating flooding in many parts of the UK, was the wettest on record.

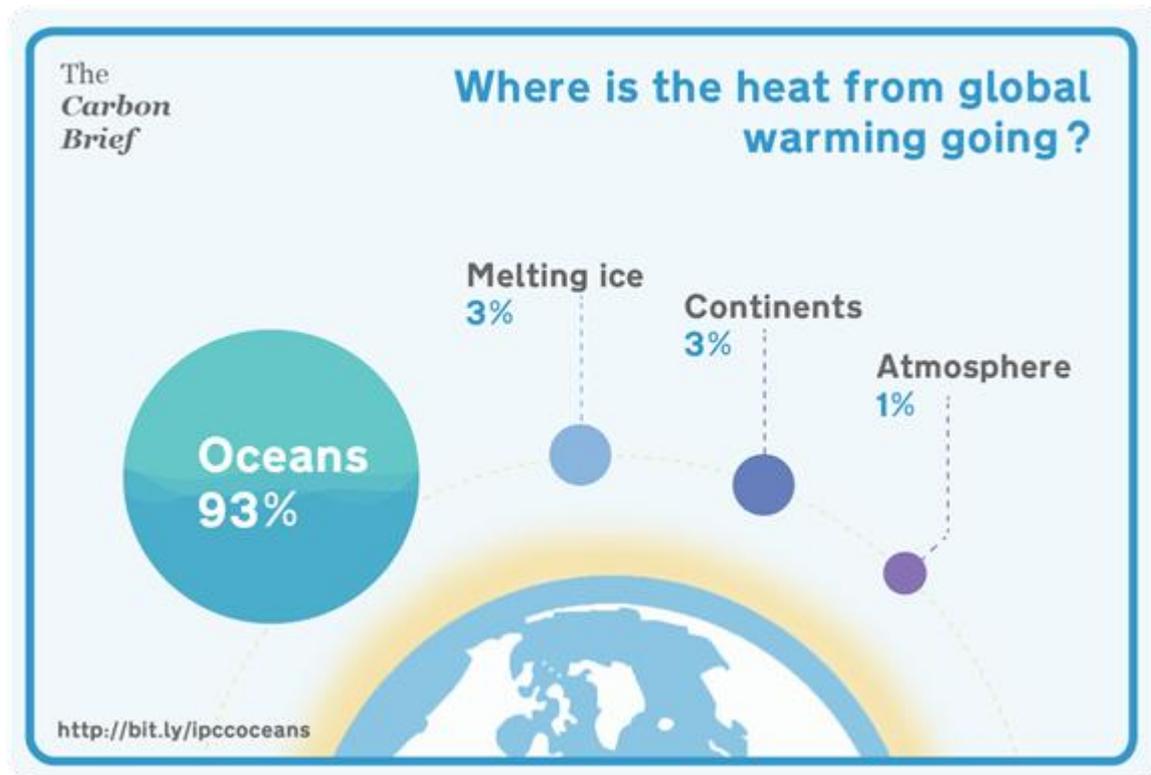
A study, published in Environmental Research Letters, shows that the record-breaking heat in England in 2014 was at least 13-times more likely because of human-caused climate change (Carbon Brief 1st of May 2015).

In Pembrokeshire, there has been exceptional damage in coastal villages, such as Amroth and Newgale, as a result of severe weather. Scientific evidence shows that extremes of weather will continue to increase because of man-made climate change. (Lord Stern, former chief economist at the World Bank and the UK Treasury, Guardian 1st of May 2015)

A study, by scientists from the US National Oceanic and Atmospheric Administration, has concluded that the much-discussed “slowdown” in warming at the Earth’s surface is likely to

be largely a figment of the way temperature records have been pieced together over time (Carbon Brief, 4th of June 2015).

Only a tiny proportion of the extra heat emitted to the atmosphere by human activity stays there as the overwhelming majority is absorbed by the oceans, as the illustration below shows (Carbon Brief, 2nd of February 2015).



Tackling climate change must become a top foreign policy priority if the world is to combat the global security threat it poses this century, according to a study commissioned by the G7 countries (Guardian 24th of June 2015).

Tackling climate change can be a boon to prosperity, rather than a break, according to a study by some of the world's biggest institutions, including the UN, the OECD, the IMF and the World Bank (Guardian 16 September 2014).

Fossil fuel companies are subsidised by \$10 million a minute, according to the IMF (Guardian 18th of May 2015).

Of the £7.9 billion DECC 2013/14 budget, £7.5 billion (95.8%) was spent on cleaning up the U.K.'s nuclear legacy through the Nuclear Decommissioning Authority. The budget within direct control of ministers is called "departmental expenditure limits" (DEL). DECC's 2013/14 total under this measure was £3.4 billion with the lion's share, 65%, again being spent on cleaning up the UK's nuclear legacy (Carbon Brief 13th of May 2015).

A study by the London School of Economics concluded that, without the recession in 2008 forcing down emissions as the economy shrunk, the UK would not have hit its domestic carbon reduction target for 2012 (Carbon Brief, 30th of April 2015).

Government claims that UK CO₂ emissions fell by 194 million tonnes between 1990 and 2012 are misleading. These cuts have been outweighed by a rise of 280 million tonnes in emissions resulting from imported goods manufactured in countries like China (BBC News website, 19th of March 2015).

Senior environmentally-concerned Conservatives from the influential think tank, Bright Blue, have criticised the government's decision to sell a majority stake in the Green Investment Bank as it will undo the Bank's green achievements (Guardian 25th of June 2015).

A review of major projects run by DECC has just rated the government's domestic energy efficiency programme as "Amber/Red", the lowest score of the 10 projects considered. An Amber alert was handed out to other environmental programs - the Renewable Heat Incentive, the Carbon Capture and Storage commercialisation competition, the planned nationwide roll-out of smart meters, the programme of electricity market reforms, and the search for a nuclear waste storage site (Business Green, 26th of June 2015).

The UK government recently announced that it has surpassed its interim renewable energy target for 2013/14. It obtained 6.3% of its energy from renewables, passing its interim goal of 5.4%. The fastest growth area was renewable electricity, which generated almost 18% of UK electricity in 2014, but that biomass power, mainly as a result of the Drax power station in Yorkshire, was the largest contributor to the increase. The use of biomass to generate electricity has been criticised as evidence indicates it increases rather than decreases CO₂ emissions. A DECC-funded research project is investigating claims that biomass could be worse for the climate than coal (Carbon Brief, 25th of June 2015).

The future contribution of renewables to cutting carbon emissions in the UK is under threat as the new Energy Secretary, Amber Rudd, recently announced that the Government will stop subsidies for onshore windfarms a year earlier than originally expected. The government has also ended the Renewables Obligation scheme for large-scale solar farms.

A week ago, Amber Rudd displayed her ignorance of energy issues when she stated, on the Radio 4 Today programme, that wind energy generates 10% of UK energy. It does not. It generates around 10% of UK electricity, not energy. Electricity makes up less than 20% of total UK energy consumption.

Global consultancy Ernst & Young has said of the government's cutting of onshore wind energy subsidies: "chasing a climate change target while abandoning the most cost-competitive renewable energy technology is somewhat absurd". The company also points out that the UK's Onshore Wind Cost Reduction Task force has projected an average

reduction of 22% on today's costs, taking onshore wind energy prices below gas by 2020 (edie newsroom website 11th of June 2015).

The BBC reported on June 24th that the EU's climate chief criticised the UK government's scrapping of onshore wind subsidies as the UK was not on track to meet its legally binding EU target of generating 15% of energy from renewables by 2020, pointing out that onshore wind was by far the cheapest way to hit the target.

The BBC report noted that the government's decision was welcomed by UKIP and anti-wind pressure groups but condemned by most energy academics and the CBI.

The UK government has justified its decision by claiming that onshore wind capacity will grow to 12 GW by 2020, despite its cutting of the subsidy, and that this is in line with the government plan towards meeting the 2020 renewable energy 15% target. The government plan suggests that the UK would need to generate 30% of its electricity from renewables by 2020 to meet this target. As the renewable heat and transport targets are well behind schedule, a higher proportion of the target will have to be met from renewable electricity, of which onshore wind is the cheapest. Beyond 2020, the UK has to meet its own legally-binding carbon reduction targets, and this implies a big increase in onshore wind capacity, according to the Committee on Climate Change. Other routes are possible, the committee says, but they would be more expensive. (Carbon Brief, 18th of June 2015)

The government is rejecting the cheapest option for meeting its renewable electricity target and failing to deliver on another quick and cheap means of cutting carbon emissions, domestic energy efficiency. Instead, it's backing more costly and complicated ways forward, such as shale gas and nuclear power.