

Additional information on Climate Change

2. [Climate change explained](#), on the GOV.UK website, gives a good summary of climate change; its causes and impacts and what is being done to tackle it.
- 2.1 Climate change refers to a large-scale, long-term shift in the planet's weather patterns and average temperatures across the world. Since the mid-1800s, humans have contributed to the release of carbon dioxide and other greenhouse gases into the air. This causes global temperatures to rise, resulting in long-term changes to the climate.
- 2.2 How are humans changing the climate?**
- 2.3 In the 11,000 years before the Industrial Revolution, the average temperature across the world was stable at around 14°C. The Industrial Revolution began in the mid-1800s when humans began to burn fossil fuels such as coal, oil, and gas for fuel. Burning fossil fuels produces energy, but also releases greenhouse gases such as carbon dioxide, methane, and nitrous monoxide into the air.
- 2.4 Over time, large quantities of these gases have built up in the atmosphere. For example, the level of carbon dioxide in the atmosphere rose by 40% during the 20th and 21st century and is now over 400ppm (parts per million). This level of carbon dioxide is higher than at any time in the past 800,000 years.
- 2.5 The [Paris Agreement of 2016](#) for the first time brought all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort. The Agreement set a target of no more than 2°C global warming above pre-industrial temperatures, but also an aspirational target of no more than 1.5°C. That is because many participating countries – especially island nations particularly vulnerable to sea level rise – felt that even 2°C global warming is too dangerous.
- 2.6 There had not been a lot of research into the climate impacts at 1.5°C vs. 2°C, and so the United Nations asked the Intergovernmental Panel on Climate Change (IPCC) (the United Nations body for assessing the science related to climate change) to publish a special report summarizing what it would take to achieve the 1.5°C limit and what the consequences would be of missing it.
- 2.7 The IPCC report concludes that a world with 2°C of global warming will lead to more heat-related deaths, smaller crop yields, worse extreme weather events, slower economic growth, more people in poverty, and increase the population facing water stress by up to 50% compared to a 1.5°C world. And the impacts will get progressively worse if temperatures warm beyond the 2°C limit.
- 2.8 We're currently on track for more than 3°C global warming by 2100, although some research suggests that this could be 4°C or higher.

2.9 The key simple critical point from the report is that we need to cut carbon pollution as much as possible, as fast as possible.

2.10 Climate Declaration

2.11 In response to the report from the IPCC and Government action, local authorities and other organisations in Devon have declared climate emergencies that aim to decarbonise the County by 2050 at the latest. Work is currently underway to substantiate the most appropriate Devon wide net zero deadline, which is likely to be somewhere between 2030 and 2050, most likely the latter period of 2030.

2.12 Members of the Devon [Local Resilience Forum](#) agreed on the 9th May 2019 to form the [Devon Climate Emergency Response Group](#) (DCERG) and a supporting [Tactical Group](#). The DCERG endorsed the Climate Declaration on 22nd May 2019 and North Devon District Council became a signatory at full [Council](#) on the 24th July 2019.

2.13 The main actions the signatories to the Declaration are committing to:

1. Review organisational carbon reduction plans within 6 months
2. Collaborate on the production and implementation of a Devon Carbon Plan
3. Lobby for national policy changes and resources to implement the Devon Carbon Plan
4. Agree to collectively review community-related risks from a 1.5-degree warmer world.

2.14 This report is responding to the commitment number 1, by setting out its policy approach to climate change and the environment, including the setting of targets for becoming zero net carbon. The targets set will provide deadlines by which the emerging carbon reduction plan can be measured.

2.15 Net Zero Task Force

2.16 The DCERG appointed a specialist [Net-Zero Task Force](#) to develop the Devon Carbon Plan. This Task Force consist of 12 people with expertise in areas relevant to carbon reduction and is drawn from economic, environmental, health and academic organisations, and chaired by a leading climate expert. Options drawn up by the Task Force were tested and refined at a series of [citizens' assembly](#) meetings scheduled to take place spring 2020. The Devon Carbon Plan will seek to implement transformational change including:

- Deploying more renewable, decentralised and smart energy systems
- Retrofitting energy-efficiency measures into our existing buildings
- Constructing zero-carbon new buildings
- Travelling less and using improved walking, cycling and public transport infrastructure more often, and using electric and hydrogen vehicles
- Changing our consumption to use less, re-use more and choose low-carbon options
- Challenging all economic sectors to review their practices and the values of those they do business with
- Divesting from fossil fuels
- Changing our dietary patterns and reducing food waste

- Changing agricultural practices to reduce emissions associated with farming operations, manage soils sustainably and replenish soil carbon
- Encouraging carbon storage such as through tree planting, the use of wood in construction and peatland restoration
- Empowering the people of Devon with the knowledge and skills to act collectively.

2.17 **Climate Impacts Group (leading on adaptation)**

2.18 The DCERG has also formed the [Climate Impacts Group](#) to review the risks from climate over the coming decades. The Group is chaired by Devon and Cornwall Police and the initial review is expected to be complete by early 2020. Four activities are underway:

- **The Met Office** is producing a reasonable worst case scenario (RWCS) of climate change effects for 2030 and 2050 and providing evidence to back up these predictions.
- **The Environment Agency** is developing evidence of what the impact will be in terms of sea level rise, flooding, drought, heatwave, etc. for the 2030 and 2050 RWCS.
- **University of Exeter** is assessing knock on risks and impacts such as social, political and economic impacts. e.g. impact on agriculture and tourism, reduction in economic activity.
- **Health** to produce a report on likely impacts on public health for the RWCS at 2030 and 2050, in terms of excess deaths due to events such as heatwaves, drought, severe weather, pressures on provision of services, increase in vector borne disease, and plant and animal disease effects which may have knock on effect on human health.