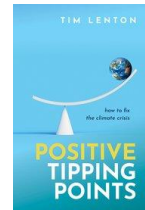


CLIMATE ACTION: BOVEY & HEATHFIELD POSITIVE TIPPING POINTS



At Climate Action: Bovey & Heathfield, we seek to help provide our community with the knowledge needed to take action on climate change.

Positive Tipping Points. How to Fix the Climate Crisis (Oxford, 2025) by Tim Lenton was published last autumn. Tim is the *Chair in Climate Change and Earth System Science at the University of Exeter*. In January, Tim came and spoke to an enthusiastic audience in Bovey Tracey at a meeting organised by CABH and First Draft Books. This article is based upon his book and the meeting.



The climate system like many complex systems exhibits tipping points. This is where a small change can make a system tip from one state to a very different one and where it's difficult to change back again. The final change will be the last in a series of changes which have caused the system to lose resilience. The changes become self-reinforcing and overcome any dampening effects which have been maintaining the current state of the system. Not all systems have tipping points, but our climate has displayed these in the past and they are occurring today, due to the changes we are making to our atmosphere. Climate scientists have identified those parts of our climate system where tipping points will occur and, using observations and computer models, they project the impact of reaching these tipping points.

Many potential tipping points have been identified. These include the melting of the ice sheets in Greenland and Antarctica, the loss of sea ice in the Arctic, the melting of permafrost, the loss of the boreal forests, change to the Amazon rainforest, and the loss of tropical coral reefs. When they will occur is not the same for each one, but the latest evidence shows we have already reached the tipping point for the loss of coral reefs. This may seem far away from us in the UK, but they are areas rich in biodiversity and approximately 500 million people rely on them for their livelihoods.

All this may indicate that tipping points are always negative. However positive tipping points are actions taken to prevent climate change. They are needed to achieve net zero, the decarbonisation of the global economy. Positive tipping points are brought about through social actions driving change and from technological changes. In addition, they will help with progress towards living sustainably and achieving social justice.

An example of a positive tipping point is in the adoption of electric vehicles (EVs) in Norway. Over 90% of new cars bought there now are EVs. This largely came about through the actions of Morten Harket, from the 1980s group A-ha, and his friends. They brought a Fiat Panda converted to run off an electric battery into Norway and requested that their government waive the import registration tax. They drove it around ignoring road tolls, parking fees and the penalty notices they received. The vehicle was impounded and put up for sale but someone sympathetic to their demands bought the vehicle and gave it back to them. They then proceeded to ignore the tolls and fees again. This cycle was repeated over

and over again until the government waived the tax. Subsequently government policy changes met all their requests and went further. This activism created the conditions for a positive tipping point to EVs in Norway.

Another example can be found in the UK where government action through the Climate Change Act (2008) and carbon floor pricing made energy production using coal uneconomic' and in 2025 47% of the UK's electricity came from renewables.

There are many other examples of positive tipping points. The adoption of technological changes that can achieve these tipping points lead to a relative fall in their price. Economies of scale, experience from making them (learning by doing) and technological improvements all contribute to this. Government policies are key in driving the required change, creating the right environment for markets to react.

Not everything can be powered by electricity, certain industrial processes require the adoption of chemical fuels to achieve net zero, but we find positive tipping points here. For example, green ammonia is now being used in some ships. In a large mining operation in Australia, they have worked to achieve what they call 'real' zero emissions by switching to battery electric trucks powered by their own solar farm, ammonia run trains (from mine to port) as well as ammonia powered ships. The ammonia is produced using renewable energy. This has required investment but reduces their costs elsewhere by not having to buy diesel or natural gas.

Closer to home, and at a more individual level, changes to our diet can help achieve a reduction in the carbon emissions from our food supply by increasing the number of plant-based meals. This is already happening; for example, the market for products such as plant-based milks is steadily growing. As with technological changes, social actions will reduce costs over time.

To achieve the positive tipping points required to reach net zero, and to prevent the serious impacts of climate change, a transformation in the economy and our worldviews is needed. However, this is already happening and we have the knowledge to take these changes further. We need these positive tipping points to happen.

Dates for your diary:

Reel Earth - Bovey Paradiso, CABH and First Draft Books have organised a season of films about climate and nature, to be shown in Bovey Tracey at the Phoenix Hall. Start times 7.30 pm. Coming up are:

11th April: *Ocean with David Attenborough*

9th May: *Six Inches of Soil*, a documentary about the inspiring story of British farmers standing up against the industrial food system and transforming the way they produce food.

www.cabh.org.uk/
climateactionbovey.bsky.social
cabh@boveytracey.gov.uk