

Statement to Bristol Airport Public Inquiry, 16th September, by Professor Paul Hoggett

As a former professor of social policy at the UWE Bristol, I remember teaching students during the Blair and Cameron administrations of the importance of evidence-based policy making and the crucial distinction between 'espoused policy' (ie policy rhetoric) and 'policy in use' (what governments actually do).

Since retirement I have become increasingly preoccupied with the conundrum of climate change – where, despite the mass of evidence demonstrating the danger of climate change, policy in use remains largely unaffected. The expansion of Britain's airports is a perfect example of this.

Of course the problem is not just confined to policy makers, it is something that affects all of us when dealing with imminent threats. With a background in psychology I have sought to examine how and why it is that we can 'know' something and yet not actually believe what we know, thus leaving our 'knowing' strangely dissociated from our 'doing'.

A good example of this is cigarette smoking. Most people in the UK who smoke heavily know of the scientific evidence that smoking impacts upon health and increases mortality. Some acknowledge the danger and accept the risk because of the enjoyment smoking brings. But many more are in denial because they lack the courage to imagine the likely consequences of their behaviour, perhaps because they hold on to the illusion that they are invulnerable.

So let's look at one aspect of the scientific evidence relating to climate change which is particularly pertinent to the county, Somerset, in which Bristol Airport is located. Besides Lincolnshire and parts of East Anglia, Somerset contains the largest area of low-lying land in the UK. It is often overlooked but until just 12,000 years ago almost all of what we now call the Bristol Channel was a large flat valley which met the sea in a line roughly between Hartland and Tenby. As the Ice Age ended and sea levels rose so the sea encroached to where it is today. This was not always a smooth process of encroachment. Evidence suggests that the great flood of 1607 inundated low lying parts of Somerset up to 22.5 km inland. It resulted in the largest loss of life from a natural catastrophe in

Britain in the last 500 years. Although some have hypothesised that this was a result of a tsunami most of the evidence suggests that it was the conjunction of tidal peaks and a storm surge that was responsible.

I am saying all this to dispel any assumptions that the landscapes and contours of Britain that we all know and love are enduring, semi-eternal givens. To the contrary, history shows us the fragility of what we might otherwise take for granted.

And so to the present day. Bristol Airport stands above Kenn and Nailsea Moors much of which is less than 5 metres above sea level, as is much of lowland Weston-Super-Mare and, further south, vast stretches of the Somerset Levels. As you are no doubt aware scientists are unable to predict the exact future impact of climate change and so have developed a number of scenarios based upon RCP's (Representative Concentration Pathways). The current Sixth Assessment Report offers five such scenarios which vary according to the range and intensity of likely impacts, the most pessimistic of these scenarios (RCP8.5) was intended to explore the most high-risk future. This was regarded as an unlikely scenario. However in recent years because climate reality has perversely confounded science's assumptions RCP8.5 has increasingly been referred to as the most probable 'business as usual' outcome in the absence of stringent climate mitigation.

Perhaps the most significant assumption to have been confounded by nature concerns ice sheet instability and melt rates and the impact on global sea level rise. A research team examining the impact of climate change on global sea level rise which was led by Prof Jonathan Bamber at Bristol University concluded in 2019: "We find it plausible that SLR could exceed 2 m by 2100 for our high-temperature scenario, roughly equivalent to business as usual." They added, "A SLR of this magnitude would clearly have profound consequences for humanity". The likely local impact was spelt out in a 2018 Met Office report based on extrapolations from this 'high emissions scenario' which projected that sea level rise in the Bristol Channel area could be as high as 1.13 metres by as early as 2100. Add to this the increased risk of storm surges as climate change deepens and we have a deeply worrying outlook for low lying areas in the Bristol Channel region.

To return to where I began, why is it so difficult for policy makers to believe what the science is telling us? Why is it so easy for all of us to

dismiss the deepening concern of the science community as alarmist or doom mongering? Why this failure of the imagination?

So let us think ahead, just 30 years to 2050. The science tells us that in the absence of stringent mitigation, with continued business as usual – for example, with airports allowed to expand willy nilly in the UK and across the globe – the sea defences between Clevedon and Bridgewater will have to cope with a sea level nearly half a meter above the present. What are the costs and consequences of adaptation? Are these being included in the calculus of costs and benefits regarding airport expansion? And say there are serious storm surges coinciding with spring tides (which coincidentally has nothing to do with the season of the year)? Are such risks included in the calculus? And which communities are most at risk? One only has to glance at the social geography of Clevedon or Weston to know the answer – the wealthy live on high ground, the less well off live on the flat lands below. And of course in microcosm this captures the global situation where it is the least well off who are already suffering the consequences of climate change.

Those who support the expansion of Bristol's airport are like those heavy smokers who cling to their illusions and are unable to 'get real'. To avoid such destructive behaviour we have to project ourselves into the future and imagine the consequences of our actions. Otherwise climate change mitigation will simply remain an espoused policy rather than something that policy makers actually believe in.