

# **Expansion of Bristol Airport to 12mppa - Planning Appeal**

PINS Ref APP/D0121/W/20/3259234

Planning Application Ref: 18/P/5118/OUT

## **Proof of Evidence for XR Elders**

**Social Attitudes and Impact on Flying**

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**XR/W1/1**

## 1. Introduction

My name is Dr Stuart Capstick and I am the Deputy Director of the Centre for Climate Change and Social Transformations (CAST Centre), a £5m investment from the UK Research and Innovation funding council and based at Cardiff University, where I have been working since 2011. I obtained a BSc (Hons 2.1) in Psychology from Plymouth University, a MRes (Psychology) from the University of Bath and a PhD in Psychology (public understanding of climate change) from Cardiff University.

1.1 I have achieved a strong international reputation within the environmental social sciences. My research has been widely covered by the media, has influenced government policy and been cited in the work of the *Intergovernmental Panel on Climate Change* (IPCC). Since 2015, I have published more than 30 peer-reviewed articles and book chapters in relation to public understanding of climate change.

1.2 I was lead author on the first-ever analysis addressing the emissions-reduction potential of lifestyle change for the prestigious *Emissions Gap Report*, coordinated by the *United Nations Environment Program* (UNEP). The UNEP report was covered in over 2,500 media articles and our section's key messages were translated into six languages. I have also led research across many other international and cross-disciplinary projects, including: cross-cultural research into environmentally-significant behaviours across seven nations in both the global North and South; research assessing resource use in the UK and Brazil; and analysis of attitudes and practices in relation to aviation, using primary data from 59 countries

## 2. Scope of Evidence

This Proof of evidence deals with the likely impact on demand for flying of future developments and changes in individual attitudes as well as changing social norms and practices. I present evidence that challenges the assumption that passenger growth will, post pandemic, continue as before into the future. Attitudes and norms are shifting with regard to flying and hyper-mobility, there is growing public recognition of the need to restrict flying, and evidence that the pandemic has catalysed these trends. I also draw some conclusions from the work that I jointly led for the United Nations Environment Program that points to the value of limiting airport expansion in order to constrain demand.

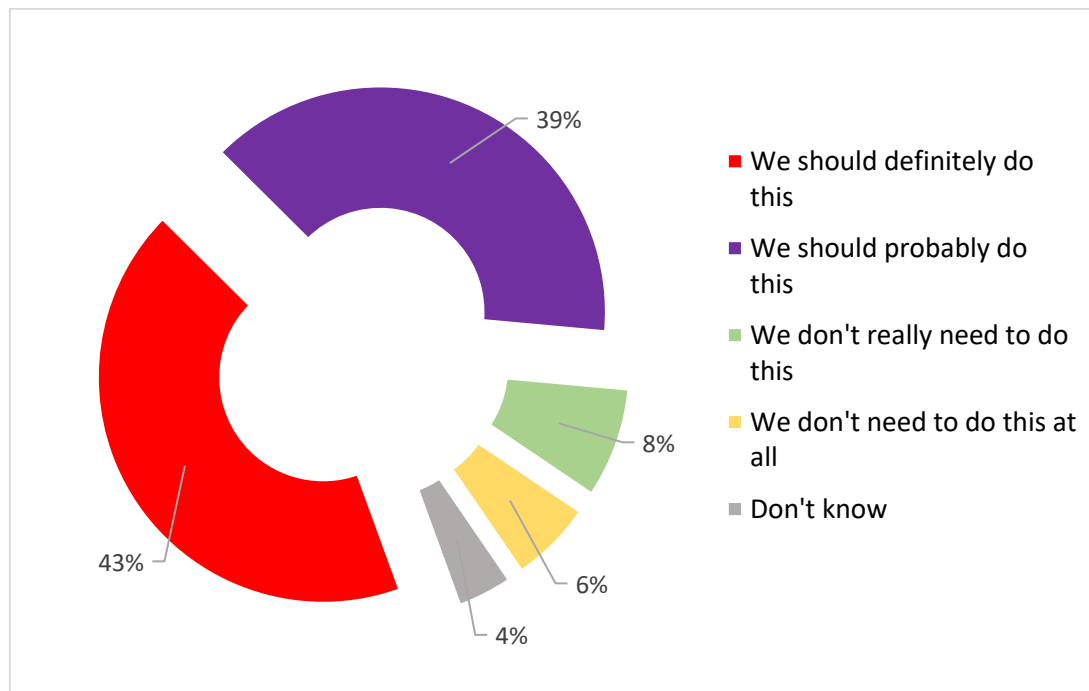
### 3. Public perceptions surveys

3.1 **Three times as many people want to see airport expansions stopped, than oppose such a measure.** In an October 2020 representative survey<sup>1</sup> of the UK public carried out by the Centre for Climate Change and Social Transformations (CAST Centre, based at Cardiff University), 45% stated their support for “stopping airport expansions” compared to 17% who opposed this.



3.2 In relation to the amount we fly overall, **over four-fifths of people (82%) are of the view that we should either ‘definitely’ or ‘probably’ limit the amount of air travel we do, in order to tackle climate change**, as shown in Figure 1 (same survey 2020). These figures may demonstrate a trend towards a stronger recognition of the need to limit air travel over time: in a previous 2019 survey also by the CAST Centre<sup>2</sup>, around two-thirds of people (67%) had said that we should definitely or probably limit the amount of air travel we do. These findings are backed by the statement quoted below from the National Air Travel Service (NATS) 2020 Aviation index.

**Figure 1 Beliefs among the public about the need to limit air travel**



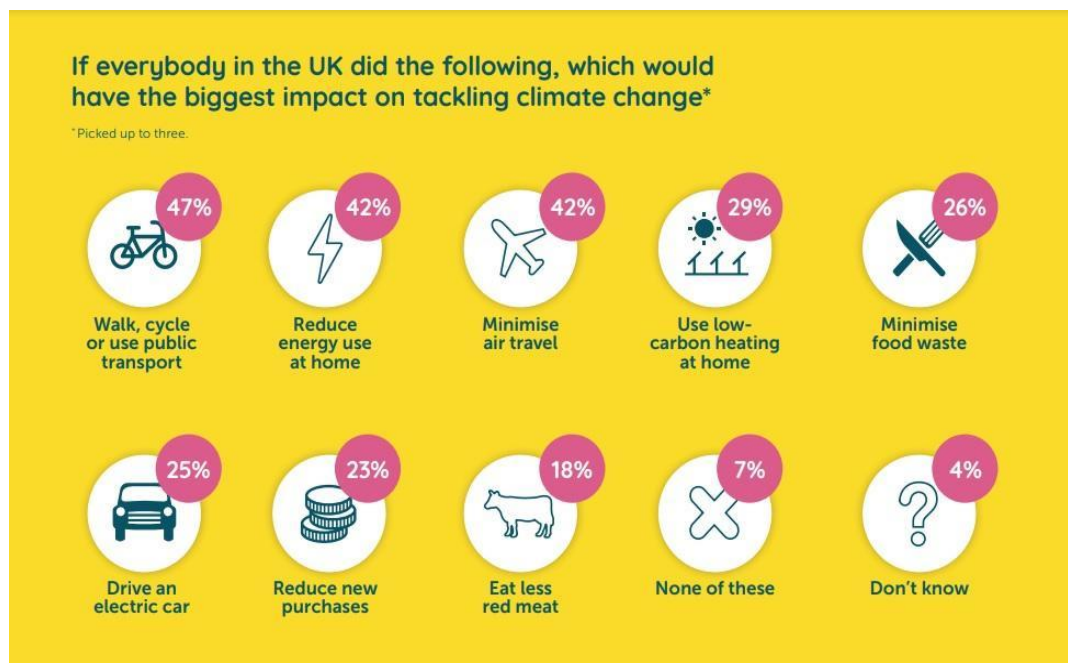
<sup>1</sup> Steentjes, K., Poortinga, W., Demski, C., and Whitmarsh, L., (2021). UK perceptions of climate change and lifestyle changes. CAST Briefing Paper 08. <https://cast.ac.uk/wp-content/uploads/2021/03/CAST-Briefing-08.pdf> This survey was carried out with a representative sample of just under 1,000 members of the UK public.

<sup>2</sup> Capstick, S., Demski, C., Poortinga, W., Whitmarsh, L., Steentjes, K., Corner, A. & Graham, H. (2019), Public opinion in a time of climate emergency. CAST Briefing Paper 02. <https://cast.ac.uk/wp-content/uploads/2020/01/CAST-Briefing-paper-02-Pubic-opinion-in-a-time-of-climate-emergency-min.pdf>

“There has been a significant rise in the number of people who disagree with the statement ‘I don’t think people should be discouraged from flying if they want to, even if this might have a negative impact on the environment’, [*disagree*] up to 32% (22% in 2019) with agreement dropping to 34% (47% 2019)”. *NATS 2020 Aviation Index of Public Attitudes to Aviation*

3.3 These results reflect the fact that **the UK public increasingly recognises the importance of minimising air travel for tackling climate change**. When asked which of eight options would have the biggest impact on tackling climate change, 42% of people in the October 2020 survey selected ‘minimise air travel’, as shown in Figure 2. Of the seven other potential actions that could be selected (survey respondents could select up to three) only changes to surface travel behaviour (i.e. walking, cycling, public transport) received a higher rating. There was stronger recognition for the potential of minimising air travel to tackle climate change than there was for dietary change, driving an electric car, using low-carbon heating at home, reducing new purchasing, and minimising food waste.

**Figure 2 Beliefs about the importance of measures to tackle climate change**



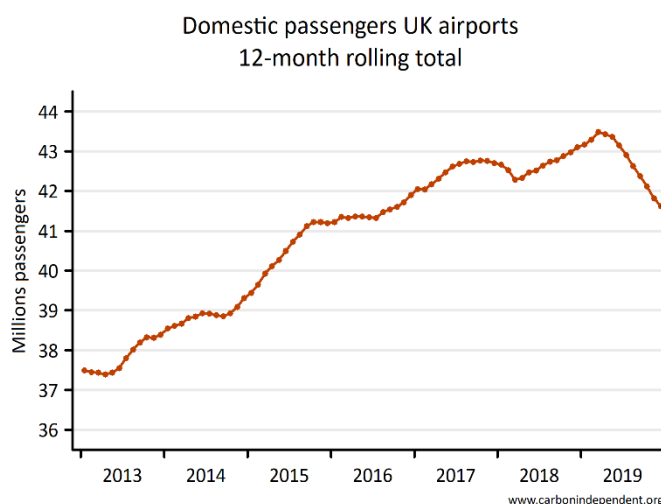
3.4 In terms of whether people even want to fly regularly, the 2020 CAST Centre research also finds that **fewer than a third of people even *aspire* to fly on holiday at least once a year**. Whereas 31% agree with the statement “I aspire to fly on holiday at least once a year”, 42% disagree with this statement. Furthermore, few people see travelling far and often as an important part of their lives.



## 4. Social tipping points and changing practices.

4.1 This research area is by its nature more uncertain, and it is difficult to make strong claims about social tipping points in advance of them occurring. However, **there is evidence in Europe (including the UK) of changing attitudes and practices with respect to flying, which call into question the notion that demand for passenger aviation is rising and will continue to do so.** Most prominent among examples of changing attitudes and norms is the “flygskam” or “flight-shame” social phenomenon, referring to a sense of guilt or discomfort in relation to flying, due to a recognition of its climate impacts. This notion came to prominence in Sweden in the mid-2010s but research by Becken et al. (2020) has since found that it has spread to “the rest of the world indicating a global phenomenon”. In particular, these authors note that attention to ‘flight-shame’ globally was most prominent in the UK, Sweden and the USA. While these authors recognise that their analysis of language and social networks would not necessarily translate into changes in behaviour, nevertheless they argue the current pandemic may well provide further impetus to no-fly movements. Gössling et al. (2019)<sup>3</sup> similarly argue that “current debates on flight shame [should] be seen as supportive of changes in social norms”.

4.2 Also with reference to a wider recognition among the public of the detrimental impacts of flying, and in consideration of whether and how social tipping points may be occurring in relation to climate change, Otto et al. (2020) argues that **“society may now be just at the edge of tipping in the realm of social norms and beliefs” concerning air travel.** Data based on the UK’s own Civil Aviation Authority figures compiled by *Carbon Independent* appears to show that, even before COVID-19 struck, the UK had seen a significant downturn in domestic air travel in 2019<sup>4</sup>; as shown in Figure 3; this may even indicate a peak in demand for domestic aviation occurring in the late 2010s, prior to the pandemic.



**Figure 3 Domestic passenger air travel over time**

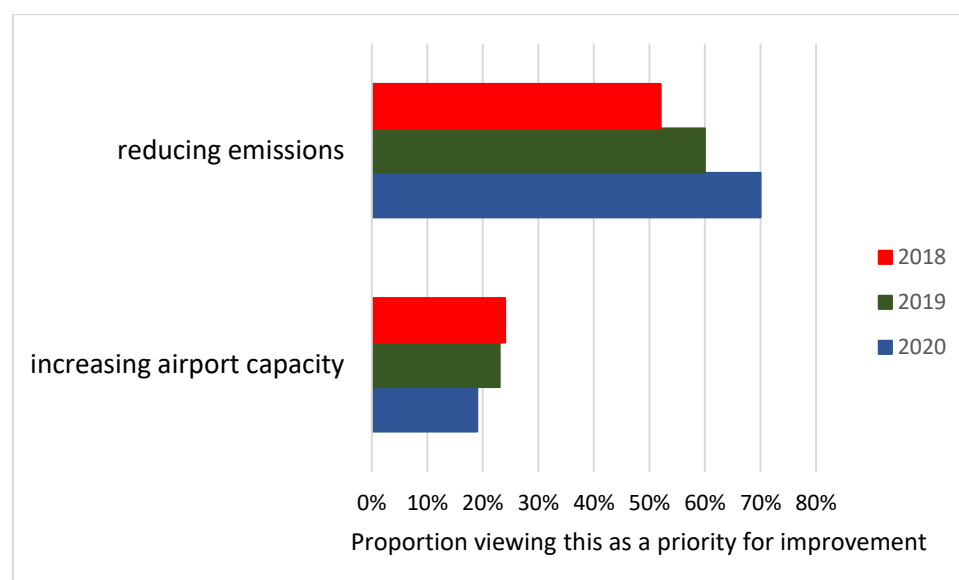
<sup>3</sup> Gössling, S., Hanna, P., Higham, J., Cohen, S., & Hopkins, D. (2019). Can we fly less? Evaluating the ‘necessity’ of air travel. *Journal of Air Transport Management*, 81, 101722.

<sup>4</sup> <https://www.carbonindependent.org/90. html>

**4.3 Separate research suggests what may be a trend over time towards people disagreeing that airport expansion “is the right thing to do”.** Research by (NATS) and Ipsos MORI found that in 2020 39% of people supported expansion, down from 57% in 2019. There are overall higher levels of support shown in this research, as compared to the CAST Centre academic research cited above. This may in part be due to question phrasing: presenting the statement in the form that airport expansion “is the right thing to do” may have led to a presumption this was the case among some respondents.

The **NATS research notes that “[air] traffic levels seem unlikely to return to 2019 levels for years”** and that there has been “a sea change in public attitudes about aviation and the environment”. A large and growing proportion of people see reducing emissions as a priority<sup>5</sup> for the aviation industry, far larger than the proportion that consider increasing airport capacity a priority, as shown in Figure 4.

**Figure 4 Public views on priorities for aviation**



**4.4 Any change in social norms and practices are likely to be further influenced by the disruption arising from the COVID-19 pandemic,** which has led to over a year so far of severely restricted travel (including two summer holiday seasons). There remain many questions and conjectures about the extent to which aviation will rebound over time, however many trends and new practices acquired or imposed during the pandemic are likely to hold over time. As Gössling et al.

<sup>5</sup> The NATS survey research is reported in summary at <https://www.nats.aero/news/aviation-index-2020/> The ‘priority’ question was phrased as follows: “Thinking about airports, airlines and organisations responsible for regulation of aviation, which, if any, of the following aspects do you think should be most prioritised for improvement?” with respondents able to select as many as they wished from six options, covering aspects of consumer choice, noise disruption, and flight paths.

(2020)<sup>6</sup> observe, video conferencing has become widely adopted by home office workers, students have taken up distance learning, with business travellers avoiding non-essential air travel. These authors also point to previous research by Cohen et al. (2018)<sup>7</sup> showing that many business travellers will welcome opportunities to travel less.

4.5 A further research project from the CAST Centre examining whether and how people's practices might change as a result of the COVID-19 pandemic, has indeed found that **there is a greater proportion of people who plan to fly less after COVID-19 restrictions are lifted, than plan to fly more**. In October 2020, over a third (36%) stated that they plan to fly for holiday or leisure purposes 'a lot less' or 'a little less' than before COVID-19; this is double the proportion of people who said they planned to fly a little/ a lot more after COVID-19 (18% held this attitude). Similar research from Ipsos MORI in April 2021 found that "the public does not expect to revert to less sustainable behaviours when restrictions are removed". In this research, 60% of respondents said that once coronavirus restrictions were lifted they would be taking holidays that did not require flying to the same extent or more than they did prior to the pandemic, compared with only 14% who said they would do this less. While we cannot be certain of the extent to which these intentions will translate into behaviour, these findings nevertheless run counter to any claims that demand for passenger aviation is bound to increase.

#### **Additional References this section:**

Becken et al (2020): <https://www.tandfonline.com/doi/full/10.1080/09669582.2020.1851699>

Otto et al (2020): <https://www.pnas.org/content/117/5/2354>

Ipsos MORI April 2021: <https://www.ipsos.com/ipsos-mori/en-uk/earth-day-2021-only-3-10-britons-think-government-has-clear-plan-tackle-climate-change>

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<sup>6</sup> Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1-20.

<sup>7</sup> Cohen, S. A. , Hanna, P. , & Gössling, S. (2018). The dark side of business travel: A media comments analysis. *Transportation Research Part D: Transport and Environment* , 61 , 406–419.

## 5. Demand management through restricting airport expansion

5.1 **There is nothing inevitable about any growth in air passenger demand. Demand arises from a range of factors such as cost, perceptions and attitudes (including towards climate change) and also available infrastructure.** The concept of ‘induced demand’ states that increasing capacity encourages more people to travel in a certain way. This has been extensively demonstrated for car use<sup>8</sup>, such that building more roads leads to an increase in driving. While not linking this directly to airport expansion, Gössling et al. (2019) nevertheless argue that much aviation demand is ‘induced’ through various means.

5.2 In recognition that passenger demand is as likely to follow airport expansion, as is the reverse process to occur (i.e. supply merely ‘responding’ to demand), Capstick et al. (2020)<sup>9</sup> in work for the *United Nations Environment Programme*, argued in several places that **airport expansion should be restricted in order to promote and enable changes in people’s practices and behaviours.** These authors affirmed that in order to reduce flying, further airport expansion in high-income countries should be halted. This UNEP-sponsored work argued that “end[ing] further airport expansion in high-income countries [and] improv[ing] surface transport alternatives to aviation” represented opportunities to promote lifestyle change to tackle climate change.

## 6. Summary

**It is highly questionable that demand for air travel will continue to rise at the projected rate of over 3% a year** indefinitely into the future; indeed, demand may stall or even decline over time. An important line of evidence that demand may not continue to grow comes from social science research, including social attitude surveys gauging the views and practices of the wider public. These show a progression over time in public awareness of the climate impacts of air travel, people’s understanding of the need to reduce personal air travel, and people’s recognition of the need to restrict airport expansion. Shifting social norms and ideas about the acceptability and desirability of air travel, including in the context of the COVID-19 pandemic and need to tackle climate change, could likewise lead to constrained demand in the future. The level of demand for air travel is in any case not independent from infrastructure provision; further airport expansion may itself ‘induce’ further demand, rather than simply being a response to it, which in turn will make the achievement of net zero by 2050 harder to achieve.

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<sup>8</sup> E.g. see Hymel, K. M., Small, K. A., & Van Dender, K. (2010). Induced demand and rebound effects in road transport. *Transportation Research Part B: Methodological*, 44(10), 1220-1241.

<sup>9</sup> Capstick, Stuart, et al. "Bridging the gap—the role of equitable low-carbon lifestyles." *UNEP Emission Gap Report 2020*. UNEP, 2020. 62-75. <https://wedocs.unep.org/handle/20.500.11822/34432>