Written submission by the Aviation Environment Federation

Introduction and key messages

The Aviation Environment Federation (AEF) campaigns for effective limits on the environmental impacts of the aviation sector. We are responding to this inquiry insofar as tourism generates and requires air travel.

Recent data from the International Air Transport Association indicated that British people make more international trips by air than do people of any other nationality[1], and the Government currently predicts that air travel in the UK will grow by around 49% between now and 2050. Given the limited in-sector opportunities to reduce aircraft emissions and noise between now and 2050, our view is that this level of air travel is unsustainable. The Government should plan for a significantly lower level of aviation demand, and introduce demand management policies to ensure this objective is met. The UK's tourism strategy should be developed in a way that is compatible with the objective to limit aviation demand growth, avoiding policies that promote or stimulate more air travel, and focussing instead on quality of life and on helping to deliver net zero emissions.

Our key messages in response to this inquiry are:

1. UK tourism policy must be compatible with policies to deliver the UK's 2050 net zero target. In line with the CCC's advice to Government, this target must include international aviation, and should be legislated for under the Act using secondary legislation.

2. The level of future aviation growth predicted and supported by the Government is not in line with achieving a net zero future by 2050. Therefore, a sustainable UK tourism strategy must avoid setting policies that will increase volumes of inbound and outbound tourism by air, and should not be predicated on the need for further airport expansion. Instead, the tourism strategy should focus on how to better promote domestic tourism.

3. The UK's tourism strategy must take aircraft noise and health impacts into account, both in terms of people overflown, and the potential for adversely affecting British tourist destinations where tranquillity is an intrinsic part of their attractiveness, for example, national parks.

Tourism and aircraft noise

Our organisation formed partly in response to the rise of mass tourism in the 1970s. Airfields that had been little-used since they were converted from military to civilian use after the end of the second world war had, by the 1970s, started to become busy, noisy airports. Discovering that the industry has legal immunity from noise nuisance complaints, people living near airports or under flight paths came together as a federation to seek policy solutions to their concerns.

Over the years AEF's remit has broadened and much of our response to this inquiry relates to how the UK's tourism strategy needs to support measures to reduce aviation's climate impacts. One thing that has not changed, however, is that the key driver for aviation demand is tourism. Consumer research by the CAA in 2018 found that of people in the UK who had flown in the last 12 months 72% were taking a holiday[2]. In comparison, UK business travel by air is in decline, and while the proportion flying to visit friends or relatives has grown over the past twenty years, most travel (by all modes) both to and from the UK is still for holidays[3]. In 2018 UK residents took 47 million trips for leisure compared with fewer than 17 million for visiting friends or relatives.

Since tourism is the primary driver for aviation demand, the problem of aviation noise is principally one generated by the tourism industry. Aircraft noise events at night are a particular problem to people on the ground, and are frequently generated by holiday charter operations looking to maximise aircraft utilisation by flying during the night period.

Aircraft noise can have significant impacts on health. In addition to short-term responses such as sleep disturbance, annoyance and impairment of learning in children, long-term exposure to aircraft noise is associated with increased risk of high blood pressure, heart disease, heart attack, stroke, and dementia, and it may contribute to long-term mental health issues. In 2016, AEF published 'Aircraft Noise and Public Health: the evidence is

loud and clear'[4]. We found that in the UK, over one million people are exposed to aircraft noise above levels recommended for the protection of health, with an estimated cost of £540 million each year. Around Heathrow, 460 schools are exposed to aircraft noise levels that can impede memory and learning in children while around 600,000 people in the UK are exposed to average aircraft noise levels that risk regular sleep disturbance.

Aircraft have individually become less noisy over time, but levels of annoyance from aircraft noise remain high. There's strong evidence to suggest that more people are annoyed at lower noise levels today than in the past, suggesting that growing traffic levels have eroded the benefits of quieter technology. It's difficult to predict whether this trend will continue in the future, but fleet technology improvements may in fact be slowing down, making it more likely. At a Europe-wide level, the average noise energy per flight decreased by only 1% between 2014 and 2017 compared to a decrease of 14% between 2005 and 2017 (equivalent to over 1% per year), and in 2017 more people were exposed to noise than in 2005.[5]
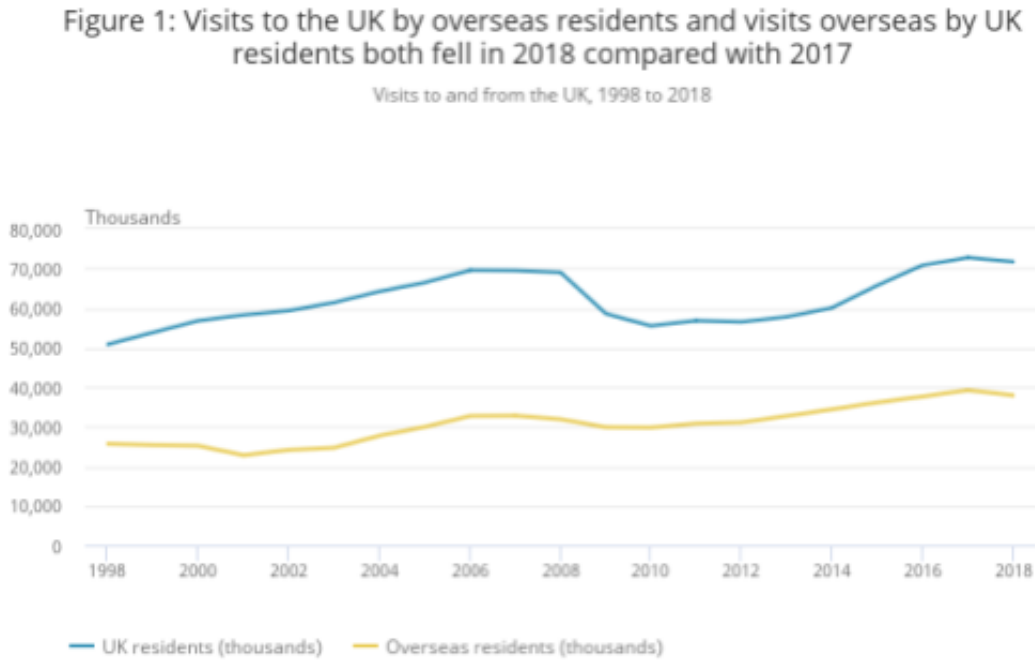
Growth in aviation demand to service a growing tourism industry therefore represents a significant challenge in terms of noise (increasing risks of annoyance and other health issues) as well as climate change – an issue that is discussed in greater detail in response to the Committee's specific questions.

The UK's tourism strategy must take aircraft noise and health impacts into account, both in terms of people overflown, and the potential for adversely affecting destinations where tranquillity is an intrinsic part of their attractiveness to tourists, for example, national parks.

What can the Government do to support a sustainable inbound tourism industry in the UK?

Inbound tourism can only be sustainable if the journeys it involves are sustainable. To the extent that the UK promotes inbound tourism, therefore, we should be encouraging people to travel in lower carbon ways such as by coach, rail or through low-carbon shipping.

It has long been the case that UK outbound travel has been greater, in terms of passenger numbers, than inbound travel to the UK, as illustrated in the ONS 2018 Travel Trends publication (graph below)[6].

Figure 1: Visits to the UK by overseas residents and visits overseas by UK residents both fell in 2018 compared with 2017

Visits to and from the UK, 1998 to 2018

Source: Office for National Statistics - International Passenger Survey

As a result, outbound UK tourists spend far more money abroad that inbound tourists spend in the UK. The latest

data from Visit Britain[7] indicates that in 2018 the UK's tourism deficit – the amount British people spend abroad compared with the amount visitors to the UK spend here, shown in grey in the graph below – was greater than ever.

Tourism Balance of Payments, unadjusted
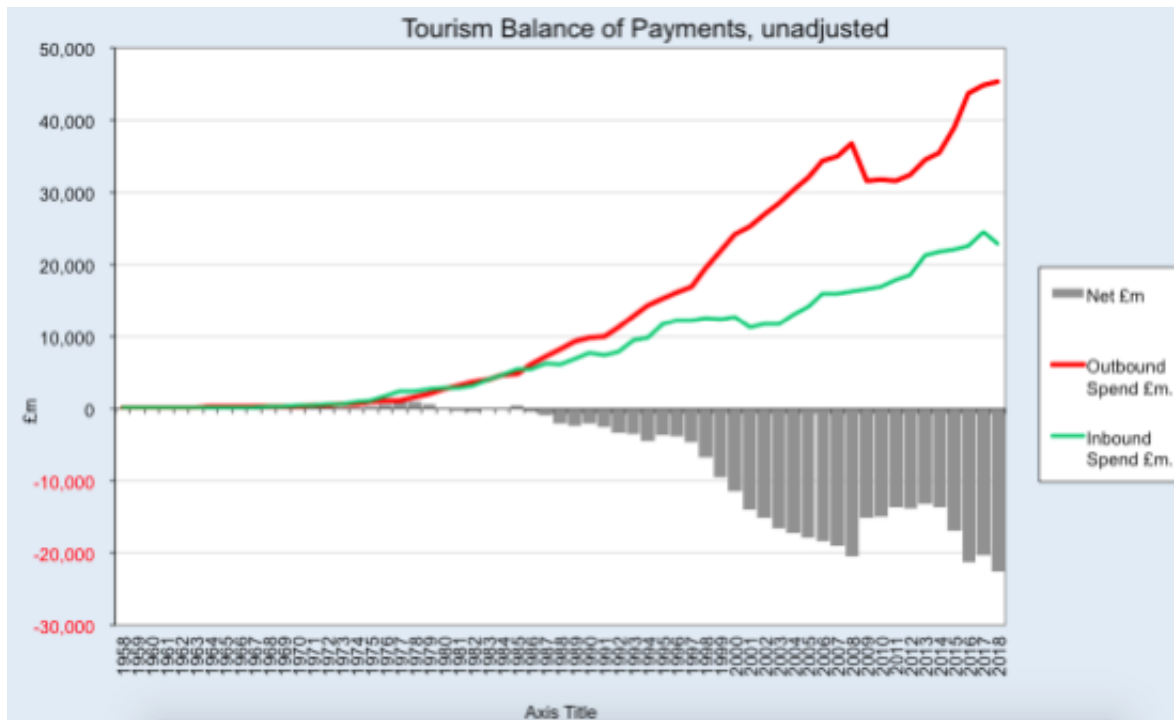
Presumably, Visit Britain hopes to help close this gap by growing the inbound tourism sector. The organisation's tourism strategy published in 2013 proposes "increasing aviation capacity and promoting new air routes" as a means of boosting inbound tourism. In fact, however, growth in airport capacity is likely to facilitate an increase in outbound air travel at least as great as any increase in inbound visits, while the key beneficiaries of a third runway at Heathrow, for example, are likely to be transfer passengers. As noted by the Transport Select Committee[8] when it was assessing the case for a new 'North West Runway' (NWR) at Heathrow – "the increase of 26 mppa in passenger demand growth at the UK level from NWR expansion includes an additional 16 mppa international-to-international (I-I) transfer passengers. Excluding the I-I transfer passengers, the NWR scheme only facilitates an additional 10 mppa terminating passengers by 2050 compared with no expansion. Overall, the committee found, "an expanded Heathrow will accommodate more than three times more outbound passengers than inbound passengers". Therefore, it is questionable whether UK tourism stands to make a significant gain from the provision of additional airport capacity.

The inquiry does not seek evidence in relation to domestic tourism. However, policy measures should be considered to support the UK tourism sector by promoting domestic holidays. 80% of spending on UK tourism already comes from UK residents, and as argued by Dr Cairns and Prof Anable in July this year, "Where promoting UK tourism can also help to improve the active travel opportunities for local people – or encourage people to make different transport choices once home – there is the potential for multiple benefits." [9]

How should the UK tourism industry balance the need to encourage tourism whilst protecting fragile environments?

In addition to the noise impact of flights on communities around airports, discussed in our introduction, there is a potential detrimental impact from aviation on UK tourist destinations, such as tranquil or historic sites, as a result of noise from overflights. The Chief Executive of Hever Castle, for example, has previously expressed concerns about the impact on his business of any increases in aircraft noise from Gatwick[10].

Encouraging domestic tourism rather than more aviation could help limit this impact.

How well is the UK industry managing the impact of tourism in line with its obligations under the

sustainable development goals, at home and abroad?

The first of the Sustainable Development Goals (SDGs) is to 'end poverty'.

At present, some countries – particularly the small island developing states and least developed countries – derive a very significant proportion of their income from incoming tourists. As recently highlighted by Prof Tom Baum, quoting Susanne Becken and team, "tourism employment in LDCs and SIDS increased from 3.2m jobs in 1995 to 8.6m jobs in 2018."[11] Baum goes on to argue, however, that "in many places tourism has substantially been "imposed" on communities" benefitting businesses rather than the people directly affected, and creating a form of neo-colonial dependence. In a net zero future that calls on us to cut back on air travel, he argues, we need to consider how best to support these communities to develop economic alternatives to air-based tourism.

The UN SDG website notes that:

> From 1998 to 2017, direct economic losses from disasters were estimated at almost $3 trillion, of which climate-related disasters accounted for 77 per cent of the total – a rise of 151 per cent compared with the period from 1978 to 1997 – and climate-related and geophysical disasters claimed an estimated 1.3 million lives. More than 90 per cent of deaths reported internationally were due to disaster events in low- and middle-income countries, and economic losses from disasters as a percentage of gross domestic product (GDP) were also much higher in these countries.[12]

This presents a dilemma for low-lying countries with a high dependency on tourism. Given that aviation is currently responsible for 5% of anthropogenic global warming, aviation-dependent tourism is not, this suggests, an appropriate solution for ending poverty in the medium to long term. SDG 13, meanwhile, is to 'take urgent action to combat climate change and its impacts'. Since around 40% of the emissions from global tourism arise from air travel[13], this points directly to the need to prioritise tackling the aviation emissions challenge.

Should the UK Government take more responsibility for the impacts of outbound tourism, for example waste and resource management, protecting habitats and species and community and cultural impacts?

The Government should take responsibility for the climate change impacts of outbound flights by accounting for international aviation emissions under our net zero emissions target as covered below.

How can the Government reach its net zero emissions targets through influencing sustainable travel patterns? Is there a role for offsets in sustainable tourism?

International aviation has for many years occupied a grey area in terms of the UK's climate change policy. The Committee on Climate Change has long advised that the Climate Change Act, which sets the UK's 2050 carbon target and is delivered through a series of carbon budgets, should apply to all sectors, including international aviation and shipping. Given unresolved questions about the methodology for accounting for the emissions from these sectors, they are not formally included in carbon budgets. All carbon budgets so far legislated, however, have been set with a view to including international aviation and shipping emissions in future, with 'headroom' for these sectors having seen set aside in the projected pathway to 2050. For aviation, this headroom has till very recently been set at 37.5 Mt – equivalent to the level in 2005 – and the CCC has recommended that the Government should introduce policies to limit aviation emissions such that they don't exceed this level.

The Government's aviation strategy green paper claims it has committed to CCC's advice to limit aviation emissions to 37.5 Mt, but its own projections of growth, including support for airport expansion, show that this will be exceeded in 2050., despite assuming a high rate of technological improvement and modest use of biofuels. It appears, therefore, that the only way its current policies can be compatible with the planning assumption would be by redefining the target to apply to net emissions allowing for offsetting (such as CORSIA participation) rather than actual emissions as CCC has advised.

With scientific evidence now showing that limiting global warming to not more than 1.5 degrees requires stopping the release of any further greenhouse gas emissions, the CCC recommended in May 2019 that the UK should set a target of net zero emissions, including international aviation and shipping, by 2050. Both Government and Parliament embraced this advice and it was legislated before Theresa May left office. However, while the Government has said that it is minded to legislate for the formal inclusion of international aviation emissions in the future subject to progress at international negotiations, no new legislation to formally included
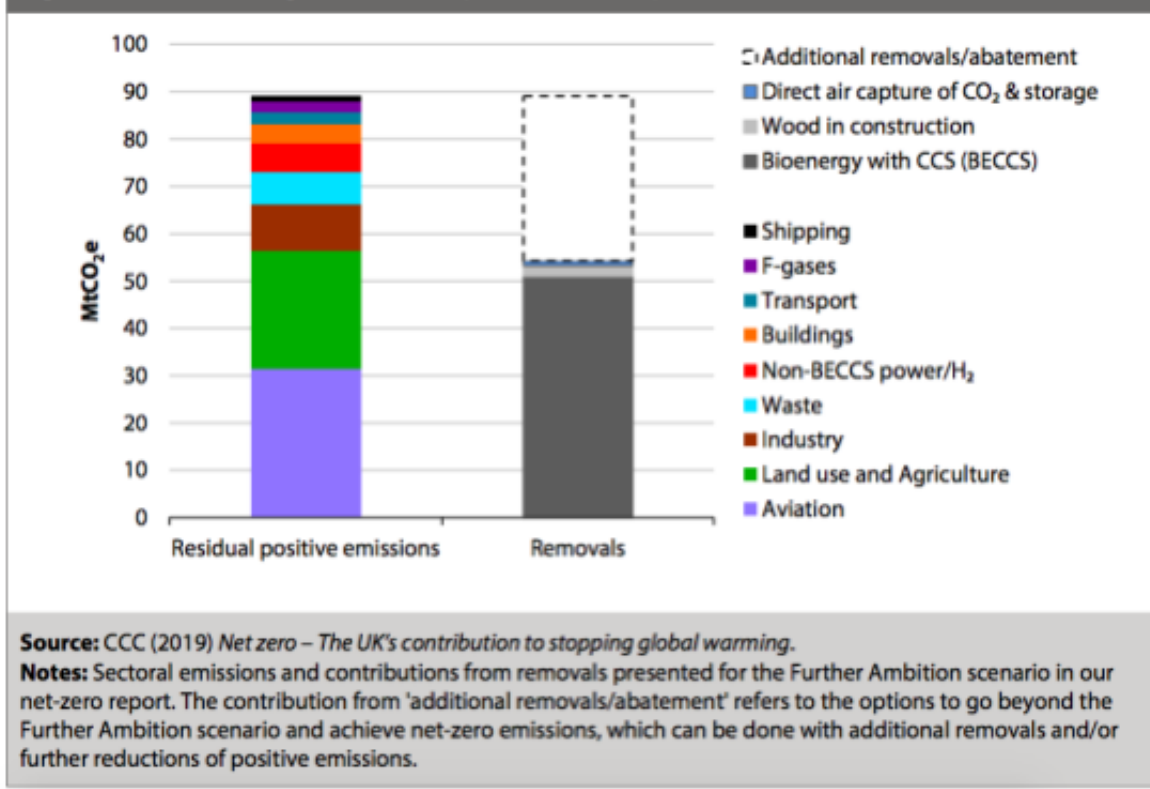
these emissions has yet been introduced.

On 24th September the CCC issued advice[14] to the Secretary of State for Transport on international aviation and shipping (IAS) emissions in the context of net zero. In summary, the CCC recommended that:

- IAS should be formally included in the 2050 Climate Change Act target by way of secondary legislation, and that doing so is entirely compatible with international commitments at UNFCCC and ICAO.
- The revised planning assumption for the sector is net zero emissions. While the primary policy approach to reducing IAS should be international, the Government should also plan to make emissions reductions in these sectors through domestic action, which is likely to comprise a mix of mitigation and carbon removals, for example through support for R&D; changes to the Renewable Transport Fuels Obligation to incentivise sustainable aviation fuels; and kickstarting a market in negative emissions measures that would actively remove CO_2 from the atmosphere and bury it.
- It's unlikely that sufficient carbon removals will be available, however, to balance the CO_2 from the level of aviation growth that the Government is currently planning for, especially given competition from other hard-to-decarbonise sectors. Aviation demand growth will therefore need to be constrained, through measures such as carbon pricing, taxes, and limits on airport capacity.
- The Government should in future use this national-level commitment to tackle IAS as leverage at the UN level, where it should call for a 2050 sector-wide target.

In many ways, this advice represents a conservative approach, and there are some difficult questions still to be addressed. The consequences for aviation have yet to be fully spelled out. While CCC has said, for example, that in future all aviation emissions will need to be balanced by removals, how and whether the cost of doing this will be translated into ticket prices, and how, in turn, this would impact aviation demand, have not been discussed. Similarly, while CCC has highlighted that "aviation's true climate impact is likely to be understated, given the existence of short-term non-CO_2 effects (e.g. from contrails) which are not covered in the basket of gases reported to the UN or by the Climate Change Act", it has not provided any answers on how to tackle aviation's non-CO_2 impacts.

Meanwhile CCC's key planning scenario, the 'Further Ambition' scenario, more generally (i) assumes carbon removals of 53-54 Mt, principally through Bioenergy with Carbon Capture and Storage (BECCS), which hasn't been proven to be deliverable at this scale, and (ii) leaves around 35 Mt excess GHGs unaccounted for (see below, from CCC's aviation advice). CCC says that "Some currently Speculative options would also be needed to get to a 100% reduction (i.e. to net-zero GHG emissions)"; these options include lower aviation demand, CCC says, but how this could be delivered in terms of policy without a significant change in public mood and consumer choices is not yet clear.

Figure A3. Greenhouse gas removals required to balance positive emissions in 2050

Source: CCC (2019) *Net zero – The UK's contribution to stopping global warming.*
Notes: Sectoral emissions and contributions from removals presented for the Further Ambition scenario in our net-zero report. The contribution from 'additional removals/abatement' refers to the options to go beyond the Further Ambition scenario and achieve net-zero emissions, which can be done with additional removals and/or further reductions of positive emissions.

https://www.theccc.org.uk/wp-content/uploads/2019/09/Letter-from-Lord-Deben-to-Grant-Shapps-IAS.pdf

In conclusion, delivering even the modest aviation emissions limits that CCC recommends will require a departure from the Government's current approach of supporting aviation growth through airport expansion, static APD rates (check), and encouragement for airports to make maximum use of their existing airport capacity.

Meanwhile it seems likely that actually reaching net zero will require either tougher policy action or higher levels of culture shift and consumer change in relation to aviation demand. The Government's Chief Environment Scientist said on 29th August, on his retirement "We certainly won't be able to travel so much as we have in the past" and advised that consumers would need to fly less[15].

The UK's approach to tourism – both inbound and outbound – should be reviewed in light of this evidence, and of the UK's commitment to net zero. In any event, the tourism strategy should not adopt any policies that would make it more difficult for aviation to meet the CCC's recommendations.

Carbon offsetting

The Department for Transport recently consulted on a proposal to require all air travel providers, and other providers of ticket travel, to give passengers the option to buy a carbon offset for their journey. In our response we said:

- We agree with the CCC's view that the UK should not plan to meet is climate change obligations using international offset credits[16], and with the EU's decision to exclude international offsets from its Emissions Trading System.
- While voluntary offsetting by individuals may help to finance worthwhile low-carbon projects, good quality offsets can be hard to come by. A European Commission review in 2016 of the Clean Development Mechanism, for example, found that only 7% of the projects that could be eligible for use by EU states in complying with climate obligations had a high likelihood of delivering carbon reductions beyond what would have happened anyway.
- More fundamentally, in a net zero future every country and every sector will need to get emissions to zero – there will be no room for offsetting. UNEP's position, that carbon offsets be seen only as "a temporary measure leading up to 2030"[17] reflects this.
- Offsetting risks distracting from the need to rein in aviation demand in order to tackle emissions, and the cheap cost of offset credits at present could actively undermine an ambition to ensure the public is better

informed about the scale of challenge needed to bring aviation into line with the UK's net zero commitment.

In addition to voluntary offset schemes, the UN has been developing CORSIA, the Carbon Offsetting and Reduction Scheme for International Aviation. This aims to keep emissions from international aviation at 2020 levels by requiring airlines to purchase eligible offset units (still to be agreed) to balance their growth above the baseline. Emissions below the baseline will not be accounted for. In advance of an agreement on the offset credits that CORSIA will accept, it is difficult to form conclusions about the robustness of eligible offsets. In any event, however, NGOs view the scheme as – at best – a temporary measure to help with the transition to in-sector reductions after CORSIA ends in 2035.

While aircraft are gradually becoming more efficient, they are not yet on a pathway to decarbonisation. A recent report[18] co-commissioned by DfT and CCC found for example that no fully electric aircraft are likely to be in service for commercial routes until after 2055 – too late for achievement of net zero. For this reason we accept the view of the CCC that to the extent that we are flying by 2050, carbon removals – by way of technologies such as DACCS and BECCS that have yet to be rolled out – will be required to balance aviation's CO_2 by actively removing CO_2 from the atmosphere and burying it underground. The alternative would be the production of synthetic aviation fuel using renewable energy, though CCC regards this as a more costly option. Afforestation is not an appropriate carbon removal for the aviation sector since its potential is limited in geographical scale in the UK and will be required for other sectors. Carbon removals of the kind CCC recommends cannot currently be purchased as carbon offsets, although CCC hopes the aviation sector will lead the way in the investment in such projects in the future.

Where should the balance lie between affordable travel and influencing sustainable travel choices? Are taxes and incentives needed?

We would question whether it is the role of Government to make air travel affordable. While the cost of commuter travel may be a legitimate concern for Government, travel for holidays is more discretionary. Many British people take holidays in the UK. In fact in any given year, only around half the UK population takes a flight. The current tax exemptions and other regulatory privileges afforded to the aviation sector (no tax is levied on fuel for international air travel, no VAT is applied to air tickets, and few noise restrictions apply to airports, for example) in fact benefit wealthy travellers most on average, since there is a strong link between the number of flights taken by an individual and income. In CAA's 2018 passenger survey, for example, 79% of those who had taken a flight in the last 12 months were earning over £50,000 pa[19]. Internalising some of the environmental costs of air travel in ticket prices, including by increasing tax on air travel, could allow the Government to invest in more sustainable travel services, such as buses, to help facilitate domestic tourism to destinations outside of the big cities (which are typically better served with public transport).

Since advertising can have a powerful effect on social norms and individuals' choices, the Government should consider restricting or regulating adverts for air travel as part of a package to bring the sector into line with net zero and to develop a sustainable policy on travel and tourism. Measures could range from ensuring advertisements display carbon information to an outright ban on adverts for high-carbon activities or products such as aviation.

How effective are sustainable tourism practices by large tourism companies such as cruise ship and package holiday operators

N/A

September 2019

[1] https://www.iata.org/pressroom/pr/Pages/2019-07-31-01.aspx
[2] http://publicapps.caa.co.uk/docs/33/ComRes_CAA_UKACR_Wave%206_full%20report%20FINAL.pdf
[3] https://www.ons.gov.uk/peoplepopulationandcommunity/leisureandtourism/articles/traveltrends/2018

[4] https://www.aef.org.uk/2016/01/12/new-report-finds-aircraft-noise-policies-put-the-health-of-over-one-million-people-at-risk/

[5] https://www.aef.org.uk/2019/02/05/european-aviation-in-numbers-highlights-significant-environmental-challenges-ahead/

[6] https://www.ons.gov.uk/peoplepopulationandcommunity/leisureandtourism/articles/traveltrends/2018

[7] https://www.visitbritain.org/inbound-tourism-trends

[8] https://publications.parliament.uk/pa/cm201719/cmselect/cmtrans/548/54810.htm

[9] https://www.creds.ac.uk/why-supporting-tourism-doesnt-mean-supporting-airport-expansion/

[10] https://www.bbc.co.uk/news/uk-england-27275056

[11] https://theconversation.com/climate-change-and-air-travel-why-we-have-a-responsibility-to-countries-dependent-on-tourism-120462

[12] https://sustainabledevelopment.un.org/sdg1

[13] Table 6.1 http://sdt.unwto.org/sites/all/files/docpdf/climate2008.pdf

[14] https://www.theccc.org.uk/wp-content/uploads/2019/09/Letter-from-Lord-Deben-to-Grant-Shapps-IAS.pdf

[15] https://www.independent.co.uk/environment/climate-crisis-net-zero-eat-meat-buy-clothes-carbon-footprint-travel-a9083681.html

[16] We note that the Government has said that while it has not legislated to exclude international offset credits under the Act, it does not intend to use them.

[17] https://www.unenvironment.org/news-and-stories/story/carbon-offsets-are-not-our-get-out-jail-free-card

[18] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785685/ata-potential-and-costs-reducting-emissions.pdf

[19] http://publicapps.caa.co.uk/docs/33/ComRes_CAA_UKACR_Wave%206_full%20report%20FINAL.pdf