



## THE CASE AGAINST AIRPORT EXPANSION

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### THE PROBLEMS

#### Climate change

Aviation expansion threatens to seriously undermine the UK's ability to play its part in tackling climate change.

There is consensus amongst the world's leading scientists that we need to make massive reductions in greenhouse gas emissions if we are to avoid dangerous climate change. For the UK this means at least an 80% cut in carbon-dioxide emissions by 2050<sup>1</sup>. In the UK, the government is legally bound to achieving this through the Climate Change Act.

It isn't only the end target that is important, but the path taken to achieve these reductions. It is not enough to allow emissions to continue to grow and then make sharp reductions in a few decades' time in order to meet the target by 2050. Scientists agree that emissions must peak by 2015, and then drop sharply if we are to avoid dangerous climate change.

In short, we need to take urgent steps to stop emissions rising and then begin reducing emissions in the next ten years.

#### Why single out aviation?

Reducing emissions from aviation, both at a UK level and globally, is essential if we are to achieve these massive reductions.

The aviation industry often claims that aviation is only responsible for 2% of emissions. However, this figure is misleading. It applies only to CO<sub>2</sub> emissions and refers to 1992 data<sup>2</sup>. According to the European Federation for Transport and Environment, in 2000 air transport actually accounted for between 4% and 9% of the global climate change impact of human activities<sup>3</sup>. However in the UK, flights leaving UK airports are responsible for 13% of the country's entire 'climate impact'<sup>4</sup>.

The variation in estimates is due to the difficulty of measuring the impact of other pollutants and gases emitted by aeroplanes and the additional global warming impact of their release at high altitude, which does greater damage.

Long term growth trends show that emissions from aviation are growing faster than any other sector of the economy. In the 10 year period between 1990 and 2000 emissions from aviation nearly doubled<sup>5</sup>. Per person, British people emit more from flying than any other people in the world<sup>6</sup> (603kg per person per year, compared to 434kg for Irish and 275 kg for Americans). UK citizens currently take around 210 million flights a year<sup>7</sup> - the same number as China's 1 billion people.

There are a range of projections of growth in aviation - unsurprisingly the government's estimates are more conservative than others.

In the government's aviation White Paper, the DfT's 'high scenario' predicts that by 2030 passenger numbers will treble compared with 2003 levels and their central scenario predicts passenger numbers will double from 228 million to 455 million on 2005 levels<sup>8</sup>

Government forecasts say that as a result, CO<sub>2</sub> emissions will increase from 37.5 MtCO<sub>2</sub> to around 59 MtCO<sub>2</sub> by 2030. The government's own forecasts show that even conservative aviation growth estimates mean this one industry alone would absorb nearly 50% of the UK's carbon budget by 2050.<sup>9</sup>

Leading academics, Cairns and Newson, point out that this explosion in passenger number means that even with efficiency gains, emissions from aviation will more than double in absolute terms by 2030 compared to 2000 levels<sup>10</sup>.

Whichever projection one accepts, the point is that aviation emissions are growing at an alarming rate, and will eat up a significant proportion of the UK's carbon budget in the coming years. Therefore the pressing issue is how the UK constrains aviation to ensure that it doesn't spend its rapidly decreasing carbon budget on aviation, rather than the power sector, agriculture and other vital industries that should take priority.

### **Non-CO<sub>2</sub> impacts**

The government's projections of the impact of aviation emissions are also likely to be a serious underestimate of aviation's true climate impact because they do not account for the effects of non-CO<sub>2</sub> gases.

- Aviation emissions do more damage to the climate because they are released at altitude where they can have more global warming impact. The Department for Transport multiplies aviation CO<sub>2</sub> emissions (because they include other harmful gases) by 1.9 to account for their full global warming potential. However the DfT does not properly account for this additional impact in their emissions predictions or targets.
- Currently aviation emits 6.2% of the UK's CO<sub>2</sub> (DfT) but if the full global warming impact is considered, aviation can be shown to be responsible for between 12% - 18% of the UK's overall impact on the climate<sup>11</sup>. In an answer to a PQ, the Government's own figure puts this as being 13% of our climate impact.
- In its review of aviation policy in December, the Committee on Climate Change recognised that non-CO<sub>2</sub> impacts weren't accounted for in current projections and their inclusion would mean that emissions from aviation would effectively double. They have said that they will further assess the impact of the non-CO<sub>2</sub> impacts of aviation in the coming months.
- The CCC is now committed to reviewing any new evidence non-CO<sub>2</sub> effects and their implication for meeting the emissions target for aviation. Given the potentially game

changing nature of non-CO<sub>2</sub> impacts, it is a serious gamble to lock the UK into high carbon infrastructure, such as new runways.

### **Why is Heathrow so important?**

The campaign against a third runway at Heathrow airport is a frontline in the battle against climate change.

The plans to build a third runway would, if the 3<sup>rd</sup> runway were used to capacity, double the number of passengers passing through the airport and lead to 220,000 extra planes flying over London every year.

Not only does that mean that tens of thousands more Londoners' lives would be blighted by noise and air pollution but also that Heathrow airport would be the biggest single source of carbon dioxide in the UK, bigger than Drax power station. At full capacity, the airport would emit 23.6 million tonnes of CO<sub>2</sub> every year - that's equivalent to the emissions of 54 of the least polluting countries combined<sup>12</sup>.

By building a third runway, we are locking the UK into a high carbon path, when the science is telling us we need to rapidly shift to a low carbon economy. The Government says it will be only permit it to be half used, but it is difficult to believe that will hold once the runway has been built. Even with an optimistic projection of efficiency improvements of 1% a year between now and 2050, Heathrow running at full capacity with a third runway would account for a third of the UK's entire carbon budget, if non-CO<sub>2</sub> impacts are included.<sup>13</sup>

Sir Nicholas Stern, who wrote the groundbreaking report on the economy and climate change, recently condemned the decision to expand Heathrow saying it would "undermine confidence in the UK's ability to meet its climate change target"<sup>14</sup>, and the government's former Chief Scientific Adviser, Sir David King has also warned that - "investments in new runways will turn out to be white elephants."

## **GOVERNMENT POLICY**

### **Aviation White Paper**

The government's aviation policy is rooted in the 2003 Aviation White Paper. This sets out a programme of expanding capacity at nearly 30 airports across the UK.

The Labour government's aviation policy has been a glaring example of its lack of credibility in the fight against climate change. Whilst hustling to be a world leader on climate change, the government is continuing to pursue an expansion programme which will see demand double.

A report jointly written by the government's environment watchdog, the Sustainable Development Commission, and the influential left wing think tank, IPPR, called on the government to completely rethink its aviation policy because of doubts over the environmental and economic data underpinning the government's pro-expansion policy. It recommends that the government launches a full, independent review of its 2003 aviation white paper.<sup>15</sup>

### **Government commitment to build third runway at Heathrow**

In January 2009, the government approved a third runway at Heathrow.

### **2005 target**

In a desperate attempt to greenwash the decision to allow this climate-wrecking third runway, the government gave a commitment to return aviation emissions to 2005 levels by 2050, and said that the runway would only run at half capacity.

The basis for the government's target to allow aviation emission to remain at 2005 levels is unclear. Virtually no analysis has been carried out as to how much of the UK's carbon budget should be absorbed by aviation. If aviation is allowed to remain at 2005 levels, other industries would need to deliver cuts in their emissions of 90% or more to allow the UK to meet its overall climate targets, yet no detailed analysis has been carried out of whether cuts of this scale could be achieved in such a short timescale. If they can, no proper consideration has been given as to whether this extra headroom should be absorbed by aviation or allocated elsewhere. Recognising this, the CCC has committed to further analyse how such deep cuts can be achieved.

What is certain is that the effort to allow aviation emissions to grow by 120% on 1990 levels whilst the rest of the economy has to cut emissions up to 100% on 1990 levels will put a monumental burden on the rest of the economy.

In addition, the government has only set a target for 2050. There is no trajectory which maps out how that final target will be reached or interim targets on the way to 2050. This returns to the point of cumulative emissions. UK emissions, including those from aviation, must gradually decline from their current level, rather than increase and then drop sharply before 2050 in order to meet the target.

### **Committee on Climate Change advice**

The CCC has concluded that airport expansion must be constrained if the government is to meet its new target of reducing aviation emissions to 2005 levels.

This means that the government's own aviation policy is incompatible with meeting the target that they have set and they must immediately rewrite its current policy to bring it line with the climate science.

The CCC estimates that the number of flights can increase by 55% on 2005 levels - that's 1.3 million extra flights - whilst keeping emissions at 2005 levels provided that there are deep cuts elsewhere and subject to further work on the effect of green house gases other than CO<sub>2</sub>. The government's Aviation White Paper currently allows for a 115% increase in capacity.

Significantly, the CCC warned that the target could be tightened in the future to take into account non-CO<sub>2</sub> effects, which are "highly likely" to be "significant".<sup>16</sup> This could halve the emissions available in the carbon budget for the aviation sector.

The CCC is now committed to undertaking a further analysis of the non-CO<sub>2</sub> impacts from aviation. Given the potentially game changing nature of non-CO<sub>2</sub> impacts, it is a serious gamble to lock the UK into high carbon infrastructure, such as new runways.

Whilst the CCC recognise that airport expansion must be constrained there are a number of qualifications that need to be made.

- As argued above, there has been no comprehensive assessment of whether the government's aviation target is the right one. The CCC needs to be charged with reviewing whether 2005 levels of emissions in 2050 reflect the latest understanding of the impact of aviation emissions or of other sectors of the UK economy to deliver cuts of 90% or more in such a short timescale.
- There have already been some increases in the number of flights permitted (for example, Gatwick was recently given the go ahead to increase flights to 285,000 a year). Once these approvals are accounted for there is only head room for 985,000 more flights, not 1.3 million if the CCC advice is followed.<sup>17</sup>

## WHAT THE AVIATION INDUSTRY SAYS (and what Greenpeace says in return)

### Economics

The aviation industry argues that the growth of the aviation industry is vital for UK plc: “good aviation links allow business to flourish, create jobs and attract investment”.

### **Greenpeace says:**

As the main beneficiary of unrestrained airport expansion, it is no surprise that vested interests such as BAA and British Airways are talking up the potential economic benefits of a third runway at Heathrow, and expansion at other airports. But the idea that the entire British economy hinges on expanding airports is ridiculous.

### **Overestimating demand:**

The industry overestimates future demand for air travel.

WWF’s study into the economic costs and benefits of Heathrow analysed future demand for air travel. It calculated how many passengers there would be in the UK in 2030 if the government was serious about promoting the alternatives such as rail and if a realistic oil price was used.

The results showed that there would not be enough passengers in 2030 to justify expanding any of the UK’s airports. The current maximum capacity of UK airports is 425 million passengers a year and projected passenger numbers fall well below this figure<sup>18</sup>.

The cracks are already starting in the airline industry. The financial crisis has delivered a huge blow to the airlines and to demand. Recent figures show that numbers of flights have slumped as a result of the financial crisis<sup>19</sup>, and that passenger numbers are now at their lowest level since 2001.<sup>20</sup>

### **Oil and carbon prices:**

The long term economic viability of the aviation industry is in question when rapidly increasing oil prices are brought into the equation.

DfT forecasts assume that the oil price will drop to \$53 a barrel by 2012 and remain at that level indefinitely. Whilst predicting oil prices is fraught with uncertainty, some analysts predict that the oil price could be much higher than this. For example the US Energy Department predicts oil prices with a range of between \$50 and \$200 a barrel.<sup>21</sup> The Department for Transport’s forecast is clearly towards the lower end of this spectrum. In the midst of a global recession the oil price is already around \$70 per barrel and in July 2008 peaked at \$147 per barrel.<sup>22</sup> Given that the UK will be an oil importer in future this represents an unaccounted additional cost to the economy.

As we move towards a world where businesses will have to pay for the carbon they emit, industries such as aviation will be hit hard. The government’s calculations of the costs and benefits of aviation expansion currently underestimate the cost of climate change emissions. The DfT forecasts use a carbon price of £70 per tonne.<sup>23</sup> This is lower than the price recommended by the Stern Review of £195 per tonne of carbon<sup>24</sup> for achieving the carbon cuts needed to avoid dangerous climate change.

Using realistic carbon and oil prices have a significant impact on whether airport expansion is economically beneficial. For example, in relation to the economic analysis of a third runway at Heathrow, an independent study commissioned by WWF found that by doubling the cost of carbon so that it falls more in line with the recommendation of the Stern review, any benefit turned into a £5 billion loss, and demand contracted.<sup>25</sup>

### **Special treatment:**

The aviation industry enjoys tax breaks amounting to nearly £10 billion a year including being exempt from tax on fuel and VAT on the services they provide. If these subsidies were abol-

ished, the long term viability of the current low cost/ mass transit model of aviation, and the associated predicted expansion in aviation demand, is doubtful.

**The rest of the economy will have to pay for aviation expansion:**

Even if the aviation sector reduces emissions to 2005 levels (including a new runway at Heathrow), it will seriously undermine the competitiveness of the UK economy. Other industries will have to cut emissions by at least 90% or more, and pick up the bill for doing so.

Every voter will have to pay the price of more runways. For example, the Committee on Climate Change (CCC) has conducted an analysis of the economic impact of rising emissions from international aviation within the UK's carbon budgets. This shows that even if aviation is allowed to keep emissions at 2005 levels, it will cost the UK economy £20 billion a year by 2050 in today's prices.<sup>26</sup> **That will cost every household in the UK an extra £606 per year in today's prices.**<sup>27</sup>

There is also the knock-on effect of aviation expansion on the British tourist deficit. There is at least a £15 billion annual deficit in aviation tourism - that is the difference between the amount of money spent abroad by Britons flying out of the UK (£26 billion) and the amount visitors into the UK spend here (£11 billion). This will only be made worse by a third runway which will encourage more people to travel abroad rather than holidaying in the UK<sup>28</sup>.

**Business doesn't support airport expansion:**

Contrary to the claims of the CBI that business is unanimous in its support of airport expansion, the reality is many see it as a low priority or are actively opposed to it. For example:

- In a British Chambers of Commerce transport survey detailing business attitudes to transport issues, respondents rated extra runway capacity as the least preferred transport solution behind investing in railways and demand management.<sup>29</sup>
- In November 2008, a poll of 500 businesses across the UK found that only 4% of businesses supported a third runway at Heathrow.<sup>30</sup>
- Thirteen leading business men, including James Murdoch and Justin King of Sainsbury's recently condemned the Government's third runway plans<sup>31</sup>. In a letter to the Times they said "the business case for the third runway simply does not stack up" and that "climate change cannot be ignored".
- In May, the former Chief Executive of British Airways said that building a third runway at Heathrow would be a costly mistake that is against Britain's economic interests<sup>32</sup>.
- *The Economist* argues the economics don't stack up on Heathrow saying - "circumstances have changed and (the government) needs to act accordingly."<sup>33</sup>

**Technology and green planes**

The industry falsely believes that it can deliver massive reductions in carbon dioxide emissions through building 'greener' planes. The industry body, Sustainable Aviation, optimistically projects that aircraft will become 2% more fuel efficient every year and as a result argues that the industry can still expand whilst cutting carbon emissions.

***Greenpeace says:***

The government and industry vastly overestimates the role that technology can play in reducing carbon emissions.

In the last few decades, there have been small improvements in the efficiency of aircraft of around 1% a year, yet any positive impact from these improvements on emissions have been wiped out by massive increases in the number of flights. The Committee on Climate Change estimates that aircraft efficiency will improve by 0.8% each year between now and 2050.

Other leading independent experts have been equally sceptical about the claims of the aviation industry. The Royal Commission on Environmental Pollution found that the industry's targets (from which any emissions standards would be derived) are clearly aspirations rather than projections.<sup>34</sup>

David Learmount, a leading aviation expert and editor of Flight International, says that "the massive investment required to build technologies, like blended wing aeroplanes, and the massive investment required in airports to take different shaped aeroplanes will be such as the investment will not be made."<sup>35</sup> In other words, the industry would only be incentivised to inject massive amounts of cash to develop technological fixes if the costs of carrying on with business as usual were even higher. That means airlines paying the real cost of the carbon they emit, and if that happens the costs of air travel will rocket and passenger numbers will go into free fall - seriously undermining the industry's long term economic prospects.

Finally, as the chairman of the Climate Change Committee, Lord Turner notes in his recent report, "the limits to what is economically, and indeed technically, feasible still imply major increases in emissions if demand grows in line with projections."<sup>36</sup>

In a respected study on the impacts of aviation by Cairns and Newson, the authors found that despite improvements in efficiency, carbon dioxide emissions from aviation would still continue to grow rapidly. The study concludes that 'by 2050, the most conservative estimate of aviation's future significance, which uses optimistic forecasts of improvement in fuel efficiency and air traffic management and relatively modest growth rates, suggests that, between 1990 and 2050, the carbon dioxide emissions from aviation will approximately quadruple'<sup>37</sup>

Even airline bosses agree that the government's reliance on new technology to reduce emissions is 'highly optimistic'<sup>38</sup>.

The reality is that only if the government takes steps to cap capacity, rather than rapidly increasing it, will efficiency gains have a positive impact in reducing carbon emissions.

### **Offsetting**

The government and the airline industry have been very vocal about the positive role that emissions trading can play in dealing with the problem of rapidly rising aviation emissions. They argue that the industry can continue to expand because from 2012 under the European ETS, the aviation industry will have to buy permits for all carbon emissions that exceed 2004-2005 levels.

### ***Greenpeace says:***

Professor Paul Ekins of University College London, argues that allowing aviation emissions to expand, even with the ETS, will put huge pressure on prices across all sectors and make a third runway unprofitable. Even if the aviation industry meets its target to reduce emissions to 2005 levels, it will account for a substantial share of the country's emission permits in the EU Emissions Trading Scheme.<sup>39</sup> This will lead to two possible outcomes:

- a) As other industries struggle to decarbonise to allow aviation its allocation, the price of permits will rise, leading to large price increases across all sectors, including aviation. This will have the effect of driving away passengers and cut into profit margins.



- b) Alternatively, in the face of these economic pressures, governments abandon their climate targets, with disastrous consequences.

Neither outcome is in Britain's interests, and illustrates why we should not invest in high-carbon infrastructure, such as the third runway.

Other leading experts have been equally scathing of the ineffectiveness of ETS:

- According to a report from Ernst and Young, even in the toughest Emissions Trading Scheme scenario, emissions from the aviation sector would grow by 83% by 2020<sup>40</sup>.
- In a recent report, the Carbon Trust found that the full impact of the EU ETS on airlines was uncertain, and that whilst it would threaten the profits of some airlines, others stood to make billions of pounds in profits as they sold off permits which they had been allocated for free. The Carbon Trust pointed out that emissions trading had to be accompanied by a raft of other policies such as limiting runway capacity.
- Recent research by the Tyndall Centre for Climate Change Research, shows that “unless the scheme adopts both an early baseline year and an overall cap designed to be in keeping with a 450ppmv cumulative emission pathway, the impact on aviation emissions will be minimal”. They also warn that the price of carbon must be set high enough and that in order for the scheme to work, there must be “stringent constraints on the sector's emission growth implemented in the interim”<sup>41</sup>.
- The Stern Report into the economics of climate change insists that establishing carbon trading will take time, and states: ‘In this transitional period, while the credibility of policy is still being established and the international framework is taking shape, it is critical that governments consider how to avoid the risks of locking into a high-carbon infrastructure, including considering whether any additional measures may be justified to reduce the risks’<sup>42</sup>.
- Finally the Committee on Climate Change, in advice to Andrew Adonis and Ed Miliband, clearly said that - “emissions trading will be useful in the interim period... but the industry should also plan for deep cuts in gross CO2 emissions.”<sup>43</sup>

### **Biofuels**

The industry claims that biofuels are the silver bullet and that the replacement of oil with biofuels in commercial flights is just around the corner, and as a result will reduce the greenhouse gas emissions from aircraft to close to zero.

### ***Greenpeace says:***

Biofuels are not the answer. Test flights using biofuels are more about making the aviation industry look green than having any positive impact on the climate.

The tailpipe emissions of a plane powered by biofuels may be close to zero, but the greenhouse emissions directly and indirectly generated by growing the crops for biofuels are significant. For example, biofuels have put huge pressure on land, and rainforests and other ‘carbon sinks’, such as grasslands and peatland, are being cleared to make way for biofuel crops. In addition, even when biofuels crops are being grown on land that is already cultivated, they often displace food crops, which then in turn forces farmers to onto new land, again driving deforestation. In Indonesia, for example, forests and peatlands are being drained, cleared and burnt to grow palm oil driven by biofuel demand, releasing colossal quantities of greenhouse gases in the process. By the government's own admission, there will be no minimum sustainability standards in place until 2011 at the earliest.

Papers in Science have indicated that if these negative indirect effects are included in calculations regarding the emissions reductions coming from biofuel crops then these crops can actually be significantly worse for the climate than the fossil fuels they replace.<sup>44</sup>

Concerns about biofuels have been raised by a wide variety of stakeholders including the Royal Society, the United Nations Food and Agriculture Organisation and the Environmental Audit Committee.

Given the rapacious demand of the aviation industry for fuel, it's pretty unlikely that there *is* a sustainable biofuel out there for the sector which can meaningfully contribute to emissions reductions. Whichever biofuel the industry leaps on as an apparently easy way to reduce emissions is likely to have a huge environmental impact if used at scale, and that is before any assessment has been made of whether the technology is cost effective to produce.

### **Social equity**

The airline industry and the government like to promote the myth that the explosion in air travel in the last few decades has enabled everyone, rather than just the richest, to be able to afford to fly.

### ***Greenpeace says:***

The fact is that the majority flights are taken by those on middle to high incomes.<sup>4546</sup> People on low incomes can not afford foreign holidays regardless of the price of a ticket.

Low-skilled people and people on benefits, despite making up a quarter of the population, only took 6% of those flights whilst the top quarter of the population took almost half of all flights<sup>47</sup>. People with second homes abroad take an average of six return flights a year<sup>48</sup>.

## THE REAL SOLUTIONS

The climate science is very clear - we must reduce our carbon emissions very rapidly. For transport, this means investing in low carbon solutions, and constraining demand for high carbon transport such as flying. Building high carbon bits of infrastructure, like runways, will lock the UK into decades of carbon emissions which would be madness when we should be investing in solutions to cut emissions.

### Investing in the railways

Investing in the existing rail network must be a priority so that we can move journeys currently taken by plane onto the train.

For example, around 100,000 flights a year go between Heathrow and cities within 500 kilometres of the airport - destinations easily reachable by train<sup>49</sup>. Transferring these 100,000 short haul flights from Heathrow to the rail network would take capacity back to 1990 levels, significantly reducing our CO<sub>2</sub> emissions and largely negating the need for a third runway at the airport.

A high speed rail network, if part of the right policy mix, could help to create extra capacity that's needed to shift journeys from plane to train.

For long-haul flights, we need to see government promote alternatives such as video conferencing where possible, and where there isn't an alternative, we need to fly less.

### A level playing field

This means that the government should stop giving the air industry such huge subsidies which allow air fares to remain at artificially low levels. If the Government diverted the nearly £10bn that the aviation industry receives in tax breaks to the rail industry, then demand for air travel would crumble. Spain has invested heavily in rail links between Barcelona, Madrid and Seville, and has seen passenger numbers on domestic flights reduce by 20% in the last year alone<sup>50</sup>.

### Greenpeace is calling for:

- A moratorium on all airport expansion, which means scrapping the current Aviation White Paper.
- An immediate cap on flights at current levels. This would mean any efficiency gains would have a positive impact by reducing overall emissions.
- The Climate Change Committee to assess and advise on appropriate short-term and long-term targets for aviation emissions, in line with the latest climate science, taking into account non-CO<sub>2</sub> impacts and in line with the UK's overall climate targets.
- Increased investment in low-carbon transport solutions. For example, the billions channeled to aviation in tax breaks should instead be ploughed into the UK's railway network, to increase capacity and make trains cheaper and more accessible, reducing demand for domestic flights.

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## **OPINION ON AIRPORT AVIATION EXPANSION**

### **THE CONSERVATIVE PARTY**

"We will not consider ourselves bound by any decision taken by this government (on Heathrow). People involved with contracts should be warned - we will stop a third runway going ahead. Anyone getting involved in any contract for a third runway should be very, very careful."

**Theresa Villiers, Shadow Transport Secretary**

"What business needs to recognise is that the third runway is just not going to happen. There is such a coalition of forces against it. There's such an environmental case against."

**David Cameron, Leader of the Conservative Party**

"there will be no third runway, no ifs, no buts".

**David Cameron, Leader of the Conservative Party, October 2009**

### **THE LABOUR PARTY**

"Climate change is a load of tree-hugging hoolah."

**Geoff Hoon, Transport Secretary**

"There aren't enough jumbo jets to drag me into the lobby to vote for the third runway."

**Martin Salter, Labour Party Vice Chair for Environment**

### **ADVISERS AND THINKTANKS**

"A third runway at Heathrow represents an irresponsible investment. It is reckless for society in general, but also for shareholders, who are most unlikely to get the return on their investment to justify its construction."

**Paul Ekins is Professor of Energy and Environment Policy at the University College London Energy Institute, December 2009**

"The UK's 2020 emissions reduction target should be set so as to ensure significant progress towards the desirable 2050 target of an 80% reduction in GHG emissions including international aviation and shipping. It should reflect the importance of ensuring that investment over the next 12 years does not lock us into high-carbon capital assets which make achieving the 2050 target more difficult."

**Lord Turner, Building a low-carbon economy: The UK's contribution to tackling climate change, The First Report of the Committee on Climate Change, December 2008**

"I wish the government hadn't made this decision today....because I think the environmental impact, taken as a whole, will be adverse."

"The claim that (these) air quality limits can be met is wishful thinking....because they're already at breaking point with the existing patterns of traffic at Heathrow. There's also the much bigger issue of Co2 emissions and global warming and climate change and the impact that aviation traffic as a whole has on that."

**Lord Smith, Environment Agency, Chair and former Labour Cabinet Minister, 15<sup>th</sup> January 2009**

"Investments in new runways will turn out to be white elephants."

**Professor Sir David King, former Chief Scientific Adviser to the government, 30<sup>th</sup> July 2008**

“For the Government to press ahead with decisions on airport expansion without achieving further consensus would not be good governance.”

**Sustainable Development Commission, 19<sup>th</sup> September 2008**

“[R]ecent decisions - such as approving Heathrow's third runway and a relatively weak green component of the fiscal boost - undermine confidence in the UK's ability to meet its climate change target. It is vital that the Government shows it is credible on the environment.”

**Sir Nicholas Stern, 21<sup>st</sup> April 2009**

“Good policy-making needs to be based on evidence that is widely agreed to be sound, which is not the case when it comes to aviation policy. Before any major new decisions are taken on airports, it is vital that the evidence is looked at again through an independent and widely supported process. Establishing a special commission to do that provides the Government with the best way forward.”

**Simon Retallack, IPPR, 21<sup>st</sup> May 2008**

“Talking tough on reducing emissions is not enough, and going ahead with expansion as currently proposed is certain to have a negative impact on the environment and make reaching our ambitious environmental targets very hard indeed.”

**Tom Foulkes, Director General, Institution of Civil Engineers, 19<sup>th</sup> January 2009**

## **BUSINESS**

“It is important to understand that many individuals in the business community do not believe that the rationale put forward for the third runway at Heathrow is sufficient to justify the Government's recent decision.”

**Thirteen leading business figures, including James Murdoch, Justin King of Sainsbury's and Russell Chambers, Senior Advisor to Credit Suisse, 4<sup>th</sup> May 2009**

“A third runway at Heathrow is against Britain's economic interests.”

**Bob Ayling, former CEO, British Airways, 4<sup>th</sup> May 2008**

“Since the launch of our travel ethical strategy in the summer we have been very clear in our opposition to a third runway at Heathrow and, in principle, other new runways across the UK.”

**Mike Greenacre, Managing Director, Co-operative Travel, 10<sup>th</sup> October 2008**

Budget airlines "are the single biggest cause of decline in traditional tourism resorts and we urge the Inquiry and Government to investigate the airlines' unfair grip on holidaymakers that is squeezing the life out of British tourism.”

**Greg Dawson, Director of Communications, Travelodge, 29<sup>th</sup> January 2008**

“British Airways and the other airlines with vested interests have built an effective lobby in favour of expansion at Heathrow. But the decision to increase capacity will affect countless people living under the flight path. Environmental considerations must be taken seriously and decisions which may seem unpalatable for business need to be taken.”

**Tim Jeans, Managing Director, Monarch Airlines, 21<sup>st</sup> January 2009**

## **MEDIA COMMENT**

“There is no doubt that the expansion plans for both airports are hugely unpopular in the areas affected by their flight paths. A swath of Labour ministers and MPs can expect to lose their seats if Heathrow's third runway is given the go-ahead.”

**Jackie Ashley, The Guardian, 3<sup>rd</sup> November 2008**

“All we do know is that the government’s case for a third Heathrow runway is so thin as to amount to a single sentence: BA wants it.”

**Simon Jenkins, The Sunday Times, November 25, 2007**

“Expanding Heathrow would be environmental, economic and political madness.”

**Anatole Kaletsky, The Times, 28<sup>th</sup> February 2008**

“Beneath the antics on the Commons roof is a serious issue that matters to millions. Airport noise and pollution blight many lives. Expanding Heathrow may benefit the economy – but at what price to the environment?”

**The Sun, leader 28 February 2008**

“Ministers seem so beholden to BAA and Heathrow that they have closed their minds to the alternatives, whatever the cost to the environment and the quality of life. We owe it to future generations to reverse this folly.”

**Sunday Times leader, 9<sup>th</sup> March 2008**

It is impossible to reconcile the government's commitment to reducing climate-change emissions with its support for ever-larger airports.

**The Guardian, leader, 10<sup>th</sup> July 2008**

“But the greens do have a strong argument when it comes to Heathrow itself, and the plans to expand what is already a bloated monster.

**Daily Mail, 3<sup>rd</sup> November 2008**

“...rather than relying solely on new capacity, the government needs to find better ways, environmentally and economically, of managing what already exists.”

**The Economist, 27<sup>th</sup> March 2008**

“circumstances have changed and [the government] needs to act accordingly.”

**The Economist, leader, 6<sup>th</sup> November 2008**

“...our cars, homes, factories and power plants will all have to become carbon neutral just to accommodate the aviation industry's desire for unbridled expansion. This is simply unacceptable. The burden of carbon reduction must be shared evenly. The government must therefore acknowledge the inevitable and set limits on the burning of aviation fuel. It must also abandon Heathrow's third runway.”

**Editorial, The Observer, 7<sup>th</sup> December 2008**

“There can be little doubt that the third runway will never be built.”

**Editorial, The Independent on Sunday, 10<sup>th</sup> January 2009**

“In the end, Britain's courageous, world-leading and scientifically rational response to climate change lived and died within the space of a few weeks. Born, with great hopes, in late 2008, when a new department was created and the Climate Change Act was passed, forcing aviation emissions to fall along with everything else, it was killed off yesterday when the transport secretary handed the aviation lobby what it wanted, a third runway at Heathrow.”

**The Guardian, leader, 16<sup>th</sup> January 2009**

“Transport decisions are driven, more than almost any others, by a Civil Service in love with aircraft. Yet the Department for Transport looks more and more like a woolly mammoth that missed the Ice Age. It continues to assume that demand for flights will double in 20 years, because fares will keep falling. But by the time the third runway is built, in ten years' time, the era of cheap travel will be over.”

**Camilla Cavendish, The Times, 16<sup>th</sup> January 2009**

“Transport is the lifeblood of trade and business. But the Government, by assuming that air travel is the only route to growth, has hindered, not served, the national interest.”

**The Independent, leader, 16<sup>th</sup> January 2009**

Even those closest to the government's decision to expand Heathrow admit that undecided voters are unlikely to be flocking back to the Labour cause this morning in gratitude for a third runway. One of them put it very starkly to me yesterday. "Our problem on Heathrow," he said, "is that the policy is going in one direction and the politics are going in the opposite one."

**Martin Kettle, The Guardian, 16<sup>th</sup> January 2009**

“The substance may be more complicated, but the political symbolism is all-important. This (the decision on Heathrow) really was totemic. Whenever Labour tries to say or do anything green, the groundswell of protesters will shout back "Heathrow!". End of argument. From standup comics to people who don't care much one way or another, everyone will laugh at any future green pretensions from Labour.”

**Polly Toynbee, The Guardian, 17<sup>th</sup> January 2009**

“Last week's decision is not the end of the story. Boris Johnson, the mayor of London, has promised to challenge it and the Tories, if elected, to reverse it. The fight over Heathrow is not over. It has hardly begun.”

**Editorial, The Times, 18<sup>th</sup> January 2009**

“In other words, the environmental "compromise" is a pledge to build the runway, but not necessarily to use it. That rather undermines the economic case for increasing airport capacity in the first place. Besides, promises to limit Heathrow's expansion have been made since the 1960s. Every one has been broken.”

**Editorial, The Observer, 18<sup>th</sup> January 2009**

## **ENVIRONMENTAL AND DEVELOPMENT ORGANISATIONS**

"Heathrow's expansion plan was the first big test of the government's environmental credibility since the Climate Change Act became law last year. It has failed spectacularly and by choosing to support a third runway, the government has torpedoed its own flagship policy. Expanding airports will make it incredibly difficult and expensive for the UK to meet its carbon targets. Every other sector of the economy, from manufacturing to home heating to cars, will have to tighten its belt to allow the aviation sector to grow in this way. The Committee on Climate Change has already indicated that if aviation fails to reduce its emissions the rest of the economy will need a 90% cut instead of an 80% reduction to compensate for it, so we will all end up paying if a third runway is built.”

**David Nussbaum, Chief Executive WWF, 15<sup>th</sup> January 2009**

“This decision is a direct threat to the tranquillity and possibility of escape from an increasingly hectic and urbanised environment that millions of people seek from parks, countryside, and other open spaces. More flights from a much larger airport will significantly damage their quality of life.”

**Fiona Reynolds, director-general of the National Trust, January 2009**

“This is straightforward for us. Climate change is the biggest threat for the natural environment as well as for mankind. The numbers don't stack up. We don't believe this decision can be compatible with the Government's targets on cutting carbon emissions. This is the wrong decision at an appalling time, sending policy in the wrong direction. If the guardians of the natural environment don't stand up and say that, then we would be irresponsible.”

**Graham Wynne, Chief Executive, RSPB, January 2009**

"Expanding Heathrow is a hammer blow for UK climate targets that will shatter Gordon Brown's international reputation on the environment. We desperately need inspirational green leadership in the run-up to crucial UN climate talks later this year - not more polluting Brown policies. Talk of 'green slots', clean aircraft and long term targets for cutting emissions will not prevent soaring emissions. The best way for the Government to tackle air travel's contribution to global climate change is to abandon plans to expand UK airports. This terrible decision will intensify opposition to the Government's aviation strategy - the battle against Heathrow expansion can still be won."

**Andy Atkins, Executive Director, Friends of the Earth, January 2009**

"The government says that it is serious about tackling climate change; but in the same breath it says it wants to expand the aviation sector: the UK's fastest growing source of CO2 emissions. The reality is that most people in the developing world are too poor to fly, but they will be hit worst by climate change."

**Benedict Southworth, director of the World Development Movement**

'It is imperative that the international community arrives at a new deal at the next UN climate summit in Copenhagen in 11 months time. One of the thorniest issues in the negotiations will be demands from the industrialised world that developing countries must cut their emissions. Poorer countries argue that they have little responsibility for global warming, and it is up to richer countries to put their own houses in order first. A great deal of mistrust exists on both sides. The building of a third runway at Heathrow will be seen by many in the developing world as evidence that rich countries will always put self interest above any real desire to tackle climate change. The simple truth is, despite the rhetoric, the UK is set to produce more emissions, not less. Those in favour of the runway say it will reduce congestion in the skies above London, and so reduce emissions. One only has to look at the M25, which was also built to reduce congestion, to see just how much more traffic such developments generate.'

**Dr. Alison Doig, senior climate change adviser, Christian Aid, January 2009**



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- <sup>2</sup> T&E background briefing (2007) *Including Aviation in the EU's Emissions Trading Scheme (EU ETS)* page 2.
- <sup>3</sup> T&E background briefing (2007) *Including Aviation in the EU's Emissions Trading Scheme (EU ETS)* page 2.
- <sup>4</sup> Gillian Merron Answer to parliamentary question 26<sup>th</sup> April 2007.
- <sup>5</sup> Cairns, S, Newson, C, (2006) *Predict and Decide, Aviation, climate change and UK policy*. Page 13 <http://www.eci.ox.ac.uk/research/energy/downloads/predictanddecide.pdf>
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- <sup>7</sup> HACAN/Clear Skies, 2005. Cited by Transport 2000 in Facts and figures: aviation. <http://www.transport2000.org.uk/>
- <sup>8</sup> Department for Transport (2009) - CO2 and Passenger Demand Forecasts, P45 <http://www.dft.gov.uk/pgr/aviation/atf/co2forecasts09/co2forecasts09.pdf>
- <sup>9</sup> Department for Transport (2009) - CO2 and Passenger Demand Forecasts, P174 <http://www.dft.gov.uk/pgr/aviation/atf/co2forecasts09/co2forecasts09.pdf>
- <sup>10</sup> Cairns, S, Newson, C, (2006) *Predict and Decide, Aviation, climate change and UK policy*. Page 15
- <sup>11</sup> 12% is a DfT estimate based on a radiative forcing of 2, however the IPCC recommend a multiplier of 2.7.
- <sup>12</sup> The DfT's central forecast for carbon emissions from Heathrow in 2030 is 23.6 million tonnes <http://www.dft.gov.uk/pgr/aviation/atf/co2forecasts09/co2forecasts09.pdf>. In 2005, Drax emitted 20.8 million tonnes of CO<sub>2</sub>. The Energy Information Administration's website documents the emissions of countries across the world: <http://www.eia.doe.gov/pub/international/iealf/tableh1co2.xls>
- <sup>13</sup> Even if the industry achieves a very ambitious efficiency improvement of 1% per year per average flight to 2050, it would lead to a 34% reduction in carbon emissions from each flight by 2050. Even in this best case scenario, and even with just 125,000 more flights per year Heathrow would responsible for 12.8% of Britain's entire carbon allowance for 2050 - about an eighth of the carbon dioxide the country may emit, under law, all from one single airport. (18.2m tonnes currently + 4.7m from a new runway x 1% improvement over 41 years = 15.17 / 118.5 x 100 = 12.8%). If the flight numbers increase to 226,000 as predicted, and efficiency improves by 1% per year, then Heathrow's emissions will total 17.71m tonnes Co2 in 2050. This is 15% of the entire carbon budget. Once a multiplier of two is added to this figure to account for non-CO2 impacts, this brings Heathrow to 35.42Mt CO<sub>2</sub> – over a third of the UK's total carbon budget by 2050.
- P117, UK Air Passenger Demand and Carbon Dioxide Forecasts, November 2007 <http://www.dft.gov.uk/pgr/aviation/environmentalissues/ukairdemandandco2forecasts/>
- <sup>14</sup> [http://www.timesonline.co.uk/tol/comment/columnists/guest\\_contributors/article6135687.ece](http://www.timesonline.co.uk/tol/comment/columnists/guest_contributors/article6135687.ece)
- <sup>15</sup> 'Breaking the holding pattern – a new approach to aviation policy making in the UK' (May 2008) [http://www.sd-commission.org.uk/publications/downloads/Breaking\\_the\\_holding\\_pattern\\_report.pdf](http://www.sd-commission.org.uk/publications/downloads/Breaking_the_holding_pattern_report.pdf)
- <sup>16</sup> P20 'Meeting the UK aviation target' Committee on Climate Change, December 2009 <http://www.theccc.org.uk/reports/aviation-report>
- <sup>17</sup> CCC assume
- 466,000 ATMs at Heathrow, with 480,000 having been granted
  - 248,000 ATMs at Gatwick, with 285,000 having been granted
  - 166,000 ATMs at Stansted, with 264,000 having been granted
  - 60,000 ATMs at London City Airport, with 120,000 having been granted
  - 72,000 ATMs at Luton, with 117,000 having been granted
- <sup>18</sup> HACAN, (2007) *The Economic Benefits of Heathrow Expansion: An Assessment*. Page 2
- <sup>19</sup> The Telegraph, 12<sup>th</sup> August 2008 <http://www.telegraph.co.uk/travel/2546526/Aviation-slump-continues-as-fuel-prices-and-credit-crunch-hit-flight-numbers.html>
- <sup>20</sup> BAA monthly passenger figures, 19<sup>th</sup> January 2009 [http://www.baa.com/portal/page/Corporate%5EAbout%20BAA%5EOur%20performance%5ETraffic%20statistics%5ENews%20releases%5EResults/2b1b3a96681be110VgnVCM10000036821c0a\\_\\_\\_\\_\\_/a22889d8759a0010VgnVCM200000357e120a\\_\\_\\_\\_/](http://www.baa.com/portal/page/Corporate%5EAbout%20BAA%5EOur%20performance%5ETraffic%20statistics%5ENews%20releases%5EResults/2b1b3a96681be110VgnVCM10000036821c0a_____/a22889d8759a0010VgnVCM200000357e120a____/)
- <sup>21</sup> Energy Information Administration, Annual Outlook 2009, P4 [http://eia.doe.gov/oiarf/ao/pdf/trend\\_1.pdf](http://eia.doe.gov/oiarf/ao/pdf/trend_1.pdf)
- <sup>22</sup> The Guardian, 12<sup>th</sup> July 2009 <http://www.guardian.co.uk/business/2008/jul/12/oil.commodities>
- <sup>23</sup> P112 Impact Assessment, Department for Transport – 'Adding capacity at Heathrow Airport' (2009)
- <sup>24</sup> Executive Summary of Stern Review, HM Treasury (2006) p.xvi [http://www.hm-treasury.gov.uk/d/Executive\\_Summary.pdf](http://www.hm-treasury.gov.uk/d/Executive_Summary.pdf)
- <sup>25</sup> 'Economics of airport expansion' – WWF report, June 2008 [www.wwf.org.uk/article\\_search\\_results.cfm?uNewsID=1250](http://www.wwf.org.uk/article_search_results.cfm?uNewsID=1250)
- <sup>26</sup> P26-30 Committee on Climate Change - MARKAL-MED model runs of long term carbon reduction targets in the UK, November 2008 <http://www.theccc.org.uk/pdfs/MARKALMED%20model%20runs%20of%20long%20term%20carbon%20reduction%20targets%20in%20the%20UK%20-%20AEA%20-%20Phase%202%20report.pdf>
- <sup>27</sup> The projected number of households in the UK by 2031 is 32.96 million. <http://www.communities.gov.uk/publications/corporate/statistics/2031households0309> - England <http://www.gro-scotland.gov.uk/files1/stats/gros-household-projections-for-scotland-2006-based/j9646b03.htm#31> - Scotland <http://wales.gov.uk/docs/statistics/2009/090611hseholdprojsum06en.pdf> - Wales <http://www.nisra.gov.uk/demography/default.asp21.htm> - N.Ireland
- <sup>28</sup> Friends of the Earth – 'Why airport expansion is bad for regional economies' (August 2005) [http://www.foe.co.uk/resource/briefings/regional\\_tourism\\_deficit.pdf](http://www.foe.co.uk/resource/briefings/regional_tourism_deficit.pdf)
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- <sup>30</sup> Continental Research Poll – November 2008 <http://www.woodnewtonassociates.co.uk/CS08%20Business%20Attitudes%20to%20Heathrow%20Expansion%20Online%20-%20November%202008.pdf>

- <sup>31</sup> <http://www.timesonline.co.uk/tol/comment/letters/article6215896.ece>
- <sup>32</sup> '3rd runway is a flight of fallacy' – Bob Ayling, The Times, 4<sup>th</sup> May 2008  
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- <sup>34</sup> Royal Commission on Environmental Pollution, 29<sup>th</sup> November 2002. The Environmental Effects of Civil Aircraft in Flight. Special Report
- <sup>35</sup> Newsnight, 15<sup>th</sup> January 2009
- <sup>36</sup> Committee on Climate Change – 'Building a low carbon economy: The UK's contribution to tackling climate change' (December 2008) P316-318  
<http://hmccc.s3.amazonaws.com/pdf/7980-TSO%20Book%20Chap%208.pdf>
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- <sup>38</sup> The Telegraph, 21<sup>st</sup> January 2009  
<http://www.telegraph.co.uk/travel/travelnews/4306159/Heathrow-decision-criticised-by-airline-boss.html>
- <sup>39</sup> The Times, 8<sup>th</sup> December 2009  
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- <sup>40</sup> T&E background briefing (2007) *Including Aviation in the EU's Emissions Trading Scheme (EU ETS)* page 6.
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- <sup>42</sup> *Stern Review of the Economics of Climate Change*, HM Treasury 2006, Full Executive Summary p xix.
- <sup>43</sup> Letter from the Committee on Climate Change to Andrew Adonis and Ed Miliband, Oct 2009  
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- <sup>48</sup> Civil Aviation Authority,(2006) No-frills Carriers: Revolution or Evolution?
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