Aviation duty: a consultation

Response by the World Development Movement

April 2008

1. Introduction

The World Development Movement (WDM) campaigns to tackle the root causes of poverty. With our partners around the world, we win positive change for the world's poorest people. We believe that charity is not enough. We lobby governments and companies to change policies that keep people poor. WDM is a democratic membership organisation of 15,000 individuals and 70 local groups.

In this consultation response we make three main points:

1) We welcome the change in taxation from air passenger duty to an aviation duty on flights. We also welcome the general approach of HM Treasury to the design of the tax, as set out in the consultation document. In section 6 we respond to the specific questions set out in the consultation document.

2) For the new aviation duty to be a genuine environmental tax, it needs to be set at a higher rate than current air passenger duty. Because aviation does not pay tax on fuel or VAT, the sector effectively receives a £10 billion subsidy from the tax-payer, even once air passenger duty is accounted for. In this response we estimate that aviation duty needs to be initially set at a rate equivalent to double that of air passenger duty. This would still not correct for a large proportion of the effective subsidy aviation currently receives, but it would influence behaviour and cut the level of effective subsidy.

3) HM Treasury should make a commitment to increase aviation duty every year. Firstly, aviation duty needs to rise in line with inflation or its real level will be falling every year. Secondly, aviation duty needs to rise in line with economic growth or any effect it will have on behaviour will be eroded by increased income. Thirdly, aviation duty needs to rise to compensate for any fall in costs of air travel. Most importantly, increasing the rate of aviation duty over time also allows the government to follow an iterative policy process; making changes in response to the evidence of how the tax is contributing to meeting climate change goals.

2. The climate change context

Climate change is a threat to the future well-being of billions of people around the world (a summary of the impacts of climate change and the inequality of global emissions is in the Appendix). Climate change is already impacting communities in developing countries, and so any greenhouse gas emissions are contributing to negative climate impacts. The UK government and European Union have both stated that the world should act to keep the increase in global temperatures to a maximum of 2℃ on pre-industrial levels.

The Intergovernmental Panel on Climate Change (IPCC) reported in 2007 that to keep the increase in global temperatures to between 2℃ and 2.4℃ requires global emissions to peak between now and 2015, at the latest, and then fall by between 50 and 85 per cent, on 2000 levels, by 2050.[1] For the UK to play its part in reducing global emissions by 50-85 per cent by 2050 requires UK emissions to fall by 80-95 per cent by 2050 (see Table 1 below).

Table 1. Global and UK required emissions reductions by 2050[2]

	Global	**UK**
2000 total emissions	23.8 billion tonnes	555 million tonnes
2000 per person emissions	3.9 tonnes	9.3 tonnes
2050 total emissions	3.6 - 11.9 billion tonnes	36 – 108 million tonnes
2050 per person emissions	0.6 – 1.8 tonnes	0.6 – 1.8 tonnes

For global emissions to peak by 2015 at the latest requires sizeable reductions in emissions in rich countries like the UK to begin straight-away. To reduce emissions by more than 80 per cent by 2050 requires cuts of around 4 per cent every year, beginning in 2009. This means UK emissions need to fall by 40 per cent by 2020 and 60 per cent by 2030.

However, the UK government's current targets are to reduce CO_2 emissions by 26-32 per cent by 2020 and 60 per cent by 2050, on 1990 levels. This has been recognised as inadequate in statements by government ministers. The chancellor said in his 2008 budget speech: *"We have an established target to reduce carbon emissions by at least 60 per cent by 2050. I believe that we should go further. That is why we have asked the Climate Change Committee to advise us – whether as part of an international agreement – we should raise our target to 80 per cent."*[3]

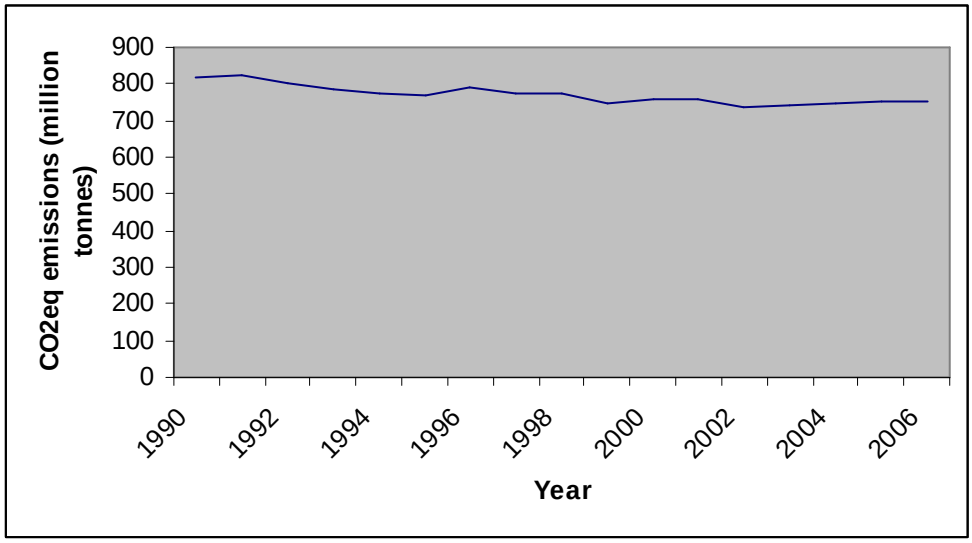
The weakness of the UK's current targets has also been recognised by the United Nations. The United Nations Development Programme said in their annual Human Development Report in 2007: "Emission targets in the [UK] Climate Bill are not consistent with the objective of avoiding dangerous climate change. Our sustainable emissions pathway suggests that developed countries need to cut emissions of greenhouse gases by at least 80 percent by 2050 against 1990 levels, not 60 percent. Moreover, the current framework excludes aviation and shipping. … *If the rest of the developed world followed the pathway envisaged in the United Kingdom's Climate Change Bill, dangerous climate change would be inevitable* [emphasis added]."[4]

The consultation document says that: *"The UK has made significant progress in reducing its greenhouse gas emissions. Greenhouse gas emissions from activity within the UK's borders fell by around 15 per cent between 1990 and 2006."*[5] However, this is misleading because it does not include the UK's share of international aviation and shipping emissions.

Defra report that in 2006, the UK's total CO_2eq emissions were 652.3 million tonnes.[6] This does not include CO_2 emissions from the UK's share of international aviation and shipping, and non-CO_2 emissions from international and domestic aviation. The Department for Transport estimates that UK aviation causes 2.5 times more warming than from CO_2 alone.[7] Including these emissions therefore raises total UK emissions to 751.6 million tonnes of CO_2eq. Of this, 12.6 per cent of emissions are from aviation (for all these calculations, see Table 8 in Appendix).

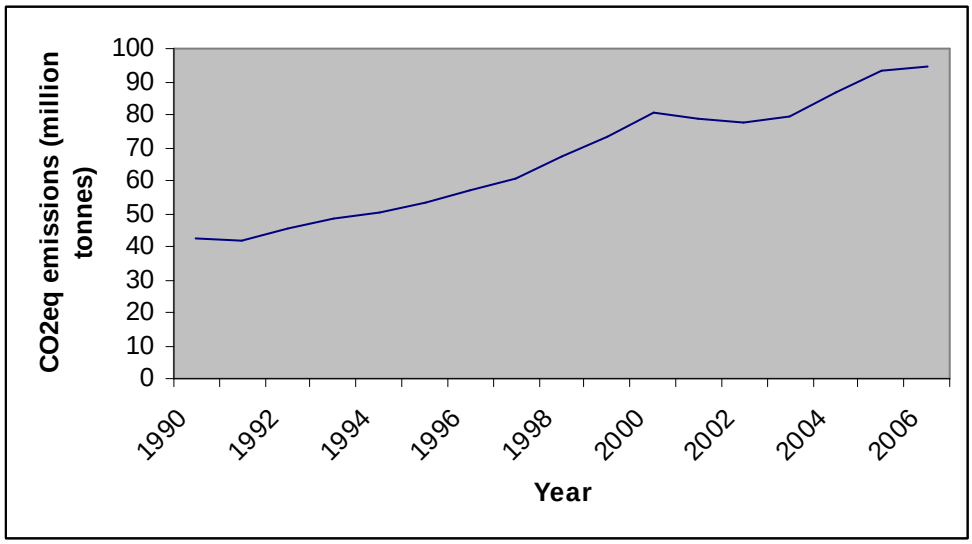
When all CO_2eq emissions from aviation and shipping are included, the UK is actually reducing emissions very slowly, if at all. In 2006, the UK's total contribution to climate change was 8 per cent lower than in 1990 (see Graph 1 below based on figures in Table 12 in Appendix). Furthermore, since 2002, the UK's contribution to climate change has been, if anything, increasing.

Graph 1. UK CO_2eq emissions 1990-2006 (including international aviation and shipping, and non-CO_2 impacts of aviation)[8]



The contribution of UK aviation to climate change has more than doubled since 1990 (see Graph 2 below).

Graph 2. UK CO_2eq emissions from aviation, 1990-2006[9]



The current context is therefore that:

- the UK has to make major reductions in its emissions
- there is currently slow progress in doing so
- UK aviation's contribution to climate change is growing.

3. Growth in UK aviation

The consultation document says that air travel will account for 21 per cent of the UK's greenhouse gas emissions in 2050 [29 per cent if the extra warming effects of non-CO_2 emissions from aviation are included]. However, based on possible government targets for emissions reductions, and Department for Transport estimates of aviation emissions growth, this figure is a significant underestimate.

The Department for Transport predicts that CO_2eq emissions from UK aviation will rise from 94.8 million tonnes in 2006 to 99 million tonnes in 2010, 146.5 million tonnes in 2020 and 159.5 million tonnes in 2050.[10] These estimates are conservative when compared with more independent estimates for the growth in aviation emissions (see Table 2 below).

Table 2. Different predictions for emissions from UK aviation (million tonnes of CO_2eq)

Year	Tyndall Centre	Owen and Lee[i]	Department for Transport
2010	111	79.8	99
2020	158.5	122	136.5
2030	195.3	168.8 – 204.5	162.3
2050	296	269.5 – 407	159.5

As set out above, for the UK to reduce emissions as needed to prevent disastrous impacts from climate change requires reduction in emissions of 40 per cent by 2020, 60 per cent by 2030 and more than 80 per cent by 2050 (see Table 3 below).

Table 3. Maximum UK emissions allowed to prevent global temperature increasing by more than 2℃

Year	Emissions reduction needed on 1990 levels	UK CO_2eq emissions	Department for Transport prediction for aviation emissions
1990	*0*	*818.8*	*42.4*
2020	*40 per cent*	*491.3*	*136.5*
2030	*60 per cent*	*327.5*	*162.3*
2050	*80 per cent*	*163.8*	*159.5*

Using the Department for Transport's somewhat conservative estimates for aviation emissions growth - and assuming the UK reduces emissions as needed to tackle climate change - by 2020 aviation will be responsible for 23 per cent of UK emissions, 50 per cent by 2030 and 100 per cent by 2050 (see Table 3 above and Graph 3 below). The UK cannot make its fair share of cuts in emissions whilst allowing aviation emissions to grow as predicted by the Department for Transport.

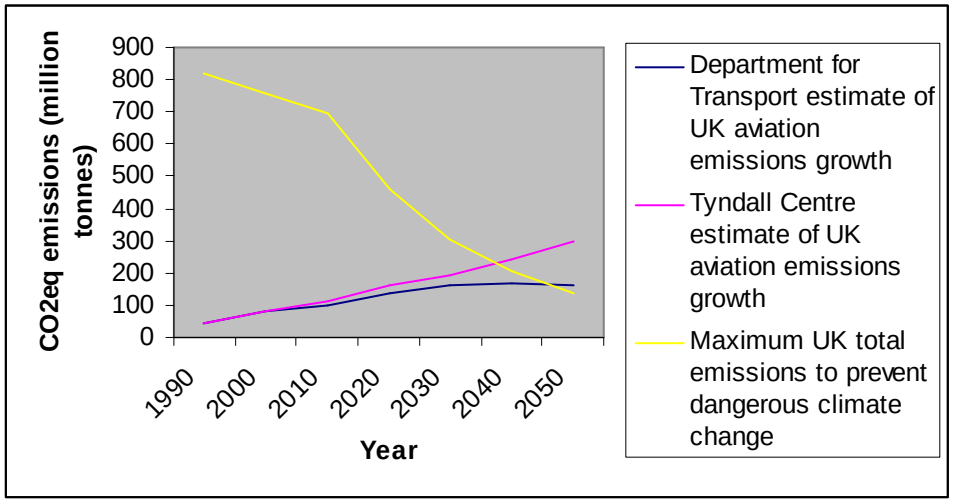
If the consultation document were correct in its prediction that aviation will account for 29 per cent of UK emissions in 2050, and aviation emissions grow as predicted by the Department for Transport, then UK CO_2eq emissions would only have been reduced by 33 per cent on 1990 levels by 2050. The

[i] Is for scheduled traffic only.

Department for Transport predicts that aviation CO_2eq emissions in 2050 will be 159.5 million tonnes. If this is 29 per cent of total UK emissions, then UK emissions in 2050 would be 550 million tonnes of CO_2eq; a reduction of just 33 per cent on 1990 levels.

The UK government actually says that UK emissions will be reduced by 60 per cent by 2050, possibly rising to 80 per cent or more. The statement in the consultation document that aviation will account for 29 per cent of UK emissions in 2050 is contradicted by the UK government's own estimates for aviation growth and targeted reductions in emissions.

Graph 3. The incompatibility of aviation growth and UK reducing emissions as needed to prevent dangerous climate change



To reduce emissions by 40 per cent by 2020 is a challenge which will need action across every sector of the UK economy. It is unrealistic to expect other sectors to reduce by even more to allow aviation to expand. Even halting the growth in aviation emissions requires other sectors to reduce by more to compensate for aviation not making any *cuts* in emissions.

To reduce UK emissions by 80 per cent by 2050 whilst allowing aviation to expand, every other sector would have to reduce emissions by 100 per cent by 2050; ie. not use any fossil fuels. The UK government has no intention of making this happen; it is only planning for other sectors to reduce by 60 (or possibly 80) per cent by 2050. The UK cannot tackle climate change and allow aviation to expand.

In summary:

- the Department for Transport estimates for aviation emissions growth are conservative
- even using these estimates, the UK cannot reduce emissions as required to prevent dangerous climate change whilst allowing aviation to grow.

4. The need for a higher rate of tax[i]

"it is vital that tax on aviation is not just reformed but significantly increased, so as to stabilise demand and resulting emissions."[11]
Environmental Audit Committee, 2008

The pre-budget report in 2007 which announced the change to aviation duty said that the change would take place "to send better environmental signals and ensure aviation makes a greater contribution to covering its environmental costs". The change was listed in a section of the pre-budget report on "behavioural change".[12]

However, the 2008 budget says that: "In order to strengthen the environmental signal through taxation, this Budget announces that the Government will increase forecast tax revenues from the new per plane duty by 10 per cent in the second full year of operation."[13] The second full year of operation will be 2011/12. This suggests that the Treasury does not intend to increase the rate of tax over air passenger duty until 2011, and then by only 10 per cent. Therefore, aviation will not be making a greater contribution to covering its environmental costs.

The success of the new tax will be based on how much it changes the behaviour of airlines and passengers in order to reduce emissions. It has been estimated that the change in design of the tax from air passenger duty to aviation duty will cut CO_2 emissions by 0.5 million tonnes on what would have otherwise happened. This is the equivalent of 1.3 per cent of current UK aviation CO_2 emissions and less than the average one year growth in emissions.

For the new tax to send a price signal to change behaviour further, it will need to be set at a higher rate. Aviation duty will also need to be set at a higher rate to get acknowledgement that it is a genuine environmental tax. As set out above, for the UK to cut total emissions as required to prevent disastrous impacts from climate change, the growth in emissions from aviation has to be halted.

4.1 Size of tax needed to halt the growth in emissions

Only rough estimates can be given as to what size of tax is required to change behaviour. Ultimately, the rate of the tax should be changeable depending on the evidence of its effects. HM Treasury presumably has models for the price elasticity of air travel. However, these have not been publicly released, so it is difficult to make specific proposals as to what size of tax is needed to halt the growth in aviation emissions.

In the 2006 pre-budget report, a doubling of air passenger duty was announced which was predicted would reduce the number of air passengers by 3.5 per cent over what would have otherwise happened by 2010.[14] However, the Department for Transport had previously predicted that the number of air passengers would increase by 14 per cent between 2006 and 2010, more than cancelling out the increase in air passenger duty.

[i] In the discussion below we use air passenger duty or aviation duty when referring to the specific taxes. We use aviation tax when referring to the general level of taxation on aviation.

Below we estimate that the size of taxation on aviation needs to increase by 75 per cent by 2010 to keep aviation emissions at 2008 levels. To keep emissions at 2006 levels would require the size of taxation on aviation to double. The predictions for CO_2 emissions in 2010 in Table 4 below includes a one-off cut in CO_2 emissions of 0.5 million tonnes due to the change from air passenger duty to aviation duty.

Table 4. Growth in UK air passengers and CO_2 emissions from aviation

	CO_2 emissions	Air passengers	Emissions/passenger ratio
2006	37.9	236	0.161
2007	*38.5*	242	*0.159*
2008	*39.3*	*250*	*0.157*
2009	*40.5*	*260*	*0.156*
2010	*41.1*	*270*	*0.152*

(Figures in italics are estimates)

In Table 4 above, UK air passengers are estimated for 2006-2010 based on the 2003 aviation white paper estimates for air passenger growth, amended to be in line with actual passenger numbers reported by the Civil Aviation Authority for 2006 and 2007 (see Graph 5 in Appendix). A figure for CO_2 emissions per passenger is given for 2006, which is assumed to fall by 1 per cent every year to account for increases in airline efficiency.

Based on this table, to keep CO_2 emissions at 39 million tonnes in 2010 (rather than 41.1 million tonnes) requires the number of air passengers in 2010 to be 257 million, rather than 270 million.[i] This is a reduction in passenger numbers of 5 per cent, although still 7 million more passengers than in 2008.

As mentioned above, the doubling of air passenger duty is predicted by the Treasury to reduce passenger numbers in 2010 by 3.5 per cent. The effects of this increase are already accounted for in Table 4 as air passenger numbers were lower in 2007, when the doubling of air passenger duty was introduced, than predicted by the Department for Transport in 2003 (see Graph 5 in Appendix). The figures in Table 4 therefore have lower growth in air passenger numbers for 2008-2010 than predicted by the Department for Transport's medium-growth scenario.

Passenger numbers need to be 5 per cent lower in 2010 than would happen under current policies. An increase in the current size of aviation tax of 50 per cent would be equivalent to the doubling of air passenger duty in 2006. Given that the 2006 doubling is predicted to reduce passenger numbers by 3.5 per cent in 2010, to reduce passenger numbers by a further 5 per cent requires a 75 per cent increase in the magnitude of taxes on aviation.

Using the same reasoning, to keep CO_2 emissions to 38 million tonnes in 2010, the same level as emissions in 2006, would require a cut in passenger numbers of 9 per cent in 2010 over what would otherwise have happened. This would require a 100 per cent increase in aviation tax from the current level.

[i] 39 / 0.152 = 256.6 million passengers.

4.2 Aviation is under-taxed

Aviation pays no tax on fuel and no VAT. It does currently pay air passenger duty of £2 billion a year, with aviation duty due to be set at a similar level. In 2007, the World Development Movement estimated that the value of the fuel and VAT tax exemption for aviation, minus air passenger duty, was worth £10.4 billion.[15]

There is no justification for aviation receiving what is effectively a large subsidy from the tax-payer. As is shown below in section 4.3, this is a subsidy which primarily goes to the richest members of society. The huge effective public subsidy should be reduced and ultimately ended through aviation paying higher rates of tax.

4.3 Taxing aviation would be progressive

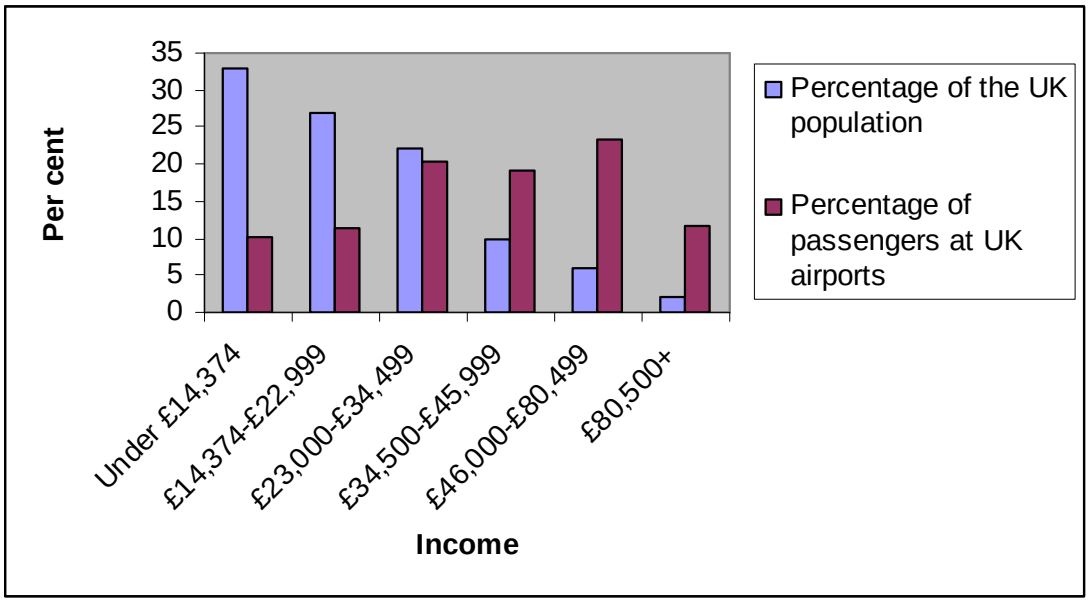
The tax exemptions for aviation are socially unjust. Half of the UK population do not fly in any one year (see Table 5 below).[16] In contrast, virtually 100 per cent of the UK population uses electricity, home heating and road or public transport every year.

Table 5. Proportion of UK population who have flown in the last year[17]

	Proportion who have not flown in last year	Proportion who have taken one return journey	Proportion who have taken more than one return journey
Total UK population	49%	25%	26%
AB (upper middle class/middle class)	36%	27%	38%
C1 (lower middle class)	42%	26%	32%
C2 (skilled working class)	53%	25%	22%
DE (working class / no earnings)	68%	22%	10%

Flying is an activity dominated primarily by the rich. The richest 18 per cent of the UK population are responsible for 54 per cent of flights, whilst the poorest 18 per cent are responsible for just 5 per cent.[18] The average salary of passengers at UK airports is £48,000.[19] And this means that the support and effective subsidies the UK government provides to the aviation industry are going primarily to rich people. Air passengers from the richest 18 per cent of the population receive an effective subsidy of £5.6 billion a year whilst air travellers from the poorest 18 per cent of the population receive £0.5 billion.

Graph 4. Income of UK air passengers in contrast with income of UK population[20]



It is commonly perceived that the recent growth in flying has been due to people on lower incomes taking advantage of cheaper air fares. However, this is not the case. The growth in flying over the past few years has been due to richer people flying more, whilst those on the lowest incomes are actually flying *less*. In 2000, over 8 million leisure trips were taken from UK airports by passengers earning less than £14,374 a year. In 2004, the same group of people flew less, with just over 7 million trips. In contrast, people earning over £28,750 a year made 28.8 million leisure trips in 2000, and this rose to 36.5 million in 2004.[21]

Increased taxes on aviation would therefore be progressive.

4.4 Aviation paying its environmental costs

The consultation document says that one of the objectives of the new aviation duty is to ensure that "aviation makes a greater contribution to covering its environmental costs". Based on other UK government thinking on the concept of environmental costs, such as the Department for Transport's emissions cost assessment, we assume this means that HM Treasury wants to ensure that aviation is paying the shadow price of carbon as defined by the UK government.

The government has a "shadow price for carbon" of £25 a tonne of CO_2eq emissions in 2007, which it uses as a measure of 'environmental cost'.[22] This is meant to measure what the costs of the emissions are for the world. Presumably, the government's view is that as long as aviation is paying £25 for every tonne of CO_2eq emissions, aviation is paying for its 'environmental cost'.

This approach is fundamentally flawed. The highest costs of emissions and climate change cannot be measured in monetary terms. The World Health Organisation estimates that already 150,000 people are dying every year from the effects of climate change, and this number will get much higher the more we

cause temperatures to rise through our emissions. The highest costs of emissions are not financial but are the loss of life around the world from the impacts of climate change.

Using a financial value for external costs is also deeply inequitable. GDP per person on a Purchasing Power Parity (PPP) basis in Bangladesh is US$2,053, and in Malawi is US$667. In the UK it is US$33,238.[23] It would take the devastation of the livelihoods of 16 Bangladeshi or 50 Malawi citizens from the effects of climate change to equal the devastation to one UK citizen, under a cost of carbon analysis. This is unjust. Such cost of carbon values should not be part of UK government policy to tackle climate change.

A more robust approach, as set out in this consultation response, is to increase the taxes on aviation in order to reduce total emissions as required to prevent dangerous climate change. The UK government has rightly said that average global temperature should not be allowed to increase by more than 2℃. Therefore, the UK government has to ensure emissions are reduced as required to keep the global temperature increase to a maximum of 2℃.

On the basis of science from the IPCC, UK emissions have to be reduced by at least 40 per cent by 2020, 60 per cent by 2030 and more than 80 per cent by 2050. As was shown earlier, this cannot happen if UK aviation is allowed to continue to grow. The cost of aviation will need to increase to halt the growth in UK aviation. This is the measure of extra cost on aviation which the UK government should be using, not an arbitrary and unjust shadow price of carbon.

5. The need for an increasing rate of tax

In order to have *the same* effect every year, the size of aviation duty will need to rise annually to counter-balance any inflation and economic growth. If aviation duty does not rise in line with inflation and economic growth, the real size of aviation duty could fall by 18 per cent between 2010 and 2015, and over 30 per cent by 2020 (see Table 6 below).

Table 6. Falling size of aviation duty if inflation, economic growth and falling costs of air travel are not corrected for each year

Year	Relative size of aviation duty after inflation	Relative size of aviation duty after inflation and economic growth
2010	100	100
2011	98	96.2
2012	96.1	92.5
2013	94.2	88.9
2014	92.4	85.5
2015	90.6	82.2
2016	88.8	79
2017	87.1	76
2018	85.3	73
2019	83.7	70.3
2020	82	67.6

(Inflation is assumed to be 2 per cent a year, and economic growth a further 2 per cent a year)

To be of the same financial value, aviation duty will need to rise in line with inflation. It would presumably be simple for HM Treasury to increase aviation duty every year by the rate of the consumer price index over the previous year. This is standard practise for other taxes, but has not happened with air passenger duty in recent years (see Table 7 below). The chancellor's announcement in the 2008 budget that aviation duty would rise by 10 per cent in 2011/12 is worrying because no mention was made of a rise in aviation duty in 2010/11.

Table 7. Changes to Air Passenger Duty 2000/01 – 2007/08

Year	**Change to Air Passenger Duty**
2000-01	Freeze - effective cut taking inflation into account
2001-02	Reform - a cut in main rate even before inflation taken into account
2002-03	Freeze - effective cut taking inflation into account
2003-04	Freeze - effective cut taking inflation into account
2004-05	Freeze - effective cut taking inflation into account
2005-06	Freeze - effective cut taking inflation into account
2006-07	Doubling in February 2007
2007-08	Freeze - effective cut taking inflation into account

The Environmental Audit Committee has said that: "In December 2006 the Treasury announced a doubling of all APD rates from February 2007, which in some parts of the media was reported as a bold move for the environment. In reality for the majority of flights it only restored the rate of aviation tax the government inherited when it came into office. This represents a cut in real terms (from May 1997 to February 2007) of 29 per cent." [24]

However, even if inflation is accounted for, the behavioural effect of aviation duty will still be undermined over time by economic growth. If aviation duty does not rise in line with economic growth, then the size of aviation duty as a

proportion of GDP will fall. Economic growth means there is more income available to be spent on consumption. Therefore, there will be more demand for air travel as the economy grows, and so aviation duty needs to rise in line with economic growth to counter-balance the impact of increased income. Again, it would presumably be simple for HM Treasury to increase aviation duty every year by the rate of economic growth over the previous year.

If the Treasury says the size of aviation duty will rise in line with inflation and economic growth every year, this would set a transparent tax rate which could be planned for by businesses and consumers, and would reduce political lobbying every year.

The increase in air travel in recent years has been driven both by economic growth, and the falling costs of air travel. The costs of air travel are harder to measure than inflation and economic growth. However, there does need to be an additional increase to ensure that aviation duty is not eroded over time. Aviation duty therefore needs to increase by a discretionary amount beyond accounting for inflation and economic growth.

This discretionary amount could serve two further purposes. It allows an iterative policy process to be followed where the size of aviation duty responds to the medium-term trends in aviation emissions. Also, if HM Treasury is unwilling to increase the size of aviation duty by 75-100 per cent (as section 4 sets out is needed) then a more gradual increase in tax over a few years is an alternative option.

Potentially the costs of aviation could actually increase in the future, due to factors such as a falling supply of oil increasing fuel prices. If this happened, and if there were a consequent reduction in aviation emissions, then there may not be a climate change justification for increasing the rate of aviation duty. However, such a judgement can only be made in retrospect, looking at what has actually happened to aviation emissions, as part of an iterative policy process.

6. A well-designed tax

The World Development Movement had been calling for Air Passenger Duty to be switched to be a tax on flights so that it would become a genuine environmental tax. We therefore welcomed the chancellor's announcement of the switch to aviation duty in the pre-budget report in 2007. Furthermore, we support many of the proposals outlined in the consultation document.

Below we give comments on questions relating to the design of the tax in the consultation document. We group questions to answer together. We do not address every question in the consultation document.

Questions 1-10. What would be the best aircraft measure: maximum take-off weight, NOx emissions in landing and take-off or CO_2 emissions in landing and take-off?

From the discussion in the consultation document, we understand that maximum take-off weight is the only measure where HM Treasury views that the current available data is robust enough to use.

However, if maximum take-off weight is used as the proxy for the emissions from a plane, there is no incentive for airlines to use more efficient planes of a similar weight. This appears to be a weakness in the tax which HM Treasury should try to address.

We understand that other submissions to the consultation are outlining ways in which this could be addressed. From our understanding, NOx and/or CO_2 in the landing and take-off cycle could be used as the aircraft measure, and data is available, for larger commercial planes, but not for smaller planes. This suggests an alternative approach would be:

- To use NOx and/or CO_2 in the landing and take-off cycle to be the aircraft measure for all planes over a certain maximum take-off weight; this line being set where data exists for all planes above it. For planes under this maximum take-off weight, maximum take-off weight could be used as the aircraft measure instead.
- HM Treasury ensures that there is research into the emissions in the landing and take-off cycle for NOx and/or CO_2 for those planes for which figures do not currently exist.
- It would make sense for the aircraft measure to be based on a combination of NOx and CO_2 emissions, so that there is no incentive to cut one at the expense of increasing the other.

Questions 13-19. What should the distance factor for the tax be; a set of three bands or the great circle distance?

We understand the consultation paper's preference for a banding system. We also understand that all EEA countries need to be in the same band. However, there is a large difference in the distance travelled for aircraft in Band C, ranging from 3,250 miles from Edinburgh to New York, to 6,750 miles for London to Singapore. This suggests there is a case for a fourth band to separate 'long-haul' from 'very-long haul' (5,000 miles is used in the example below):

Band A: European Economic Area
Band B: Less than 3,000 miles from London (Non-EEA)
Band C: Between 3,000 and 5,000 miles from London
Band D: More than 5,000 miles from London.

The Environmental Audit Committee has said "The Treasury should closely examine the merits and practicalities of varying rates by classifying journeys into three bands, 'short-haul, 'long-haul', and 'very long-haul'."[25]

We also suggest that HM Treasury seek ways of defining the distance by "final destination" rather than "first destination". We understand that the Campaign for

Better Transport have suggested that a definition of final destination for a flight could be the point where 50 per cent or more of the passengers disembark.

Questions 20-24. Do you support the government's proposal to exempt all fixed-wing aircraft below 5.7 tonnes, and all helicopters, from aviation duty but charge fuel duty on them instead?
We welcome and support the government's proposal to charge fuel duty on all aircraft below 5.7 tonnes and all helicopters.

Question 25. Do you think that there is a strong case for any of the exemptions listed above? And Question 27. Would there be a strong environmental case against any of the possible exemptions?
The starting point for HM Treasury should be that all aircraft above 5.7 tonnes should be included within aviation duty. Only if a very strong case can be presented should any exemptions be allowed. Claiming that a particular kind of flight does not have high total emissions should not be part of a case for an exemption. The credibility of aviation duty will be undermined if types of flights are exempted without good reason, even if their overall contribution to UK aviation emissions is low.

There particularly appears to be little case for exemptions for:

Training flights
We do not understand what case could be made for training flights to be exempt from aviation duty. Emissions from training flights are part of the aviation industry and therefore should be included within the scope of aviation duty. Exempting emissions from training flights would be a further tax exemption to the aviation industry.

Maintenance flights
Such flights should only be exempt if a strong case is made that the vast majority will happen overseas if taxed. The only way for this case to properly be made would be for HM Treasury to include maintenance flights within aviation duty initially, and only if and when a substantial number have been shown to have been moved overseas should they be exempt.

Public aerial displays
It is difficult to see what case could be made for an exemption for public aerial displays. Many reasons for air travel could present a much stronger case for being in the public interest than public aerial displays. Exempting public aerial displays would undermine the credibility of aviation duty.

Questions 28-33. How will freight transport be affected by aviation duty?
We welcome and support HM Treasury's stated objective to include freight within aviation duty. One of the main benefits of aviation duty over air passenger duty is that it applies to freight as well as passengers. The exemption of freight from current aviation taxes is an unfair distortion. HM Treasury should resist any lobbying from freight special interests to continue to be given special treatment.

Questions 34-38. How will transit passengers be affected by aviation duty?

We welcome and support HM Treasury's stated objective to include all transfer/transit passengers within the scope of aviation duty. One of the main benefits of aviation duty is that it applies transit/transfer passengers. The exemption of transit/transfer passengers from current aviation taxes is an unfair distortion. HM Treasury should resist any lobbying from special interests to continue to be given special treatment.

Appendix

Table 8. UK CO_2eq emissions 1990-2006[26]

Year	UK stated contribution to climate change	International shipping	International aviation	Domestic aviation multiplier	Emissions which government claims have been offset by carbon credits from outside UK	Actual UK contribution to climate change
1990	770.8	6.7	39.3	2	0	818.8
1991	777.3	6.5	38.8	2	0	824.6
1992	752.9	6.7	42.8	2	0	804.4
1993	732.1	6.7	45.5	2	0	786.3
1994	719.7	6.2	47.3	2	0	775.2
1995	709	6.7	50.5	2	0	768.2
1996	729.5	7.3	53.3	2.1	0	792.2
1997	705.6	8.2	56.8	2.3	0	772.9
1998	700.9	9	63	2.4	0	775.3
1999	669.5	6.5	68.5	2.7	0	747.2
2000	671.4	5.7	75.5	3	0	755.6
2001	674.4	6.4	73.8	3	0	757.6
2002	653.8	5.3	72.5	3	0	734.6
2003	659.5	5.1	74.3	3.2	0	742.1
2004	657.9	5.9	81.3	3.5	0	748.6
2005	628.4	5.9	87.5	3.6	27.1	752.5
2006	618.5	6.8	89	3.5	33.8	751.6

The development impacts of climate change

Climate change is a threat to the future well-being of billions of people around the world. Past emissions of greenhouse gases, overwhelmingly by rich countries such as the UK, mean that the average global temperature will continue to increase for the next few decades. The Intergovernmental Panel on Climate Change (IPCC) reported in 2007 that based on past emissions, over the next two decades we are likely to see:

- crop productivity declining in tropical areas with temperature increases of 1-2℃
- in Africa, by 2020, between 75 and 250 million more people exposed to increased water stress
- in some countries in Africa, yields from rain-fed agriculture could be reduced by up to 50 per cent by 2020.[27]

The impacts which countries are currently facing come from historical emissions. The UK is responsible for more than 6 per cent of CO_2 emissions from 1850-2003, despite having less than 1 per cent of the world's current population (see Table 9 below).

Table 9. Contribution to global man-made CO_2 emissions (percentage)[28]

	Industrialised countries[i]	Developing countries	UK
Current emissions contribution	54	46	2.0
Historical emissions contribution[ii]	69	31	6.2
Share of world population	18	82	0.9

The IPCC went on to report that if the world does not act to mitigate greenhouse gas emissions, we could see temperature increases of 3.2 to 6.1℃ over the course of this century.[29] Such increases could mean:

- in Asia, an additional 130 million people at risk of hunger by 2050 and 270 million by 2080
- more than 100 million people at risk of water shortages in Latin America by the 2080s
- in Africa, an additional 350-600 million people suffering from water shortages by 2050
- decreased water availability in Asia affecting more than a billion people by 2050
- crop revenues for farmers in Africa falling by 90 per cent by 2100.[30]

The UK government has a target of keeping the increase in global temperatures to 2℃. Whilst this will still negatively affect millions of people across the world, temperature increases higher than 2℃ threaten disaster for whole regions and hundreds of millions of people. Yet those who could be affected most by climate change are those who have made the least contribution. The UK government is right to seek to limit the increase in global temperatures to a maximum of 2℃.

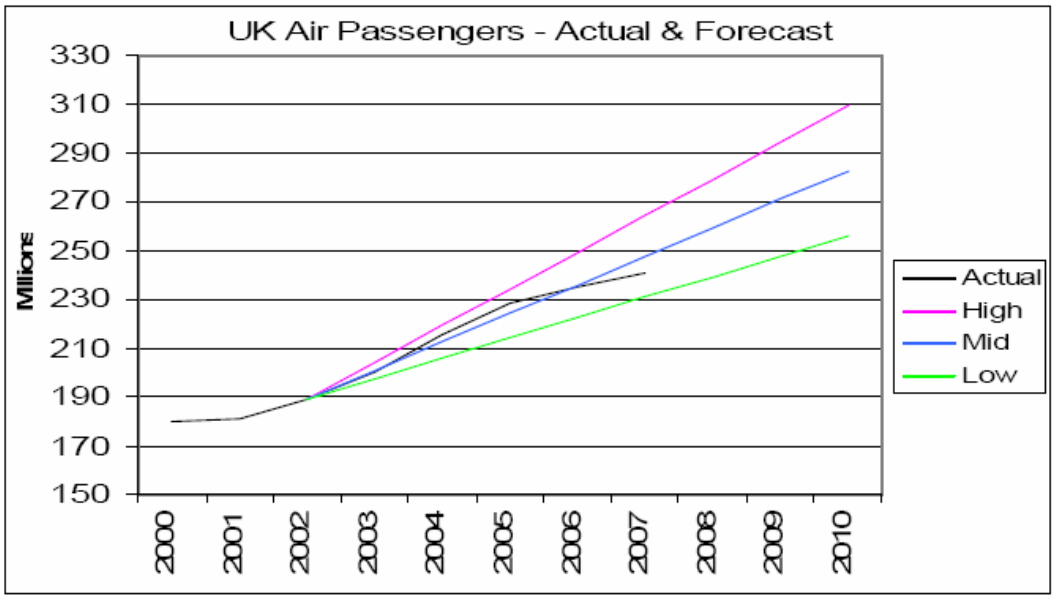
Global CO_2 emissions from the burning of fossil fuels were 28.2 billion tonnes in 2005; 4.4 tonnes of CO_2 per person. The UK emits around 9.6 tonnes of CO_2 per person, more than double the global rate.[31] In contrast, almost every developing country in the world emits less than the global average CO_2 emissions from the burning of fossil fuels (see Table 10 below).

[i] This includes high income countries as defined by the World Bank plus Russia (an upper-middle income country), which is classified by the UNFCCC as an 'Annex 1' country (i.e. a country that is part of the binding emissions reduction framework in the Kyoto Protocol).
[ii] Historical contribution to climate change has been calculated for the period 1850 – 2003; 2003 being the most recent year where figures are available to make this calculation.

Table 10. CO_2 emissions per person for selected countries[32]

Country	CO_2 emissions per person (tonnes)
UK	9.6
World average	4.4
China	4.1
Mexico	3.8
Brazil	1.9
India	1.1
Bangladesh	0.3
Ghana	0.3
Zambia	0.2

Graph 5. Department for Transport forecasts for UK air passengers 2000-2010



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