



House of Commons  
Environmental Audit  
Committee

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# **Aviation: Sustainability and the Government's second response**

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**Eleventh Report of Session 2003–04**





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*Report, together with formal minutes, and the  
government response*

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## The Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by Her Majesty's Ministers; and to report thereon to the House.

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The constitution and powers are set out in House of Commons Standing Orders, principally Standing Order No. 152A. These are available on the Internet via [www.parliament.uk](http://www.parliament.uk).

### Publication

The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at: [www.parliament.uk/parliamentary\\_committees/environmental\\_audit\\_committee.cfm](http://www.parliament.uk/parliamentary_committees/environmental_audit_committee.cfm).

A list of Reports of the Committee in the present Parliament is at the back of this volume.

### Committee staff

The current staff of the Committee are: Mike Hennessy (Clerk); Lynne Spiers (Second Clerk); Eric Lewis (Committee Specialist); Elena Ares (Committee Specialist); Caroline McElwee (Secretary); and Robert Long (Senior Office Clerk).

### Contacts

All correspondence should be addressed to The Clerk, Environmental Audit Committee, Committee Office, 7 Millbank, London SW1P 3JA. The telephone number for general inquiries is: 020 7219 6150; the Committee's e-mail address is: [eacom@parliament.uk](mailto:eacom@parliament.uk)

### References

In the footnotes of this Report, references to oral evidence are indicated by 'Q' followed by the question number. References to written evidence are indicated by page number as in 'Ev12'. number HC \*-II

# Contents

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## Report

*Page*

**Aviation: Sustainability and the Government's second response** **3**

## Appendix

**The Government Response** **5**



# Aviation: Sustainability and the Government's second response

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1. Over the last year, the Environmental Audit Committee (EAC) has produced 3 reports focussed exclusively on aviation: the present report will constitute our fourth.

- In July 2003, we published our first report.<sup>1</sup> This was an in-depth analysis of aviation policy in the light of the joint Treasury/Department for Transport (DfT) document, *Aviation and the Environment: Using Economic Instruments*. The Government response to this was published as a Command Paper along with the White Paper in December 2003.<sup>2</sup>
- In March 2004, we published our second report, following-up on the Government response and the White Paper and focussing in particular on the impact of carbon emissions.<sup>3</sup> We received the Government response to this report as a memorandum in June 2004 and subsequently published it with our third report.
- In June 2004, we published our third report.<sup>4</sup> This was prompted by our concern about the quality and coverage of the Government response to our second report. We restated various key recommendations from our previous report and demanded a full and adequate response. We also included some further comment on the accuracy of emissions estimates in the light of the DfT's memorandum. Our report contained eleven recommendations. We received the DfT's response as a memorandum on 1<sup>st</sup> September 2004, and are publishing it as an Appendix to this—our fourth—report.

2. We are grateful to the DfT for their latest response. Compared to the previous memorandum, its tone is conciliatory and it is measured, considered and comprehensive in terms of commenting on the individual recommendations we made. We do not see that anything beneficial can be gained from prolonging our public dispute with the DfT and inviting yet another response at this stage; and for that reason we have refrained from including recommendations or conclusions in this report.

3. This should not be taken to mean, however, that we agree with the DfT's response. There remains a yawning gap between us on some key issues, including:

- the extent to which the aviation White Paper encapsulates what is basically a predict and provide approach;

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1 EAC, Ninth Report of 2002-03, *Budget 2003 and Aviation*, HC672.

2 DfT, *The Government's Response to the Environmental Audit Committee's Report on Budget 2003 and Aviation*, Cm 6063.

3 EAC, Third Report of 2003-04, *Pre-Budget Report 2003: Aviation follow-up*, HC 233.

4 EAC, Seventh Report of 2003-04, *Aviation: Sustainability and the Government Response*, HC 623.

- the adequacy of the research which the DfT has carried out to explore the social and behavioural impacts of the forecast growth in aviation;
- the problem of reconciling the forecast growth in aviation with the need to develop more sustainable approaches to consumption; and
- the glaring inconsistency of facilitating so large a growth in carbon emissions at a time when we need to make huge cuts to minimise the worst impacts of global warming.

4. On the issues of estimates of future aviation emissions in relation to UK forecasts, we have reached a point where it is clear that there is little substantive difference between our positions. The DfT's response included some other interesting points, such as the commitment that the UK would act unilaterally or bilaterally if progress towards tackling aviation emissions at an international level proves too slow; and the reference to the introduction in Germany of a scheme whereby passengers could make voluntary payments to offset their CO<sub>2</sub> emissions.

5. There were other areas of the response which gave rise to more general concerns for Government as a whole. For example, DfT's admission that there are no plans to reduce non-CO<sub>2</sub> greenhouse gases from their present level raises the question of whether a target should indeed be set in this area. We were also particularly concerned about the comments made about the role of the Integrated Policy Appraisal (IPA). While we would accept that much detailed work on specific types of impact did indeed underpin the White Paper, it nevertheless seems to us that the IPA should perform a crucial role in setting out the basis on which trade-offs—for example, between economic and environmental objectives—are made. To refer to the IPA as merely 'a summary of the expected impacts of a policy or project' seems to us to miss the point. Indeed, our fundamental concern with the aviation White Paper is that it uses the language of sustainability without demonstrating a deeper understanding of what is really involved. The DfT claims that it is not actively promoting growth. We therefore consider that there is an urgent need to promote a wider public debate before specific expansion plans are brought forward; and that it would be appropriate for the DfT to subject its plans for airport expansion to a Strategic Environmental Assessment.

6. The growth of aviation remains of immense concern to us in terms of the enormous local environmental quality of life and landscape impacts, the huge forecast increase in carbon emissions, and the need to develop more sustainable lifestyles. There remain fundamental and apparently irreconcilable differences between the DfT and ourselves, and we fully expect to return to these issues on future occasions.

# Appendix

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## Government Response to the Environmental Audit Committee's Seventh Report—Aviation: Sustainability and the Government Response

### Introduction

This memorandum is the Department for Transport's response to the above-titled report from the Environmental Audit Committee. The Department reiterates its commitment to tackling the environmental impacts of air transport, at both domestic and international levels, as part of a balanced and measured approach to aviation's development over the next 30 years. We will be happy to assist the Committee if any aspect of Government policy on this subject remains unclear.

### Recommendation 1

**"The quality of the Government response is poor and not of the standard we would normally expect. In rejecting so much of our report without adequate consideration or explanation and in such an overtly challenging manner, the Department for Transport is failing to address not only our concerns but the similar concerns expressed by many other organisations including the Sustainable Development Commission and the Royal Commission on Environmental Pollution."**

### Response

The Department's memorandum of May 2004 to the Committee's Follow-up Report, reproduced at Appendix 1 to the Seventh Report, followed the Government's earlier response of December 2003 (Cm 6063) to the Committee's Ninth Report of Session 2002-03. These responses were additional to other publications, including the response to the Transport Select Committee's Report on Aviation (Cm 6047), the document *Aviation and Global Warming* (published on 8 February 2004, although dated January on the front cover), and most notably the *Future of Air Transport* White Paper itself (Cm 6046). These are substantial documents based on what we understand to be the largest consultation exercise ever undertaken by the Department for Transport or predecessor transport departments.

We are concerned that the Committee was so disappointed by our memorandum of May 2004. We recognise that the matters under discussion are of considerable importance and complexity, and as noted in paragraph 7 of our memorandum, we are ready to assist the Committee if it has specific queries or uncertainties about the documentation we have produced.

The Department appreciates the work that has been put into the summary critique of the *Future of Air Transport* White Paper published by the Sustainable Development Commission (SDC) in June 2004. We are in dialogue with the SDC and look forward to working further with them on matters of aviation policy. The Royal Commission On Environmental Pollution's special report *The Environmental Effects of Civil Aircraft in Flight* (November 2002) was produced as a response to the major Government consultation that preceded the *Future of Air Transport* White Paper. It provided an excellent synthesis of available scientific and technical knowledge about aviation's environmental impacts (mainly in respect of climate change impacts). The five specific recommendations in the special report are reflected in Government policy where feasible—for example our support for the inclusion of aviation in the EU emissions trading scheme (an idea also supported by the SDC).

In conclusion, the Department welcomes constructive criticism and is willing to work with stakeholders and commentators from across the spectrum of opinion in order to build understanding and shape policy detail.

### **Recommendation 2**

**"A policy which estimates future demand and then aims to satisfy almost all of it is self-evidently based on a 'predict and provide' approach. The Department for Transport should respond fully to our original conclusion, and explain why it believes it is wrong to describe the White Paper in that way, particularly when the Government is actively promoting growth on the scale envisaged."**

### **Response**

The Department's previous memorandum sought to explain that *The Future of Air Transport* White Paper did not pursue a 'predict and provide' approach, but a balanced and measured approach which fully recognizes the importance of environmental constraints in particular. Paragraphs 2.11 to 2.16 of the White Paper deal at the strategic level with the limitations to growth of the air transport sector, and the theme is reprised in Chapter 3 and in the later references to environmental constraints for individual airports, including stringent noise controls, compliance with emissions limits near airports, and maintenance of the agreement not to build a new runway at Gatwick before 2019.

The Committee will also recall that the forecasts of future demand include a notional offset allowance for an economic instrument equivalent to a 100% fuel tax (see Annex A paragraph 11), notwithstanding that a fuel tax, as such, is currently precluded by our international obligations.

The demand forecasts up to 2030 imply that an economic case exists for *three* additional runways in South East England. However, The White Paper acknowledges that simply building more and more capacity to meet demand would not be a sustainable approach and concludes that only two new runways can be justified in the South East.

In reaching the policy conclusions in *The Future of Air Transport*, the Government is not "actively promoting" growth, but is recognizing the reality of historic growth, explaining the nature of demand for air transport, and setting out how far and where, in its view, any new development should take place. And, of course, airport expansion projects will not be promoted and funded by Government, but by the private sector. Proposals for new development will need to be considered through the planning system in the normal way, and full environmental assessment will be required when specific proposals are brought forward.

It is worth considering the UK position in the context of the competition it faces. For example, Amsterdam Schiphol Airport has more runways than Heathrow, Gatwick and Stansted combined, despite having a much smaller catchment population and fewer air traffic movements than Heathrow. Elsewhere in the world major expansion of airport infrastructure is underway, for example in the United States and China, that dwarfs the balanced and measured proposals in our White Paper.

### **Recommendation 3**

**"The Government response fails to set out what detailed studies the Department for Transport has carried out to explore the social and behavioural impacts of the forecast growth in aviation, and the manner in which these impacts may vary for different rates of growth. It should do so, taking into account the growing sense that the real price of oil is unlikely to remain at the level assumed in the White Paper."**

### **Response**

The air traffic demand forecasts made by the Department are based on the Government's best assessment of key drivers such as economic growth, overall trends in air fares (where the central forecasting assumption is that cost savings will be passed on through a trend decline of 1% *per annum*), and oil prices. The Committee has expressed its concern about these assumptions; the Department's task here, though, was not to make social or behavioural judgements but to make an objective assessment of likely trends, and we stand by these assumptions and forecasts. Historically, DfT and its predecessor departments' forecasts have generally proved conservative.

The validity of the assumptions underpinning the demand forecasts may change in the light of events and the Government will continue to monitor these closely. The recent increase in oil prices has resulted in some airlines introducing small fuel surcharges - a kind of 'oil tax'. However, care should be taken in extrapolating short term movements in oil prices into the future. Experience has shown that the real price of oil, for example, is subject to short term fluctuations that may not be sustained in the longer term. Even with oil at \$45 per barrel or higher, aviation fuel remains cheap in real terms compared to the 1970s, and modern aircraft are far more fuel-efficient.

Fuller information on how the demand forecasts are calculated is set out in Annex A of the *Future of Air Transport* White Paper, and in even greater detail in the supplementary document *Passenger Forecasts: Additional Analysis*, dated December 2003 and published as a supplementary document to the White Paper on 8 February

(available on the Department's web site). Under the "high capacity" scenario in 2030, passenger forecasts suggest there would be an average of just under two return trips per UK resident in 2030, compared with 0.8 return trips in 2000. We do not explicitly divide increases in mppa between people who otherwise would not fly at all and people already flying who take additional flights.

The Integrated Policy Appraisal (IPA—see also response to recommendation 6 below), at Annex E to the White Paper, discusses social and distributional impacts of aviation with reference to specific regions and airports. In the process of conducting the IPA, DfT and other Departments considered whether new detailed aviation-specific studies in these areas would add materially to our understanding of the effects, and significantly improve the accuracy of the forecasts and assessments. We did not identify social or behavioural aspects where such studies would be likely to provide new information critical to the White Paper decisions.

It would be mistaken to think that the Department lacks knowledge on social attitudes to flying. As noted in the White Paper, there is considerable knowledge about individuals' 'propensity to fly' (airlines and holiday companies have sophisticated market research techniques in this field), and the fact that half the British population flies at least once a year is oft-quoted. The Committee will also find interesting information in the study commissioned from Arthur D Little Limited by the then Department of the Environment, Transport and the Regions and published alongside the national consultation that preceded the *Future of Air Transport* White Paper<sup>5</sup>. Particular attention is drawn to Chapter 2—*Economic and Social Trends*—which discusses issues such as globalisation, demographics, lifestyle changes and leisure travel patterns.

#### **Recommendation 4**

**"The Department for Transport must publish a formal statement of what it understands by sustainable consumption in the context of air travel. As part of this statement, it should explain how the projected growth from 180 Mppa to 476 Mppa by 2030 can be reconciled with the commitment made by the UK Government in Johannesburg to encourage more sustainable approaches to consumption; and it should also set out what policies it is pursuing to discourage unnecessary air travel."**

#### **Response**

*Changing Patterns, the UK Government Framework for Sustainable Consumption and Production* (SCP) explains the Government's approach to taking forward the commitments agreed at the World Summit on Sustainable Development in 2002. The SCP Framework acknowledges that 'greener travel', including air transport, is an

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5 Study to Identify Future Commercial Trends Affecting the Aviation Industry in the Period 2000 to 2015 - Final Part 1 Report (May 2001). Details of how to obtain this report can be found on page 180 (Doc Ref No 41) of the *Future Development of Air Transport in the United Kingdom: South East - second edition* (February 2003).

important action area for consumers. It explains the importance of making progress in parallel on three fronts—economic development, environmental protection and social cohesion—and sets out a core definition of SCP in the following terms: "Continuous economic and social progress that respects the limits of the earth's ecosystems, and meets the needs and aspirations of everyone for a better quality of life, now for future generations to come".

As the SCP Framework explains, the Government is looking to develop the debate on sustainable consumption and we have been taking this forward as part of the current consultation on our Sustainable Development Strategy. The Sustainable Development Commission and the National Consumer Council have recently established a Roundtable on Sustainable Consumption, supported by Defra and the DTI, which will be trying to build some consensus around the features of more sustainable patterns of consumption and lifestyle, including travel and mobility issues. The Government certainly recognises that more needs to be done to tackle aviation's environmental impacts, but this is a long term project: to this end we hope that the consultative processes under way on sustainable consumption and the UK Sustainable Development Strategy will contribute constructively to thinking within civil society as well as across government.

We note the Committee's concern that "unnecessary air travel" should be discouraged. We are in fact very open to constructive ideas for rethinking travel needs. But we doubt that at present there is any commonly accepted definition of what constitutes "unnecessary air travel" and therefore we doubt that the Government should attempt judgements about the 'necessity' or otherwise of flights taken by individual travellers.

The Department's air travel forecasts are non-judgmental. The basis for them is explained in Annex A of the *Future of Air Transport*. Briefly, the forecasts are derived by modelling long term factors such as future growth in UK and world GDP, increased world trade, declining air fares, and exchange rates. The forecasts make various assumptions about the composition of demand, including different assumptions about demand from business and leisure passengers, and from UK and foreign passengers, bearing in mind that many passengers on flights to and from the UK are not UK residents. For example, demand from foreign leisure passengers is forecast to grow faster than demand from UK leisure passengers up to 2020, reflecting higher economic growth rates for countries outside of Western Europe. The discussions at the World Summit on Sustainable Development in Johannesburg emphasised the importance of market access for developing countries and the availability of affordable transportation, as well as concerns about environmental problems.

Finally, the Committee may be aware of voluntary initiatives whereby travellers can calculate estimated CO<sub>2</sub> emissions from flights and make voluntary payments to offset those emissions if they wish. Such a scheme has been endorsed by the German government recently, and the concept may merit further investigation in the UK.

### **Recommendation 5**

**“We calculated the environmental impacts of the forecast growth in aviation to be minus £42 billion (net present value), but were unable to identify from departmental appraisals the total producer and consumer surpluses to set against this figure. The Department for Transport has entirely ignored this point and should respond in full to our original conclusion. (Paragraph 15).”**

### **Response**

The basis of the Committee's estimate of £42 billion environmental costs is unclear. Presumably it relates to an increase in national throughput from 180 mppa in 2000 to 476 mppa by 2030, an increase of 296 mppa. (para 28 of "Pre-Budget Report 2003: Aviation follow up" refers).

The original national consultation on the future development of air transport in the United Kingdom (July 2002, reissued February 2003) contained detailed information on the economic appraisal of different airport capacity options. We also published figures (in Chapter 5 of *Aviation and Global Warming*) that show the benefits at the national level from two new runways in the South East. An increase of 35 mppa in national throughput by 2030, from 428 mppa to 463 mppa, would lead to an increase in global warming costs of £4bn. The corresponding increase in net economic benefits, including consumer surplus and producer benefit, is estimated at £17.1bn. Paragraphs 5.25-5.35 of *Aviation and Global Warming* focus on the costs of global emissions compared with net economic benefits. Not all the additional capacity in the South East feeds through to an increase in national throughput; in some cases it means that fewer passengers with South East origins or destinations have to travel through regional airports.

The supporting paper to the White Paper, *Passenger Forecasts: Additional Analysis*, reports at Table C.1 that the net economic benefits of increasing capacity in the South East from that approved in the planning system (with a national throughput of 414 mppa, in 2030) to the ' maximum use of existing capacity ' (431 mppa in 2030) is £13.7bn. Economic benefits per mppa get larger for lower increments in capacity from today's levels; a higher ' fare premium ' is required to price off demand when there is less capacity (see for example *The Future Development of Air Transport—South East Consultation Document*, chapter 14 and Annex B, and the supporting paper to this on *Economic Appraisal*).

So the net economic benefits from providing capacity such that national throughput in 2030 is 466 Mppa rather than 414 Mppa approach £31bn. No attempt has been made to quantify the economic impact of capacity in 2030 of 180 Mppa rather than that sufficient to enable a throughput of 414 Mppa. The economic benefits, however, of moving from 180 Mppa to 414 Mppa would be very substantial.

### **Recommendation 6**

**“The Department for Transport should also respond to our conclusion that the Integrated Policy Appraisal appended to the White Paper was particularly weak in its assessment of climate change impacts and the difficulties posed by the growth in aviation emissions in the light of the Government’s 60% carbon reduction target. (Paragraph 16)”**

### **Response**

Estimates of the environmental costs associated with aviation's contribution to climate change were published in the DfT/HM Treasury discussion paper, *Aviation and the Environment: Using Economic Instruments* (March 2003). These estimates of damage costs are independent of the Government's 60% CO<sub>2</sub> reduction target for domestic emissions.

There may be some confusion about the purpose of the Integrated Policy Appraisal (IPA). IPAs are used as a means of gathering together in one place a summary of the expected impacts of a policy or project. They are meant to be a useful digest of impacts, not a comprehensive analysis. The entire preparation of the *Future of Air Transport* White Paper represented a major analytical and policy development process, of which the IPA was just one small part.

### **Recommendation 7**

**“We expressed our astonishment at the lack of essential research to underpin the incorporation of aviation in the EU Emissions Trading System, and recommended that the Department for Transport should set out what needed to be done and by when to achieve this goal. Our conclusion and recommendation was totally ignored, and the Department should now provide a full response. (Paragraph 18)”**

### **Response**

The Department recognises that there is a large amount of work to be done to ensure aviation's incorporation into the EU Emissions Trading Scheme (EU ETS). We are pursuing this vigorously, but we do not underestimate the difficulties in the design and implementation of aviation's inclusion into the EU ETS.

The Committee appears to have drawn the wrong conclusion from a comment made by a DfT official in response to a specific question about *modelling*. The Committee concluded that this comment was referring to *research*. There is, in fact, a large and growing body of research (some of it funded or part-funded by the Department) into this subject. Recent examples include major research projects by (i) ICF Consulting for the ICAO Committee on Aviation Environmental Protection, (ii) OXERA for BAA plc, and (iii) the Institute of Applied Ecology for the German Environment Agency. The conclusions from this research support emissions trading as an effective way forward.

At the time of writing the European Commission (DG ENV) is also in the process of letting a major research contract to consider the incorporation of aviation into the EU ETS, which we hope will lead to a formal proposal. In addition, the Department is aware that work has been undertaken by various UK investment analysts in this subject.

The Department is having discussions with various stakeholders to discuss the modalities of including aviation in the EU ETS, as well as bilateral discussions with major EU Member States. The purpose of these discussions is to gather support for the UK's initiative and to seek views on potential answers to some of the difficult design issues. We envisage this work continuing and intensifying as the UK Presidency of the EU approaches, in the second half of 2005. The details of aviation's participation in the EU ETS will be decided by what the Commission proposes, and what is negotiable and practicable. Concerning the timetable of the steps that need to be taken, we are ultimately dependent on the Commission making a proposal. We know that it will consider doing so in the light of the research project it has commissioned and we would welcome an early start to the process of introducing new EU legislation on the issue, so that the necessary technical preparations can be made in time for a 2008 start to emissions trading in the aviation sector.

### **Recommendation 8**

**“We reject the accusation contained in the Government response that our figures for the impact of aviation in relation to other UK emissions are misleading and inappropriate. The underlying truth is not in dispute: that the global warming impacts from aviation are forecast to increase massively just as we are striving to make huge cuts in emissions from all other sectors of the UK economy. (Paragraph 22)”**

### **Response**

There is no disagreement that aviation's share of greenhouse gas emissions is forecast to increase. The RCEP's special report of November 2002 (see response to recommendation 1 above), referring to the global impacts of aviation, concluded that *“... unless there is some reduction in the growth in the sector, or technology improves considerably more than was assumed by IPCC<sup>6</sup>, by 2050 aviation will be contributing at least 6% of the total radiative forcing consistent with the necessary stabilisation of climate. A safer working hypothesis is that it will be in the range 6% - 10%.”* (paragraph 3.41). The DfT analysis for the *Future of Air Transport* White Paper concluded that if, for analytical purposes, international aviation emissions<sup>7</sup> were allocated to the UK domestic emissions inventory, then by 2050 aviation's share of total UK climate change impacts could reach approximately 33%. This calculation is explained in the table included with our memorandum of May 2004.

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6 Intergovernmental Panel on Climate Change. The RCEP is here referring to the IPCC report *Aviation and the Global Atmosphere* (1999).

7 For these purposes "international aviation" is defined as all international departures from UK airports.

The UK figure is so high (33%) because of the key role that the UK, and particularly London, plays in the global air transport system. As noted in the *Future of Air Transport* White Paper, one fifth of all international air passengers in the world are on flights to or from an UK airport. Drastic measures to bring down the UK figure would cause significant damage to the UK's position in the global economy—and for very little environmental benefit, because many of the passengers would simply fly elsewhere instead and the total *quantum* of flights (and emissions) would be little affected.

Whether the aviation share of UK greenhouse gas emissions in 2050 is 33% or some higher or lower figure does not alter the importance of taking action to limit or reduce emissions from international aviation. The Government believes that this can be best achieved through a well-designed emissions trading scheme and is actively pursuing this goal.

Emissions trading is a key instrument for achieving such reductions because it gives companies flexibility about the way they meet emissions reduction targets and delivers real environmental benefits. As well as mitigating, through participating in the scheme, some of the environmental harm it causes, aviation may help the scheme more generally by increasing the demand for emissions allowances and therefore making it economic for more sectors to reduce their emissions. A well-designed European Union emissions trading scheme would be a valuable first step towards international action. But the Air Transport White Paper makes it clear that we reserve the right to act unilaterally or bilaterally with like-minded partners if progress towards tackling aviation emissions at an international level proves too slow.

### **Recommendation 9**

**“Given the priority apparently being accorded to the need to tackle global warming, we find it bizarre that the Government response, in calculating aviation in relation to other UK emissions, assumes that there will be no reduction in greenhouse gases, other than carbon dioxide, over the next 50 years. In setting the 60% carbon reduction target last year, the Government failed to clarify how it relates to greenhouse gases other than carbon dioxide and what baseline should be used to measure achievement against. It must do so as a matter of urgency. (Paragraph 25)”**

### **Response**

We understand the Committee's general concern on this point, though it's statement is not quite correct.

The reduction in emissions of gases other than carbon dioxide was significant in the in the decade 1990-2000, with a fall from 44MtC equivalent to 28.9 MtC equivalent. However, these reductions have slowed over recent years, and are forecast to slow even further in the future.

The Government has assumed non-CO<sub>2</sub> GHG emissions (28.9MtC equivalent in 2000) to fall to 2020 (25.8MtC equivalent) in line with projections in Chapter 4 of *The UK's Third National Communication to the United Nations Framework Convention on Climate Change*. But it is correct that no further fall was included for 2020 to 2050. This was because we do not have projections of non-CO<sub>2</sub> gases beyond 2020. If the same 60% cut applied to non-CO<sub>2</sub> gases by 2050, then aviation's share rises from the 33% estimated by DfT to about 35%. This difference is well within the uncertainties for calculations of this type. UK projections of non-CO<sub>2</sub> greenhouse gases are currently being reviewed.

The reduction of 60% in CO<sub>2</sub> is calculated from 1990 levels. It would therefore be reasonable to apply a similar starting point to any long term forecast for non-CO<sub>2</sub> gases, but since we have not formally set a non-CO<sub>2</sub> greenhouse gas target, we have not set a formal baseline either.

### **Recommendation 10**

**“Figures presented by the Government, both in the Government response and in *Aviation and Global Warming*, contain apparent inconsistencies. This reflects the poor quality of documentation and appraisal carried out by the Department for Transport in this area. It would be helpful if the Department could set out comprehensive and well documented statistics to inform further discussion of this topic. (Paragraph 27)”**

### **Response**

The Committee highlights two particular issues when comparing the Government response and the DfT's *Aviation and Global Warming* which are explained below. The Department would again like to state its willingness to clarify figures to the Committee should they be unsure as to their origins, and also highlight that, to the best of our knowledge, the UK is the only country in the world which has attempted to publish long term forecasts of international aviation related greenhouse gas emissions on a national basis.

The first inconsistency highlighted by the Committee concerns differences in UK domestic emissions of carbon dioxide in 2000 and 2030. The figures in paras 2.9 -2.10 of *Aviation and Global Warming* are derived from the DTI paper *Energy Projections for the United Kingdom*, which accompanied the energy White Paper, *Our Energy Future—Creating a Low Carbon Economy*. For 2000, the figure (147 MtC) excluded emissions from land use change and forestry, which are not included in DTI modelling.

The emissions given in the Government response, including 152.2 MtC for 2000, are derived from the *UK Greenhouse Gas Inventory, 1990 to 2002*, published in April 2004. These figures include emissions from land use change and forestry. The Government response then assumes a linear trend in emissions to reach the 65.8 MtC carbon dioxide emissions in 2050 target.

The figure of 94.0MtC in 2050 of the UK total emissions including domestic emissions in the table attached to the Government response is not just the sum of 65.8MtC carbon dioxide emissions plus 25.8 4MtC GHGs from sectors other than aviation. Radiative forcing due to domestic aviation—which is included in the Energy White Paper total—must also be added, and was included.

### **Recommendation 11**

**“We said last year that the airports consultation *“fails to take on board the new direction in policy initiated by the Government’s Energy White Paper; while the growth proposed in aviation—even on a constrained basis—would wreck the aspirations it contains.”* The *Future of Air Transport* White Paper has done nothing to alter our view: aviation policy remains the most glaring example of the failure of Government to put sustainable development at the heart of policy making. (Paragraph 30)”**

### **Response**

The Government remains firmly committed to the goals set out in the Energy White Paper. The Spending Review 2004 announcement (13 July) also committed DfT to join with Defra and the DTI in a joint Public Service Agreement target to put the UK on a path to a 20% reduction in domestic CO<sub>2</sub> emissions by 2010 compared to 1990 levels.

The *Future of Air Transport* White Paper contains a balanced package of measures and proposals that sets out a long term strategy for the aviation sector. It reflects the economic, social and environmental pillars of sustainable development and is consistent with the environmental goals of the Energy White Paper. An approach that arbitrarily constrained the UK air transport industry could potentially cause lasting harm to the UK economy and the interests of the travelling public without delivering the worldwide environmental benefits which both the Committee and the Government wish to see. Our task is to ensure that the *Future of Air Transport* is now implemented, and that our environmental commitments at home and abroad are pursued vigorously.

**Department for Transport  
August 2004**

## Formal minutes

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**Wednesday 15 September 2004**

Members present:

Mr Peter Ainsworth, in the Chair

Mr Colin Challen

Mr Mark Francois

Mr David Chaytor

Mr Simon Thomas

Mrs Helen Clark

Joan Walley

Sue Doughty

The Committee deliberated.

Draft Report (Aviation: Sustainability and the Government's second response), proposed by the Chairman, brought up and read.

*Ordered*, That the Chairman's draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 6 read and agreed to.

*Resolved*, That the Report be the Eleventh Report of the Committee to the House.

*Ordered*, That the Chairman do make the Report to the House.

*Ordered*, That the provisions of Standing Order No. 134 (Select Committees (reports)) be applied to the Report.

*Ordered*, That the Government Response to the Seventh Report from the Committee in 2003-04 [Aviation: Sustainability and the Government Response] be appended to the Report.

[Adjourned till Wednesday 13 October at 3.00pm.]

# Past reports from the Environmental Audit Committee since 1997

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## 2003-04 Session

First	Annual Report 2003, HC 214
Second	GM Foods – Evaluating the Farm Scale Trials, HC 90
Third	Pre-Budget Report 2003: Aviation follow-up, HC 233
Fourth	Water: The Periodic Review 2004 and the Environmental Programme, HC 416 ( <i>Reply, HC 950</i> )
Fifth	GM Foods – Evaluating the Farm Scale Trials, HC 564
Sixth	Environmental Crime and the Court, HC 126
Seventh	Aviation: Sustainability and the Government Response, HC 623 ( <i>reply, HC 1063</i> )
Eighth	Greening Government 2004, HC 881
Ninth	Environmental Crime: Fly-tipping, Fly-posting, Litter, Graffiti and Noise, HC 445
Tenth	Budget 2004 and Energy, HC 490

## 2002-03 Session

First	Pesticides: The Voluntary Initiative, HC100 ( <i>Reply, HC 443</i> )
Second	Johannesburg and Back: The World Summit on Sustainable Development–Committee delegation report on proceedings, HC 169
Third	Annual Report, HC 262
Fourth	Pre-Budget 2002, HC 167 ( <i>Reply, HC 688</i> )
Fifth	Waste – An Audit, HC 99 ( <i>Reply, HC 1081</i> )
Sixth	Buying Time for Forests: Timber Trade and Public Procurement - The Government Response, HC 909
Seventh	Export Credits Guarantee Department and Sustainable Development, HC 689 ( <i>Reply, HC 1238</i> )
Eighth	Energy White Paper – Empowering Change?, HC 618
Ninth	Budget 2003 and Aviation, HC 672 ( <i>Reply, Cm 6063</i> )
Tenth	Learning the Sustainability Lesson, HC 472 ( <i>Reply, HC 1221</i> )
Eleventh	Sustainable Development Headline Indicators, HC 1080 ( <i>Reply, HC 320</i> )
Twelfth	World Summit for Sustainable Development – From rhetoric to reality, HC 98 ( <i>Reply, HC 232</i> )
Thirteenth	Greening Government 2003, HC 961 ( <i>Reply, HC 489,2003-04</i> )

## 2001-02 Session

First	Departmental Responsibilities for Sustainable Development, HC 326 ( <i>Reply, Cm 5519</i> )
Second	Pre-Budget Report 2001: <i>A New Agenda?</i> , HC 363 ( <i>HC 1000</i> )
Third	UK Preparations for the World Summit on Sustainable Development, HC 616 ( <i>Reply, Cm 5558</i> )
Fourth	Measuring the Quality of Life: The Sustainable Development Headline Indicators, HC 824 ( <i>Reply, Cm 5650</i> )
Fifth	A Sustainable Energy Strategy? Renewables and the PIU Review, HC 582 ( <i>Reply, HC 471</i> )
Sixth	Buying Time for Forests: <i>Timber Trade and Public Procurement</i> , HC 792-I, ( <i>Reply, HC 909, Session 2002-03</i> )

**2000-01 Session**

First	Environmental Audit: <i>the first Parliament</i> , HC 67 ( <i>Reply, Cm 5098</i> )
Second	The Pre-Budget Report 2000: <i>fuelling the debate</i> , HC 71 ( <i>Reply HC 216, Session 2001-02</i> )

**1999-2000 Session**

First	EU Policy and the Environment: An Agenda for the Helsinki Summit, HC 44 ( <i>Reply, HC 68</i> )
Second	World Trade and Sustainable Development: An Agenda for the Seattle Summit, HC 45 (Including the Government response to the First Report 1998-99: Multilateral Agreement on Investment, HC 58) ( <i>Reply, HC 69</i> )
Third	Comprehensive Spending Review: Government response and follow-up, HC 233 ( <i>Reply, HC 70, Session 2000-01</i> )
Fourth	The Pre-Budget Report 1999: pesticides, aggregates and the Climate Change Levy, HC 76
Fifth	The Greening Government Initiative: first annual report from the Green Ministers Committee 1998/99, HC 341
Sixth	Budget 2000 and the Environment etc., HC 404
Seventh	Water Prices and the Environment, HC 597 ( <i>Reply, HC 290, Session 2000-01</i> )

**1998-99 Session**

First	The Multilateral Agreement on Investment, HC 58 ( <i>Reply, HC 45, Session 1999-2000</i> )
Second	Climate Change: Government response and follow-up, HC 88
Third	The Comprehensive Spending Review and Public Service Agreements, HC 92 ( <i>Reply, HC 233, Session 1999-2000</i> )
Fourth	The Pre-Budget Report 1998, HC 93
Fifth	GMOs and the Environment: Coordination of Government Policy, HC 384 ( <i>Reply Cm 4528</i> )
Sixth	The Greening Government Initiative 1999, HC 426
Seventh	Energy Efficiency, HC 159 ( <i>Reply, HC 571, Session 2000-01</i> )
Eighth	The Budget 1999: Environmental Implications, HC 326

**1997-98 Session**

First	The Pre-Budget Report, HC 547 ( <i>Reply, HC 985</i> )
Second	The Greening Government Initiative, HC 517 ( <i>Reply, HC 426, Session 1998-99</i> )
Third	The Pre-Budget Report: Government response and follow-up, HC 985
Fourth	Climate Change: UK Emission Reduction Targets and Audit Arrangements, HC 899 ( <i>Reply, HC 88, Session 1998-99</i> )

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