Aviation and sustainable development

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FUTURE OF AVIATION: PAPER BY THE SUSTAINABLE DEVELOPMENT COMMISSION

Introduction

1.   The Sustainable Development Commission welcomes the opportunity to contribute to the Government's consultation exercise. Indeed, it is difficult to think of a more challenging test case for our new organisation than this one!

2.   Sustainable Development is about recognising as far as possible the legitimacy of people's aspirations, and finding ways of meeting them which will not prejudice the interests of other people, now and in the future. The history of aviation has been hugely wealth creating and liberating for nations, regions and individuals. Hundreds of thousands of people are employed directly or indirectly in the industry, and it makes a significant contribution to UK economic growth (1.4% of GDP, according to Oxford Economic Forecasting). Internationally, aviation has been a long-term success story for the UK economy, with strong airlines and successful airports exporting their skills around the world. The pressure from the industry, business and consumers to maintain this pattern of growth and expansion indefinitely into the future is not hard to understand.

3.   The Commission's strongly preferred approach is to advocate holistic policy processes, which look at social, environmental and economic interests together, and try to deliver benefits to all three at the same time. We regard trade-offs between these different interests as distinctly second-best solutions. But the exponential growth in the aviation sector makes such a sustainability analysis hugely difficult. At the moment, it looks very unlikely that, in themselves, the kind of approaches which we usually like to advocate - technological innovation, new business models, better information – will deliver outcomes which will be environmentally acceptable, especially to future generations.

4.   In short, a long term view leads us to question whether, despite all the benefits which the aviation sector delivers, the UK should continue to accommodate the exponential levels of growth anticipated in the latest DETR forecasts. Indeed, we share the view of the Royal Commission on Environmental Pollution which said in 1994 "An unquestioning attitude towards future growth in air travel, and an acceptance that the projected demand for additional facilities and services must be met, are incompatible with the aim of sustainable development". We are pleased that, through the Aviation Consultation Exercise, the question is now being asked.

Analysis

5.   This short paper seeks to contribute some views on the big policy questions in the consultation exercise, of which the biggest seems to us to be whether the general presumption in favour of liberalisation and competition is compatible with a sustainable development framework. Given the inherently international nature of the aviation industry, and the existence of liberalised markets in Europe, it is important to be realistic at the outset about what the UK can and cannot achieve acting independently. It would be pointless and potentially environmentally damaging for the UK to place restrictions

on the operation of its own airlines which would only lead to the same patterns of service being re-instated by carriers from other countries.

6.   We think that it is important to recognise from the outset that local and global environmental issues are distinct problems (though with some of the same causes) and that it would be a mistake to lump them together in devising a policy framework for dealing with them. Indeed, at a practical level, there may sometimes be design trade-offs between measures to deal with noise and emissions, and management policies which reduce one may actually increase the other.

7.   We also note that the specific environmental questions raised in the consultation document focus more closely on noise than on emissions.   Noise is obviously a major problem for the European aviation industry, with devastating effects on individuals and communities. It is also directly relevant to the question of whether new airport infrastructure should be provided, which is clearly a very topical issue! But we feel that the question of aviation emissions is in many ways a more intractable problem for public policy, and should be given a much higher priority than at present in developing strategies for dealing with aviation's impact on the world around it.

Costs and mechanisms

8.   The consultation exercise seeks views on the relative merits of various mechanisms – voluntary agreements, trading, regulations etc. But we think that this is putting the cart before the horse. Before even starting to think about mechanisms at all, the first step needs to be a clearheaded analysis of the social, environmental and economic costs and benefits. Only then can we take an informed view of what kind of aviation industry the UK should want and can support. We can then think about what the best mechanisms might be to deliver this.

9.   SDC has not carried out an independent study of the costs and benefits of aviation, now is it in a position to do so. But, looking at the work done by DETR, IPPR, OEF and others, it is difficult to avoid the conclusion that there is still a lot of work to be done in this field. In particular, we would like to see further exploration of the range of external costs in the DETR's "Valuing the External Costs of Aviation" document, which suggests central estimates of environmental costs of around £3 per passenger on shorthaul operations and £20 per passenger on longhaul aircraft. DETR acknowledges that "the environmental damage cost estimates which form the basis for these figures are illustrative and subject to high levels of uncertainty." Given the significance which the estimates of environmental costs are likely to have in formulating the UK's future policies on aviation, a more definitive information base would seem to be urgently needed.

Should demand be accommodated?

10.   Indeed, a key environmental issue in the document seems to be whether, should aviation meet its environmental costs, measures should be taken to accommodate demand. We support the hypothesis that the external costs imposed by aviation – whatever these turn out to be – should be internalised, one way or another. And in principle, any industry which is covering all its externalities (if they are properly

assessed) and making a profit is performing an economically worthwhile activity. But our answer to the central question is still "not necessarily" because:

a)   the long term environmental costs associated with aviation are in practical terms very difficult to quantify. Even DETR's best stab to date produces a wide range of possible values. In terms of global emissions, aviation is only one of a bundle of contributors to climate change (albeit one that is on an upward trajectory). And the range of alternative climate change scenarios is very wide. RCEP's work on energy postulates a scenario of uncontrolled climate changes, where world climates are destabilised. The consequences of this are very difficult – probably impossible - to evaluate;

b)   the costs and benefits (both social and environmental) which are created by aviation do not arise at the same places, to the same people, and at the same time. We do not think that future generations should pay costs to deliver benefits to current generations, or that western citizens should travel at the expense of climatic impacts on poorer societies;

c)   environmental damage should not be infinitely tradeable: people now and in the future have fundamental of environmental rights which should not be taken away from them, even if they can be priced.

11.   (c) is the most subjective of the three points, and does depend on a value judgement/political stance on environmental rights, environmental limits etc. It is consistent with the thrust of EU legislation on air quality, which sets absolute standards to be applied around airports. But even if it is not accepted, we believe that (a) and (b) are sufficiently potent in themselves to mean that, while the cost-coverage principle is an important first step, it is not sufficient to define the scope of the UK's future aviation industry. There is a very strong case for absolute environmental limits to be applied, so that the aviation industry does not drive and contribute to the creation of an unsustainable economy and society.

Alternative approaches

12.   So what is our alternative? We believe that the Government needs to look separately at local and global effects. For local effects, there is a need to recognise that airports are a mixed blessing to local communities – they bring noise and pollution, but also jobs and prosperity. The job of weighing up the balance of these factors – including congestion and local environmental effects as well as noise - is probably different between different areas, and best assessed not by central government but by the local communities themselves.   So we would advocate a flexible approach to local standard setting, with a major role for local residents and businesses, within a regional framework, and subject to appropriate safeguards.

13.   For global effects, such local decision making won't work, because the sufferers and beneficiaries are not the same people. Internalisation of environmental costs – assuming a more robust assessment of these can be made - is a good start and should be progressed as a matter of urgency. But, after that, we think that there will then need to be a further top-down assessment of how the shape of the industry has changed as a result of covering its costs. If changes in the cost structure of airlines, eg by taxing

aviation fuel, has not led to a material change in demand (and fuel prices are only around 10% of airline operating costs), then further measures may be needed to deal with both the cost uncertainties and the equity considerations in points (a) and (b) above.

14. Aviation is particularly problematic because it is an inherently international industry. Many of the environmental measures needed can only be progressed through international organisations, especially ICAO. As an industry-driven body, it is not entirely reasonable to expect ICAO to respond energetically to the broader climate change agenda. It would therefore be better for aviation emissions to be brought into the wider Kyoto framework, which would allow governments to take a strategic view of the importance of aviation compared to other industries, and establish an acceptable level of emissions accordingly. It may be that – given its role in wealth creation, effective market function, and human welfare – aviation is such a strategically important industry that Governments are prepared to take draconian steps in other sectors to allow it to continue to grow. But this needs to be a matter of conscious choice, not something which happens by default.

15. An alternative to such a top-down regulatory framework for aviation emissions would be for the market place rather than the Government value the strategic importance of aviation as an industry. IPPR has already suggested in its publication "Plane Trading" that aviation should be included in any national or international emissions trading scheme, which would deliver reductions in emissions at the lowest possible cost, and maximise the value of the economic activities producing the emissions. Conceptually, this is a very attractive approach, although we do not underestimate its practical complexities, and would be concerned to ensure that any overall cap was tightly drawn. We would also want to see a careful assessment of the distributional and other social policy consequences of unfettered trading in emissions, which might require some administrative safeguards to protect the interests of particular regions or communities.

Role of the UK Government

16. The UK Government should not use the international nature of the aviation industry to absolve itself of responsibility for taking action domestically. Government measures can deliver results in terms of demand management eg by changing the pricing of airport capacity to ensure optimal economic, and environmental and social benefits. These will not be easy to quantify (eg balancing the benefits of regional access (where rail cannot provide an equally attractive service) against lucrative long haul services) but it must be better than the current approach, which is based largely on historic patterns of service and has no relation to environmental impact at all.

17. There is also scope for measures to achieve modal shift by doing things to other modes. The Government could consider what more it could do to encourage sea rather than air freight (although we recognise that this might not be a viable for the fast-growing express cargo sector), a strategic decision to limit aviation infrastructure (and therefore drive up infrastructure costs and the cost of aviation generally), creation of attractive land-transport alternatives (eg domestic and European rail network). Indeed, the implementation of an integrated transport policy which provided access to fast European rail links could mitigate some of the negative social impacts of increasing the cost of aviation.

18. In addition, the need for curbs on demand will be directly related to the ability of technological advances in the aviation field to reduce the environmental impacts of aviation at source, so governments should be giving a high priority to promoting a climate which will nurture and encourage research activity in this field.

19. At a more fundamental level, to inform its future policies in this area, Government needs to look outside the industry economics of the aviation sector, and carry out a comprehensive analysis of the factors which underlie the meteoric growth in air travel by people and goods, for business and leisure. Transport is sometimes an end in itself, but more often a means to an end (access to goods and services). Especially with the growth in e-communications, and the new kinds of products that this allows, there may be better, more sustainable, ways of meeting these ends. Reducing travel by reducing the need to travel is a far more sustainable solution than diminishing people's welfare just by pricing them out of a desirable activity.

Recommendations

20. To summarise, we advocate:

- that the highest priority should be given to a more thorough evaluation of the environmental effects of aviation. Given the significance of these numbers, it is not good enough that this is still something of a black art;
- that the Government should make a firm a commitment to pursue measures to internalise these costs (including monitoring and auditing costs);
- that there should be a very strong role for local communities in a regional context in reaching agreement with airport operators about local environmental effects, subject to basic safeguards, and within the framework of EU legislation;
- that aviation should be brought into the Kyoto framework, and treating it on a par with other industries responsible for greenhouse gas emissions;
- that aviation should be included in any national or international emissions trading scheme, again, subject to appropriate boundary conditions;
- that the Government should develop a package of measures to manage aviation demand and encourage modal shift;
- that the Government should initiate a long term study dissecting the need to travel by air, distinguishing the situations when air travel is a good in itself, and when it is a means to an end which might be achieved in a more sustainable way.

Sustainable Development Commission
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