

Including Aviation in the EU's Emissions Trading Scheme (EU ETS)

Background Briefing

T&E, Brussels, December 2006

Aviation and climate change¹

- In 2000 air transport accounted for 4 to 9 per cent of the climate change impact of human activities. The range reflects uncertainty surrounding the effect of cirrus clouds. A figure of 2 per cent, often quoted by the aviation industry, applies only to CO₂ emissions and refers to 1992 data.
- Greenhouse gas (GHG) emissions from EU international aviation increased by 87% between 1990 and 2004².
- If this trend continues, growth in the EU's international aviation emissions will offset more than a quarter of the reductions required by the Community's target under the Kyoto Protocol³ (EC 2005).
- Aviation has by far the greatest climate impact of any transport mode, whether measured per passenger kilometre, per tonne kilometre, per € spent, or per hour spent
- CO₂ emissions are directly linked to fuel consumption. Every litre of jet fuel burnt leads to 2.5 kg of CO₂ emitted in the air. Today's passenger aircraft are no more fuel-efficient than those that flew half a century ago
- Every segment of the aviation industry including manufacturers, airlines and airports is subsidised and enjoys major tax exemptions (notably the lack of VAT on international tickets and taxes on kerosene)

1 For further information see: Clearing the air, the myth and reality of aviation and climate change, T&E / CAN-Europe, Brussels, July 2006, <http://www.transportenvironment.org/Article201.html>

2 EEA, Annual European Community greenhouse gas inventory 1990–2004 and inventory report 2006, Submission to the UNFCCC Secretariat, European Environment Agency, Copenhagen, June 2006

3 European Commission, Communication on Reducing the Climate Change Impact of aviation, September 2005

Aviation climate policy: a brief history

Up to now there has been no policy action to address the climate change impact of aviation at EU level or elsewhere. Emissions from international aviation were excluded from the Kyoto Protocol.

Two policy options have regularly been discussed, namely kerosene taxation and emissions trading. Both policies give economic incentives to reduce kerosene consumption and reduce CO₂ emissions.⁴

T&E's position on both of these measures is explored in detail in a position paper available on our website: www.transportenvironment.org/Downloads-reg-getit-lid-443.html

Kerosene taxation

Kerosene taxation was briefly discussed at EU level in 2000 and 2005, but taxation matters require unanimous approval of all EU Member States. No progress has been made and the European Commission has never tabled a formal proposal.

EU policy up till now has generally been to 'keep all options open' – nothing more. One consequence of this policy was the Directive on the Taxation of Energy Products 2003/96, which made it possible for Member States to introduce kerosene taxation or, on the basis of mutual agreement, introduce taxation on kerosene used for flights between two countries. Previously this was illegal. Currently, the Netherlands and Norway are the only European countries to tax kerosene used on domestic flights. Together these flights represent a minute proportion of air travel within the EU.

The UN's International Civil Aviation Organisation (ICAO) has always been hostile towards kerosene taxation. Its still-valid Council Resolution of 9 December 1996 states explicitly, inter alia, that '*there should be no fiscal aims*' behind emission-related levies in aviation⁵. In other words, fuel taxation, standard practice in road transport, is discredited.

Emissions trading

Clearly very opposed to a kerosene tax, ICAO was less resistant to emissions trading, having declared in its 35th Assembly in October 2004, that it 'endorses the further development of an open emissions trading system'⁶. But ICAO had also earlier declared that setting up emissions trading by itself 'seemed sufficiently unattractive that it should not be pursued further'⁷. In other words: ICAO in principle prefers emissions trading but in practice doesn't want to set up its own system.

The difficulty of an EU-wide unanimous agreement on kerosene taxation, together with ICAO's views on both kerosene taxation and emissions trading, has effectively left the EU with only one option: the setting up of an EU emissions trading system for the sector by itself.

4 Ticket taxes have also been discussed and they are operational in countries like the UK and France – however they are not linked to emissions and therefore not further discussed here.

5 ICAO Council Resolution regarding emission-related levies, Montreal, 9 December 1996

6 35th ICAO Assembly, Report Agenda Item 15 – Environmental Protection, Montreal, October 2004

7 Report from CAEP6 WP/57, Agenda Item 2: Review of market-based options to limit or reduce emissions, Montreal, February 2004

The EU and Aviation Emissions Trading

September 2005 – Commission Communication

The European Commission published a communication, 'Reducing the climate change impact of aviation' which stressed that:

- there is a need for action
- inclusion of emission trading into the European Emissions Trading System (EU ETS) is the most feasible way forward
- all flights departing from EU airports should be included
- the non-CO₂ impacts of aviation should be reflected in the policy
- there is a need to keep all other options open (for example kerosene taxation)

December 2005 - Council

In the last month of the UK presidency of the EU, the 25 EU environment ministers adopted conclusions that were broadly supportive of the Commission communication.

July 2006 – European Parliament

The European Parliament adopted a resolution stressing that:

- a broad package of measures is necessary to tackle the climate change impact of aviation, including EU-wide kerosene taxation.
- a separate, dedicated emissions trading system for aviation should be set up

On December 20 2006 the Commission published a legal proposal which will be sent to the Council and the Parliament under the co-decision procedure.

December 2006: legal proposal on inclusion of aviation in the EU-ETS

The legal proposal adopted by the European Commission on 20 December 2006 favours the inclusion of aviation in the EU ETS. It contains the following elements:

Geographic scope: the European Commission proposed a two stage approach, with intra-EU flights to be included in a first stage – starting in 2011 – and all arriving and departing flights to be added only in a second stage – in 2012.

There are no technical or legal reasons to apply the system only to intra-EU flights. Indeed the Commission's Impact Assessment⁸ recommends the opposite: a broad geographical scope would be better for the environmental effectiveness of the scheme while reducing to nearly zero any effects on the competitiveness of European airports and EU tourist destinations.

For that reason environmental NGOs have argued for all flights from and to the EU to be included from the onset.

⁸ Available at http://ec.europa.eu/environment/climat/pdf/ia_aviation.pdf

Non-CO₂ impacts: There is a scientific consensus that the climatic impact of the sector is 2 to 5 times that of CO₂ emissions alone⁹. The uncertainty is related to the climate impact of cirrus clouds that can form out of aviation-induced contrails.

If non-CO₂ impacts are not addressed, the environmental integrity of the system is at risk. Airlines will be buying permits to emit a tonne of CO₂ from ground sources, but in practice the impact of such emission will be 2 to 5 times greater. This means that ground sources will emit 1 tonne of CO₂ less, but aviation might emit 2 to 5 tonnes of CO₂ more – leaving 1 to 4 tonnes of CO₂ equivalent unaddressed.

The Commission proposal states ‘To address other gases, by the end of 2008, the Commission will put forward a proposal to address the nitrogen oxide (NO_x) emissions from aviation after a thorough impact assessment’. However, contrary to earlier versions, the proposal does not mention that, if NO_x emissions are not being properly addressed, an ‘impact factor’ shall be applied on CO₂ at a later stage to account for the non-CO₂ gases.

Environmental NGOs recommend the latter approach: address NO_x, and if not successful, apply a multiplier. We have also recommended changing air navigation to tackle formation of contrails and cirrus clouds.

The cap: scarcity of permits is needed to achieve reductions.

The level of the cap proposed - average emissions from aviation in the years 2004-6 – in practice means that the cap is set at 90% above 1990 levels, the base year of the Kyoto agreement. Other sectors have to reduce their emissions by 8% compared to 1990 emissions. Aviation therefore roughly gets twice the amount of permits compared with other sectors.

It is positive that the cap - total number of allowances to be allocated to the aviation sector – will be defined at EU level, given that Member States would have no incentives to impose a meaningful cap on aviation because the sector is outside of Kyoto.

Environmental NGOs had recommended a cap in line with other sectors and central, EU level allocation.

Permit allocation and windfall profits: auctioning is the best distribution mechanism, because it is the most efficient and fairest way to issue permits, and also to avoid the errors of the current EU ETS where electricity firms are reported to have made billions of profits from the windfall of grandfathered emissions permits (which is also likely to happen with the aviation industry).

The proposal from the European Commission proposes an allocation through benchmarking with a minor fraction to be auctioned (less than 3% in practice). This will lead to ‘windfall profits’ in the aviation industry. According to the impact assessment: ‘since every airline on each route covered by the scheme would be treated equally, airlines can be expected to pass on, to a large extent or even in full, compliance costs to

⁹ See Sausen et al., 2005, Aviation Radiative Forcing in 2000: An Update of IPCC (1999), Sausen, R., Isaksen, I., Grewe, V., Lee, D.S., Myhre, G., Schumann, U., Stordal, F. and Zerefos, C., June 2005

customers'. The size of these profits has been estimated to be in the in the range of €3.5bn a year.

Additional instruments

The price of permits in the EU ETS has historically been in the range of €15 per tonne of CO₂ – which is equivalent to 3.8 cents per litre of kerosene. According to the Commission's Impact Assessment and the T&E publication 'Clearing the Air'¹⁰ this will reduce aviation emissions by only 3%, less than a year's growth of emissions.

Fuel taxes in road transport are around 65 cents per litre – more than 10 times higher than equivalent CO₂ prices in the EU ETS. Also, high carbon prices in aviation would not put the EU aviation industry at a competitive disadvantage since every airline on each route covered by the scheme would be treated equally. Therefore, environmental NGOs insist on introduction of fuel taxation and VAT on airline tickets alongside integration of aviation into the EU ETS.

¹⁰ <http://www.transportenvironment.org/Article201.html>, page 20.