



WWF-UK's response to the DEFRA/DfT consultation on the Commission's proposal to include aviation in the European Union Emissions Trading Scheme

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INTRODUCTION

It is a welcome move that the European Commission has brought forward a legislative proposal to include the climate impact of the aviation sector, the fastest growing source of emissions, in the EU Emissions Trading Scheme (ETS). This states that its' objective is to “*reduce the climate change impact attributable to aviation by including emissions from aviation in the Community scheme.*”¹ However, the proposal as it stands will not lead to significant emissions reductions in the sector itself. Even with key improvements outlined in this response the scheme is, at least in the short term, not going to deliver the reductions required to ensure that aviation plays its fair part in tackling climate change. The inclusion in the scheme should therefore only be seen as the first step in addressing the climate change impacts of aviation - complementary policies and measures are absolutely essential and should be taken forward in parallel.

In addition, and to support this response please also find enclosed:

- a joint statement from a number of NGOs (including WWF) outlining the key improvements which need to be made to the Commission's legislative proposal, and the further policies and measures which should be considered (sent separately); and
- a draft report commissioned by WWF from CE Delft which looks at the impact of different levels of auctioning on the emissions reductions within the aviation sector and the profitability of the sector². **Please treat this report as *confidential* as it is currently in final draft form.**

Q1. Should the scope of the scheme be intra EU-only, all departing flights from the EU or all arriving and departing flights from the EU

In order to maximise the environmental effectiveness of the scheme and minimise competitive distortions between airlines all flights arriving in and departing from the EU should be included from the start. Analysis by the Commission confirms that this option would give the biggest environmental benefits, and would not introduce distortional effects in terms of competition

¹ Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading in the Community. Unofficial advance version.

² “Allowance allocation in the EU ETS – the impact on the profitability of the aviation sector under high levels of auctioning” DRAFT final report. CE Delft, May 2007.

between airlines, airports or tourist destinations. We also agree with the UK Government and the Commission that it would not be counter to any international treaties or agreements.

Q2. How will these different scopes impact on aircraft operators? Q3. What is the evidence for any impact?

Including all departing and all arriving flights will minimise competitive distortions as it will ensure that all flights on a particular route are covered by the scheme.

One of the main scenarios modelled in the CE Delft report (the draft of which is enclosed with this submission) was largely based on the Commissions current proposal (although it was assumed that all arriving flights were included in 2011 not 2012). The results for 2012 and 2020³ show that for EU carriers the impact on the profit margins of airlines will be very small, and for non-EU carriers there will be no impact at all (as the EU market only constitutes a small share of the total market).

Q4. What is your view on the scheme commencement date?

We advocate that all flights departing from and arriving in the EU should be included in the ETS from the start of the scheme and that a more ambitious start date of 2010 should be set.

Q5. What is your view on the two staged approach proposed by the Commission?

The Commission's proposal states that intra EU flights will be included in 2011 and that all flights arriving at or departing from an EU airport will be in the scheme by 2012. There is no legal or political justification for this two-step approach, and certainly none on environmental grounds, since an intra-EU scheme would cover only approximately 25% of emissions.

Q6. Should the cap be set at Member State or EU level?

We agree with the Commission and the UK Government that the cap should be set at the EU level. Cap setting at the Member State level is unlikely to lead to a cap which will deliver the emissions reductions necessary to meet post 2012 targets.

Relying on Member States to establish the cap for their industries in the EU ETS lead to significant over allocation in phase I (2005 to 2007). This was evidenced by the carbon price collapse following the release of verified data in May 2006 when it became clear that the scheme was significantly long. The caps proposed by most Member States for the second phase (2008 to 2012) would also crucially, had they been accepted by the European Commission, resulted in an over allocated phase II. Clearly cap setting at the national level is a highly political ball game subject to intense lobbying by the national industries. Indeed, in a report for the European Commission regarding the review of the scheme Ecofys note "*...national decision-making is by definition always more susceptible to national pressures because of the accountability in national elections.*"⁴ The report goes on to say "*.....determining the ambition*

³ With an EUA price of €15 and €45 Euros.

⁴ "Harmonisation of allocation methodologies." October 2006, Ecofys report for the European Commission.

level at the EU level is also likely to be the most effective way to limiting competitive distortions as differences in this level are a major factor in potential distortions.”

Q7. Should the cap be set by reference to emissions in 1990, average 2004-2006, 2008, or an alternative?

Under the Commission’s proposal, the aviation sector will need to cap its emissions to the average level in the years 2004-6. In practice, this means that the cap for the sector is set at 90% above 1990 levels, while the cap for other sectors in the ETS must put the EU on track to meet its’ Kyoto target (an 8% reduction below 1990 levels). If the aviation industry is to play its part in achieving the EU’s declared objective of a 30% cut in greenhouse gas emissions against a 1990 baseline by 2020, the sector’s cap should be set with reference to this date. Indeed we would suggest capping emissions at 1990 levels – stricter than the Commission’s proposal, but still weaker than for other sectors. There should be provision within the revised Directive for the cap for the aviation sector to be reviewed and ratcheted downwards in the future.

The scheme as a whole should also be reviewed after the first two years of operation to ensure it is working effectively. This would allow for improvement to be factored into the scheme.

Q8. Which allocation methodology should be used to maximise efficient and cost effective reductions in emissions? Q9. If auctioning is part of the allocation methodology what is an appropriate level of auctioning?

Auctioning is the most environmentally and economically efficient method to distribute allowances. All allocation methodologies that give allowances for free (grandfathering and benchmarking) will decrease the incentives for airlines to seek to reduce emissions themselves. Full auctioning also provides Member States with a source of additional income which could be used to mitigate and adapt to the impacts of climate change as the Commission suggests.

WWF advocates that 100% of allowances should be allocated by auctioning to the aviation sector.

Indeed the draft CE Delft report referred to previously models the impact of auctioning of allowances to the aviation sector and indicates that:

- Full auctioning offers the most incentives for airlines to reduce emissions themselves. For example the model indicates that under the Commission’s proposal the emissions reductions from the aviation sector would be around 3 or 8.1 Million tonnes of CO₂ (MtCO₂) (based on a carbon price of either €15 or 45 respectively) in 2012. In 2020 the reduction would be 3.5 or 10.2 MtCO₂. Under 100% auctioning the emission reduction from the sector would be doubled in 2012 at 6 or 16.5MtCO₂ in 2012. In 2020 the savings would be 5.8 or 17.7MtCO₂.
- Full auctioning would not unduly damage profit margins – indeed modelling indicates that the impact on the profit margin is very small. Under the Commission’s proposal the model indicates that there would be no reduction in profit margins in 2020 at an EUA price of €15 and only a 0.1% drop at an EUA price of €45 (and this would only apply to EU carriers). With 100% auctioning the profit margin is unchanged at an EUA price of €15 and only reduced by 0.2% at €45 (again this drop only applies to EU carriers).

- Full auctioning would result in an increase in ticket prices because the cost of expenditure on allowances would likely be passed through (see table 1 below). Even under 100% auctioning though ticket price increase is extremely modest. In fact the price of air travel has remained relatively stable for the last ten years, whilst disposable income has risen by approximately 10% over the same period. When put into this broader context the price increase associated with 100% auctioning is negligible.

Table 1: impact on ticket prices in 2020 (in € per round trip) for an allowance price of €15 and €45

	Short haul (Amsterdam to Paris Charles de Gaulle)	Medium haul (Munich to Palma de Mallorca)	Long haul (London Gatwick to Newark)
European Commission proposal (approx. 3% auctioning)	1.1 to 3.3	2.1 to 6.4	9.4 to 28.1
100% auctioning	2.3 to 6.9	4.5 to 13.5	19.8 to 59.4

Q10. If benchmarking is part of the allocation method what is the most effective metric for benchmarking?

It is not just the benchmark metric that is important in determining the environmental outcome but also how it is applied. For example under the Commission’s proposal, the aviation sector will receive the majority of its allowances for free via the use of an updated benchmark. This will be based on an airlines performance, measured in Revenue Tonne Km’s (the metric) in the year ending two years before the start of a trading phase. The draft CE Delft report suggests that this could actually act as a perverse incentive for a five-year periodical price stunting “jubilee year” in air transport is boosted. So in 2008 (two years before aviation is currently due to enter the ETS) airlines might try to maximise the number of allowances they will receive in phase II by reducing their ticket prices and encouraging more people to fly. We further elaborate on this in our response to question 11.

Essentially we consider that there is no perfect benchmark or way to apply the benchmark as perverse incentives are very difficult if not impossible to avoid. Auctioning is clearly the most efficient allocation method and going forward the scheme as a whole must set out a clear path to 100% auctioning. Utilising this method to allocate to airlines will send a clear signal to other sectors that the scheme will continue to develop along this path.

Q11. Do you have evidence to provide on the scope for making windfall profits from free allowances?

Economic theory suggests that the cost of allowances is passed through to the price of the product regardless of whether allowances have been allocated for free or whether they have been purchased, as they represent an opportunity cost. However, in the case of updated benchmarking (as proposed by the Commission) CE Delft’s draft report suggests that there may

also be an opportunity benefit of performing a flight in the benchmark year which cancels out the opportunity cost and means that in this case pass through is not likely to occur⁵. For example in the year on which the benchmark is based the marginal opportunity benefits of performing the flight, in terms of emissions allowances, outweighs the marginal opportunity costs by a factor of five (corresponding to the current five year trading periods). Although the flight may require a certain amount of emission allowances, five times as many allowances can be earned by performing the flight.

However, WWF considers that one off benchmarking or grandfathering (currently not being considered by the Commission) would likely result in cost pass through and hence the generation of windfall profits as there would be no opportunity benefits associated with these allocation methods which might cancel out the opportunity cost. For example the draft report by CE Delft suggests that in 2020, if one off benchmarking was used, the windfall profit could be in the region of €10 billion.

Q12. Should the non-CO₂ emissions of aviation be dealt with in the EU ETS, either by a multiplier applied to CO₂ emissions or by direct measurement of nitrogen oxide emissions, or should they be dealt with by ancillary measures?

The IPCC 1999 Special Report *Aviation and the Global Atmosphere* estimated the climate impact of aviation to be between 2 and 4 times that of its CO₂ emissions alone, due for instance to the emission of oxides of nitrogen (NO_x) at altitude, and the formation of aviation contrails⁶. Although some scientific uncertainty remains as to the exact quantification of these effects, the precautionary principle states that this should not be used as a reason to ignore them.

The non-CO₂ effects of aviation could be dealt with within the ETS, using a ‘multiplier’ on CO₂ emissions, or they could be dealt with outside the scheme, using flanking instruments such as NO_x charges, introduced in parallel. The Commission’s proposal currently states that, by the end of 2008, and after an impact assessment, it will put forward a proposal to address the nitrogen oxide (NO_x) emissions from aviation; there is no mention of a multiplier. While we acknowledge that the multiplier may not be an environmentally-optimum solution, until robust flanking instruments are actually introduced which address the full climatic impact of aviation, a multiplier of at least 2 should be used. As well as generating a stronger demand-side reduction in emissions, such a multiplier would serve as an incentive for the speedy introduction of more tailored instruments.

Any proposal for an instrument to address NO_x emissions should cover en-route NO_x emissions, not just those of the Landing and Take-Off (LTO) cycle (which anyway have a negative impact on local air quality, rather than the global atmosphere), and should be revenue-raising, not revenue-neutral. Failure to meet either of these conditions would be a violation of the principle that the polluter should pay, and should be accounted for by the continued use of an appropriate multiplier within the ETS. Similarly, if there is any delay in the introduction of

⁵ Note that this is not in line with previous CE Delft studies which did not consider in detail the impact of updated benchmarking.

⁶ <http://www.grida.no/climate/ipcc/aviation/index.htm>. The estimate given takes no account of aviation-induced cirrus clouds, which could potentially have a large warming effect.

measures to address other non-CO₂ impacts beyond aviation's inclusion in the EU ETS, a multiplier should be used until such times as these measures may come into force.

Q17. We welcome comments on the links with Kyoto credits

Why “supplementarity” matters

“In accordance with the relevant provisions of the Kyoto Protocol and Marrakesh accords, the use of the mechanisms should be supplemental to domestic action and domestic action will thus constitute a significant element of the effort made”⁷

Under the Commission's proposal, which seeks to amend the EU ETS Directive, the aviation sector will be able to use project credits from the Joint Implementation or Clean Development Mechanisms (JI/CDM) to meet their compliance requirements up to the average of the percentage in accepted Member States plans for phase II and that this should continue to be the case going forward. However, despite the European Commission's attempt to assess whether the limits proposed in National Allocation Plans are in compliance with the “supplementarity” principle there are strong indications that access to JI/CDM in phase II will be significant and constitute a far greater proportion of the emissions reductions than the principle implies. For example an assessment of the first 12 plans to be ruled on indicated that approximately 85% of the emissions reductions required under the combined cap could be met with JI/CDM credits⁸.

We realise that importing credits could make it cheaper for EU industry to reduce emissions. But access to significant volumes of credits from overseas could disincentivise investment in clean technology development in the EU and slow down innovation. Indeed, it could help to “lock in” decisions on high-carbon infrastructure which would have a significant impact on EU emissions for many years to come. With regards to aviation the Commission recognises that it is likely to be a net buyer of credits, meeting its compliance requirements through funding emissions reductions outside the sector, rather than making significant reductions within the sector. Access to significant volumes of credits could therefore further disincentivise emissions reductions within the sector itself. Clearly this is not in line with the objective of the Directive which is to “.....reduce the climate change impact attributable to aviation by including emissions from aviation in the Community scheme.”⁹

The developed world is responsible for the majority of greenhouse gas emissions and the ETS has a clear role to play in putting the EU, a major player in global climate change negotiations, on a low carbon trajectory. The scheme will not achieve this if it continues to transfer the majority of the responsibility for tackling climate change to the developing world, thereby allowing the sectors within the scheme to simply buy their way out of the problem.

Emissions reductions and sustainable development

The CDM has two aims – to assist countries with emissions reduction targets in meeting those targets by using credits generated from the developing world, and to help developing countries

⁷ EU ETS Directive, 13 October 2003

⁸ ENDS Europe Daily 2252, 31 January 2007 “Tough carbon trading caps “cheaper in the long run””

⁹ Directive of the European Parliament and of the Council amending Directive 2003/873EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading in the Community. Unofficial advance version.

achieve sustainable development. The former aim relies on proving that projects are additional to what would have happened in the absence of the carbon markets. If projects would have happened anyway then there is no added benefit for the environment. WWF is concerned that approval of a project by the CDM Executive Board, however, does not currently guarantee additionality. So, access to significant volumes of JI/CDM credits in the ETS, combined with weak rules on additionality could mean that very little real abatement actually takes place anywhere as a result of the scheme.

Furthermore we are concerned that sustainable development is often overlooked - a situation which has likely been exacerbated by the fact that the CDM Executive Board does not provide common criteria for a project's contribution to development, it merely requires compliance with legislation/guidance in the project host country.

Both of these issues were highlighted in a recent Channel 4 News report (7 February 2007)¹⁰ which focussed on two projects in India. The first - the Shree Bajrang waste-heat recovery project in Raipur which is housed within a sponge iron plant that is suspected of polluting the soil and water in the area. The second, another waste heat recovery project, in a steel plant in Karnataka state where it is purported that the technology to recover heat would have been installed regardless of the existence of the carbon market. Worryingly an advisor to the CDM Executive Board, Dr Axel Michaelowa, told the programme that he thought one third of the 50 projects he had surveyed in India were not additional.

Non-CO2 projects

Another concern is that at present the CDM is dominated by cheap, numerous credits generated from projects to reduce industrial greenhouse gases such as the potent HFC-23. The argument is often put forward that such industrial gas projects are the "low hanging fruit" which offer quick, cheap, emissions abatement opportunities that will in the long run be replaced by the more expensive renewable energy and energy efficiency projects. However, until credits from these projects run out they will continue to divert funds away from tackling the real challenge – the drive towards a low carbon energy system. Indeed a recent article in Nature¹¹ indicated that it would cost around €100 million to install scrubbers onto the existing factories producing HFC-23 in the developing world. Yet the same factories look set to make €4.7 billion from the sale of credits into the carbon market - funds which could have been much better spent in assisting the rapidly industrialising countries develop along a lower carbon pathway, and giving access to energy to some of the world's poorest people.

Further media coverage has fuelled NGOs increasing concerns around all of these issues¹².

It is therefore of vital importance that beyond 2012 a robust interpretation of supplementarity should be adopted and implemented in harmonised way across the whole of the EU ETS to ensure that the overwhelming majority of emissions reductions take place within the EU. Furthermore, to ensure that projects really are additional, have a positive sustainable

¹⁰ http://www.channel4.com/news/articles/business_money/carbon+trading+not+cutting+co2/191945#fold

¹¹ Nature, volume 44518, February 2007 "Is the global carbon market working?"

¹² For example see the series of articles in the Financial Times in April/May 2007

(<http://www.ft.com/indepth/carbontrading>)

development impact, and contribute towards a drive towards a low carbon economy - we also recommend that in the future the use of project credits within the EU ETS is limited to those certified by the Gold Standard¹³.

In addition, when aviation joins the scheme in phase II a stricter limit than that currently proposed by the Commission should be placed on its direct access to project credits such that the vast majority of the emissions reductions it is required to make take place within the EU. Also, the sector should only be allowed to purchase credits from Gold Standard certified projects.

Q18. Should a gateway system be considered for the aviation sector? Q19. If a gateway system is applied how should it function?

WWF agrees that there should be a gateway that allows no net flow of aviation allowances from and to the main pool of allowances. This would ensure that any allowances that did flow from the aviation sector to the main pool could be backed by AAUs and would hence be eligible to use for compliance with the scheme. Furthermore, we would argue that this should be extended to cover the flow of all allowances e.g. there should be no net flow of allowances from the main pool to the aviation sector. The sector would be able to buy from the other sectors as long as the same number of Kyoto-backed allowances and not more were sold back. After 2012 this arrangement could potentially be revised if emissions from aviation are included in future international emissions reduction targets.

If this were not deemed acceptable then as a minimum a restriction should be placed on aviation's access to the main pool of allowances. For example a cap could be placed on the percentage of EUAs that airlines were allowed to buy in order to aid compliance

Q20. Which entity should be responsible under the scheme to ensure cost effective emissions reductions?

As per the Commission and UK Government view we agree that the responsible entity should be the aircraft operator.

For further information relating to this response please contact Kirsty Clough, Climate Change Policy Officer, WWF-UK (tel: 01483 412570, email: Kclough@wwf.org.uk).

¹³ <http://www.cdmgoldstandard.org>. The Gold Standard is an independent, transparent, internationally recognised benchmark for "high quality" carbon offset projects. This standard is restricted to renewable energy and end use efficiency projects, requires projects follow a conservative interpretation of the UNFCCC-additionality test and to provide evidence by a UNFCCC-accredited independent third party that they are making a real contribution to sustainable development.