

European and ICAO measures compared

How Europe's ETS and ICAO's global measure compare over 2021-2035

December 2016

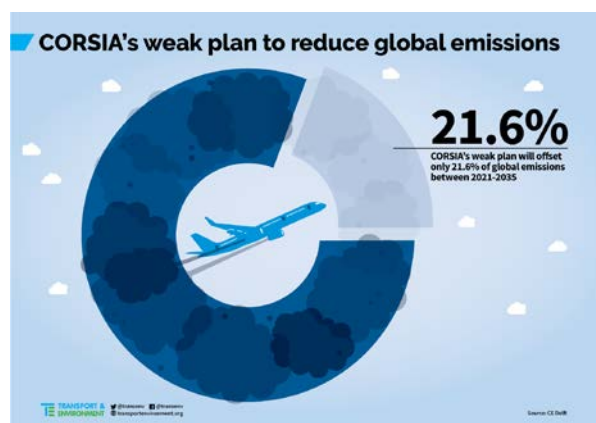
Summary

Now that ICAO has reached agreement on its global measure, it's possible for the first time to compare emission reductions under this scheme and Europe's emissions trading system (ETS). Independent research commissioned by T&E and conducted by CE Delft has found that ICAO's measure will deliver fewer emission reductions than the EU ETS, particularly when applied to flights within Europe. The EU must now reconsider its strategy of entirely outsourcing aviation climate ambition to ICAO.

Aviation is responsible for an estimated 4.9% of global warming and its emissions are expected to grow by 300% by 2050 unless action is taken. In Europe, aviation has grown from 1.4% to 4.5% of the bloc's emissions, while Europe is responsible for 10% of global emissions but 18% of global aviation emissions. Europe's climate inaction on aviation must end.

1. What ICAO's agreement will deliver

After many years of delay, the UN's International Civil Aviation Organisation (ICAO) recently agreed to establish a global market based measure for international aviation emissions – the Carbon Offset and Reduction System for International Aviation (CORSIA). This aims to stabilise emissions at 2020 levels



through offsetting. Offsetting involves a payment to another sector of the economy to reduce its emissions, in lieu of the aviation sector reducing its own. However the measure adopted failed to achieve even this weak 2020 target, as it is voluntary and many countries have chosen not take part. This means the international aviation sector is making a very weak contribution to the objectives of the Paris Agreement.

The CE Delft report finds that, because of this weak target, just over one-fifth of emissions will be will be offset over the 2021-2035 period. However that figure is a maximum: unless there are strict rules as to which types of offsets are permitted, it's possible that airlines will be able to purchase cheap offsets which in fact deliver no real-world emission reductions. The agreement adopted by ICAO contains no such rules, leaving it to further discussions to resolve. Experience to date has shown that international carbon markets are replete with questionable offsets, providing a high risk that even this one-fifth offset target won't actually be met.

2. The effectiveness of aviation in Europe's ETS

Europe launched its Emissions Trading Scheme in 2005 and included all flights within and to and from Europe from 2012. This step was taken after ICAO repeatedly failed to act, but faced immediate resistance from industry and other states who preferred inaction for what was, and remains, and intense and rapidly

growing driver of climate change. Under such pressure, the EU relented and agreed to suspend flights to and from Europe from its ETS, leaving only flights within Europe (intra-EU) in the system.

This report has found that, for the limited scope of aviation activity it covers, EU ETS is functioning. Over the period 2013-2015 it was responsible for mitigating 68.3 million tonnes of emissions. However substantial issues remain concerning the overall environmental effectiveness of EU ETS, in particular the huge surplus of allowances which have built up. Therefore aviation's inclusion in EU ETS will only achieve its full potential when effective reforms are introduced to ETS during its 2021-2030 4th trading period.

The CE Delft report has found that ETS could deliver substantial emission reductions from 2021-2035 (the same period envisaged for CORSIA). A reformed ETS would include addressing its surplus of allowances, but also introducing a declining cap for the aviation sector. At present, while the overall ETS cap declines, the separate aviation cap remains static. With a declining cap the emission cuts from the ETS are even greater.

3. CORSIA and EU ETS compared

With participation and ambition of the ICAO measure now clear, it is possible for the first time to make a comparison between the emission reductions that can be delivered through ICAO and through regional measures such as EU ETS. As the image below indicates, full scope EU ETS would deliver the greatest emission reductions. While this may surprise some, the reason is simple. While CORSIA covers more flights



(all those two and from participating states), its ambition of stabilizing emissions at 2020 is much, much less than the EU ETS ambition of stabilizing emissions at 2004-2006 levels and then declining 2.2% per annum. The greater ambition of EU ETS trumps the greater scope of CORSIA.

Another scenario analyzed by CE Delft is one where EU ETS applies '50:50'. That means it covers all flights within Europe, and 50% of the emissions from all flights to and from Europe. Even with such a reduced scope, CORSIA only slightly edges ahead (2,711MT versus 2,422MT).

In comparing EU ETS and CORSIA, the CORSIA figures presume 100% compliance and that 100% of offsets have environmental integrity. Neither of these scenarios are likely.

4. Recommendation for policy makers

It is now clear that global action alone won't be enough to address aviation's climate impact. Even if ICAO achieved its goal of stabilising emissions at 2020 levels, that would fall 55% short of the Paris Agreement's 2°C target. This is because global measures, made to accommodate over 190 states, will only ever achieve lowest-common-denominator levels of ambition.

For too long industry and some states have been extremely dismissive of regional action, claiming that global is always better. This report debunks that myth. An ambitious path would have minimum global action led by ICAO, but with developed regions such as the EU adopting more ambitious measures including retaining the EU ETS. This would also help drive innovation and efficiency savings in the sector which are not currently unlocked and won't be driven by the ICAO CORSIA.

Further information

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