Can this ICAO Assembly deliver on its promises for green aviation?

The 42nd ICAO General Assembly will take place 23rd September till 3rd October 2025. The International Civil Aviation Authority (ICAO) will present reports on how work is progressing on the Long Term Aspirational Goal. This provides a good moment to reflect on whether ICAO can contribute to a greener aviation sector, especially with its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). A new T&E and Carbon Market Watch analysis found that:

- **CORSIA will offset just 26% of EU aviation's CO_2 emissions by 2035.**
- **CORSIA offsets could cost European aviation €7-43 billion over the next 10 years.**
- **This money will be spent on offsetting projects with minimal benefit for the climate or local communities.**
- **Extending the scope of the EU Emissions Trading System to cover all departing flights from 2027 could raise an extra €147 billion by 2040.**

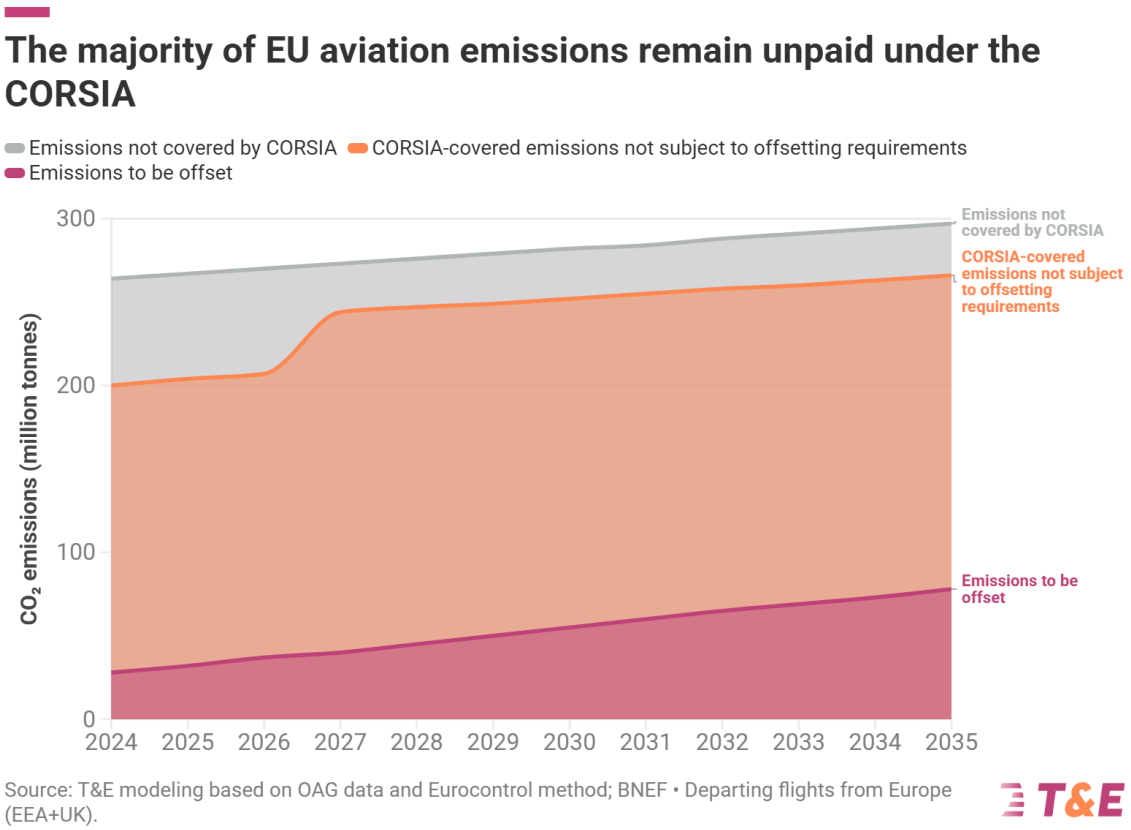
Europe must act now: strengthen the EU ETS to cover all departing flights and secure real climate gains, not empty offsets.

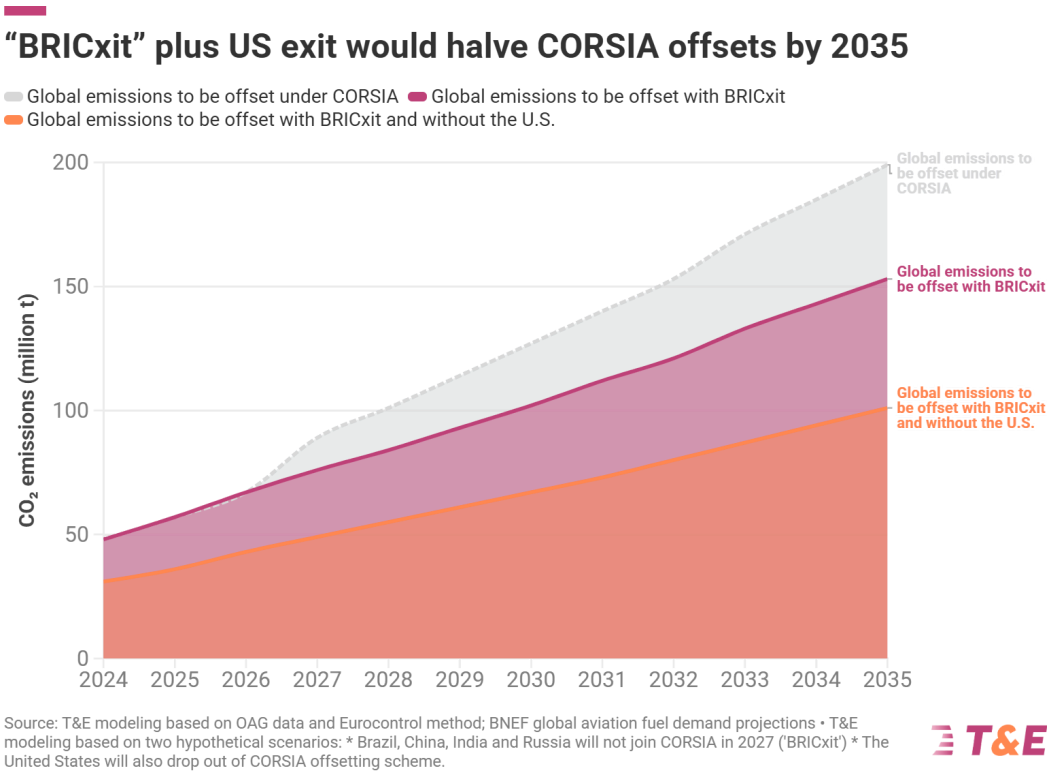
ICAO: an intransparent UN body with limited binding regulatory power

Concerns about ICAO are well documented. In their recent analysis, green group InfluenceMap finds that there is a high level of industry capture, with ICAO meetings sponsored by large fossil fuel companies and airlines and aviation industry delegates outnumbering green groups by 14 to 1 at meetings. This industry influence is combined with limited transparency: key meeting documents are not publicly available and participants are required to sign non-disclosure agreements to participate.

It therefore comes as little surprise that the climate measures introduced by ICAO have limited impact. At the last ICAO General Assembly in 2022 much noise was made about the introduction of a CO_2 emissions reductions goal. However, this is only an 'aspirational goal' which explicitly "does not attribute specific obligations or commitments" to member states. It is purely symbolic, with no enforcement mechanisms.

ICAO's scheme to "stabilise" emissions - CORSIA - is similarly weak. It crucially only applies to the growth in aviation emissions (above a baseline of 85% of 2019 emissions). This means that the scheme will cover just 26% of EU aviation's CO_2 emissions by 2035, T&E finds. Globally, there are also still questions remaining about key aviation markets participating: China, Brazil, Russia, India and the USA have not currently implemented CORSIA into national law.





Furthermore, a scheme that relies on offsets with questionable environmental integrity cannot deliver on reducing the aviation sector's emissions. T&E's previous briefing explores why a carbon market for aviation (such as the EU ETS) is a much more effective mechanism to reduce aviation emissions.

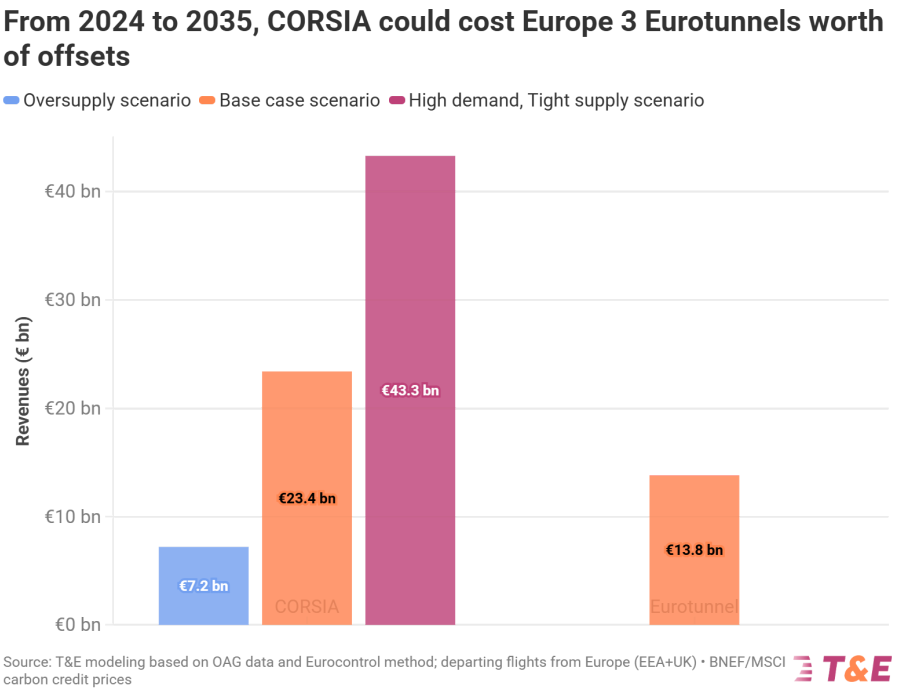
New analysis: CORSIA will cost European aviation billions in dodgy offsets

T&E and Carbon Market Watch have conducted a new analysis, analysing the money that could be spent on CORSIA offsets over the next 10 years and looking at a case study of the problems with the main (and currently) **only source of CORSIA eligible credits on the market**.

There is still much uncertainty around how much CORSIA credits will ultimately cost, with some reports suggesting a risk of higher prices than initially anticipated due to an undersupply of credits. On the flip side, if the USA or other markets like China do not implement CORSIA, for example, then an oversupply of credits could

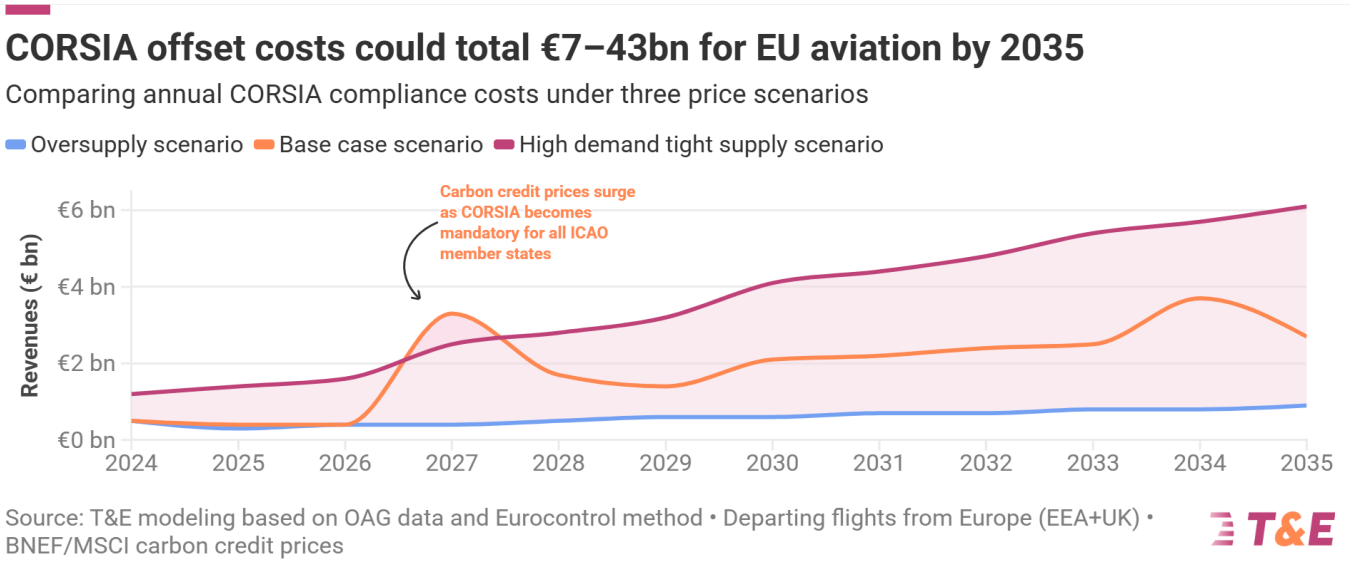
be expected. T&E therefore modelled three different scenarios: an oversupply, a base case and an undersupply scenario.

The analysis found that CORSIA could cost European aviation - i.e. airlines and aircraft operators - between 7 and 43 billion euros over the next ten years,

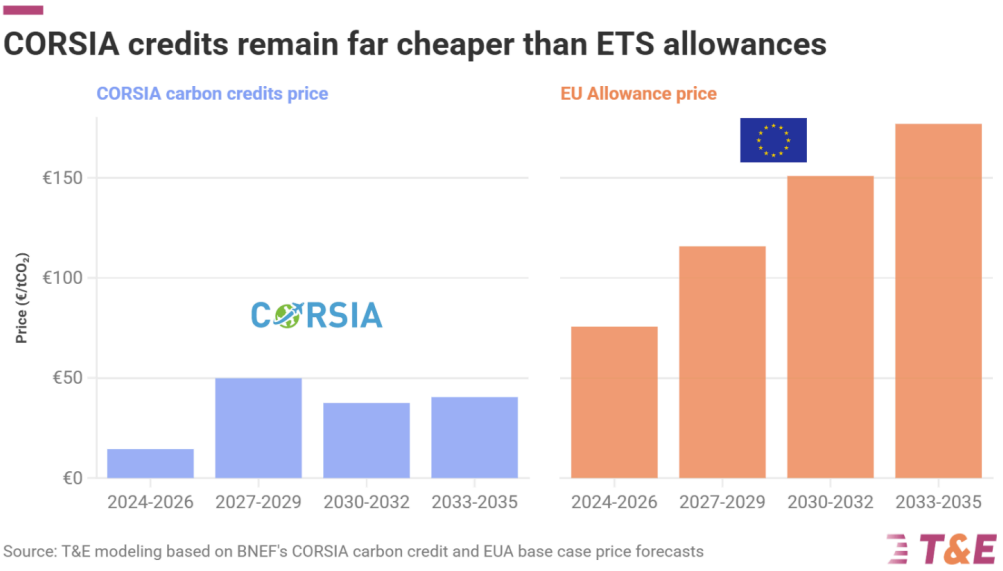


depending on the number of states participating and the amount of accredited offsetting projects. This is nearly triple the cost of building the Eurotunnel.

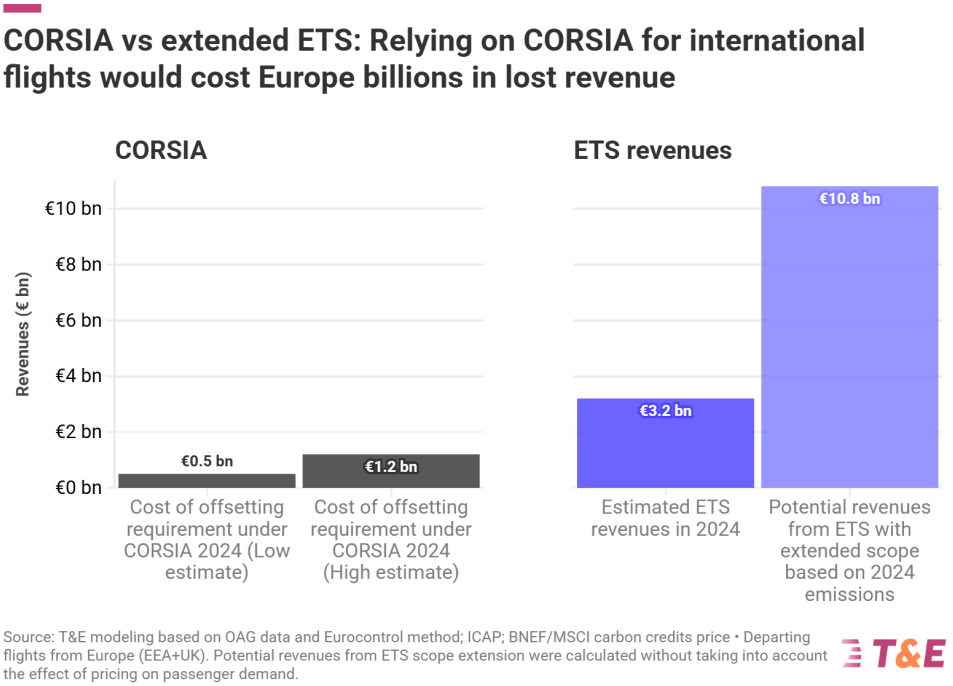
The yearly costs will already hit the billions in 2030: €2.1 billion in the base case scenario and €4.1 billion in the high demand scenario. These costs are expected to rise further in the following years as both emissions and prices increase.



That being said, CORSIA credits still remain far cheaper than EU ETS allowances. This means that CORSIA still fails to provide a real incentive for aviation to decarbonise. In contrast, a cap and trade system like the EU ETS sets a hard limit on emissions and makes polluters pay.



This also means that relying on CORSIA and not extending the EU ETS will cost Europe billions in lost revenues - revenues that could have been reinvested in Europe. For 2024, T&E calculated that extending the scope of the EU ETS to cover long haul flights could have unlocked an extra €7.5 billion (on top of the €3.2 billion generated with the current scope) - revenues much needed to finance green aviation technologies such as e-fuels. Carbon Market Watch found that a scope extension from 2027 could raise an extra €147 billion by 2040.



Instead, Europe is relying on CORSIA offsets that do not even guarantee emissions reductions. Several carbon credit programmes can generate credits eligible under CORSIA, but only one has passed through all the necessary steps to make credits available on the market: the ART TREES programme in Guyana. These credits set a bleak precedent for what the future of CORSIA looks like. The Guyanese programme allows for a so-called 'high forest cover and low deforestation rate' (HFLD) adjustment. This means that additional credits are awarded to countries that go beyond their historical deforestation reference levels. This naturally creates a real risk of intentional inflation: one HFLD credit does not actually represent a tonne of reduced CO_2 emissions.

Analysis shows that 84% of the credits issued by the ART TREES programme to Guyana from 2016 to 2020 were the result of the artificial HFLD adjustment. Moreover, this adjustment method is still used for carbon credits issued under the ART TREES programme in Guyana, from 2021 through today, leading the UN review team under Article 6 of the Paris Agreement tasked with assessing the quality of these credits to conclude that "such [HLFD] upward adjustments do not constitute a conservative baseline or a level below 'business as usual'." Only a small portion of the credits issued by the offsetting programme in Guyana represent real and additional emission reductions, which is hugely problematic given they are being used to satisfy CORSIA compliance.

Furthermore, a large question remains as to who truly benefits from the sale of CORSIA offsetting credits. Carbon Market Watch found that there is a lack of public data on how much of the price paid by the final buyer of a credit actually reaches the carbon credit project as well as Indigenous Peoples or local communities that may be involved on or impacted by it. An unknown, and rarely disclosed, portion of the money spent on carbon credits is 'captured' by intermediaries as fees, mark-ups or speculation. Because buyers (i.e. airlines in the case of CORSIA) do not insist on clarity over how payments are distributed, project developers or local communities have little information or leverage. As a result, when market prices rise, the money may not necessarily flow proportionately to the local communities doing the climate mitigation work, but rather to the intermediaries.

This was highlighted in a Bloomberg investigation, which found that BP paid local communities in rural Mexico a fraction of the price their credits actually fetched on the market, raising questions about who is truly profiting in a market where there are no standardised rules regarding transparent disclosure of contracts and 'benefit-sharing arrangements'. The problem is exacerbated by the fact that while many offsetting programmes are based in lower-income, developing or least developed countries, the companies that own or manage them are overwhelmingly based in high or very high development countries. Therefore, much of the decision making, value capital and profit does not accrue in the local communities in the Global South the offsets are meant to benefit.

CORSIA offsetting credits present a real risk of not helping the climate or the local communities they are supposed to help. Why would European aviation risk throwing away billions of euros on them?

Instead, Europe needs to focus on real solutions such as extending the EU Emissions Trading System to cover long haul flights.

Further information

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Methodological note

Introduction

We estimated the cost of airlines' offsetting requirements under ICAO's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). The analysis covers flights departing from the European Economic Area and the United Kingdom (hereafter referred to as 'EU31') between 2024 and 2035.

We compiled aircraft movements from the OAG flight schedule data. Emissions are calculated per flight segment using Eurocontrol's method, which applies a CO_2 emission factor for kerosene to the estimated fuel burn for each aircraft type and route length.

Offsetting requirements

CORSIA obligations apply in stages. Until 2026, CORSIA offsetting requirements will only apply to international flights between participating states that have volunteered to take part in the pilot or first phases. From 2027, all international flights between non-exempt ICAO member states will be included.

Our estimates reflect the expected timeline of countries joining the scheme. We assume all non-exempt and volunteering states will take part, including China, Russia, India and Brazil, which have not yet volunteered. By 2027, this would mean 134 participating countries. In contrast, we assume that currently exempt states remain exempt throughout the period.

We applied CORSIA's eligibility rules to CO_2 emissions at operator level. A given operator's emissions are only included within the scope if they meet one of the following two criteria: (i) their annual emissions from international flights within CORSIA's scope exceeded 10,000 tonnes three years earlier; or (ii) their total CO_2 emissions from international flights represented more than 0.1% of global international aviation emissions in 2019 the year before.

For the offsetting requirement calculation we followed ICAO's methodology. The system gradually shifts from being entirely sector-based to a mix of sectoral and individual components (85%-15%) by 2033. We calculated the two components of the formula as follows:

- **A sectoral component**: state-pair emissions from CORSIA-eligible airlines departing EU31 airports, multiplied by a sectoral growth factor. This factor reflects how much global aviation emissions exceed the baseline, set at 85% of 2019 emissions between participating states.

- **An individual component:** the difference between each CORSIA-eligible airline's state-pair annual emissions for departing EU31 airports and its 2019 baseline (again, 85% of the airline's emissions in 2019 on the same state-pairs).

Traffic and fuel projections

We used 2024 OAG traffic data and BloombergNEF's global aviation fuel demand outlook to project international emissions.

We project 2024-2035 EU passenger aviation growth using the central values of Airbus and Boeing forecasts, adjusted with the European Commission's assumptions on energy-efficiency improvements as documented in a previous T&E report. Fuel demand reflects the RefuelEU Aviation mandates on sustainable aviation fuels (SAFs). We assume all biofuels deliver an 85% greenhouse gas reduction compared to fossil kerosene.

CORSIA cost calculation

We calculated the projected European costs of CORSIA compliance for 2024–2035 by multiplying projected offsetting requirements for EU31 flights with carbon credit prices under three scenarios:

Scenario	Carbon credit price range	Source
Oversupply of credits, low prices	13 - 22 $/tCO$_2$e	BloombergNEF
Balanced supply and demand, mid prices	22 - 40 $/tCO$_2$e	BloombergNEF
Tight supply of credits, high prices	51 - 91 $/tCO$_2$e	MSCI