



CORSIA

Fact sheet

Background

In 2016, the International Civil Aviation Organization (ICAO) adopted the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) to address CO₂ emissions from international aviation. This historic decision marks the first time an entire industry sector has agreed to a global market-based measure in the climate change field.

The international standards for the implementation of CORSIA were adopted as an Annex to the Chicago Convention, and they apply to all of ICAO's 193 member States from 1 January 2019.

In 2021, airlines committed to reaching net zero carbon emissions by 2050. Governments followed suit at ICAO's 41st Assembly by adopting a Long Term Aspirational Goal for aviation. Achieving this ambitious goal will require both in-sector measures, including continued investment in new technologies and strong support mechanisms for the deployment of sustainable aviation fuel, as well as out-of-sector measures, such as offsetting and carbon removals – and supporting policies from governments.

On 1 January 2024, CORSIA started its First Phase, during which the total number of participating States amounted to 126 and the offsetting requirements kicked off. Three more States (Comoros, Mauritania, and Saint Lucia) will participate in CORSIA from 1 January 2025, bringing the total number of participating States to 129.

CORSIA baseline

Originally, the CORSIA baseline – from which airline offsetting requirements under the agreement are calculated – was agreed to be an average of 2019 and 2020 emissions from international aviation. However, in 2020, the COVID-19 crisis caused a precipitous decline in demand for air transport. For example, the Revenue Tonne Kilometres (RTK) from international air traffic in 2020 dropped by almost 60% from 2019. As a result, the CORSIA baseline would have been significantly reduced, imposing an unexpected and severe economic burden on an already extremely weakened airline industry and contravening the spirit of the CORSIA framework agreed in 2016.

Therefore, in June 2020, the ICAO Council agreed to use 2019 emissions only as CORSIA's baseline for the period of 2021–2023. In October 2022, at its 41st Assembly, ICAO set 85% of 2019 emissions as CORSIA's baseline from 2024 until the end of the scheme in 2035: a significantly more ambitious target than originally planned, which the industry supported.

Mitigating CO₂ emissions

Offsetting is an action by a company or individual to compensate for their own emissions by financing a reduction in emissions realized by another party. Offsetting and carbon markets are fundamental to global, regional, and national emissions reduction policies. They have operated for decades for compliance purposes, and for achieving voluntary emissions reductions, and continue to be an effective mechanism to underpin action against climate change, especially in hard-to-abate sectors.

The airline industry is committed to advances in technology, operations, and infrastructure to continue to reduce its carbon emissions. Offsetting is but one of the necessary levers on the way to achieving net-zero CO₂ emissions in 2050. CORSIA will help air transport achieve its climate targets in the short- and medium-term by complementing emissions reduction initiatives within the sector, notably the replacement of fossil-based jet fuel with sustainable aviation fuels.

Environmental integrity

There are several ways to achieve CO₂ reductions that can be used as offsets, many of which bring other social, environmental, or economic benefits relevant to sustainable development. Such offsets can be sourced from various types of activities, including, for example, the deployment of renewable energy, clean cooking technologies, methane capture, forestry, and other emissions-reducing projects.

To ensure the environmental integrity of CORSIA, the ICAO Council periodically approves a list of programs that can supply CORSIA Eligible Emissions Units (EEUs) to be used for compliance. The Council's decision is informed by a recommendation from the Technical Advisory Body (TAB) and guided by environmental criteria ([ICAO CORSIA Emissions Units Eligibility Criteria](#)) to guarantee that emissions units deliver the required CO₂ reductions.

The criteria are based on principles commonly applied under existing trading mechanisms and well-accepted carbon offset certification standards:

- A key requirement is that the greenhouse gas reduction or removal used as an offset be "additional" to business-as-usual activity. Offsets must also represent a permanent reduction of emissions that cannot be reversed. Similarly, an activity that generates offsets should not result in unintended increases in emissions elsewhere.
- To quantify the greenhouse gas (GHG) reduction benefits from an offsetting project, a baseline must be determined to represent what would have happened if the project had not been implemented. Emission reductions will need to be quantified using accurate measurements, valid protocols, and audited.
- Programs will need to demonstrate that they have procedures in place to track units and to avoid emissions reductions being counted more than once towards attaining climate change mitigation.
- Emissions unit programs will also need to have safeguards in place to address environmental and social risks.
- To prevent double claiming, eligible programs should require and demonstrate that host countries of emissions reduction activities agree to account for any offset units issued as a result of those activities, such that double claiming does not occur between the airline and the host country of the emissions reduction activity.

Reporting of emissions

Under CORSIA, all airline operators with annual emissions greater than 10,000 tonnes of CO₂ are required to report their emissions from international flights on an annual basis since 1 January 2019.

Operators must keep track of their fuel use for each individual flight in order to calculate their CO₂ emissions. They will have to apply one of the five approved fuel use monitoring methods. In certain circumstances, however, operators may be eligible to use simplified monitoring and estimate their emissions using the CO₂ Estimation and Reporting Tool (CERT), developed by ICAO as part of CORSIA.

To guarantee the accuracy of the data reported by operators, annual emissions reports will need to be verified by an impartial third-party verification body, prior to submission to the State. Aggregated emissions will be communicated by States to ICAO, which will publish the total emissions from individual operators, and total emissions by all operators aggregated by each state-pair.

According to the ICAO CORSIA Central Registry, in 2024, 121 States submitted their 2023 CO₂ emissions, increasing its coverage to a [historic record of 99% of total CO₂ emissions](#).

Offsetting requirements and status quo

Offsetting requirements under CORSIA began in 2021. Upon completion of each 3-year compliance period, operators will have to demonstrate that they have met their offsetting requirements by canceling the appropriate number of emissions units.

Considering the special circumstances and respective capabilities of States, ICAO member States agreed to implement CORSIA offsetting requirements in phases.

- From 2021 until 2026 (pilot phase from 2021 to 2023; and First Phase from 2024 to 2026), only flights between States that volunteer to participate in CORSIA will be subject to offsetting requirements. CORSIA participating states for 2025 are identified in green on the map below.
- From 2027, all international flights will be subject to offsetting requirements. However, flights to and from Least Developed Countries (LDCs), Small Island Developing States (SIDS), Landlocked Developing Countries (LLDCs), and States that represented less than 0.5% of global international RTK in 2018 will be exempt from offsetting requirements unless these States participate voluntarily. States from/to which flights are expected to remain exempt after 2027 are shown in yellow on the map below.

Given the design of CORSIA, actual offsetting requirements under the scheme are expected to only begin from the year 2024 (marking the beginning of the First Phase). ICAO has published the document "CORSIA Annual Sector's Growth Factor (SGF)", which confirms that no offsetting requirements have been accrued for 2021, 2022 and 2023 given that the SGF₂₀₂₁, SGF₂₀₂₂ and SGF₂₀₂₃ value was 0. Therefore, no total final offsetting requirements have been accrued for CORSIA's pilot phase.

According to IATA's projections (dated September 2024), the demand for CORSIA EEU's in the first phase (from 2024 to 2026) is expected to lie between 107 and 161 million units. However, one of the most significant barriers to CORSIA compliance in its First Phase concerns the delay in the issuance of letters of authorization (LoA) and performance of the ensuing "corresponding adjustments".

Efforts to upscale the supply of CORSIA EEUs

Essentially, the issuance of the LoA/attestation statements and performing the triggered “corresponding adjustment” is a process that must be conducted by a “host country” (the country where the CORSIA EEUs are generated) to address the concern regarding double claiming. This is to ensure that host countries do not count emissions reductions claimed by aircraft operators under CORSIA towards their national pledges under the UNFCCC’s Paris Agreement (through the Nationally Determined Contributions – NDCs). Airlines are trying to ensure that the EEUs they purchase are not included in the host country’s registry, which is the responsibility of the eligible programs. However, the programs are currently hesitant to vouch for this, partly due to host countries’ lack of awareness about how or their reluctance to put in place the required infrastructure and perform this procedure.

The example set by Guyana represents a landmark event, effectively unlocking the market availability of CORSIA EEUs, and demonstrating that Article 6 of the Paris Agreement has processes in place that enable the issuance of LoAs as well as the corresponding adjustments to ensure no double claiming.

While more programs are advancing their efforts applying to become CORSIA eligible, considering the quantum of this demand and noting that the 4.64 million credits available from the Guyana project are not solely intended for use under CORSIA, there is a need to accelerate efforts by host countries to issue LoAs and to conduct corresponding adjustments. It must be noted in this context that airlines are obliged by States to purchase EEUs, but that the States themselves have optionality regarding whether to release the credits to the airline industry or whether to keep them for their own NDC purposes, or indeed whether to pass them on to another country or organization.

Significant progress was made on Article 6 of the Paris Agreement, including agreement on the guidelines for the cooperative approaches under Article 6.2 and the finalization of rules, modalities, and procedures of Article 6.4 mechanism, providing more clarity for host countries to conduct corresponding adjustments and issue CORSIA EEUs. At UNFCCC COP29, IATA, together with Article 6 Implementation Partnership (A6IP), International Emissions Trading Association (IETA), and the Air Transport Action Group (ATAG), produced a [Guidance Document for Host countries concerning the issuance of CORSIA Eligible Emissions Units \(EEUs\)](#). This provides UNFCCC States with a comprehensive overview of CORSIA emissions unit criteria, highlighting their responsibility to implement corresponding adjustments to guarantee the environmental integrity of CORSIA EEUs. It outlines the essential steps involved in issuing LoAs and performing the corresponding adjustments, considering the recently adopted operational rules of Article 6 of the Paris Agreement. A Letter of Authorization [template](#) is also available.

IATA CORSIA Handbook

The [IATA CORSIA Handbook](#) is intended to provide information to airlines regarding the main elements of CORSIA and the requirements to comply with the scheme.

