



Fact sheet: CORSIA

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 is the first time that a single industry sector has agreed to a global market-based measure in the climate change field. The industry first proposed this measure in 2009 and has supported the ICAO process ever since.

The international standards for the implementation of CORSIA have in the meantime been adopted as an Annex to the Chicago Convention, which all of ICAO's 193 member states must apply from 1 January 2019.

Mitigating CO₂ emissions

CORSIA aims to stabilize net CO₂ emissions from international civil aviation at 2020 levels.

The aviation sector is committed to advances in technology, operations and infrastructure to continue to reduce the sector's carbon emissions. Offsetting is not intended to replace these efforts. Nor would CORSIA make fuel efficiency any less of a day-to-day priority. Rather, CORSIA can help the sector achieve its climate targets in the short and medium term by complementing emissions reduction initiatives within the sector.

The aviation sector is also committed to reduce its net CO₂ emissions to half of what they were in 2005, by 2050. Achieving this ambitious goal will require continued investment in new technologies and strong support mechanisms for the deployment of sustainable aviation fuels.

Offsetting is an action by a company or individual to compensate for their emissions by financing a reduction in emissions elsewhere. Offsetting and carbon markets are a fundamental component of global, regional and national emissions reduction policies. They have operated for decades for compliance purposes and voluntary emissions reductions and continue to be an effective mechanism to underpin action against climate change.

Environmental integrity

There are many 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 project activities, including, for example, wind energy, clean cook stoves, methane capture, forestry and other emissions-reducing or avoidance projects.

To ensure the environmental integrity of CORSIA, the ICAO Council will adopt a list of emissions units that can be used for compliance. The Council's decision will be informed by a recommendation from the Technical Advisory Body and guided by environmental criteria to guarantee that emissions units deliver the desired 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 reduction benefits from an offsetting project, a baseline must be determined to represent what would have happened if the project had not been implemented. Emissions reductions will need to be quantified using accurate measurements, valid protocols, and be audited.
- Emissions Units Programs will need to demonstrate that they have procedures in place to track units and to avoid that an emissions reduction is counted more than once towards attaining climate change mitigation.
- Emissions units programs will also need to have safeguards in place to address environmental and social risks.

It is forecast that CORSIA will mitigate around 2.5 billion tonnes of CO₂ between 2021 and 2035, which is an annual average of 165 million tonnes of CO₂. This is equivalent to the annual CO₂ emissions from the Netherlands, all sectors included.



Reporting of emissions

All operators with annual emissions greater than 10,000 tonnes of CO₂ are required to report their emissions on an annual basis, with monitoring starting from 1 January 2019 (international flights only).

Operators must keep track of their fuel use for each individual flight in order to calculate the 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 CERT, an estimation tool developed in ICAO.

In order to guarantee the accuracy of the data reported by operators, annual emissions reports will need to be verified by an independent third-party verification body, prior to submission to the state. Verification bodies will have to be accredited to ISO 14065 and CORSIA-specific requirements.

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 on each state-pair.

Offsetting requirements

Offsetting requirements will apply from 2021. At the end of each 3-year compliance period, operators will have to demonstrate that they have met their offsetting requirements by cancelling the appropriate number of emissions units.

In order to take into account the special circumstances and respective capabilities of states, ICAO member states agreed to implement offsetting requirements in phases.

- From 2021 until 2026, only flights between states that volunteer to participate in the pilot and/or first phase will be subject to offsetting requirements.
- 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 which represent less than 0.5% of international RTK will be exempt from offsetting requirements, unless these States participate on a voluntary basis.

The map below shows states which have volunteered as of 1 September 2019 (in green) and states from/to which flights are expected to be exempt after 2027 (in yellow).

