



ACT

ACT ON SUSTAINABLE AVIATION

A Comprehensive Guide
to CORSIA Compliance

Your blueprint for meeting
CORSIA targets with confidence

ACT ON IT.



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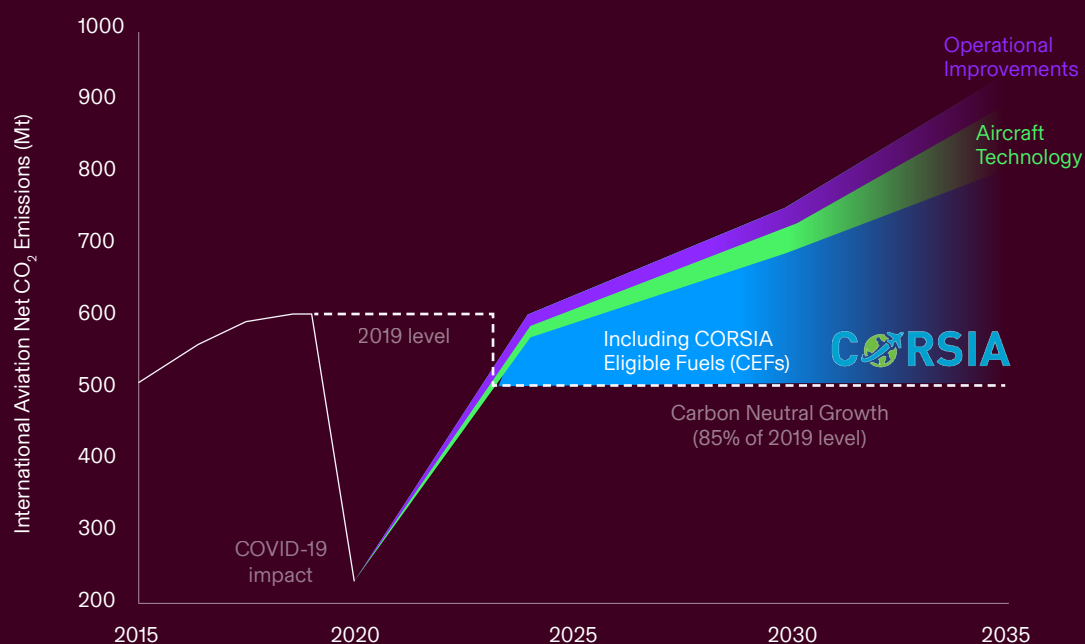
01.

Introduction: What is CORSIA?

In October 2016, the International Civil Aviation Organization (ICAO) launched the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), marking the first global market-based mechanism aimed at offsetting emissions growth from international aviation. The adoption of CORSIA is complementary to the broader package of measures to help ICAO achieve its aspirational goal of carbon-neutral growth from 2020 onwards. It relies on the use of eligible emissions units from the carbon market to offset the amount of CO₂ emissions that cannot be reduced using technological and operational improvements, as well as CORSIA-eligible fuels.

The approach for CORSIA is based on comparing the total CO₂ emissions for a year against a baseline level of CO₂ emissions, currently set at 85% of 2019's sector emissions. From 2021 onwards, the international aviation CO₂ emissions covered by CORSIA that exceed the baseline level represent the sector's offsetting requirements for that year.

Contribution of CORSIA for reducing international aviation net CO₂ emissions



Source: ICAO, "Environmental Trends in Aviation to 2050"

Read further for more insight into international airline emission-offsetting requirements, how to achieve compliance with CORSIA-eligible credits, and gain a clear picture of how to achieve your voluntary climate action goals and hit compliance targets.



02. CORSIA Basics



Phases and Scope: A route-based approach

CORSIA has three phases: the pilot phase (2021 – 2023), the first phase (2024 – 2026), and the second phase (2027 – 2035). The difference between the first and second phases is that state participation is voluntary; however, 126 states adhered, compared to the 193 for which participation will be mandatory from 2027.

The participation of states determines the total emissions covered by CORSIA. The coverage of CORSIA offsetting is based on a route-based approach, with a view to provide equal treatment of all aeroplane operators on a given route.

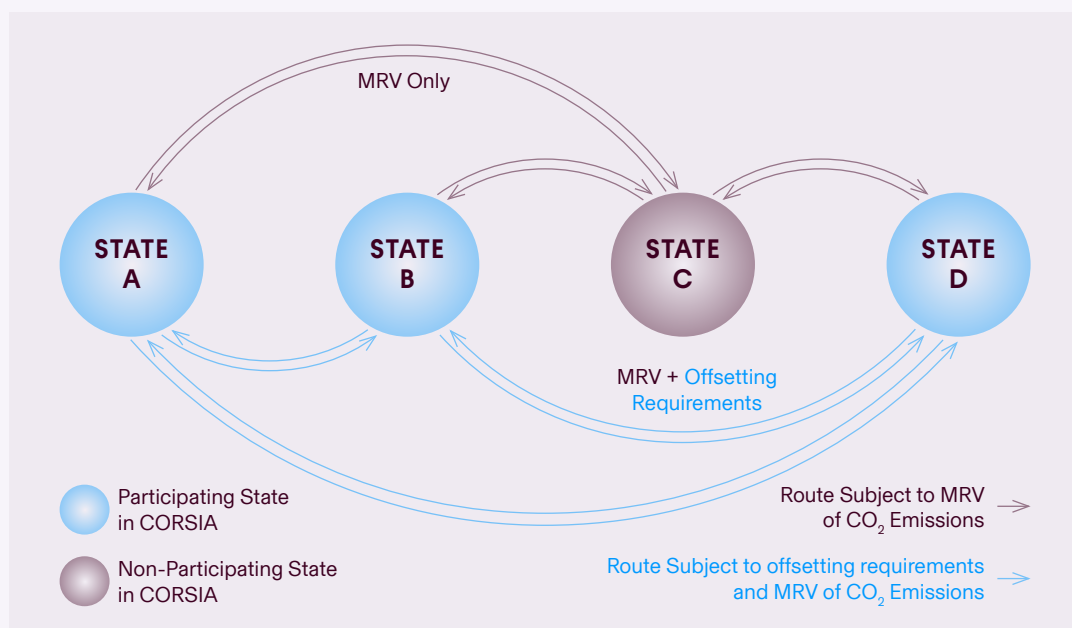
SPECIFICALLY:

A route is covered by CORSIA offsetting if both states connecting the route participate in the scheme.

A route is not covered by CORSIA offsetting if one or both states connecting the route do not participate in the scheme.

It should be noted that the applicability of CORSIA offsetting requirements and the applicability of CORSIA monitoring, reporting, and verification (MRV) requirements are not the same. Even if an international flight is not covered by the offsetting requirements, it is still covered by the MRV requirements.

CORSIA Route-Based Approach



CORSIA and Emissions Trading Systems

States are required to take necessary action to ensure that the necessary national policies and regulatory framework are established to comply with and enforce CORSIA. This means that each state may take different approaches to implementing CORSIA in its national framework, and in the case of overlapping policies – such as with the EU and UK ETS – decisions must be made on how CORSIA interacts with national regulation.



The EU and UK ETS: interplay between systems

EU ETS:

In 2022, the EU agreed on the “clean-cut” approach, which applies the EU ETS to intra-EEA routes while applying CORSIA to any flights between an EEA country and a participating state. The only exception is for flights departing from an EEA country and arriving in the UK or Switzerland, for which the EU ETS will also apply.

















































In 2026, the European Commission will assess CORSIA to determine if it is sufficiently delivering on the goals of the Paris Agreement. If the Commission determines otherwise, they may unilaterally extend the scope of the EU ETS to all international flights – like their approach for international maritime shipping.





UK ETS:

The new UK ETS came into force on January 1st, 2021, replacing the UK’s participation in the existing EU ETS.

Flights from the UK to the EEA and Switzerland fall under both CORSIA and the UK ETS. Without policy changes, CO₂ emissions exceeding the CORSIA baseline on these routes would face compliance requirements in both schemes. To address this, the UK ETS Authority has published a consultation on 16th December 2024, proposing two options:

- ‘UK ETS only’: Only the UK ETS would apply, excluding CORSIA obligations for these flights.
- ‘Price-based hybrid’: Both schemes would apply, with operators reimbursed for CORSIA offset costs.

ARRIVAL COUNTRIES	DEPARTURE COUNTRIES					
	 United Kingdom	 Germany	 France	 Switzerland	 United States	 China
 United Kingdom	 UK ETS	 EU ETS	 EU ETS	 Swiss ETS CORSIA	 CORSIA	 Not required
 Germany	 UK ETS CORSIA	 EU ETS	 EU ETS	 Swiss ETS CORSIA	 CORSIA	 Not required
 France	 UK ETS CORSIA	 EU ETS	 EU ETS	 Swiss ETS CORSIA	 CORSIA	 Not required
 Switzerland	 UK ETS CORSIA	 EU ETS	 EU ETS	 Swiss ETS	 CORSIA	 Not required
 United States	 CORSIA	 CORSIA	 CORSIA	 CORSIA	 Not required	 Not required
 China	 Not required	 Not required	 Not required	 Not required	 Not required	 Not required

 No offsetting requirement  Regional ETS  CORSIA  Double Obligation



03. CORSIA Offsetting Requirements

CORSIA's approach is based on comparing the total CO₂ emissions from international aviation covered by CORSIA for a year against a baseline level of CO₂ emissions, which between the years 2024 - 2035 has been set at 85% of CO₂ emissions from international aviation.

The distribution of CO₂ emissions to be offset each year among individual airplane operators is done using a dynamic approach that considers:

The Sector's Growth Factor

This represents the global average growth of emissions in the aviation sector for a given year. It is applied to all operators to calculate their offsetting requirements. ICAO calculates this growth factor each year based on emissions data reported by states.

The Individual Growth Factor

This reflects an individual operator's growth in emissions for that year.

$$\text{OPERATOR'S ANNUAL CO}_2 \text{ OFFSETTING REQUIREMENTS} = \text{OPERATOR'S ANNUAL CO}_2 \text{ EMISSIONS SUBJECT TO OFFSETTING REQUIREMENTS} \times \text{GROWTH FACTOR}^*$$

* The Growth Factor changes every year taking into account the annual Sector's Growth Factor, which is calculated by ICAO, and (for 2033-2035) the individual operator's growth factor.

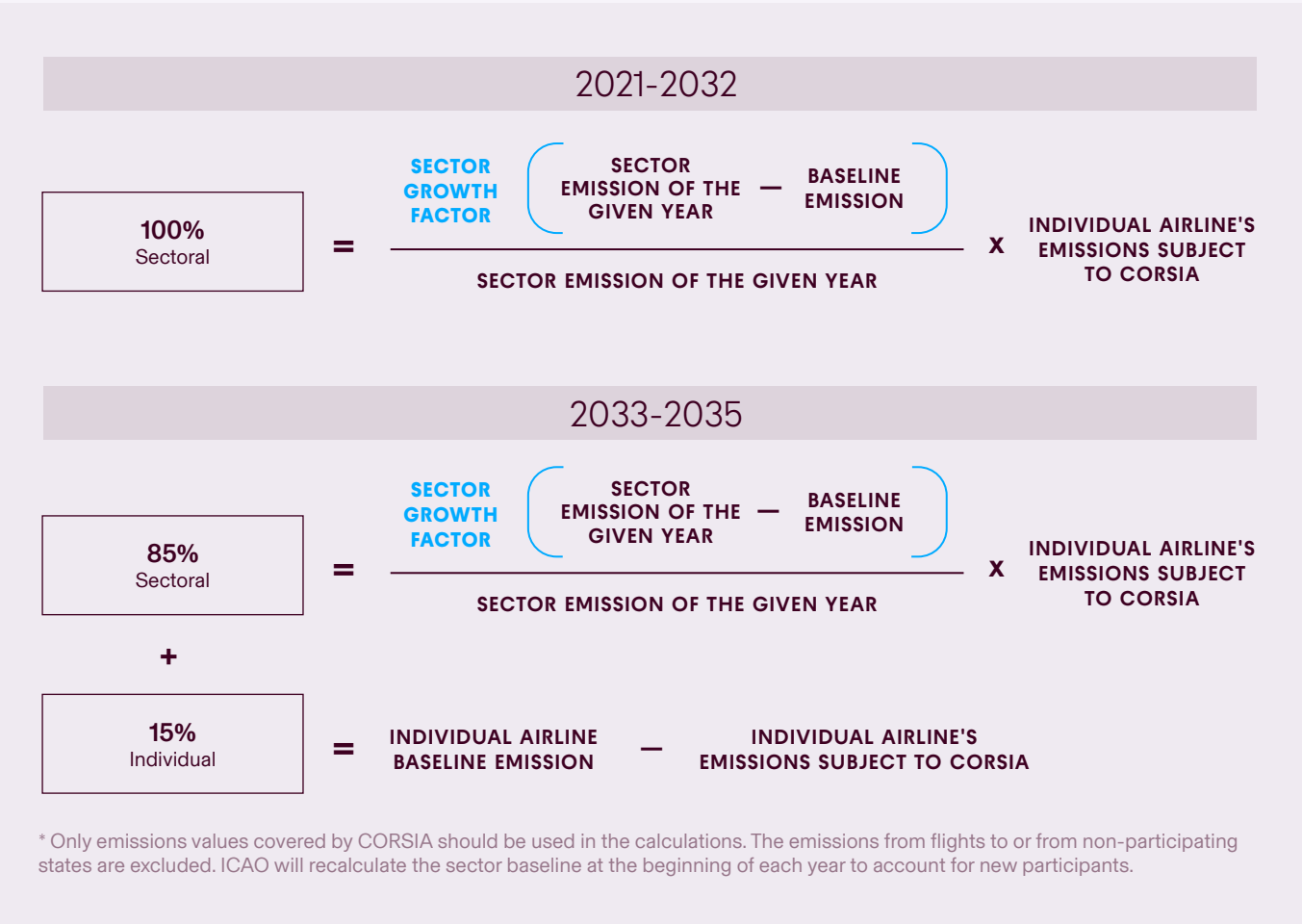
Once ICAO provides the sector's growth factor, the state calculates an operator's CO₂ offsetting requirements by multiplying the operator's annual emissions covered by CORSIA by the growth factor. This calculation gives the operator's offsetting requirement for that year. For each compliance period, the state adds up the annual offsetting requirements to determine the operator's total offsetting requirement for the period.



How will an individual airline's CORSIA credit demand be calculated?

From 2021 to 2032, an airline's offsetting requirement will be 100% determined by its own emissions level multiplied by the amount global international aviation emissions exceed their baseline level. From 2033 to 2035, 15% of offsetting requirements would be calculated based on the airline's own emissions growth.

CORSIA OFFSETTING REQUIREMENTS CALCULATION



04. CORSIA Monitoring, Reporting, and Verification (MRV) process

Airlines have two components of reporting, the first on their emissions, the second on their offsetting requirements:

Emission Monitoring, Reporting, and Verification

Airlines are required to monitor CO₂ emissions by tracking fuel use or using the ICAO CORSIA CERT. They must record fuel consumption for each flight and calculate emissions by applying a conversion factor. They then report the data to their state authority, which forwards it to ICAO, where it is consolidated and used to calculate the annual Sectoral Growth Factor. The emissions data is verified by a third party to ensure accuracy, similar to financial audits.

Reporting and Verification of Emissions Units

Airlines are required to report to the state the cancellation of CORSIA Eligible Emissions Units to meet its total final offsetting requirements for a given compliance period. Similarly to the annual emissions reporting, Emissions Unit Cancellation Reports need to be verified by accredited bodies.

The table below shows the process and the associated timeline for [phase 1](#)

YEAR	DETAILS & DEADLINES
2024 Compile 2023 CO ₂ emissions data	<ul style="list-style-type: none">• Submit 2023 Emissions & Verification Reports by 31 May 2024• Offsetting requirements for 2023• Final offsetting requirements for 2021–2023 compliance period
2025 Compile 2024 CO ₂ emissions data	<ul style="list-style-type: none">• Submit 2024 Emissions & Verification Reports by 30 April 2025• Cancel emissions units for 2021–2023 period:<ul style="list-style-type: none">• 31 Jan 2025: 60-day window begins after State informs AOs• 7 Feb 2025: Publication of Cancelled Emissions Units• Verified Emissions Units Cancellation Report for 2021–2023 period• Offsetting requirements for 2024
2026 Compile 2025 CO ₂ emissions data	<ul style="list-style-type: none">• Submit 2025 Emissions & Verification Reports by 30 April 2026• Offsetting requirements for 2025• Inform AOs by 30 November 2026
2027	Mandatory Phase begins



05. CORSIA Eligible Units

For CORSIA, an aeroplane operator is required to meet its offsetting requirements by cancelling CORSIA Eligible Emissions Units (CEEU) in a quantity equal to its total final offsetting requirements for a given compliance period. CEEUs are to be determined by the ICAO Council for each compliance period. The Technical Advisory Board assesses programmes against established criteria and determines their adherence. Based on the TAB's assessment, ICAO then determines CEEUs and their scope of eligibility, which includes identifying eligible vintages and any specifications regarding activity and/or unit types, methodologies, program elements, and/or procedural classes. Three criteria determine the eligibility of units:

1. Program

Issued within the scope of an eligible program. (For Phase 1, six programs have been selected with some restrictions on their scope. See table below)

2. Dates

Issued within certain vintages (for Phase 1 vintages 2021 to 2026)

3. Avoidance of double counting

Credits must have obtained an attestation to the avoidance of double claiming by the host country (see chapter 6)

CORSIA Phase 1 Eligibility: Methodology Inclusion by Programme

The table below reflects the latest version of the Eligible Emissions Unit decision (as of October 2024). The below table summarises eligibility restrictions for simplicity in comparison. For full eligibility, see ICAO's List of Eligible Emission Units (Oct 2024)

Category of Credit	Climate Action Reserve	Gold Standard	Global Carbon Council	Verra	Architecture for REDD+ Transactions	American Carbon Registry
Renewable Energy	—	> 15 MW excluded	> 15 MW excluded	> 15 MW excluded	—	—
Cookstove	—	—	—	AMS-II.G and/or VMR0006 excluded (VM0050 eligible)	—	—
Engineered Removals / Carbon Capture & Storage	—	Engineered Removals excluded	CCCS Excluded	CCCS Excluded	—	—
AFOLU	Excludes projects > 7k t/yr in REDD+ Countries (Mexico Forest Protocol is eligible)	Excludes projects > 7k t/yr in REDD+ Countries (Soil Carbon & Ag and Livestock are eligible)	REDD and A&R excluded	Same as pilot phase eligibility	—	Excludes projects > 7k t/yr in REDD+ Countries
REDD+				Excludes projects > 7k t/yr in REDD+ Countries (JNR 2a, 3 eligible)	—	

Legend: The dash symbol (—) indicates that ICAO has not made an explicit reference to this category in that programme's scope of eligibility.

REDD+ Countries: Referring to countries that are pursuing elements of REDD+ as defined in key decisions relevant for reducing emissions from deforestation and forest degradation in developing countries (REDD+), including the Warsaw Framework for REDD+.

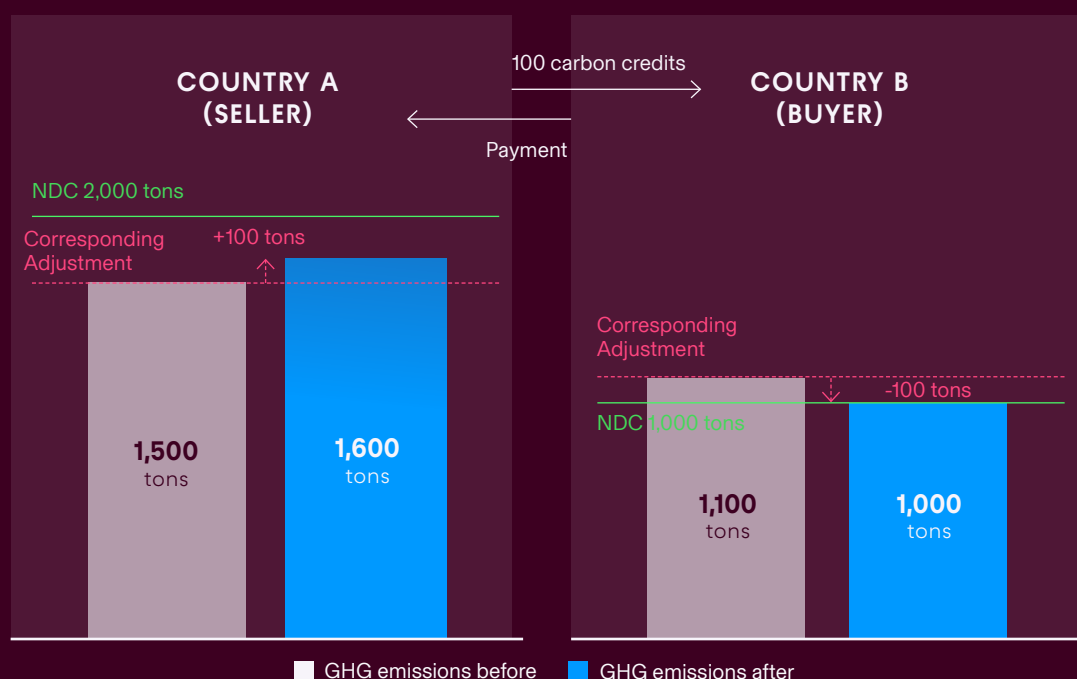


06. International Aviation and Article 6 of the Paris Agreement

Adopted by 196 countries in December 2015, the Paris Agreement is a legally binding climate treaty. Its implementation relies on countries setting and achieving their climate action plans, called nationally determined contributions (NDCs). These plans are intended to manage domestic GHG emissions but exclude international aviation emissions – the motive for ICAO to establish CORSIA.

Given the different scopes of NDCs and CORSIA, there will be double claiming if emission reductions are counted by both an airline for CORSIA compliance and by a host country of the project towards its NDC. To prevent this, ICAO accepts only emissions units originating in countries that have attested their intention to properly account for the use of the units toward offsetting obligations under the CORSIA.

A key measure to avoid double claiming is the host country attestation (or host country authorization under Article 6 of the Paris Agreement). Emissions units are eligible for CORSIA only if the host country attests to proper accounting. This attestation, a "Corresponding Adjustment," must be obtained in writing from the national focal point and publicly available before units are used in CORSIA.



PRE-TRANSACTION: Selling country's emissions are below its NDC

POST-TRANSACTION: Selling country's emissions increase, but do not exceed its NDC

PRE-TRANSACTION: Buying country's emissions exceed its NDC

POST-TRANSACTION: Buying country's emissions are reduced to help meet its NDC

07. Key Challenges of CORSIA: What You Need to Know

To comply with CORSIA, airlines must purchase, cancel, and report fully eligible units. However, identifying and sourcing these eligible units can be complex. Here are some key factors to consider:

Understanding corresponding adjustments reporting

Under the Enhanced Transparency Framework of the Paris Agreement, parties are required to submit Biennial Transparency Reports (BTR) every two years, with the first due by December 31, 2024. These reports, along with additional reporting obligations that precede the BTR, are essential for the completion of a Corresponding Adjustment. This implies that most of the units issued in the coming years will only become fully eligible once reported in the BTR on either December 31, 2024, or 2026.

Addressing risk of revocation

Since CORSIA credits must be unilaterally authorized through a Letter of Authorization (LoA) by the host country, there is a potential risk if the host country revokes the LoA to count the reductions toward its own NDC. This scenario could lead to double counting if an airline uses the same CORSIA carbon offset for compliance purposes. Airlines should carefully understand the content of the LoAs and the risks associated with it to take action to mitigate them.

Understanding Article 6 labels

Eligible programs are required to implement measures to prevent double claiming. This includes, among others, procedures reconciliation measures, such as replacement or compensation in the event of double-claimed units. To address this, each program has developed its approach for assigning a CORSIA or Article 6 label to the units. These approaches typically grant the label in cases where the units either have a Corresponding Adjustment reported in the BTR, a Letter of Authorization, or other eligible guarantees like insurance products. Understanding when and how the label is applied helps identify any remaining risks and provides guidance on how to mitigate them.

Preparing for supply limitations

The stringent requirements for CORSIA-eligible units, particularly the need for a Corresponding Adjustment, pose a challenge to the supply of credits. Carbon market analysts predict a shortage of credits in Phases 1 and 2. Several factors contribute to this shortage, including the limited willingness and readiness of host countries to subtract mitigation outcomes from their Nationally Determined Contributions (NDCs), as well as increased demand for credits with Corresponding Adjustments from other compliance schemes and voluntary markets. Airlines should act quickly to establish procurement strategies and secure credits for the upcoming phases.



08. Turn Your Ambition for Sustainable Aviation into Action

As the aviation industry continues to embrace the commitments of the Paris Agreement, CORSIA stands as a vital tool in driving global impact through emission abatement. While challenges such as credit availability, regulatory complexities, and financial implications remain, these hurdles also represent opportunities for innovation and leadership.

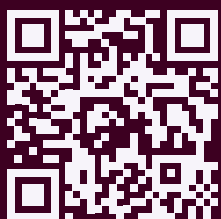
Successful compliance requires more than ambition - it demands strategic planning, tailored solutions, and trusted partnerships. ACT brings over 15 years of expertise in compliance and voluntary markets, providing the knowledge, tools, and support airlines need to meet their obligations with confidence.

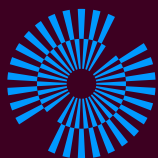
We make navigating the complexities of decarbonization easier. Whether it's addressing credit supply challenges or staying ahead of changing regulations, we're here to help you act with confidence, so you can focus on what matters: achieving your goals with clear, measurable results with maximal impact.

THE TIME TO ACT IS NOW

Join the 9,000+ businesses already partnering with ACT on their climate journeys, and contact our sustainability experts today: info@actcommodities.com

Scan the QR code to learn more.





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