

ICAO APAC Webinar on the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) Implementation

7 May 2025



ICAO



SAFE SKIES.
**SUSTAINABLE
FUTURE.**



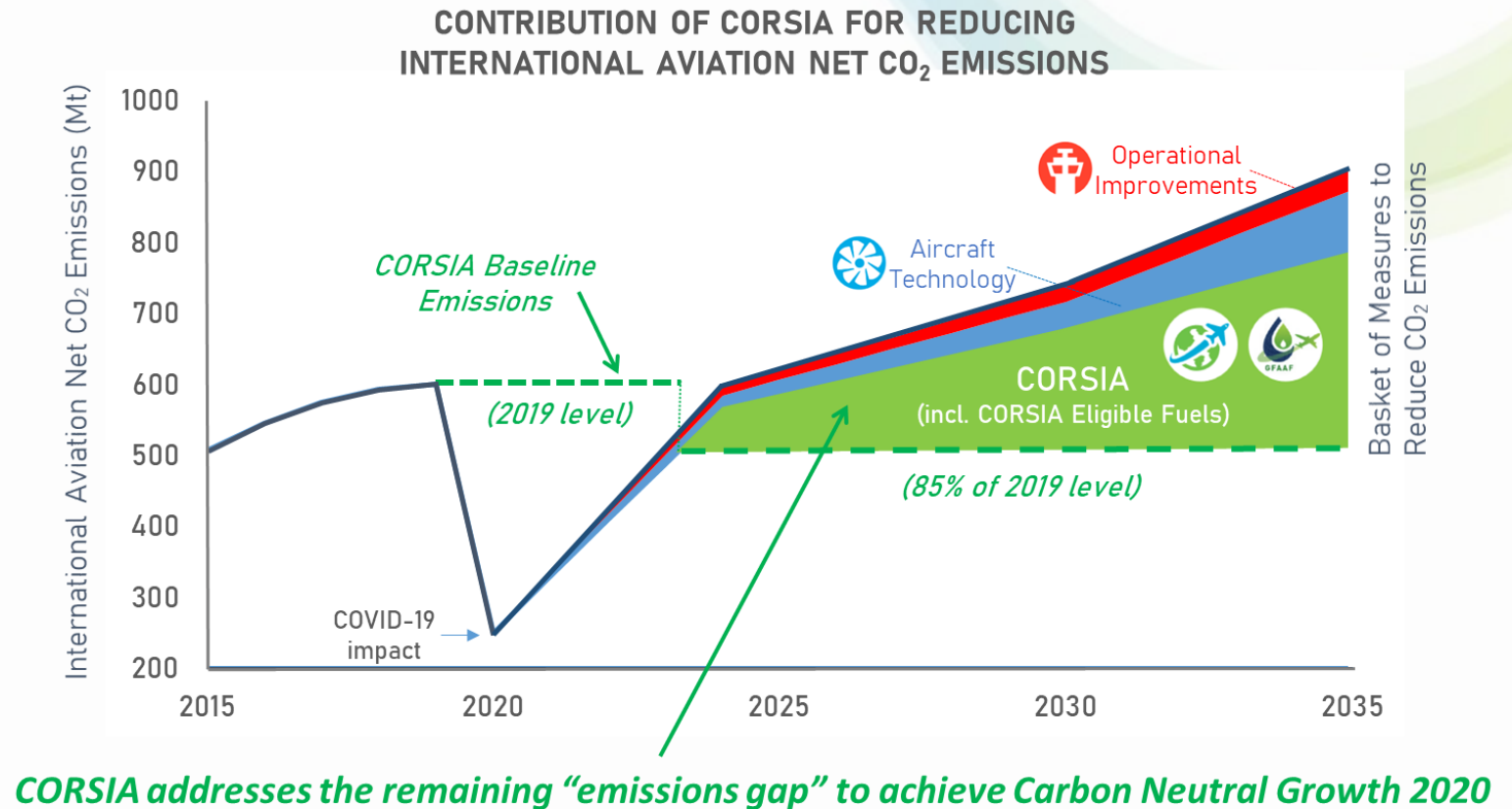


Updates on the CORSIA Implementation Elements and Important Deadlines for 2025

1CAO! | TRANSFORMATIONAL
OBJECTIVE

To achieve ICAO's global aspirational goal of carbon neutral growth from 2020 (CNG 2020), **CORSIA is one complementary element in the basket of measures to:**

- Aircraft technology
- Operational improvements
- Sustainable aviation fuels





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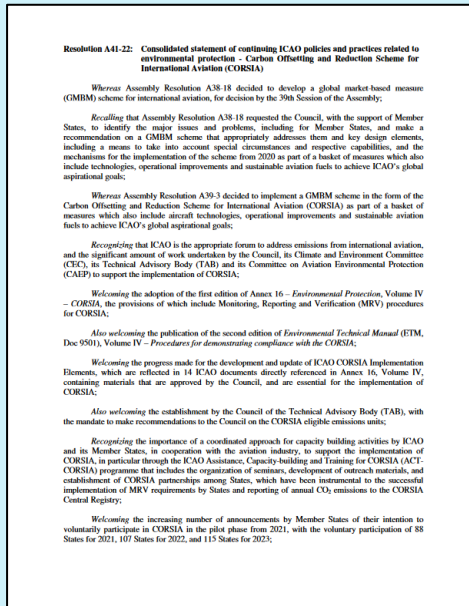
CORSIA Implementation Package

CORSIA Implementation Package

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Assembly Resolutions in force (A41-22)

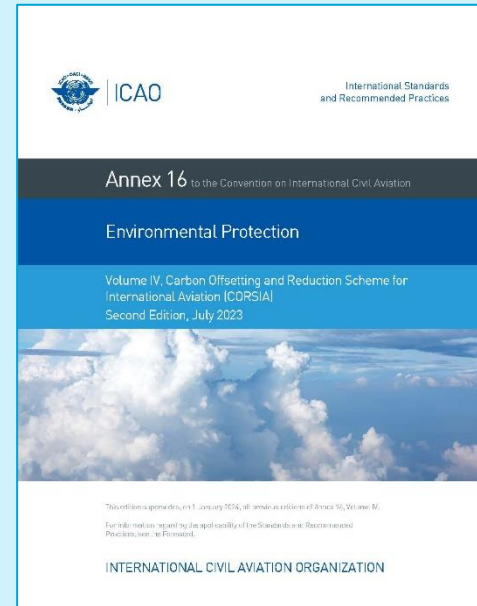
Adopted by 2022 Assembly



Overall ICAO policy on CORSIA

Annex 16, Volume IV

**2nd Edition
Applicable from 2024**



Standards and Recommended Practices (SARPs) on CORSIA

Doc 9501 (ETM), Vol. IV

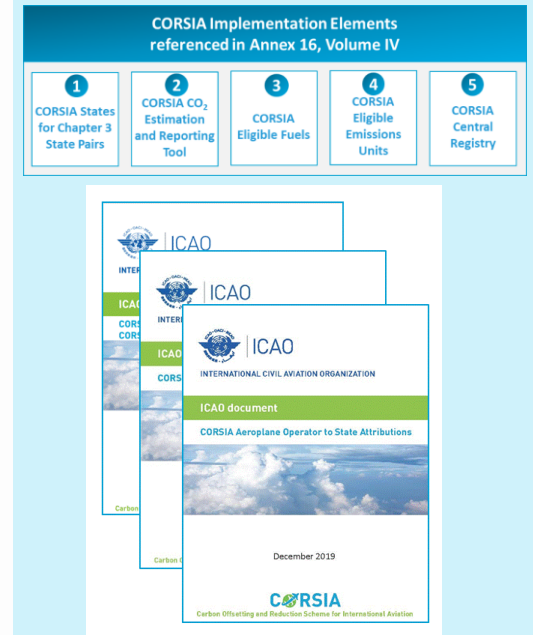
**3rd Edition to support
2nd Edition of Annex 16,
Volume IV**



Overall ICAO policy on CORSIA

CORSIA Implementation Elements and ICAO CORSIA documents

**Regularly
updated/approved by
Council**



**14 ICAO CORSIA documents
directly referenced in Annex
16, Volume IV - Essential for
CORSIA implementation**

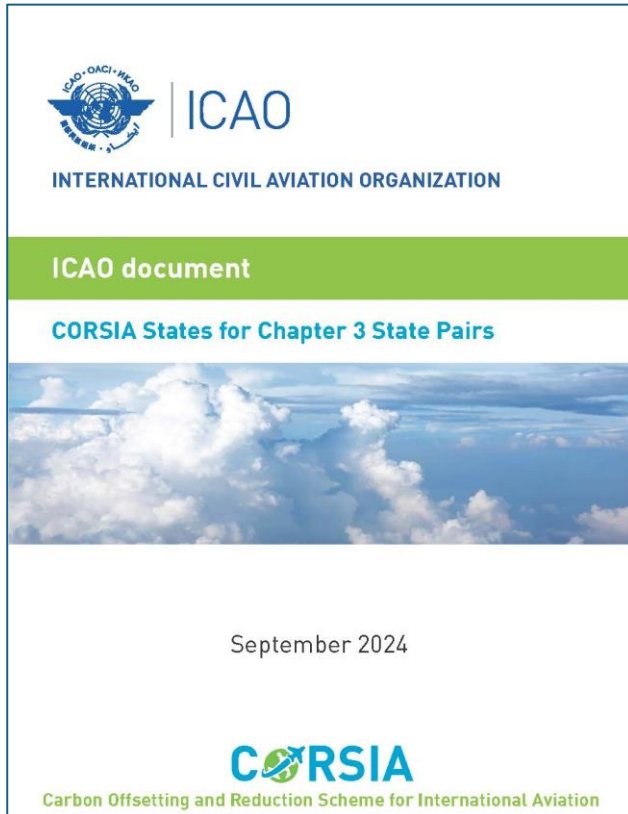
CORSIA Implementation Elements and related ICAO documents

CORSIA Implementation Elements	ICAO documents
CORSIA States for Chapter 3 State Pairs	1. CORSIA States for Chapter 3 State Pairs
ICAO CORSIA CO ₂ Estimation and Reporting Tool (CERT)	2. ICAO CORSIA CO ₂ Estimation and Reporting Tool
CORSIA Eligible Fuels	3. CORSIA Eligibility Framework and Requirements for Sustainability Certification Schemes 4. CORSIA Approved Sustainability Certification Schemes 5. CORSIA Sustainability Criteria for CORSIA Eligible Fuels 6. CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels 7. CORSIA Methodology for Calculating Actual Life Cycle Emissions Values
CORSIA Eligible Emissions Units	8. CORSIA Eligible Emissions Units 9. CORSIA Emissions Unit Eligibility Criteria
CORSIA Central Registry (CCR)	10. CORSIA Central Registry: Information and Data for the Implementation of CORSIA 11. CORSIA Aeroplane Operator to State Attributions 12. CORSIA 2020 Emissions 13. CORSIA Annual Sector's Growth Factor (SGF) 14. CORSIA Central Registry (CCR): Information and Data for Transparency

Note – All documents have been approved by the ICAO Council and are available on the ICAO website

CORSIA States for Chapter 3 State Pairs

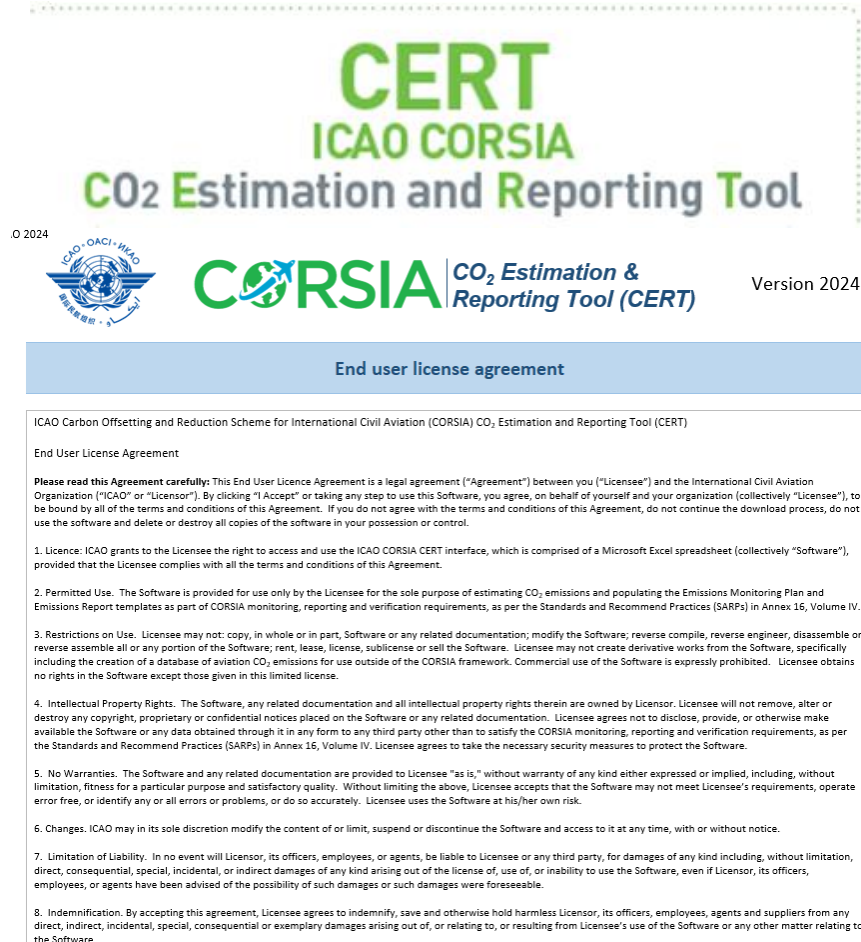
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- Edition 4 rev.1 (October 2023)
 - List of 126 States defining routes subject to offsetting requirements in 2024
 - Reference for the preparation of Emissions Reports for year 2024 (**deadline: 30 April 2025**)
- Edition 5 rev.1 (September 2024)
 - List of 129 States defining routes subject to offsetting requirements in 2025
 - Reference for the preparation of Emissions Reports for year 2025 (**deadline: 30 April 2026**)
- **Edition 6 (to be published in 2025) will contain the list of States defining routes subject to offsetting requirements in 2026**

ICAO CORSIA CERT – 2024 Version

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- Published in December 2024
- To be used by eligible aeroplane operators for the preparation of their 2024 Emissions Report (deadline: 30 April 2025)

CORSIA Eligible Fuels

- 5 ICAO documents containing the information needed to claim emissions reductions from the use of CORSIA Eligible Fuels

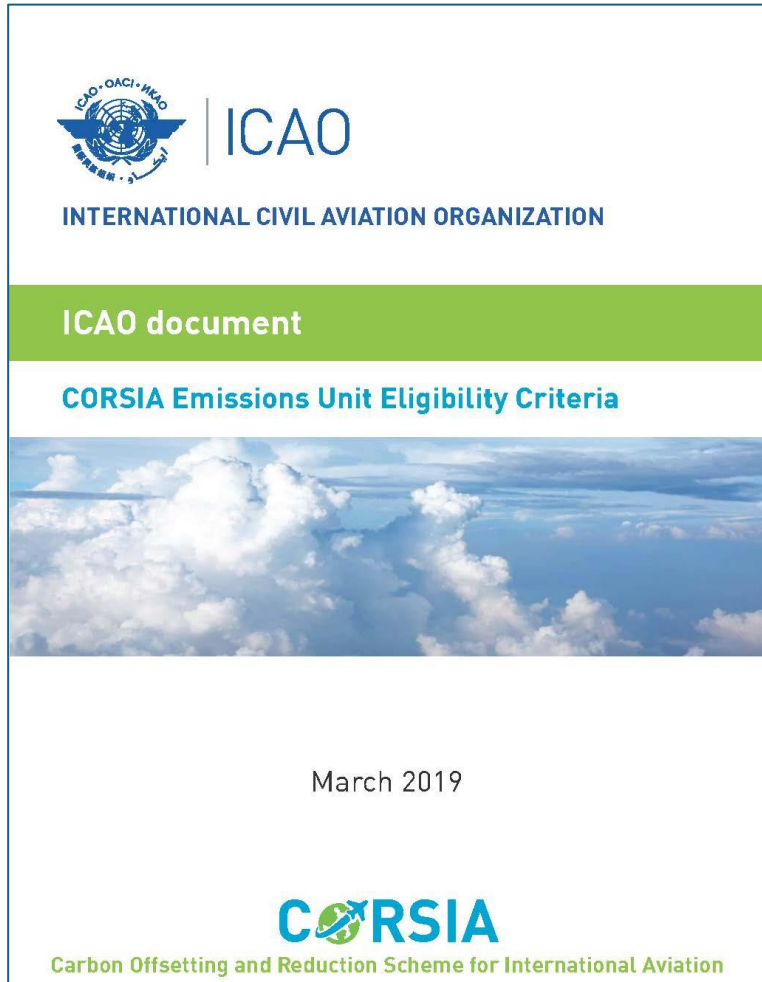
- Current editions:

				
★			★	★
CORSIA Eligibility Framework and Requirements for Sustainability Certification Schemes Third Edition, March 2024	CORSIA Approved Sustainability Certification Schemes* Third Edition, October 2024	CORSIA Sustainability Criteria for CORSIA Eligible Fuels** Third Edition, November 2022	CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels*** Sixth Edition, October 2024	CORSIA Methodology for Calculating Actual Life Cycle Emissions Values Fifth Edition, October 2024

- ★ 3 of the 5 CEF-related documents will be updated in June 2025 following Council's consideration of recommendations by the CAEP/13 Meeting

CORSIA Eligible Emissions Unit Eligibility Criteria

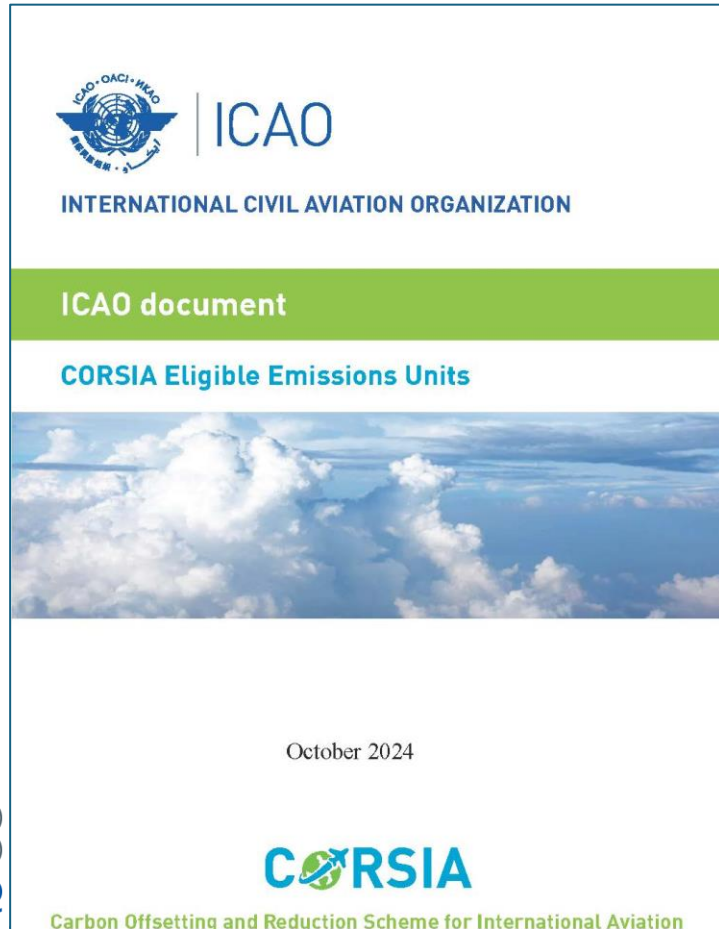
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- First edition (2019) – unchanged since then
- Used by the Council's Technical Advisory Body (TAB) in its assessment of CORSIA eligibility of applicant emissions unit programmes
- Not relevant for the purpose of purchasing and cancelling CORSIA Eligible Emissions Units, nor for the reporting of the said cancellation.

CORSIA Eligible Emissions Units

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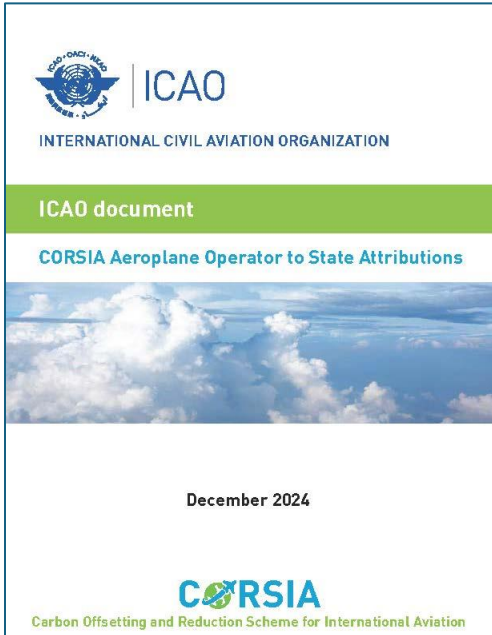
- Edition currently applicable: 12th (October 2024)
- This document provides information on which emissions units are CORSIA-eligible and thus can be purchased and cancelled by aeroplane operators to meet their offsetting requirements in CORSIA
- Next expected update: October 2025
- **Reminder: reporting on cancellation of CORSIA Eligible Emissions Units will take place for the first time in April 2028**

- CCR-related ICAO documents reflect CCR output based on States' inputs into the CCR (as per Annex 16, Volume IV requirements)

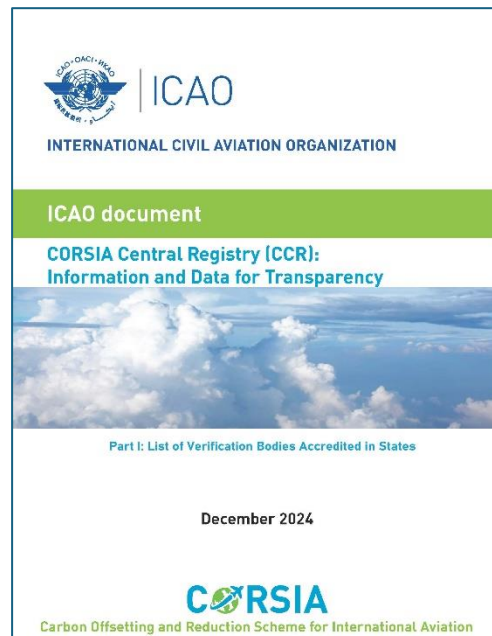


CORSIA Central Registry

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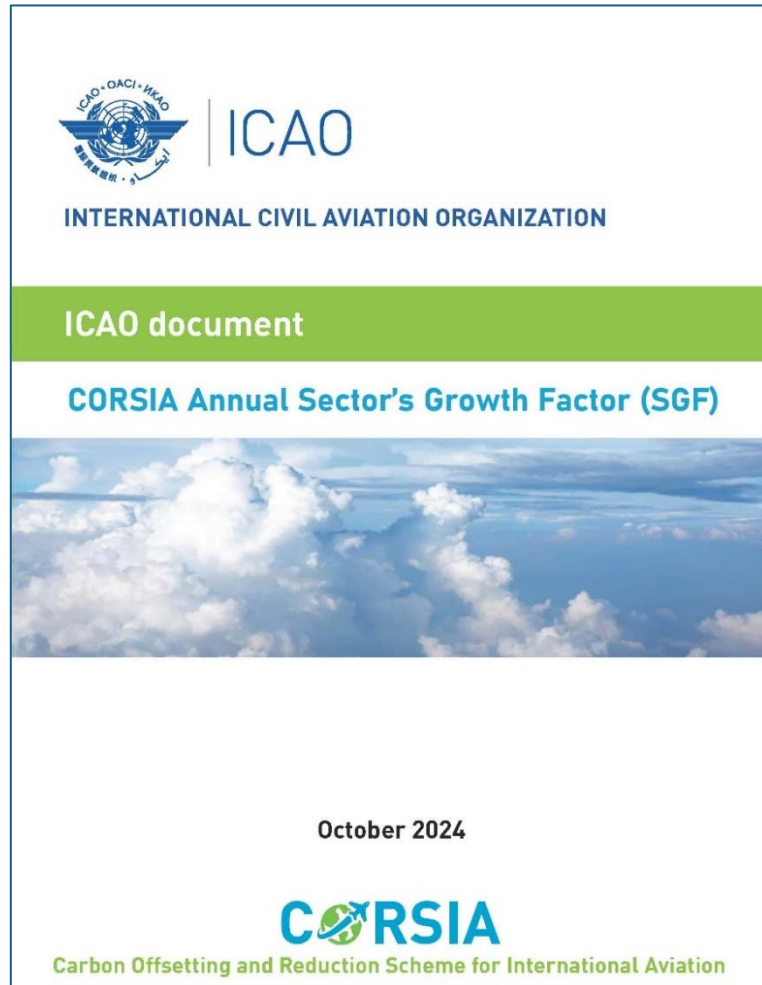
- List of aeroplane operators and accredited verification bodies published in December 2024 should serve as the reference for the preparation and verification of 2024 Emissions Reports (deadline: 30 April 2025)



- Importance of meeting the next reporting deadline (30 November 2025) in preparation for the 2025 Emissions Reports (deadline: 30 April 2026)

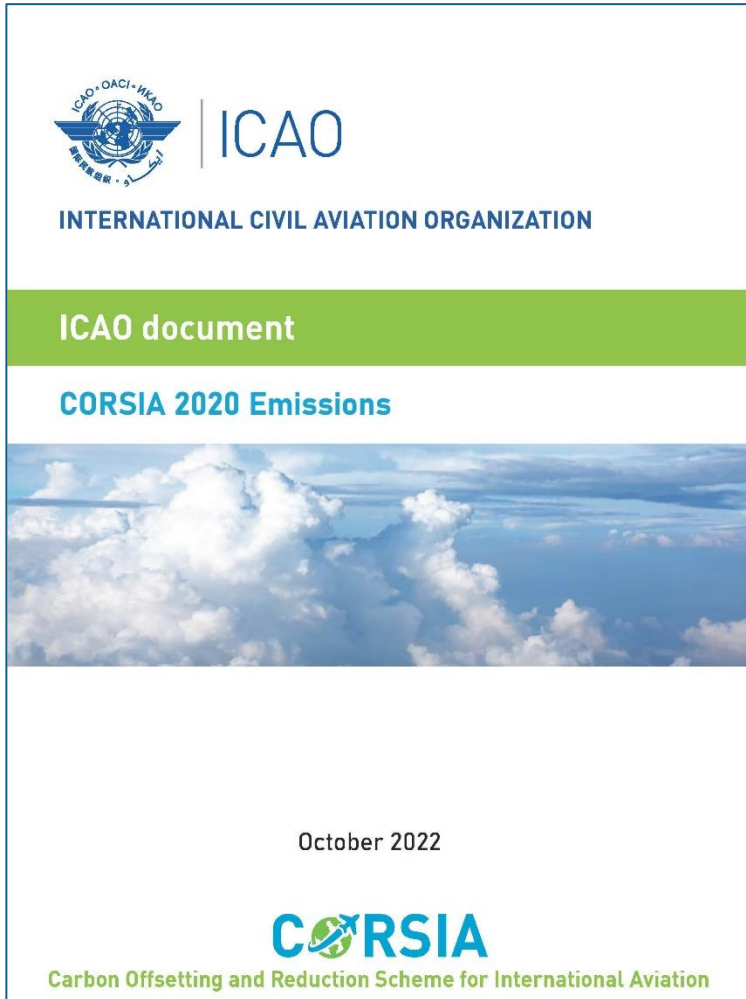
CORSIA Central Registry

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- ICAO document "CORSIA Annual Sector's Growth Factor (SGF)"
- Next update (October 2025) will provide the value of SGF_{2024} - expected not to be 0.0.
- For States to calculate their operators' offsetting requirements in 2024.

CORSIA Central Registry



- ICAO document "CORSIA 2020 Emissions"
- This document was amended following the adjustments made by the ICAO Assembly to the CORSIA design elements as a result of the 2022 CORSIA periodic review
- Important document to support States in determining when Annex 16, Volume IV, Part II, Chapter 3 (offsetting requirements) provisions apply to new entrant aeroplane operators
- Relevant only to new entrant aeroplane operators with large volume of activity

- ICAO document “CORSIA Central Registry (CCR): Information and Data for Transparency”
 - Part IV: Information on CORSIA Eligible Fuels (CEF) Claimed
 - Not published yet
 - First edition expected in October 2025 / 2026 / 2027 (depending on when operators initiate CEF claims under CORSIA)
 - Part V: Information on Total Offsetting Requirements and Quantity of Emissions Units Cancelled
 - Not published yet
 - First edition expected in October 2028 (for the cancellation of CORSIA Eligible Emissions Units for meeting offsetting requirements in CORSIA’s first phase (2024 – 2026))



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CORSIA MRV and Offsetting Requirements

CORSIA Phased Implementation

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Second phase participation criteria:

- Cumulative 90% of global 2018 RTK
- Individual 0.5% of 2018 RTK
- Voluntary participation

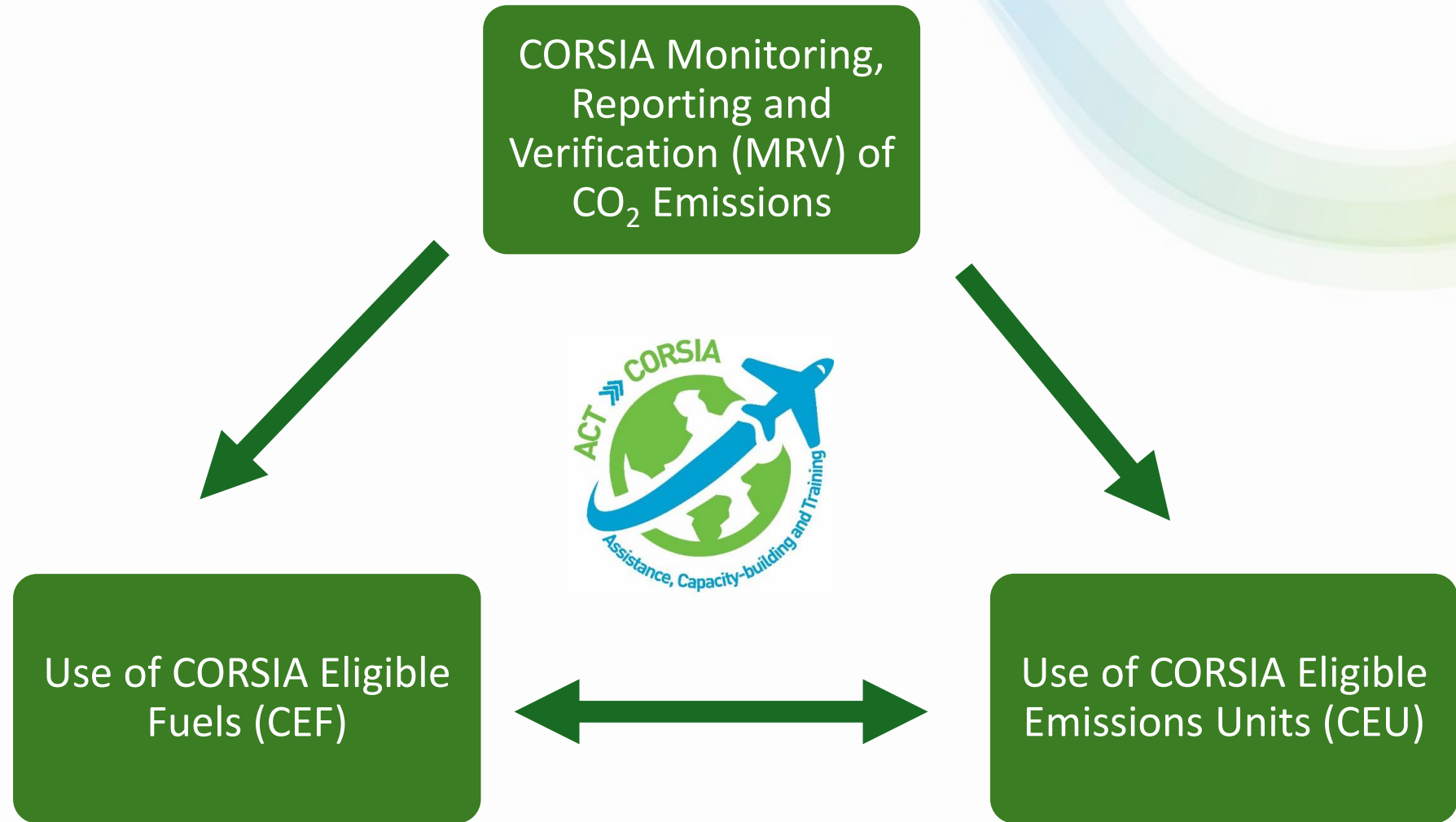
Exemptions:

- LDCs, LLDCs, SIDS



CORSIA Implementation

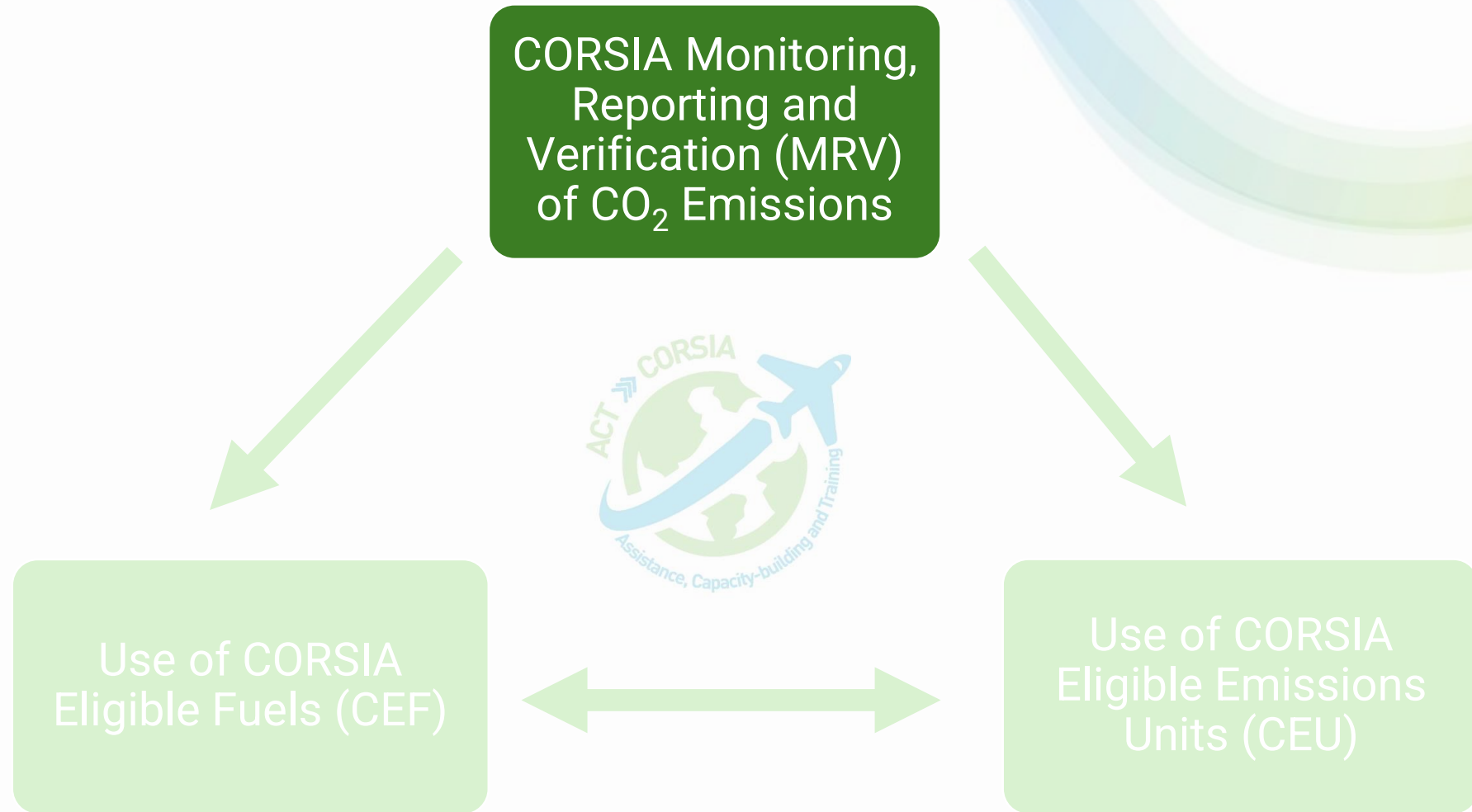
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CORSIA offsetting requirements (until 2035) could be complied by CEF or CEU

CORSIA Implementation

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CORSIA offsetting requirements (until 2035) could be complied by CEF or CEU

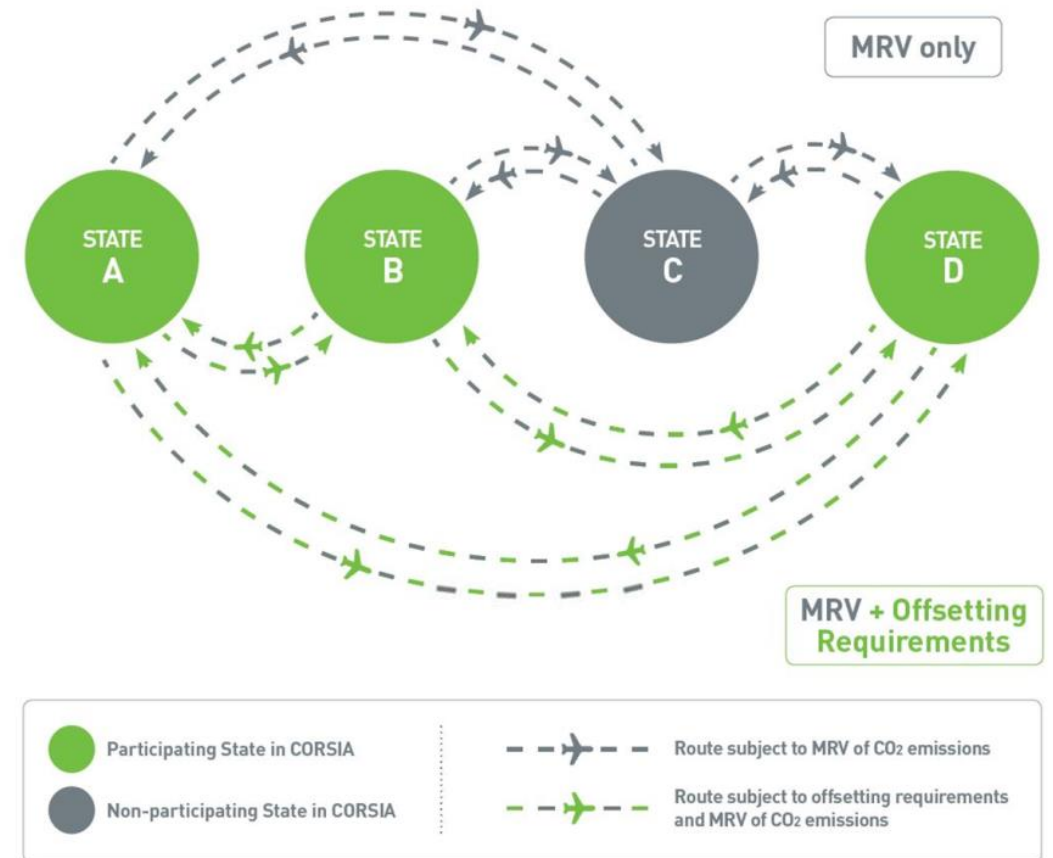
CORSIA CO2 MRV Requirements

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From 1 January 2019, all operators performing international flights have to monitor CO₂ emissions, annually reporting verified CO₂ emissions to State, and States to report ICAO CORSIA Central Registry (CCR)

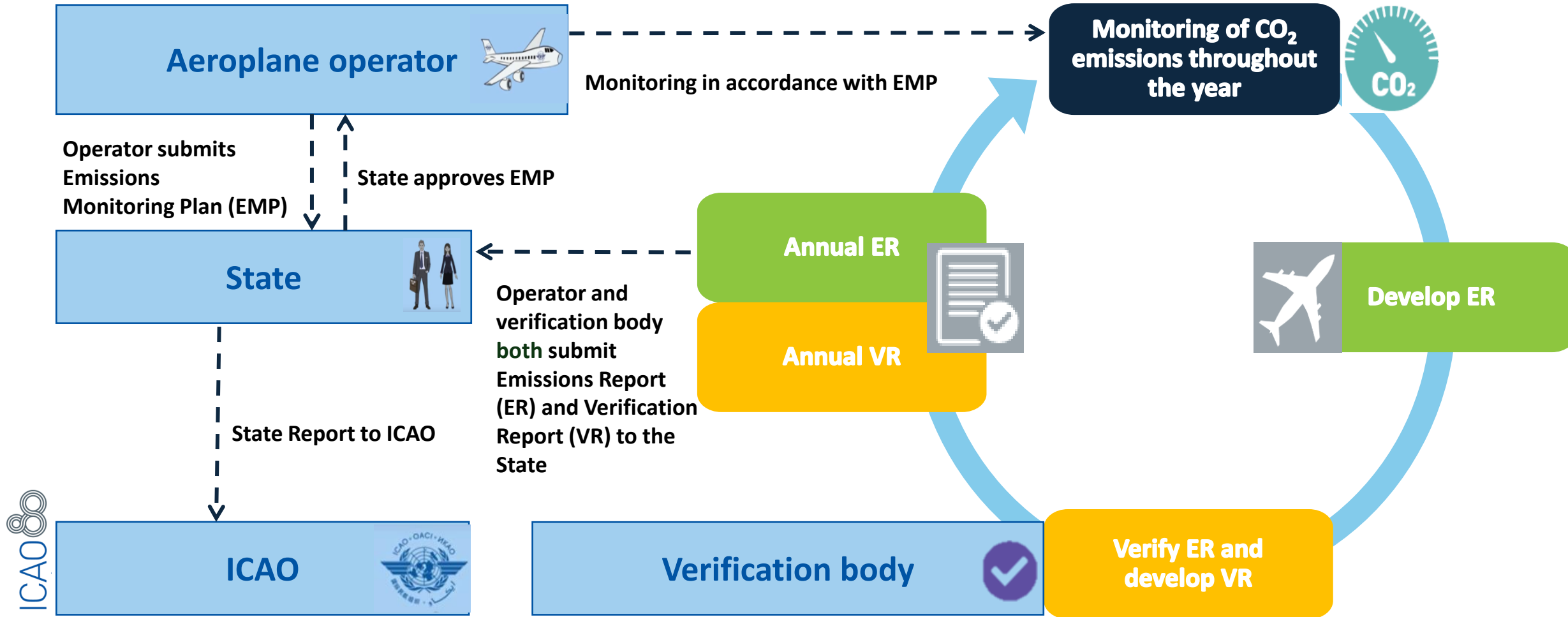
Purpose of CO₂ MRV is to collect information on international aviation CO₂ emissions on an annual basis and compare these emissions against the baseline emissions, to calculate CORSIA offsetting requirements

All operators performing international flights between States participating in CORSIA have to comply with the CORSIA offsetting requirements



CORSIA CO₂ MRV Annual Cycle

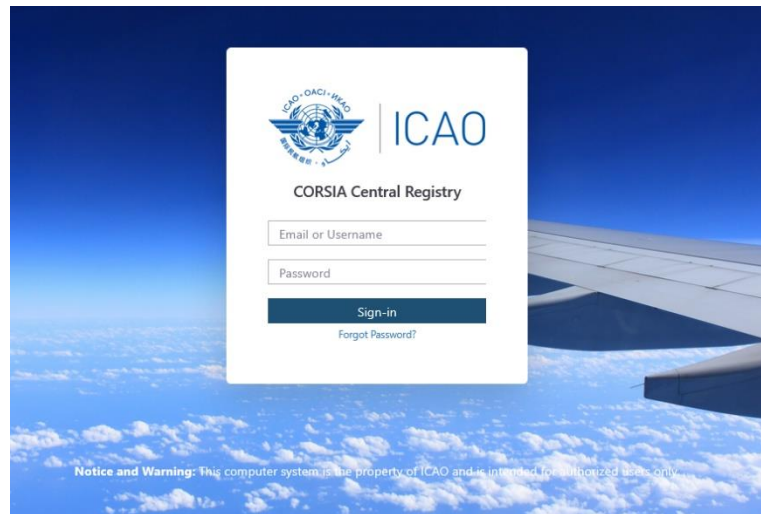
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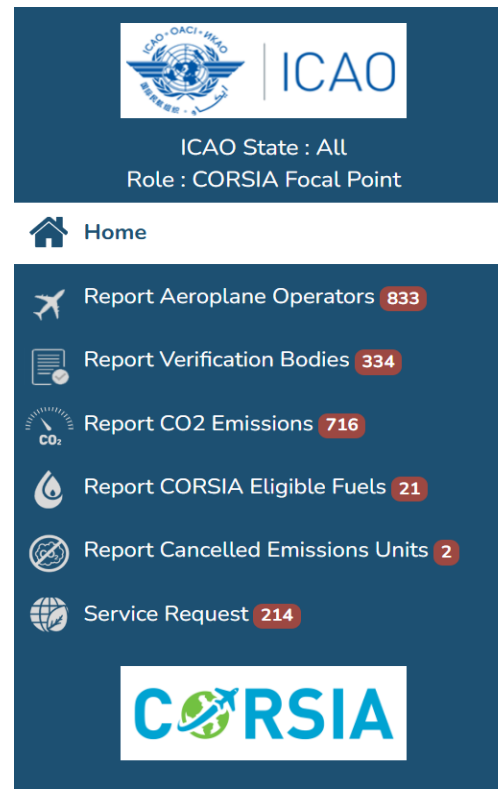
CORSIA Central Registry (CCR)

23

CCR for collection/publication of
CORSIA-related data and info



*Version 2 of CCR has been
launched in March 2024 to
include the 2nd Edition of
Annex 16, Volume IV*







Consolidated
published on ICAO website
CCR data
CORSIA



CORSIA Central Registry (CCR)


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CCR and GF data – 2023 CO₂ emissions (2024 reporting year)

Indicator	2022	2023
CCR Reports submitted	115	121  +6
Gap-filling States	21	15  -6
No data/no requirement	57	57 
CCR CO ₂ coverage (total)	97.7%	99.0%  +1.3%
CO ₂ emissions submitted to CCR (M tonnes)	419	525
Gap-filling CO ₂ emissions estimated (M tonnes)	9.9	5.4
Total of 2023 CO₂ emissions	429	530 +101 M

Updated information can be found in CORSIA webpage: <https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx>

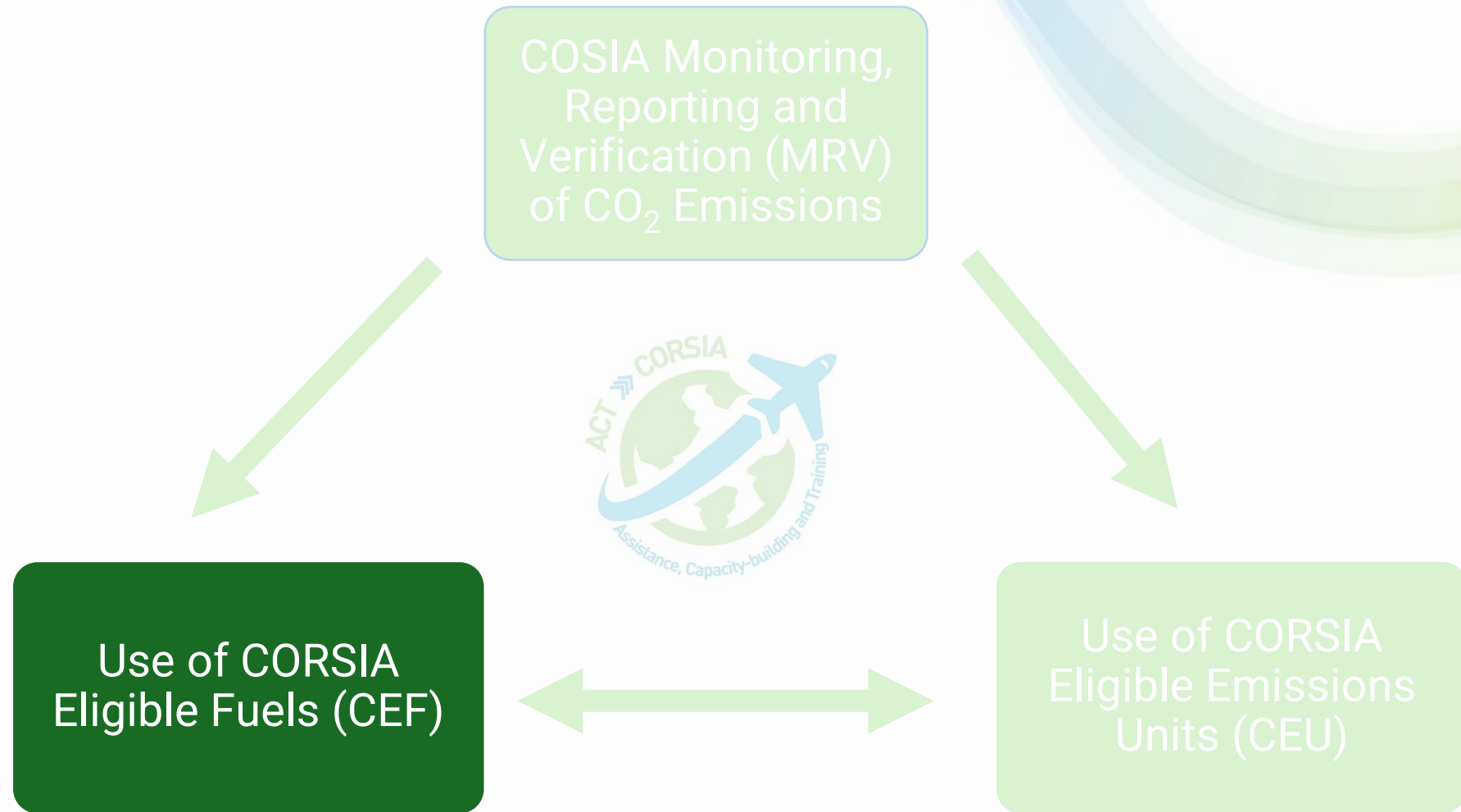
2025 MRV Timeline and Actions (Reporting Year: 2024)

Timeline				Responsibility	Action
2025	1 January to 30 April 2025			Operator and Verification Body	<ul style="list-style-type: none">Operator to compile CO₂ emissions data for 2024Verification body to verify 2024 Emissions ReportOperator and verification body to submit verified 2024 Emissions Report and associated Verification Report to the State of attribution
	by 31 July 2025			State	<ul style="list-style-type: none">Conduct order of magnitude check of verified 2024 Emissions Report(s)Aggregate data in verified 2024 Emissions Report(s)Use the CCR to submit aggregate 2024 CO₂ emissions data to ICAO
	31 October 2025			ICAO	Publish 2024 CO ₂ emissions and 2024 CORSIA Sector's Growth Factor (SGF)
	by 30 November 2025			State	 Use 2024 SGF to calculate 2024 offsetting requirements and inform aeroplane operator(s)

 2025 is potentially to be the first year with a positive SGF (for 2024 CO₂ emissions)

CORSIA Implementation

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CORSIA offsetting requirements (until 2035) could be complied by CEF or CEU

Calculation of CORSIA Offsetting Requirements

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Offsetting requirements are calculated annually, based on CORSIA MRV data of Aeroplane Operator (AO)'s emissions between participating States, and using a combination of Sectoral Growth Factor and AO's Individual Growth Factor

From 2021 to 2032: 100% sectoral and 0% individual

$$\text{AO's CO}_2 \text{ Offsetting Requirements} = \text{AO's CO}_2 \text{ Emissions between participating States} \times \left(100\% \times \text{Sector Growth factor (\%)} + 0\% \times \text{Individual Growth factor (\%)} \right)$$

From 2033 to 2035: 85% sectoral and 15% individual

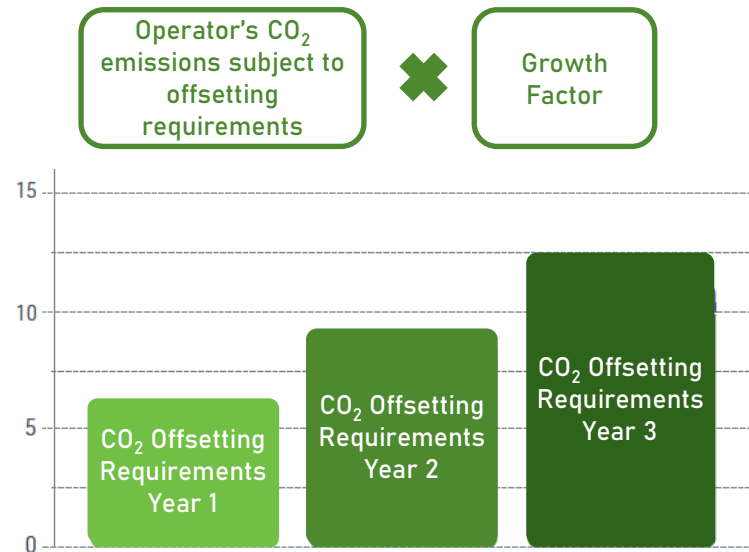
$$\text{AO's CO}_2 \text{ Offsetting Requirements} = \text{AO's CO}_2 \text{ Emissions between participating States} \times \left(85\% \times \text{Sector Growth factor (\%)} + 15\% \times \text{Individual Growth factor (\%)} \right)$$

CORSIA Eligible Fuels and Offsetting Requirements

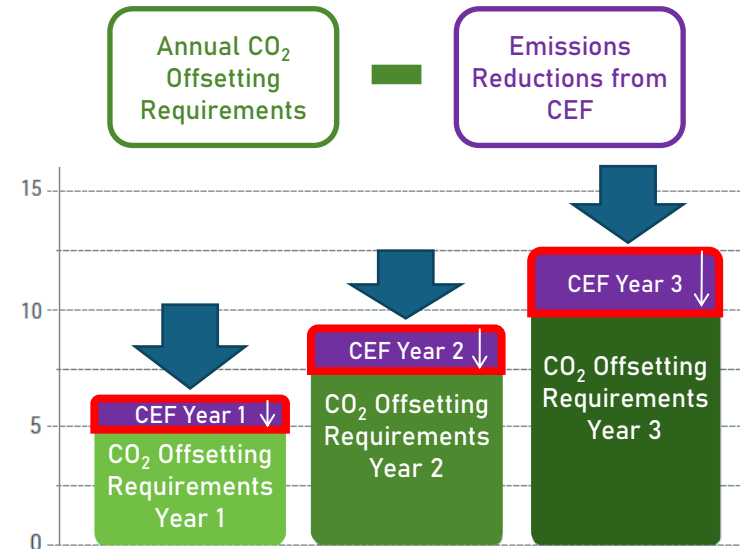
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An aeroplane operator can reduce its CORSIA offsetting requirements by claiming emissions reductions from the use of CORSIA Eligible Fuels (CEF)

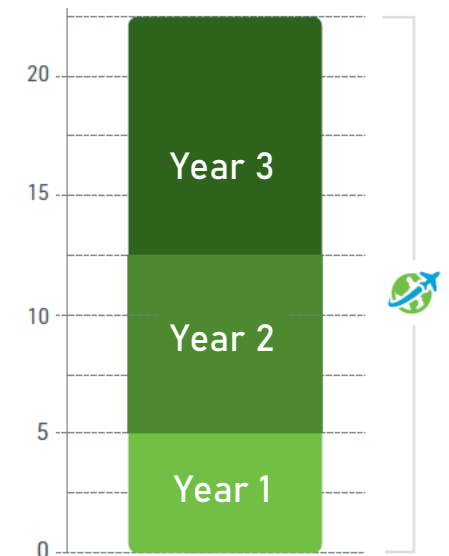
- ① **CO₂ Offsetting Requirements** calculated by the State for each year



- ② Emissions reductions claimed from the use of **CORSIA Eligible Fuels (CEF)**



- ③ **Total Final CO₂ Offsetting Requirements** for a 3-year Compliance Period








The remaining total final CO₂ offsetting requirements will be met by operators through the cancelation of CORSIA eligible emissions units (CEU)

CORSIA Eligible Fuels and Offsetting Requirements

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- CORSIA eligible fuel (CEF) is CORSIA sustainable aviation fuel (SAF) and CORSIA lower carbon aviation fuel (LCAF), which an operator may use to reduce its offsetting requirements.
- CEF needs to be certified based on the CORSIA Sustainability Criteria, including its life-cycle emissions values, by an approved Sustainability Certification Scheme (SCS)

				
CORSIA Eligibility Framework and Requirements for Sustainability Certification Schemes Third Edition, March 2024	CORSIA Approved Sustainability Certification Schemes* Third Edition, October 2024	CORSIA Sustainability Criteria for CORSIA Eligible Fuels** Third Edition, November 2022	CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels*** Sixth Edition, October 2024	CORSIA Methodology for Calculating Actual Life Cycle Emissions Values Fifth Edition, October 2024

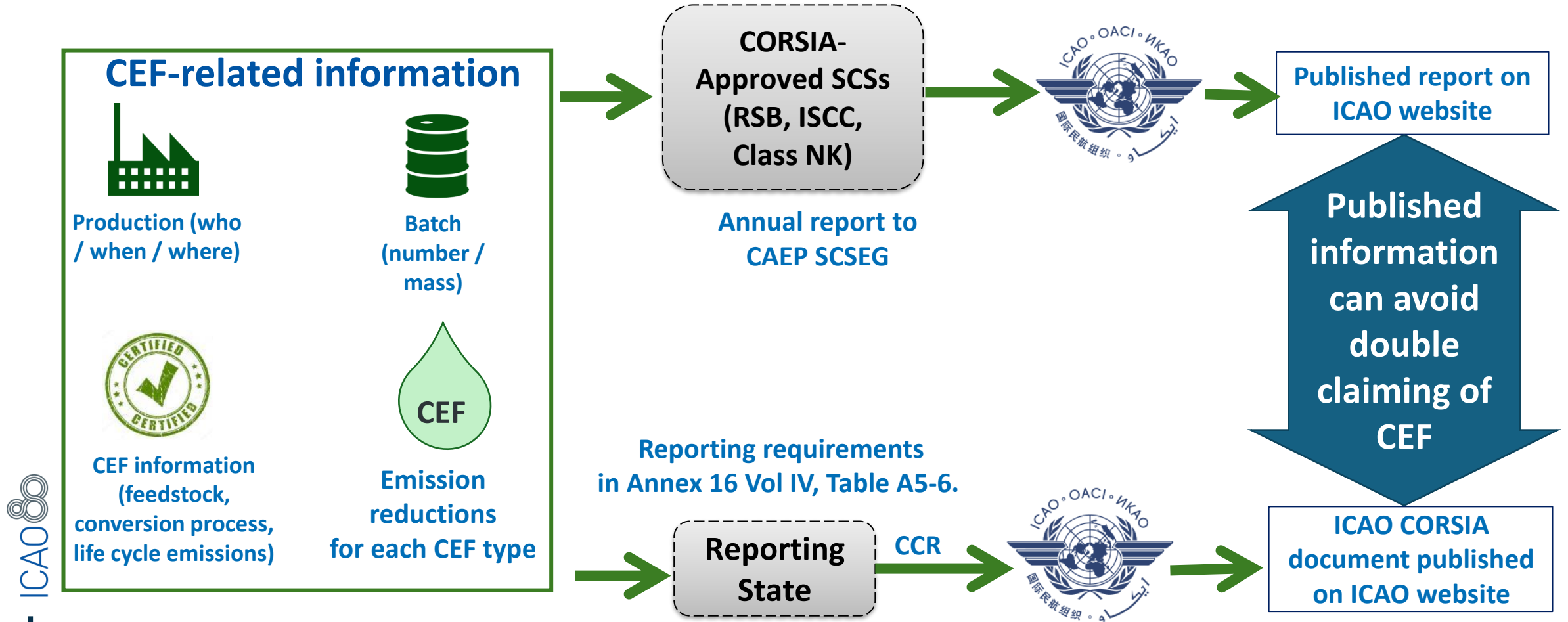
All ICAO CORSIA documents related to CORSIA Eligible Fuels are available on the website, after the Council approval.



State and SCSs reporting CEF to ICAO

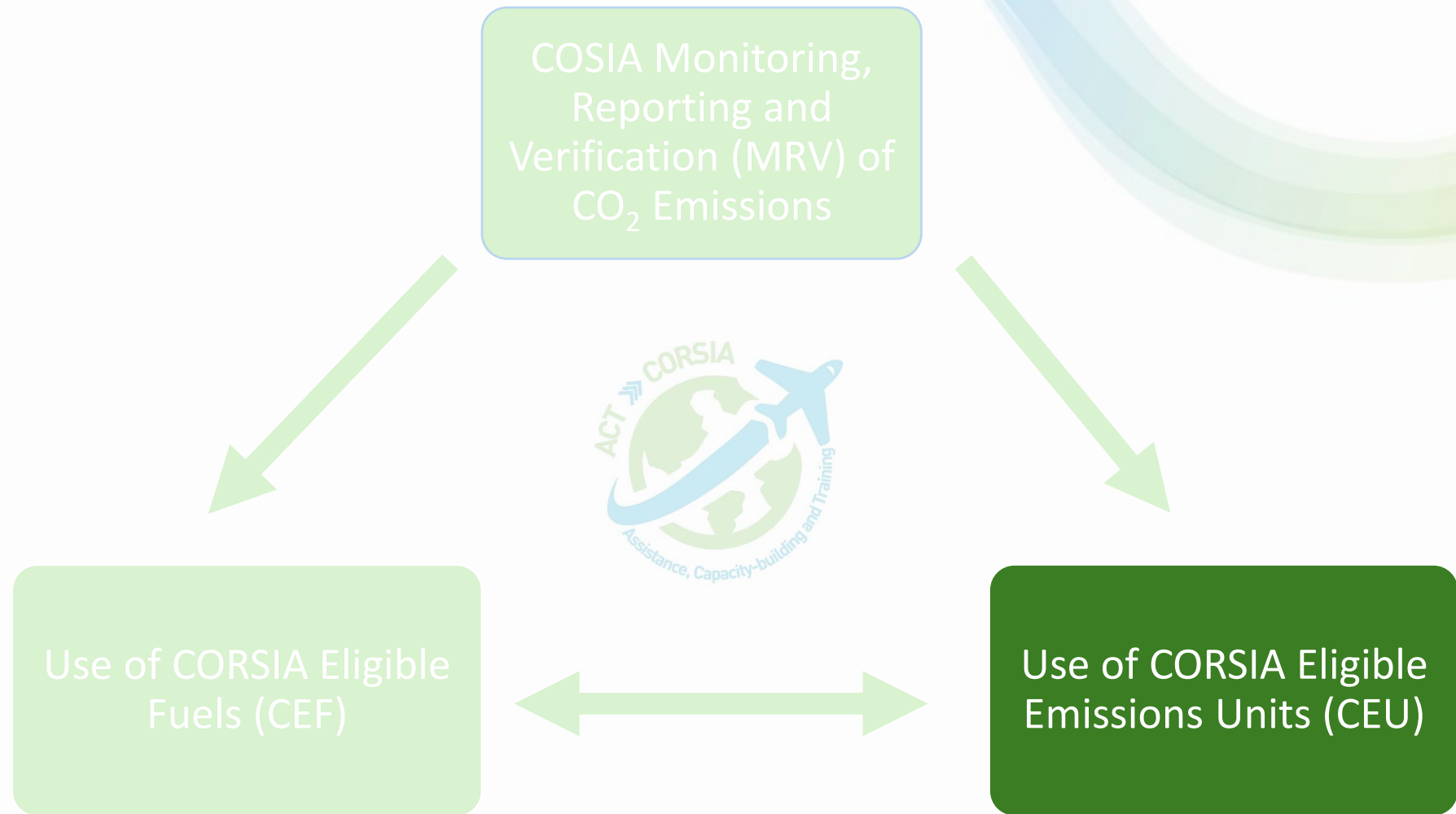
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CEF information will be reported to ICAO and published



CORSIA Implementation

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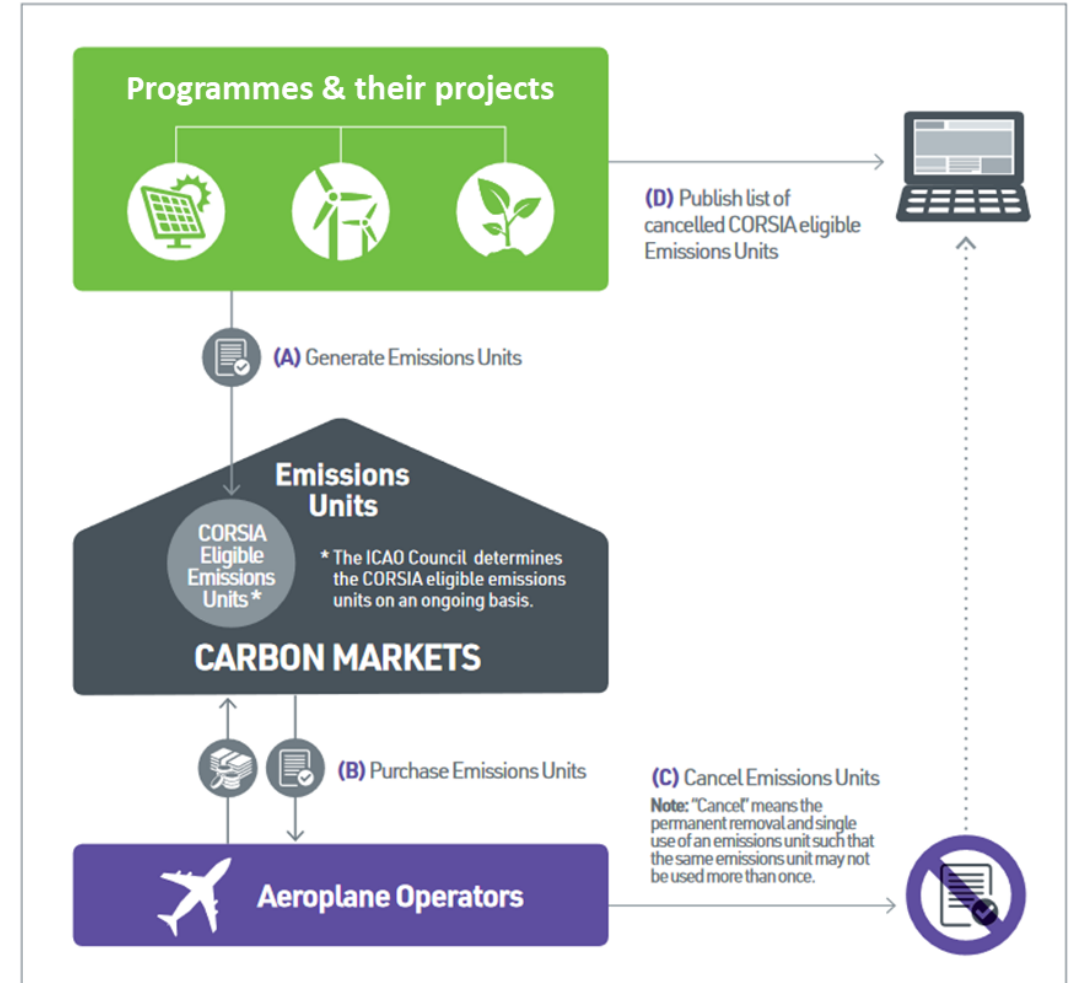
CORSIA offsetting requirements (until 2035) could be complied by CEF or CEU

CORSIA Eligible Emissions Units

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To fulfil its CORSIA offsetting requirements for a compliance period, an aeroplane operator must **purchase and cancel** CORSIA eligible emissions units (CEUs) equivalent to its **total final CO₂ offsetting requirements**:

- CEUs are generated by eligible CEU programmes that meet the CORSIA eligibility criteria (A)
- Operators purchase CEUs from the international carbon market (B)
- The cancellation of CEUs takes place within a registry designated by an eligible CEU programme (C)
- For transparency, cancellations are to be published on the registry's public website (D)



CORSIA Eligible Emissions Units – First Phase

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The ICAO Council considered the TAB recommendations and approved **6 Emissions Unit Programmes to supply CORSIA Eligible Emissions Units for the first phase (2024-2026 compliance period):**

- 1) American Carbon Registry 
- 2) Architecture for REDD+ Transactions 
- 3) Climate Action Reserve 
- 4) Global Carbon Council 
- 5) The Gold Standard 
- 6) Verified Carbon Standard 

Note:

Not all units from these programmes are eligible for use in CORSIA.

Certain emissions units from these programmes are not eligible.

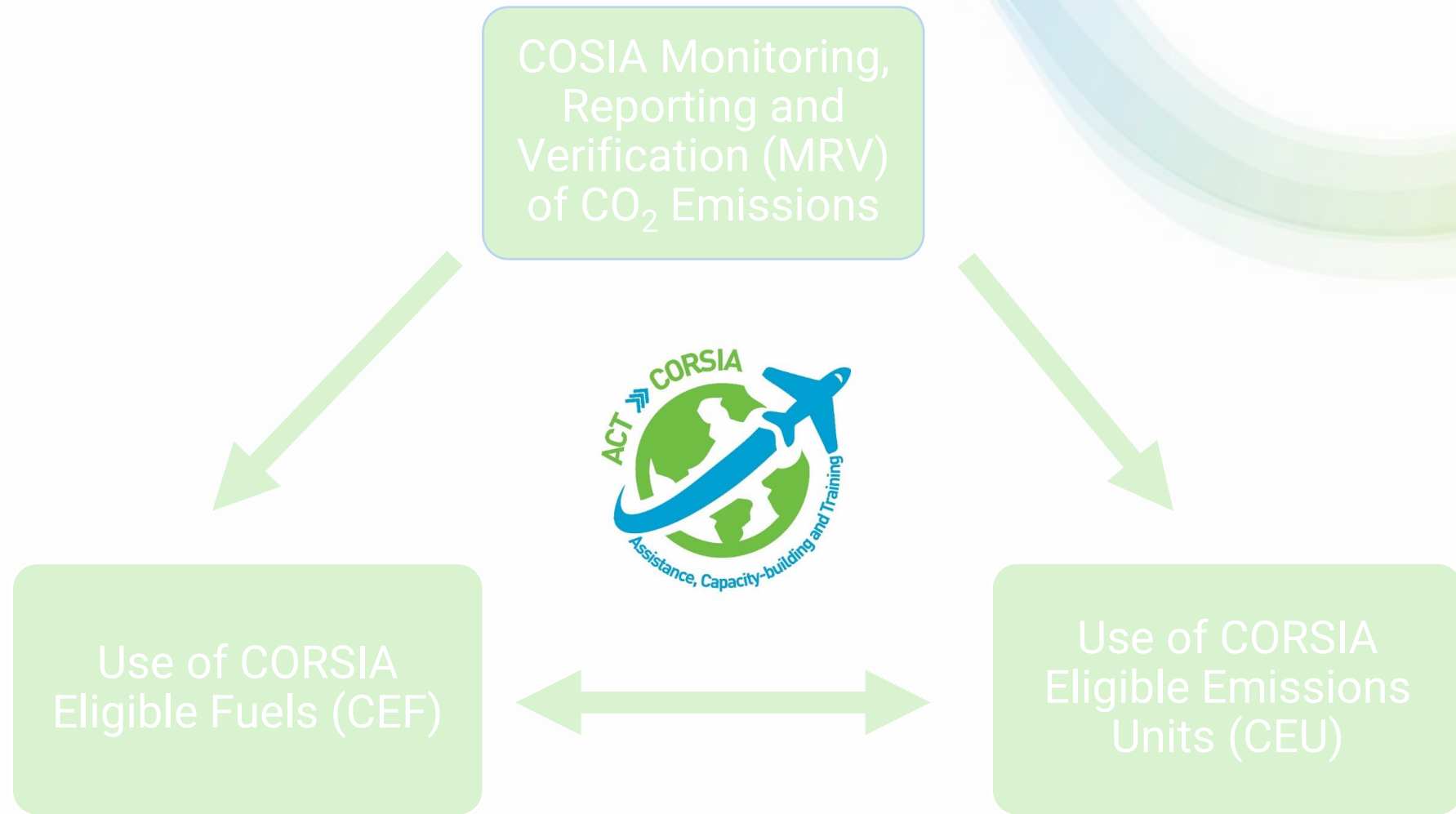
*Each programme's Scope of Eligibility is described in the **ICAO document: CORSIA Eligible Emissions Units***

<https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Emissions-Units.aspx>

The eligible emissions units from these programmes are:
from projects/activities that started their first crediting period from **1 January 2016** , and
generated in respect of **reductions/removals ('vintages') from 2021 to 2026.**

ICAO ACT-CORSIA Programme

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CORSIA offsetting requirements (until 2035) could be complied by CEF or CEU

ICAO ACT-CORSIA Programme

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- **ICAO Assistance, Capacity-building and Training on CORSIA (ACT-CORSIA)** was launched in July 2018, to provide States with the CORSIA implementation support.
- ACT CORSIA is designed to support a **coordinated approach** to harmonize and promote coherence to all capacity building efforts for implementation of CORSIA Annex 16, Volume IV (*Resolution A41-22, paragraph 21*).
- ACT-CORSIA also allows to **monitor the global progress** on CORSIA implementation and enhance transparency.



www.icao.int/corsia

ACT-CORSIA Buddy Partnerships

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- ACT-CORSIA includes the organization of **seminars and training sessions**, development of **outreach materials** (e.g., brochure, leaflets, videos, newsletters) and establishment of **CORSIA buddy partnerships among States**, which have been instrumental to the successful implementation of MRV requirements.
- Under ACT-CORSIA buddy partnerships, technical experts from **supporting States** are working together with CORSIA Focal Points of support-requesting States to provide on-site / remote training and follow-up on the required actions, in close coordination with the Secretariat (HQ and ROs).



ACT-CORSIA Buddy Partnerships

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Different phases with specific focus areas in order to support necessary actions by States with different timelines

Phase I (Sep 2018 – Apr 2019): 15 supporting States and 98 requesting States

- Development and approval of Emissions Monitoring Plans
- Establishment of national/regional regulatory frameworks

Phase II (May 2019 – Apr 2020): 16 supporting States and 114 requesting States

- CO2 Emissions reporting and verification

Phase III (Apr 2020 – Dec 2024): 17 supporting States and 119 requesting States

- Use of the CORSIA Central Registry (CCR)

Phase III (Jan 2025 – Ongoing): 16 supporting States and 120 requesting States

- Lessons learned and improved support to MRV



The focus areas of each Phase can form the basis for checklist to assess the progress made and milestones achieved in order to determine the need for a tailored approach to training.

ACT >>> CORSIA Phase III Assistance, Capacity-building and Training on CORSIA			
Australia Brunei Darussalam Indonesia Nauru Papua New Guinea Sri Lanka Thailand	France (Facilitated by ACAS) Algeria Morocco Tunisia Germany Albania Armenia Azerbaijan Belarus Georgia Kazakhstan North Macedonia Republic of Moldova Saudi Arabia Serbia Tajikistan Turkmenistan	Kenya/United Kingdom Ethiopia Rwanda Seychelles South Sudan Uganda United Republic of Tanzania Nigeria Gambia Ghana Liberia Sierra Leone Sudan	South Africa Botswana Eswatini Lesotho Malawi Namibia Zambia Zimbabwe Spain (Facilitated by COCESNA) Bolivia Belize* Colombia Costa Rica* Cuba Equatorial Guinea Guatemala* Honduras* Mexico Nicaragua* Peru Paraguay El Salvador* Uruguay
Brazil Angola Cabo Verde Mozambique Sao Tome and Principe	Canada (Facilitated by CASSOS) Antigua and Barbuda Barbados Guyana Haiti Jamaica Suriname Trinidad and Tobago	Indonesia Fiji Samoa Solomon Islands Vanuatu	Qatar Bahrain Iran Iraq Jordan Kuwait Libya Oman
Canada/France Benin Burkina Faso Burundi Cameroon Central African Republic Chad Comoros Congo Côte d'Ivoire D. R. of Congo Djibouti Gabon Guinea Madagascar Mali Mauritania Mauritius Niger Senegal Togo	Japan Bangladesh Bhutan Cambodia Malaysia Myanmar	Republic of Korea Lao People's D. R. Mongolia Pakistan Philippines Vietnam	United Kingdom Bahamas Chile Eritrea Somalia Timor-Leste United States Argentina Dominican Republic Ecuador Panama
	Singapore Cook Islands Kiribati Marshall Islands Palau Tonga Tuvalu		



16 SUPPORTING STATES
120 REQUESTING STATES

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Benefits for CORSIA Participation: [https://www.icao.int/environmental-protection/Pages/A39 CORSIA FAQ5.aspx](https://www.icao.int/environmental-protection/Pages/A39_CORSIA_FAQ5.aspx)

Thank You



transformation@icao.int

icao.int/transformation

Intranet: OSG/TransformationalObjective