

ICAO MEMBER STATES PARTICIPATING IN CORSIA need to ensure that their aeroplane operators comply with the CORSIA offsetting requirements every three years, in addition to annual CO<sub>2</sub> MRV.



- Participation of States in the pilot phase [2021 to 2023] and first phase [2024 to 2026] is voluntary.
- For the second phase from 2027, all States with an individual share of international aviation activity in year 2018 above 0.5% of total activity or whose cumulative share reaches 90% of total activity, are included. Least Developed Countries, Small Island Developing States and Landlocked Developing Countries are exempt unless they volunteer to participate.

### HOW TO CALCULATE CO<sub>2</sub> OFFSETTING REQUIREMENTS?

$$\text{Operator's Annual CO}_2 \text{ Offsetting Requirements} = \text{Operator's Annual CO}_2 \text{ Emissions subject to Offsetting Requirements} \times \text{Growth Factor}^*$$

\* 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 as shown below.



### HOW OFFSETTING REQUIREMENTS UNDER CORSIA ARE MET

- After the calculation of the offsetting requirements to be attributed to an aeroplane operator (see above):
- The operator reports the use of CORSIA Eligible Fuels (Sustainable Aviation Fuels and Lower Carbon Aviation Fuels) for the compliance period.
  - The State deducts the benefits from the use of CORSIA Eligible Fuels and informs the operator's final offsetting requirements for the 3-year compliance period.
  - The operator purchases and cancels eligible emissions units equivalent to its final offsetting requirements for the compliance period.
  - The operator provides a verified Emissions Units Cancellation Report to the State; the State checks the Report and submits aggregated data to ICAO.

CORSIA is a global market-based measure designed to offset international aviation CO<sub>2</sub> emissions in order to stabilize the levels of such emissions from 2020 onwards (CNG2020). Offsetting of CO<sub>2</sub> emissions will be achieved through the acquisition and cancelation of emissions units from the global carbon market by aeroplane operators.

### WHY JOIN CORSIA?

The more States join CORSIA, and the earlier they join, the more emissions are covered, increasing the environmental integrity of the scheme.

The more emissions are covered, more units will be needed, thus increasing opportunities to invest in emissions reduction projects, particularly in developing States.

States that voluntarily participate in CORSIA will be given priority for capacity building and assistance.

### ICAO'S ASPIRATIONAL GOALS

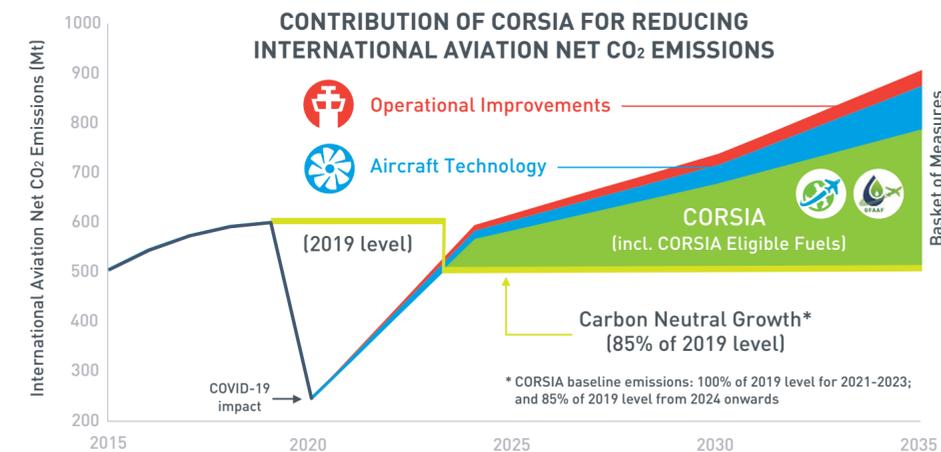
ICAO has agreed on three aspirational goals for the international aviation sector:

- 2% annual fuel efficiency improvement through 2050
- Carbon neutral growth from 2020 onwards (CNG 2020)
- Long-term global aspirational goal of net-zero carbon emissions by 2050

### ICAO'S BASKET OF MEASURES

ICAO has identified the following areas that can contribute to the attainment of the global aspirational goals:

- Aircraft related technology and standards
- Improved air traffic management and operational improvements
- Development and deployment of sustainable aviation fuel
- CORSIA



### SUSTAINABLE DEVELOPMENT GOALS

ICAO's environmental work contributes to 14 out of the 17 United Nations SDGs

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# CORSIA

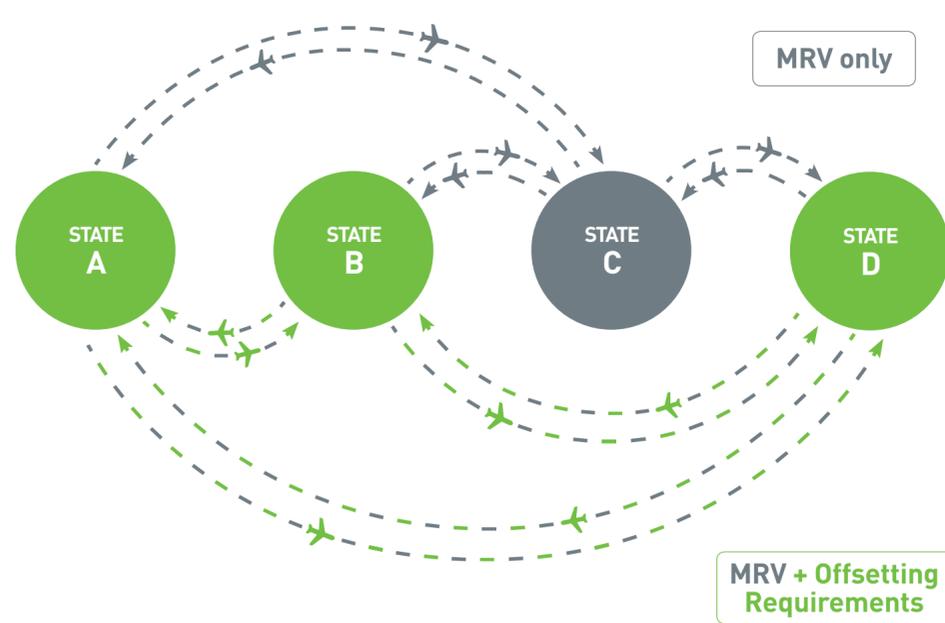
## CARBON OFFSETTING AND REDUCTION SCHEME FOR INTERNATIONAL AVIATION IMPLEMENTATION PLAN

ALL ICAO MEMBER STATES with aeroplane operators conducting international flights are required to monitor, report, and verify (MRV) CO<sub>2</sub> emissions from these flights every year from 2019, independently of their participation in CORSIA.

### HOW DOES AN AEROPLANE OPERATOR MONITOR CO<sub>2</sub> EMISSIONS?

- An aeroplane operator shall monitor and record its fuel use from international flights in accordance with an eligible monitoring method approved by the State to which it is attributed, and shall use the same eligible monitoring method for the entire 3-year compliance period.
- An aeroplane operator can choose from five different eligible methods for fuel use monitoring. The methods are equivalent, there is no hierarchy for selecting a method.
- An aeroplane operator may choose to use the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT), accessible through the ICAO CORSIA website.

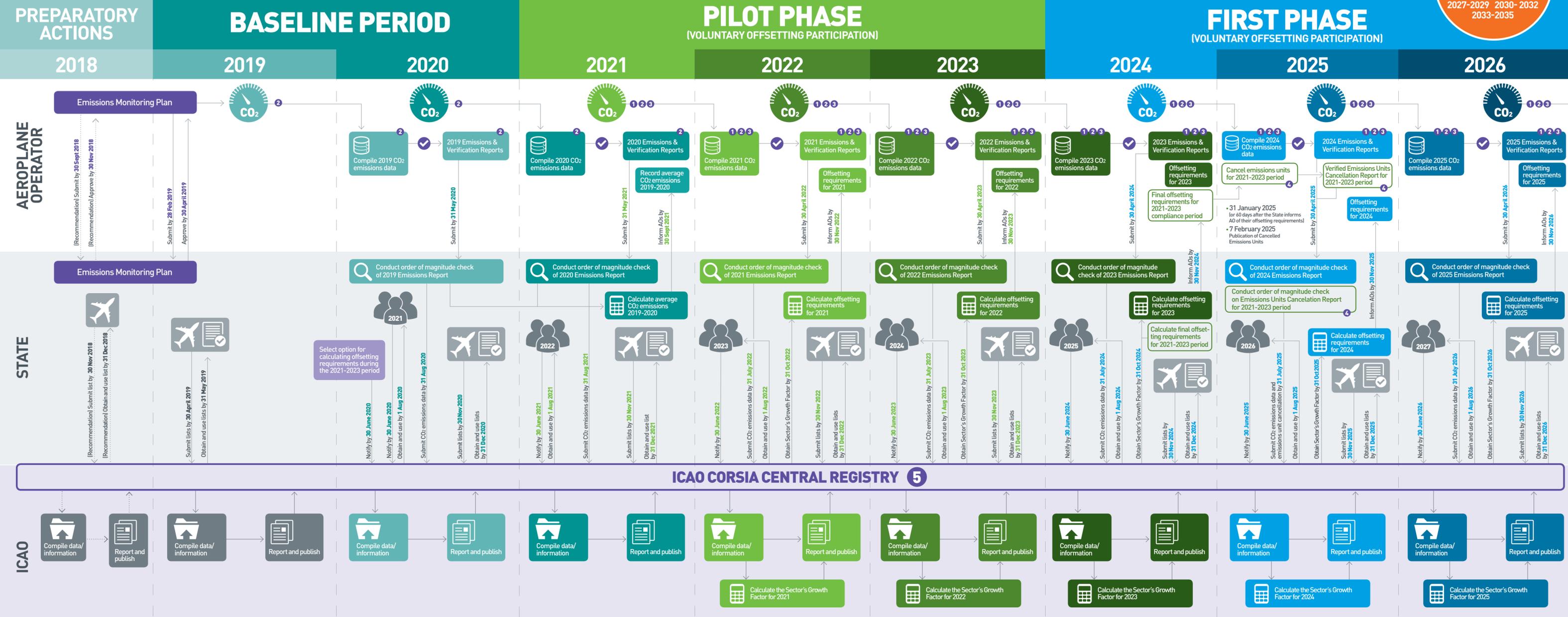
### CORSIA ROUTE-BASED APPROACH



- Participating State in CORSIA
- Non-participating State in CORSIA
- ✈ --- Route subject to MRV of CO<sub>2</sub> emissions
- - - ✈ - - - Route subject to offsetting requirements and MRV of CO<sub>2</sub> emissions

# CORSIA PHASED IMPLEMENTATION DIAGRAM

**SECOND PHASE**  
COMPLIANCE PERIODS  
2027-2029 2030-2032  
2033-2035



## Checklist for Annual CO<sub>2</sub> Emissions (Reporting Year: 20XX)

YEAR	TIMELINE	WHO	ACTION
20XX	1 January – 31 December	Aeroplane Operator	○ Monitor 20XX CO <sub>2</sub> emissions from international flights in accordance with the approved Emissions Monitoring Plan
	by 30 November	State	○ Use the CCR to submit to ICAO the 20XX list of aeroplane operators attributed to the State and, if applicable, list of verification bodies accredited in the State
20XX+1	by 30 April	Aeroplane Operator	○ Compile 20XX CO <sub>2</sub> emissions and prepare the 20XX Emissions Report (ER) ○ Perform internal pre-verification of the 20XX ER (optional) ○ Engage with a verification body for the verification of the 20XX ER ○ Submit the verified 20XX ER and associated Verification Report to the State of attribution
	by 31 July	State	○ Conduct an order of magnitude check on the submitted 20XX ER(s) by the aeroplane operator(s) attributed to the State ○ Aggregate the submitted 20XX CO <sub>2</sub> emissions ○ Use the CCR to submit to ICAO the aggregated 20XX CO <sub>2</sub> emissions
	by 30 November	State	○ Obtain ICAO document "CORSIA Annual Growth Sector's Factor (SGF)" ○ Use the 20XX SGF to calculate the 20XX offsetting requirements for the aeroplane operator(s) attributed to the State ○ Inform the aeroplane operator(s) of 20XX offsetting requirements

## Checklist for Cancelled Eligible Emissions Units (Period: 2021-2023)

YEAR	TIMELINE	WHO	ACTION
2024	by 30 November	State	○ Calculate the final 2021-2023 offsetting requirements for the aeroplane operator(s) attributed to the State ○ Inform aeroplane operator(s) of final 2021-2023 offsetting requirements
	by 31 January*	Aeroplane Operator	○ Based on the final 2021-2023 offsetting requirements, cancel Eligible Emissions Units for compliance during the Pilot Phase
2025	by 7 February	Aeroplane Operator	○ Request the respective Eligible Emissions Units Programme registry (or registries) to publish on website(s) the cancellation of Eligible Emissions Units for 2021-2023
	by 30 April	Aeroplane Operator	○ Prepare the 2021-2023 Emissions Units Cancellation Report (EUCR) ○ Engage with a verification body for the verification of the EUCR ○ Submit the verified EUCR and the associated Verification Report to the State of attribution
	by 31 July	State	○ Conduct order of magnitude check on the submitted 2021-2023 EUCR(s) by the aeroplane operator(s) attributed to the State ○ Aggregate the submitted information on the cancelled Eligible Emissions Units for 2021-2023 ○ Use the CCR to submit to ICAO the aggregated information on the canceled Eligible Emissions Units for 2021-2023

\* Note: by 31 January 2025 or 60 days after the State informs aeroplane operator(s) of total final offsetting requirements for the 2021-2023 period, whichever date comes later

## CORSIA IMPLEMENTATION ELEMENTS

- 1 CORSIA States for Chapter 3 State Pairs
- 2 ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)
- 3 CORSIA Eligible Fuels
- 4 CORSIA Eligible Emissions Units
- 5 CORSIA Central Registry
- Monitor CO<sub>2</sub> emissions from international flights
- State participation in CORSIA in year 20XX
- Aeroplane operator attributed to the State
- Verification body accredited in the State
- Verification

The information on actions for CORSIA implementation contained herein is based on the relevant provisions of Annex 16, Volume IV (Standards and Recommended Practices relating to CORSIA) and Environmental Technical Manual (DOC 9501), Volume IV, as well as other relevant decisions by the ICAO Assembly and Council. All reasonable efforts have been made to ensure accuracy, but ICAO makes no warranties in relation to the information contained herein and assumes no responsibility or liability arising in connection with its use or misuse.