



39th

TRIENNIAL ASSEMBLY

ICAO HQ, MONTRÉAL, 27 SEP-07 OCT 2016

Key outcomes and their effect on global connectivity

ICAO 39th Assembly

Carbon Offsetting and
Reporting Scheme for
International Aviation

CORSIA





Tackling the climate challenge





Setting the strategic direction



GOAL 1

PRE-2020 AMBITION

1.5% ANNUAL AVERAGE FUEL EFFICIENCY IMPROVEMENT FROM 2009 TO 2020.

T O I

GOAL 2

IN LINE WITH THE NEXT UNFCCC COMMITMENT PERIOD

STABILISE NET AVIATION CO₂ EMISSIONS AT 2020 LEVELS WITH CARBON-NEUTRAL GROWTH.

T O I + M

GOAL 3

ON THE 2°C PATHWAY

REDUCE AVIATION'S NET CO₂ EMISSIONS TO 50% OF WHAT THEY WERE IN 2005, BY 2050.

T O I



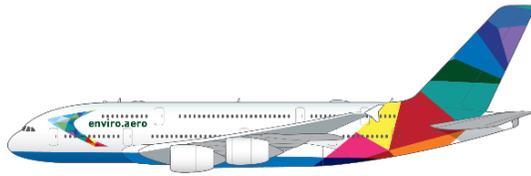
Making tactical improvements across the system

- T** TECHNOLOGY
- O** OPERATIONS
- I** INFRASTRUCTURE
- M** MARKET-BASED
MEASURE





T TECHNOLOGY



AIRBUS A380 / 2006



BOEING 787 / 2011



BOEING 747-8 / 2012



ATR-600 / 2013



AIRBUS A350 / 2015



BOMBARDIER CSERIES / 2015



AIRBUS A320neo / 2015



BOEING 737MAX / 2017



EMBRAER E2 / 2018



BOEING 777-X / 2020

ICAO CO2 Standard for new aircraft types from 2020





T TECHNOLOGY - Sustainable Alternative Fuels

Alternative Fuels could reduce CO₂ from airline operations by up to 80%.

Industry is working with supply chain, researchers, civil society to introduce sustainability standards.

Can be created from waste sources and non-food crops.

Over 5,500 commercial flights by end-2016.





0 OPERATIONS



**LIGHTWEIGHT
CABIN
EQUIPMENT**



**RETRO-FITTING
WINGLETS**



**TABLET
COMPUTERS
REPLACING
PILOT
MANUALS**



**SLIMLINE SEATS
- LOWER WEIGHT**



**CONTINUOUS
DESCENT AND
CLIMB
OPERATIONS**



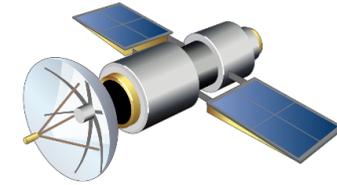
TAXIING ON ONE ENGINE



**FIXED
ELECTRICAL
GROUND POWER**

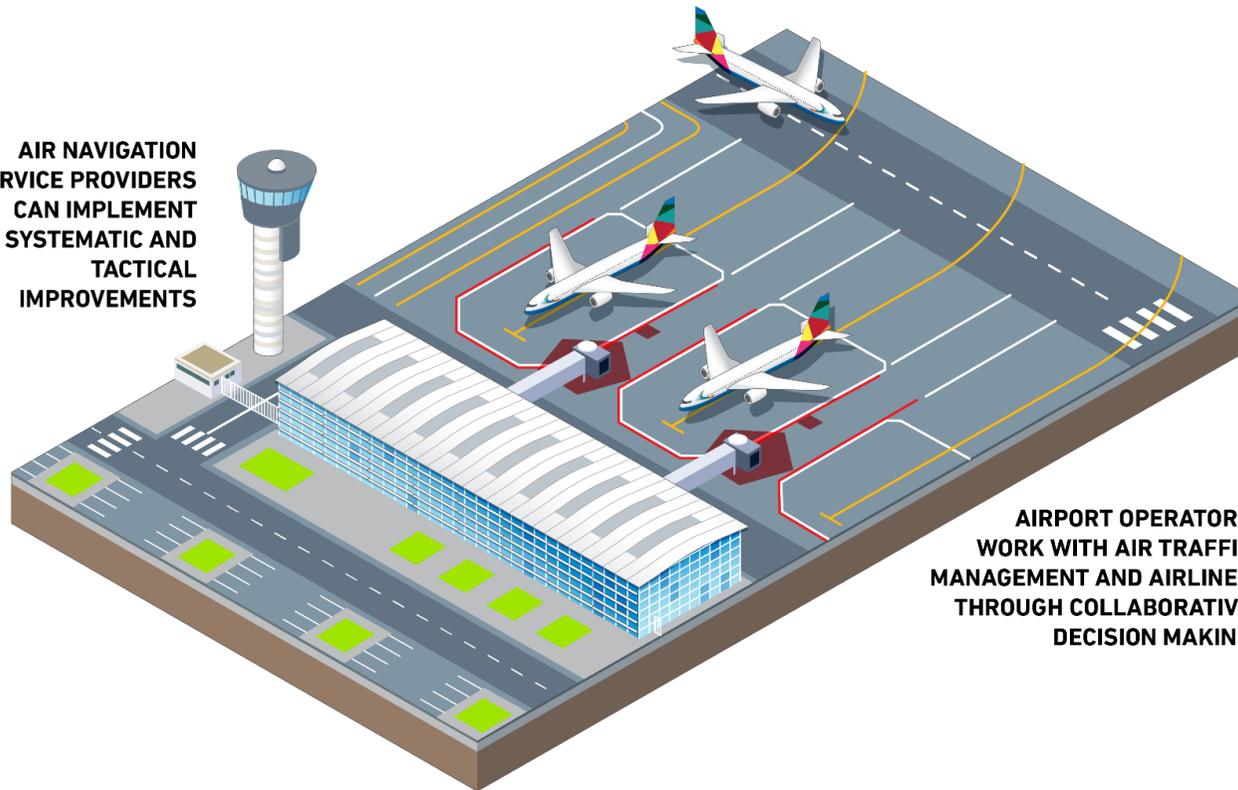


I INFRASTRUCTURE



**SATELLITE-BASED NAVIGATION
SYSTEMS ALLOW FLIGHTS TO
OPERATE IN BEST CONDITIONS**

**AIR NAVIGATION
SERVICE PROVIDERS
CAN IMPLEMENT
SYSTEMATIC AND
TACTICAL
IMPROVEMENTS**

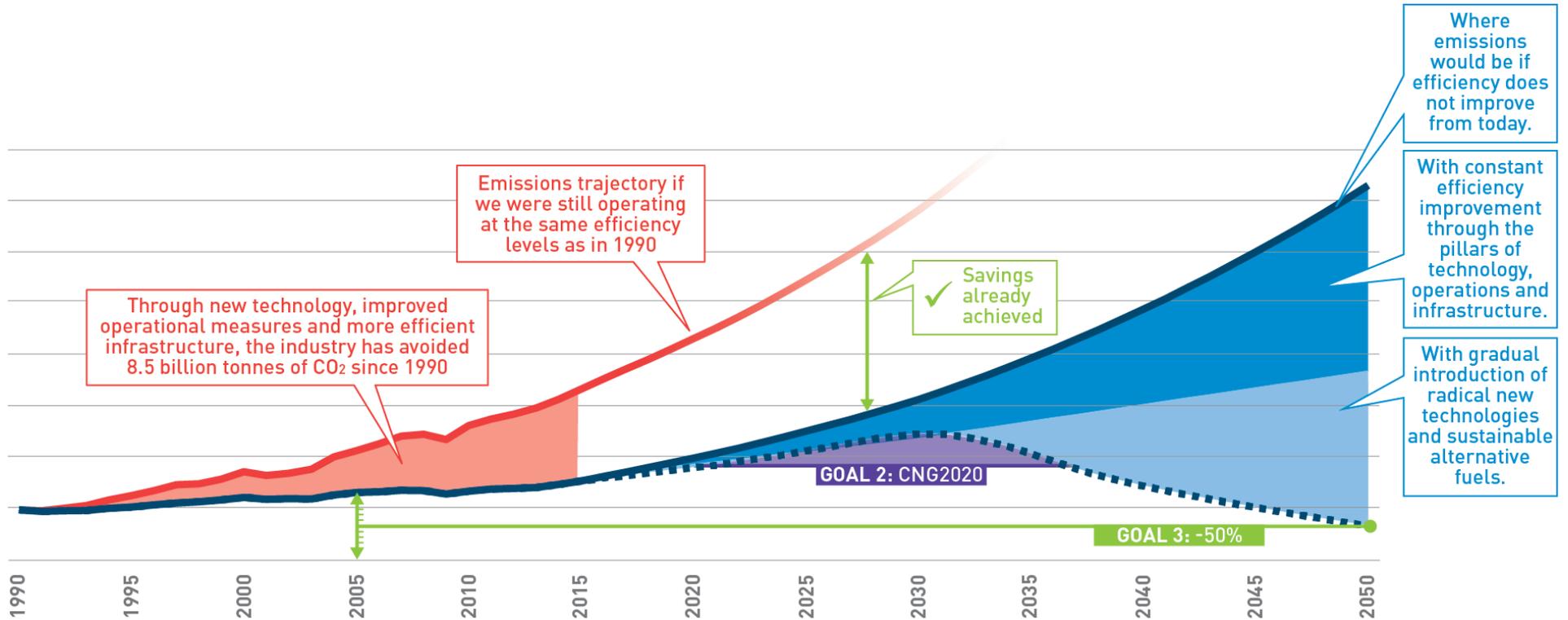


**AIRPORT OPERATORS
WORK WITH AIR TRAFFIC
MANAGEMENT AND AIRLINES
THROUGH COLLABORATIVE
DECISION MAKING**





M MARKET-BASED MEASURE



ICAO 39th Assembly

➤ Historic decision at ICAO Assembly

- **First global sectoral approach on Climate Change**
- **Strong support from member States**
- **Strong support from industry**
- **Culmination of 7 years' work**
- **Reduces risk of patchwork of other measures**

CORSIA
CARBON OFFSETTING AND
REDUCTION SCHEME FOR
INTERNATIONAL AVIATION



CORSIA

Addresses post 2020 emissions growth:

- Growth in emissions covered via offsetting
- Each operator has an obligation to offset
- Monitoring and reporting to State of registration
- CORSIA should be the only scheme
- Review every 3 years

How does CORSIA work?

- 5 phases from 2021 to 2035 first 2 voluntary – mandatory from 2027
- First 3 phases obligations on shared basis - thereafter more individual responsibility

	<i>Voluntary</i>		<i>Mandatory</i>		
	<i>Pilot Phase 1</i>	<i>Phase 2</i>	<i>Phases 3 to 5</i>		
When	2021-2023	2024-2026	2027-2029	2030-2032	2033-2035
Who	States which volunteer	States which volunteer	All States with some small exemptions*	All States with some small exemptions*	All States with some small exemptions*
What	100% sectoral	100% sectoral	100% sectoral	At least 20% individual	At least 70% individual

*LDC's = Least Developed Countries; LLDC's = Land-locked Developing Countries; SIDS = Small Island Developing States

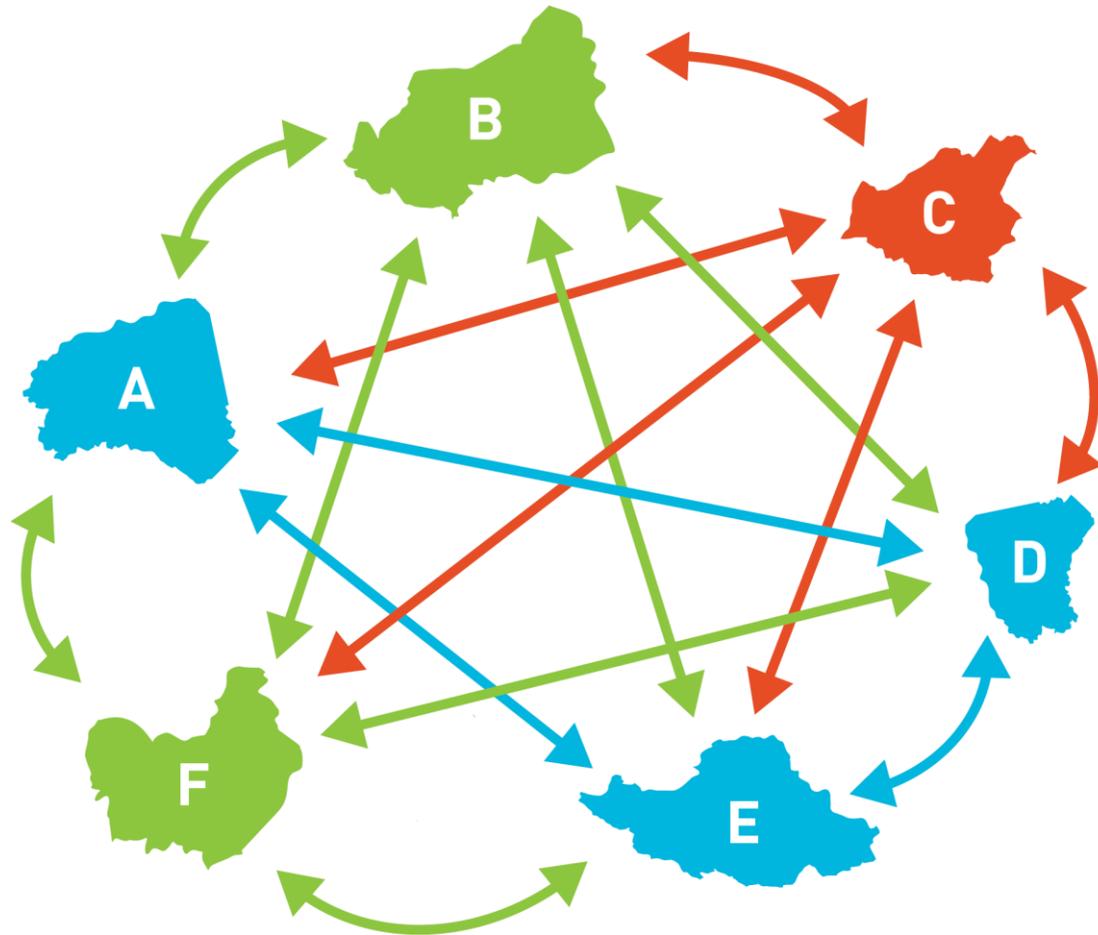
Which States have volunteered?



AS OF 12 OCTOBER 2016, 66 STATES HAVE VOLUNTEERED TO BE PART OF CORSIA FROM THE START.

- 66 States from Phase 1
- 80+ % of emissions growth
- Mandatory from 2027
- Over 90% of emissions growth covered

Route-based approach



- ← Included from 2021
- ← Included from 2027
- ← Exempt from CORSIA

Limited Market Distortion

Technical work at ICAO continues



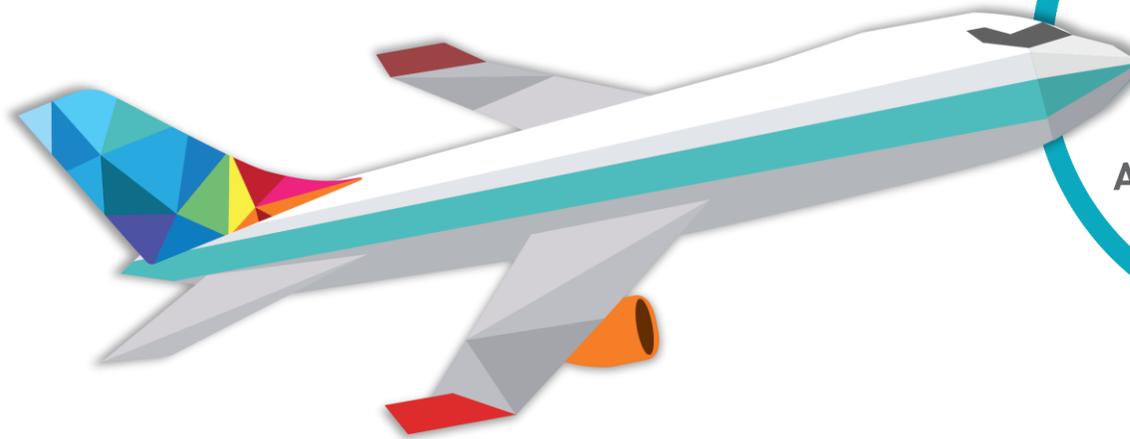
➤ **Monitoring Reporting
and Verification**



➤ **Standards for Carbon
Credits**



How will offsetting work for aviation?



**AIRCRAFT EMIT CO₂
AS THEY FLY, AND
EMISSIONS ARE
MONITORED BY
THE AIRLINE OR
AIRCRAFT OPERATOR.**





How will offsetting work for aviation?



**AIRLINE EMISSIONS
REPORTS ARE
CHECKED BY
INDEPENDENT
VERIFICATION
AGENCIES.**





How will offsetting work for aviation?

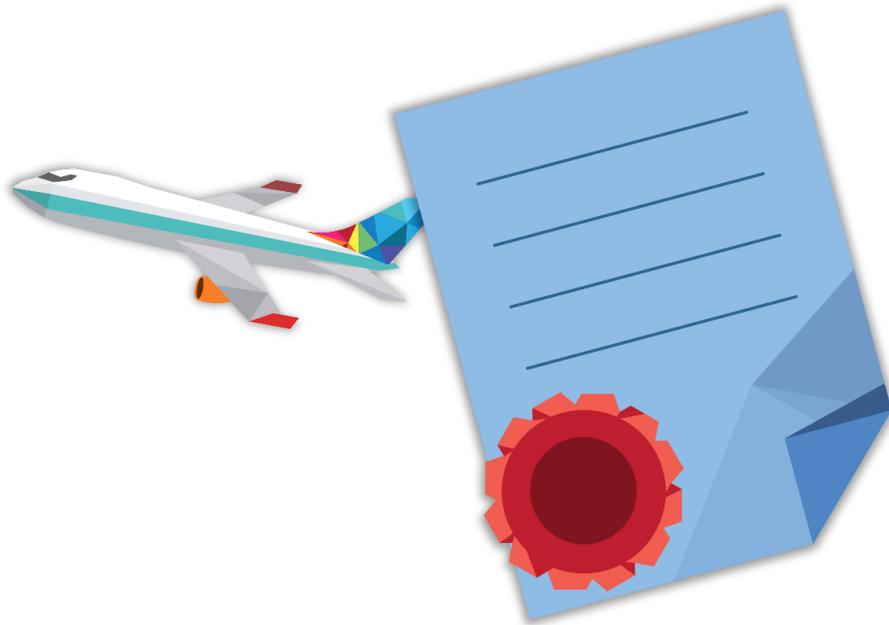


**AIRLINES SUBMIT
THEIR OWN
EMISSIONS
REPORTS TO
GOVERNMENTS.**





How will offsetting work for aviation?



**GOVERNMENTS,
WORKING TOGETHER
THROUGH ICAO,
INFORM EACH AIRLINE
HOW MUCH CO₂ IT
MUST OFFSET.**



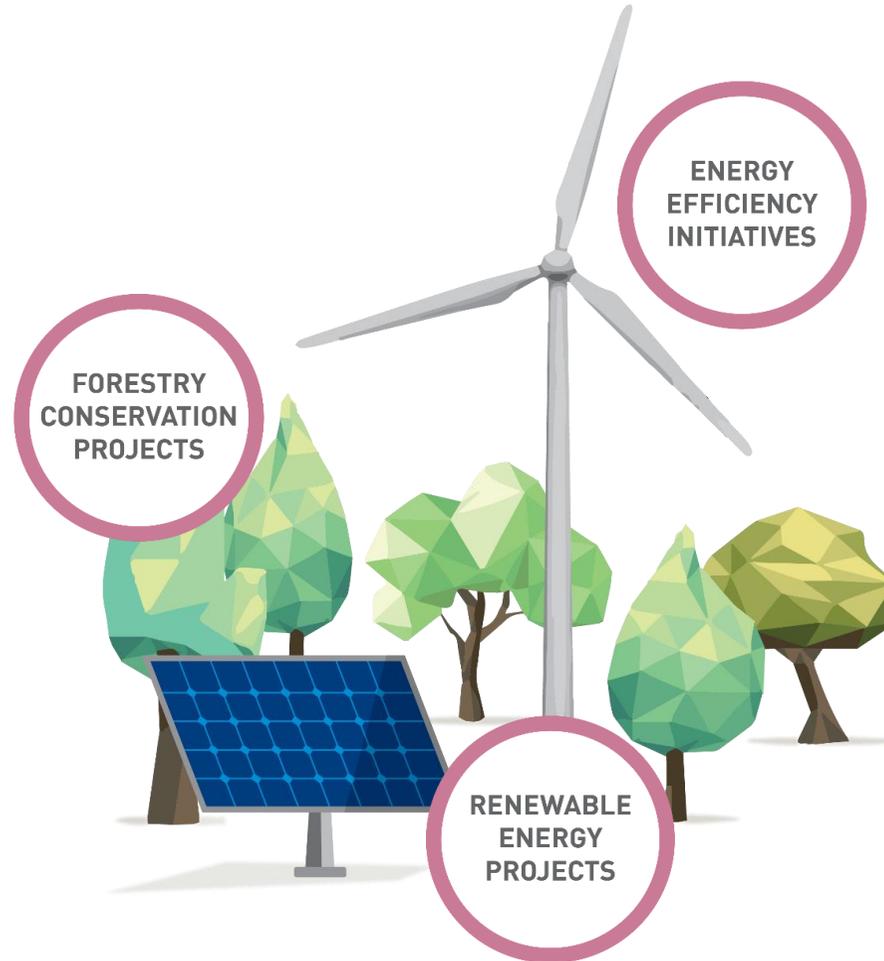
How will offsetting work for aviation?



**AIRLINES
PURCHASE THE
APPROPRIATE
NUMBER OF
OFFSET UNITS.**

How will offsetting work for aviation?

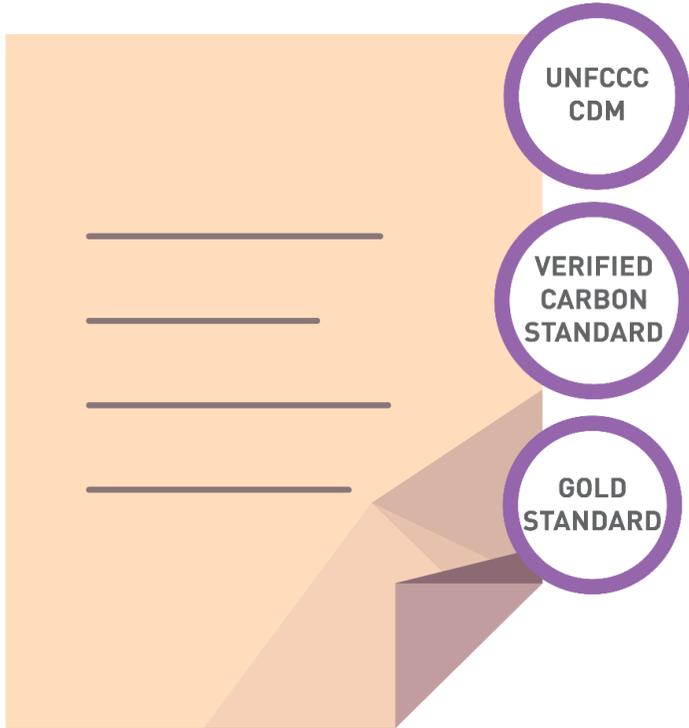
CARBON OFFSETS ARE GENERATED FROM A RANGE OF CLIMATE PROJECTS, OFTEN BASED IN DEVELOPING NATIONS.





How will offsetting work for aviation?

TO ENSURE THAT THE CO₂ SAVINGS ARE REAL, AVIATION WANTS TO USE EXISTING GLOBALLY-RECOGNISED STANDARDS.





How will offsetting work for aviation?

EACH TONNE OF CO₂ SAVED PRODUCES ONE CARBON OFFSET UNIT (ALSO SOMETIMES CALLED A CARBON CREDIT), WHICH IS GIVEN A UNIQUE TRACKING NUMBER.



How will offsetting work for aviation?

THESE CARBON OFFSET UNITS ARE THEN MADE AVAILABLE FOR SALE ON THE 'CARBON MARKET' AND CAN BE PURCHASED THROUGH INDEPENDENT TRADERS, BROKERS OR BANKS.





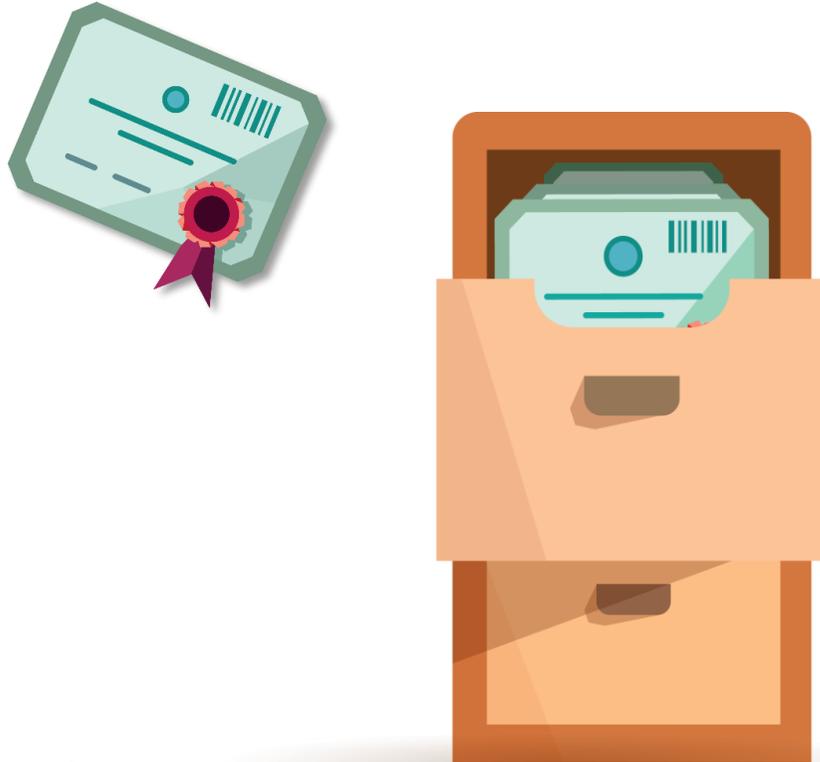
How will offsetting work for aviation?



**ONCE A CARBON
OFFSET UNIT IS
USED BY AN
AIRLINE TO OFFSET
ONE TONNE OF CO₂,
IT IS 'CANCELLED'
TO ENSURE IT CAN'T
BE USED AGAIN.**



How will offsetting work for aviation?



TO ENSURE THAT AIRLINES ARE MEETING THEIR OFFSET OBLIGATIONS, A REGISTRY KEEPS TRACK OF THE OFFSETS ISSUED, TRADED AND SURRENDERED. A GLOBAL REGISTRY IS LINKED TO INDIVIDUAL COUNTRY REGISTRIES TO KEEP A GLOBAL OVERVIEW.

Industry next steps: IATA supporting ICAO

- Encouraging States to join CORSIA
- Capacity building with airlines
- Developing industry solutions



Development of industry solutions

FRED 
Fuel Reporting & Emissions Database



Long-term goal

2050
-50% CO₂

*Half the net
aviation CO₂ of
2005*

**CO₂ STANDARD
FOR NEW AIRCRAFT
ADOPTED IN 2016**



CO₂RSIA

CARBON OFFSETTING AND
REDUCTION SCHEME FOR
INTERNATIONAL AVIATION





Outcomes - Economic Commission

Smarter Regulation

- Our smarter regulation work aims to extend regulatory best practices to aviation, in order to maximize aviation's potential
- IATA's working paper aimed to:
 - Incorporate smarter regulation into ICAO's "no country left behind" program
 - Ensure states incorporate smarter regulation practices by:
 - ✓ *Using ICAO policies and guidance material*
 - ✓ *Using smarter regulation principles*

IATA Smarter Regulation Principles

Principles of Policy Design:

- Consistency and coherence
- Proportionality
- Targeted at risk
- Fair and non-distortive
- Clarity and certainty

Process Principles:

- Addresses a clear need
- Impact assessment
- Independent
- Inclusive
- Reduces compliance burden
- Regular Review
- Appeal

Smarter Regulation

- The Report from the Economic Commission noted:

“General support was expressed for smarter regulation approach in IATA’s WP/140, which encouraged States to adopt this approach in their regulatory practices. It was noted that the principles of this approach would be considered by ICAO within the context of its No Country Left Behind initiative”

Funds repatriation

- Airlines are facing repatriation issues - over \$5.4billion is outstanding globally
- Repatriation issues can negatively impact air service connectivity
- Actions to avoid and resolving funds repatriation issues:
 - Obligations as per ASA/bilateral provisions
 - Prioritize payments to airlines alongside other “critical industries”
 - Work with airlines to find a win-win scenario

Funds repatriation

- Significant support from States for the IATA working paper
- The Assembly Report noted the negative impact that funds repatriation issues can have on continued operation of international air services
- The Assembly report outlined that:

“States should take measures such as those set out in WP/134 to address carrier concerns in line with ICAO guidance”

Taxation

- Taxation beyond ICAO Doc 8632 is harmful:
- IATA WP/127 invited the Assembly to:
 - urge States to adhere to ICAO's policies on taxation
 - enhance awareness of ICAO's policies and guidance
 - urge member States to avoid imposing unjustified and discriminatory taxes and reduce or eliminate such taxes
 - encourage civil aviation and transport ministries to update those ministries in charge of taxation on ICAO policy
 - urge States to perform cost-benefit analysis of existing taxes
 - encourage ICAO to collaborate with industry associations to analyze the impact of unfair taxation

Taxation

- Significant support for the paper

“With respect to the concerns over the proliferation of taxation on international air transport highlighted....there was general acknowledgment that such an imposition could have negative impacts on national economies which is not conducive to sustainable air transport development. There was wide support for the need for States to adhere to the ICAO policies on taxation in the air transport field contained in Doc 8632. A view was expressed that States have sovereignty over taxation policies. The Commission agreed that States should be encouraged to follow the ICAO policies on taxation.”

Summary and request for support

- **Smarter regulation**

- Is there an opportunity to discuss a smarter regulation approach to aviation within your department and across your government?

- **Funds conversion and Repatriation**

- Obligations under ASAs / ensure wording in revisions or new ASAs
- In affected countries – outreach to finance ministries and central banks to help us make the case for aviation to be prioritized

- **Taxation**

- Outreach to finance ministries to adhere to ICAO Doc. 8632 and present evidence of positive impact of removal of taxes

Questions?

Thank you!