



: The Role of Carbon Markets in Tackling Aviation Emissions

Initial remarks



: What drives emissions in the aviation industry?



Aircraft

Energy consumption , efficiency	Design	Emissions conditioned by design
Energy source: fossil fuel , SAF, H ₂ , electric	Design	



Operations

Routes served	Airlines business model	➡ Emissions
Flights conditions	Weather conditions	➡ Emissions
Ground operations	landing + taxi + take-off cycle infrastructure, regulations	➡ Emissions



Travellers preferences

Travel preferences	How frequent? How far?
Options for travellers	Only by flying? Terrestrial-based mobility?



: How to bring aviation industry into an ETS?

What you need to know as policy maker?

- Fuel type, consumption and emissions, per aircraft type and route
- Domestic or international operations

Reporting obligations

- Regulatory basis
- Content, frequency, process
- Verification obligation

Reporting technical requirements:

- Method to follow
- Accreditation of verifiers
- Verification

Which decisions you have to make as policy maker?

What is an “acceptable” level of emissions for the country?

Emissions level needed: Limit to emissions

Emissions level over time: trajectory emissions

Economic implications of decision



How an ETS helps the country reduce its emissions?

Priority sectors:

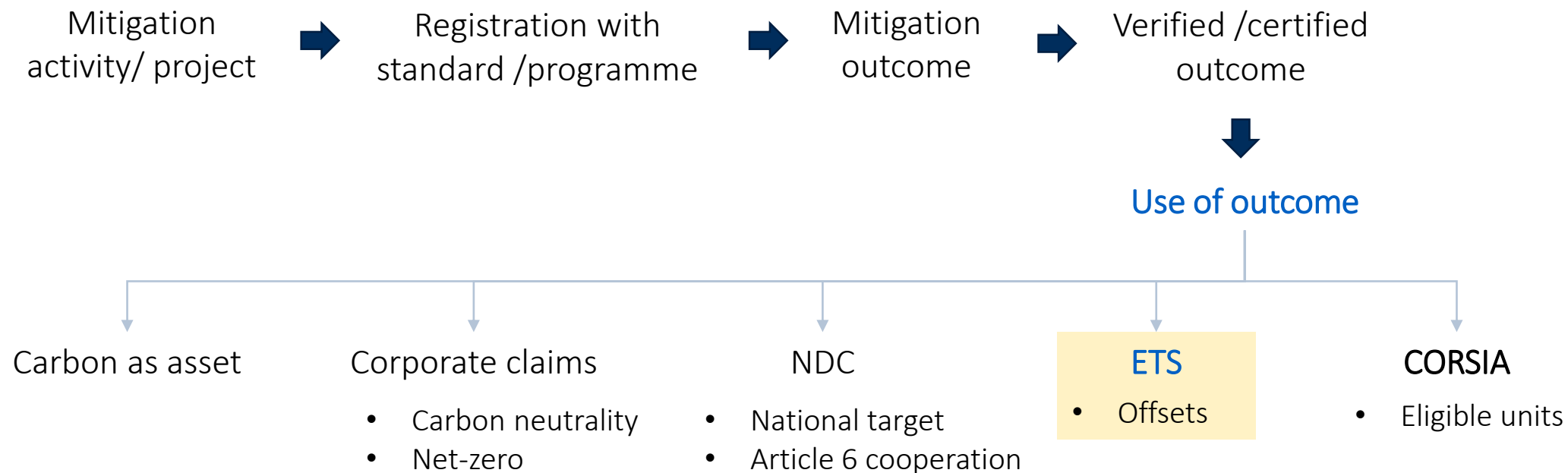
- Stringency of target
- Which emission sources
- Mitigation potential
- Verifiable outcomes

ETS design considerations:

- Target
- Scope and coverage
- Emissions thresholds
- Allowances allocation
- Offsets
- Review and update



: Emerging challenges for policy makers: tracking, transparency, accounting



How to avoid double counting and double claiming?

What is the best or most efficient use of mitigation outcomes?

How CORSIA works?

Programmes:

- Comply with CORSIA criteria
- Generate emission reduction units
- Publish list of cancelled units

(A)
(D)

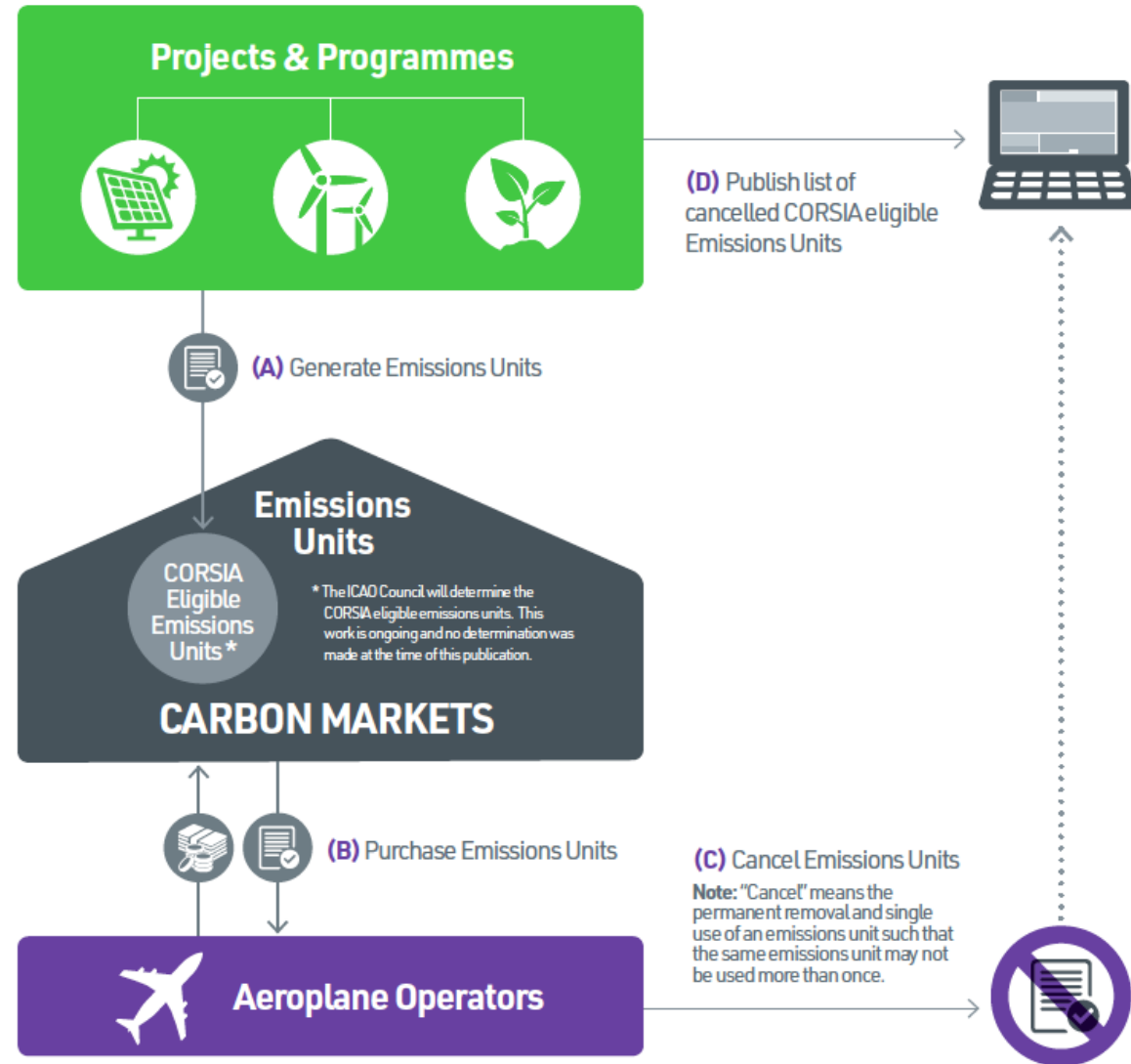
Governments:

- Calculate offsets requirements
- Inform airlines
- Track compliance and notify

Airlines:

- report verified emissions
- Purchase eligible emissions units
- Cancel units and report

(B)
(C)





: CORSIA compliance: cancellation of eligible units



Airlines must demonstrate that they compensate emissions through the acquisition and cancellation of emissions reductions **units**.



Only **units** which are “CORSIA eligible” may be used



CORSIA eligibility of **units** comes from an assessment of programs that issue units and their compliance with ICAO’s **Emissions Units Criteria**:

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



Technical Advisory Body (**TAB**) has the mandate to assess eligibility and present recommendations to **ICAO Council** for them to decide



What is assessed by the TAB?



<https://www.icao.int/environmental-protection/CORSIA/Documents/CORSIA%20Leaflets/CorsiaLeaflet-EN-10-WEB.pdf>

Program Design Elements:

1. *Clear Methodologies and Protocols, and their Development Process*
2. *Scope Considerations*
3. *Offset Credit Issuance and Retirement Procedures*
4. *Identification and Tracking*
5. *Legal Nature and Transfer of Units*
6. *Validation and Verification procedures*
7. *Program Governance*
8. *Transparency and Public Participation Provisions*
9. *Safeguards System*
10. *Sustainable Development Criteria*
11. *Avoidance of Double Counting, Issuance and Claiming*

Carbon Offset Credit Integrity Assessment Criteria:

1. *Carbon offset programs must generate units that represent emissions reductions, avoidance, or removals that are additional*
2. *Carbon offset credits must be based on a realistic and credible baseline*
3. *Carbon offset credits must be quantified, monitored, reported and verified*
4. *Carbon offset credits must have a clear and transparent chain of custody within the offset program*
5. *Permanence*
6. *A system must have measures in place to assess and mitigate incidences of material leakage*
7. *Are only counted once towards a mitigation obligation*
8. *Carbon offset credits must represent emissions reductions, avoidance, or carbon sequestration from projects that do no net harm*

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