

Featured Speaker

Dr Bruno Silva

Environment Officer, ICAO

**ISCC Technical
Stakeholder Meeting
Sustainable Aviation Fuels**

19 September 2023

11.00 am – 05.30 pm

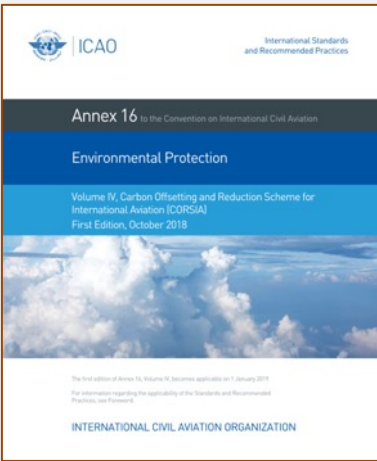
(Central European Summer Time, UTC +2)

iscc-system.org





Globally Accepted Standards



CORSIA Eligibility Framework and Requirements for Sustainability Certification Schemes	CORSIA Approved Sustainability Certification Schemes*	CORSIA Sustainability Criteria for CORSIA Eligible Fuels	CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels**	CORSIA Methodology for Calculating Actual Life Cycle Emissions Values



Sustainability

CORSIA sustainability criteria for CORSIA eligible fuels First global approach to sustainability for an industry sector

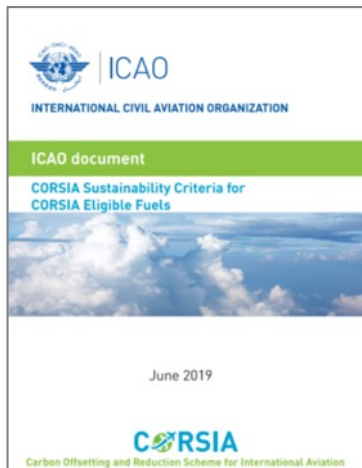
Sustainability Themes

1. Greenhouse Gases (GHG)
2. Carbon stock
3. GHG reduction permanence
4. Water
5. Soil
6. Air
7. Conservation
8. Waste and Chemicals
9. Seismic and Vibrational Impacts (Only for LCAF)
10. Human and labour rights
11. Land use rights and land use
12. Water use rights
13. Local and social development
14. Food security

**Carbon-reduction themes
(CORSIA pilot phase, 2021-2023)**

Latest updates (November/2022)

- Environmental and socio-economic Themes for **Lower Carbon Aviation Fuels (LCAF)**
- **New Sustainability Theme on GHG permanence**
- Applicable after CORSIA pilot phase, from 2024





SCS approvals



Sustainability Themes
1. Greenhouse Gases (GHG)
2. Carbon stock
3. GHG reduction permanence
4. Water
5. Soil
6. Air
7. Conservation
8. Waste and Chemicals
9. Seismic and Vibrational Impacts (Only for LCAF)
10. Human and labour rights
11. Land use rights and land use
12. Water use rights
13. Local and social development
14. Food security

- Latest updates
(June/2023)**
- Expansion of the ISCC and RSB approvals after the CORSIA pilot phase
 - Encompasses all the 14 Sustainability Themes
 - Approvals limited to certification of CORSIA SAF



New website launched with information on CORSIA certified fuels and economic operators

- Information based on the annual reports submitted to ICAO by the approved SCSs
- Work ongoing to develop a dashboard to facilitate consultation to the information

The screenshot shows the ICAO Environment website page for CORSIA Certified Fuels and Economic operators. The page features a navigation bar with links for About ICAO, Global Priorities, Events, Information Resources, Careers, Uniting Aviation, ICAO TV, and Subscribe. The main content area is titled "CORSIA Certified Fuels and Economic operators" and includes a table of reports from ISCC and RSB for 2021 and 2022. The table is as follows:

ISCC	RSB
2021 report	2021 report
2022 report	2022 report

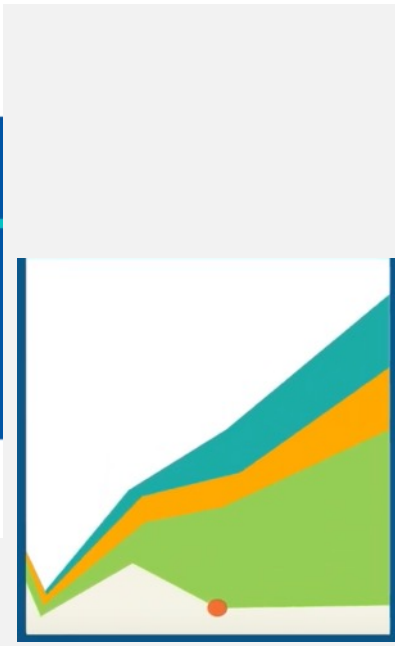
Below the table, there is a paragraph stating: "The reports provide information on the certifications performed up to 31st December of the reporting year. For more up to date information, please refer to the websites of the ICAO-approved SCSs." Two URLs are provided at the bottom of the page:

- <https://www.iscc-system.org/markets/sustainable-aviation-fuels/>
- <https://rsb.org/certification/certification-schemes/rsb-corsia-certification/>

<https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Certified-Fuels.aspx>



Policies and Goals



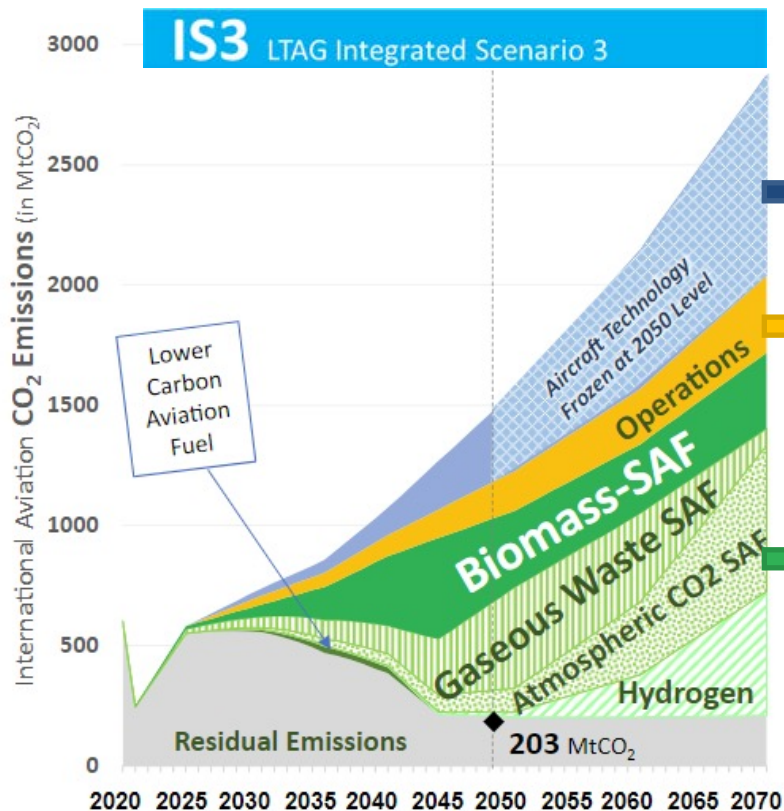
A collective long-term global aspirational goal (LTAG) of **net-zero carbon emissions from international aviation by 2050** (Resolution A41-21 Para 7)

- Need for monitoring of LTAG progress, including through the **Stocktaking, review of 2050 ICAO Vision**, etc. and the consideration of monitoring methodologies (A41-21 Para 9)
- Continue to assess progress on SAF, LCAF and other cleaner energy sources for aviation as part of the **Stocktaking**, and **CAAF/3 in 2023 for reviewing the 2050 ICAO Vision**, in order to define a global framework (A41-21 Para 28.f)





LTAG Report – Contributions from technology, operations, and fuels towards decarbonization



Advanced tube and wing, unconventional airframe/propulsion concept aircraft, non-drop-in fuels such as battery electric etc.

Improvements in the performance of flights across all phases

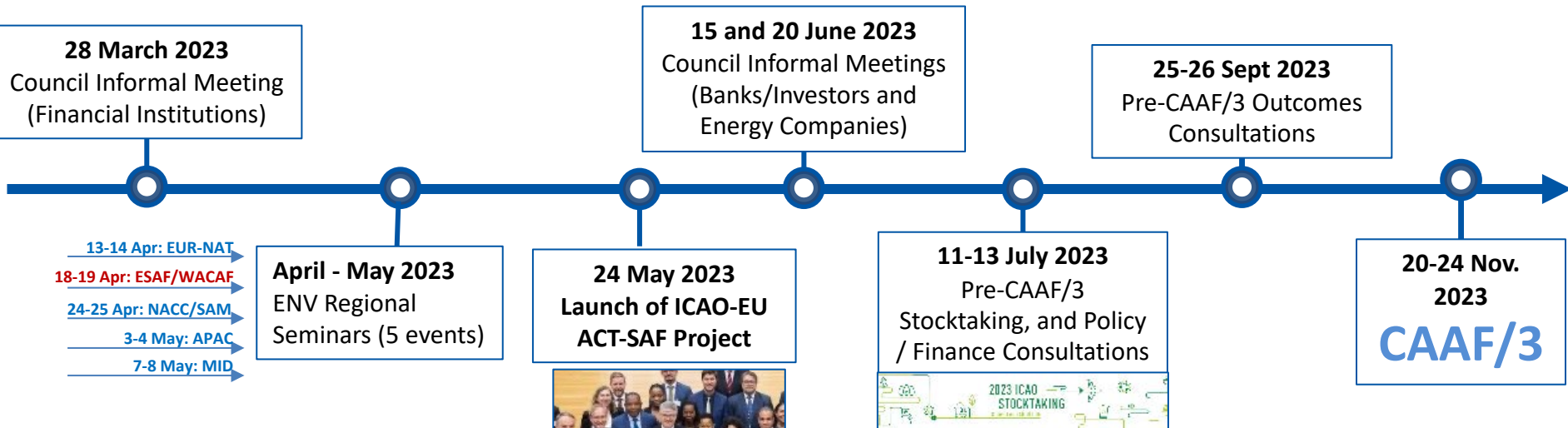
Sustainable aviation fuels (SAF) and other cleaner energy have the largest impact on residual CO₂ emissions, driving overall reductions by 2050

Contributions from hydrogen may increase in the 2050s and 2060s if technically feasible and commercially viable

Significant costs and investments will be needed



ICAO CAAF/3 Process and Timeline



Pre-CAAF/3 Policy and Finance Consultations (11-13 July 2023)

- Held with ICAO Stocktaking 2023
- Focus on policy and finance matters
- Involved public and private financial institutions
- Considered relevant elements of a global framework for aviation cleaner energy



Pre-CAAF/3 Outcomes Consultation (25-26 September 2023)

- Focus on possible CAAF/3 outcomes for an ICAO global framework for aviation cleaner energy, structured in four building blocks: Policy and Planning; Regulatory Framework; Implementation Support; Financing
- Pave way for result-oriented discussions at CAAF/3
- Draft CAAF/3 outcomes available on the event website
 - <https://www.icao.int/Meetings/pre-CAAF3/Pages/Documentation.aspx>

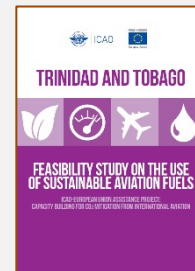
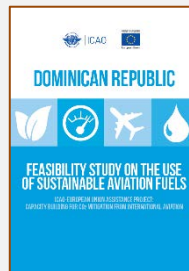


Third ICAO Conference on Aviation and Alternative Fuels (CAAF/3)

- In-person event in Dubai, UAE with hybrid capabilities from 20 to 24 November 2023
- The CAAF/3 will reviewing the 2050 ICAO Vision for SAF, including LCAF and other cleaner energy sources for aviation, in order to define an ICAO global framework in line with the No Country Left Behind (NCLB) initiative and taking into account national circumstances and capabilities
- CAAF/3 to bring together high-level officials from States who will have the authority to make policy-related decisions, as well as international organizations with direct involvement in aviation cleaner energy, that are invited to participate as observers
- Ministerial and high-level statements on 20 November 2023.

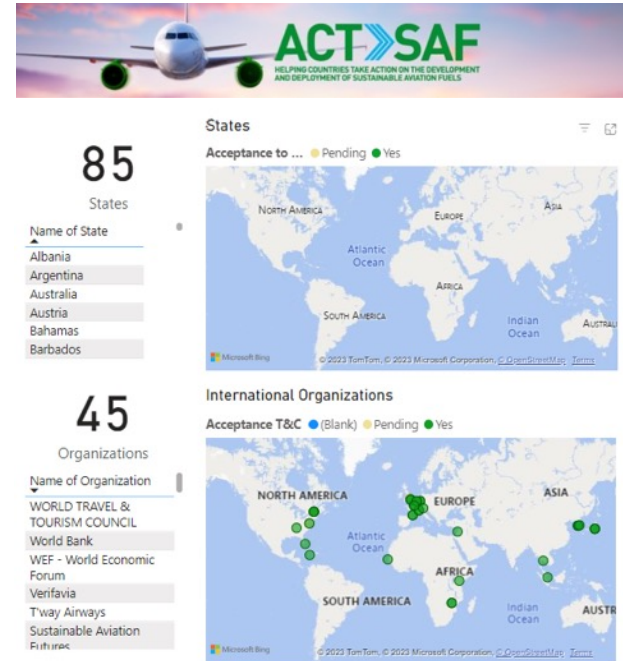
<https://www.icao.int/Meetings/CAAF3/Pages/default.aspx>

Capacity Building



Recognizing the crucial role of SAF and other cleaner energy towards the achievement of the LTAG, the **ICAO Assistance, Capacity-building and Training for SAF (ACT-SAF) was launched in June 2022**

- Creates opportunities for States to develop full potential in SAF development and deployment
- In line with ICAO No Country Left Behind, 2050 ICAO Vision for SAF, three main pillars for sustainable development recognized by the UN
- Provides tailored support for States





ACT-SAF Platform consolidates implementation support initiatives

<https://www.icao.int/environmental-protection/Pages/ACT-SAF.aspx>



ICAO ACT-SAF platform of implementation support initiatives

Many ACT-SAF partners and aviation stakeholders are supporting implementation of cleaner energies for aviation, including Sustainable Aviation Fuels. The dashboards below provides a summary of these initiatives (click on the drops for details)



Feasibility Studies
46

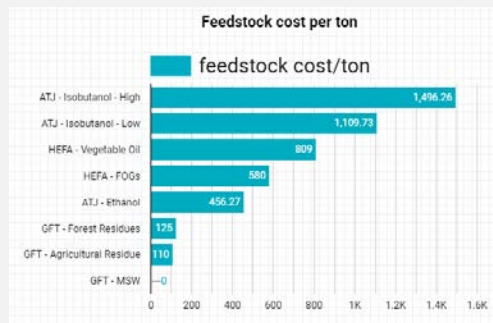
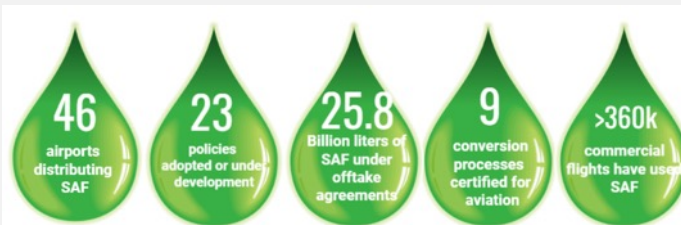
click on the map to see the initiatives related to a State



Number of Initi...
1 3

Supported State	Supporting States / Organizations	Developing Organization	Title	Details	Year	Status	references
Australia	Boeing	CSIRO	Sustainable Aviation Fuel Roadmap		2023	under development	https://research.csiro.au/tnz/sustainable-aviation-fuel-roadmap/

Outreach of information



ICAO SAF Tracker Tools

- On SAF, ICAO is tracking indicators such as airports distributing SAF, offtake agreements, and supporting policies.
- A map provides information on refineries that could produce SAF worldwide (existing and announced)

SAF Tracking tools (click for details)



- In response to numerous requests, work is ongoing to make these databases available to ICAO Member States and the general public

<https://www.icao.int/environmental-protection/pages/SAF.aspx>

Summary

- **CORSIA framework for fuels certification is ready, and being used by SCSs**
- **Intense work ongoing on CAAF/3 preparations**
- **Coordination under ACT-SAF is ongoing with many States and Partners, with the first ACT-SAF results:**
 - **ACT-SAF Training Series**
 - **Template for feasibility studies**
 - **Tracker of implementation support activities**
 - **Three ACT-SAF feasibility studies being developed, many other under evaluation**

Contact ICAO to join ACT-SAF

<https://www.icao.int/environmental-protection/Pages/ACT-SAF.aspx>





ICAO

ENVIRONMENT



ICAO

North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU