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ISCC Stakeholder Meeting North America

19 November 2019

Sustainable Aviation Fuels and the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIIA)

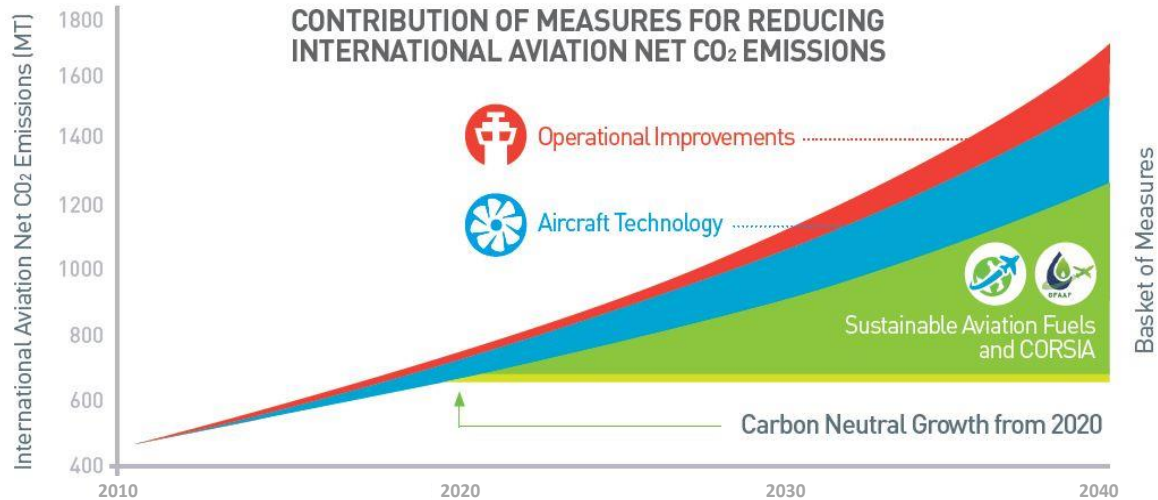
Dr. Bruno Silva, Environment Officer, ICAO





→ ICAO aspirational goal - Carbon neutral growth (CNG) from 2020 onwards.

→ To be achieved with a “basket of measures” for CO₂ reduction.



Range of CO₂ reductions from Sustainable Aviation Fuels (SAF)

→ Market-based measures (CORSIA) will complete the reductions needed.



CORSIA

CORSIA and Sustainable Aviation Fuels

The use of Sustainable Aviation fuels or lower carbon aviation fuels may reduce the airlines offsetting requirements under CORSIA

Annex 16 Vol IV definitions:

- ***CORSIA sustainable aviation fuel.*** A renewable or waste-derived aviation fuel that meets the CORSIA Sustainability Criteria under this Volume.
- ***CORSIA lower carbon aviation fuel.*** A fossil-based aviation fuel that meets the CORSIA Sustainability Criteria under this Volume.
- ***CORSIA eligible fuel.*** A CORSIA sustainable aviation fuel or a CORSIA lower carbon aviation fuel, which an operator may use to reduce their offsetting requirements.

Standards related to Sustainable Aviation Fuels in CORSIA are detailed in

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

- CORSIA – Carbon Offsetting and Reduction Scheme for International Aviation
- CORSIA is the first global MBM scheme for any industry sector
- CORSIA Standards are defined in Annex 16 Vol IV, available at:

<https://www.unitingaviation.com/publications/Annex-16-Vol-04/#page=1>



- **Status of SAF methodologies for CORSIA:**

- ✓ **Sustainability Criteria**

- ✓ **Published**

- ✓ **Methodologies for Life Cycle Emissions**

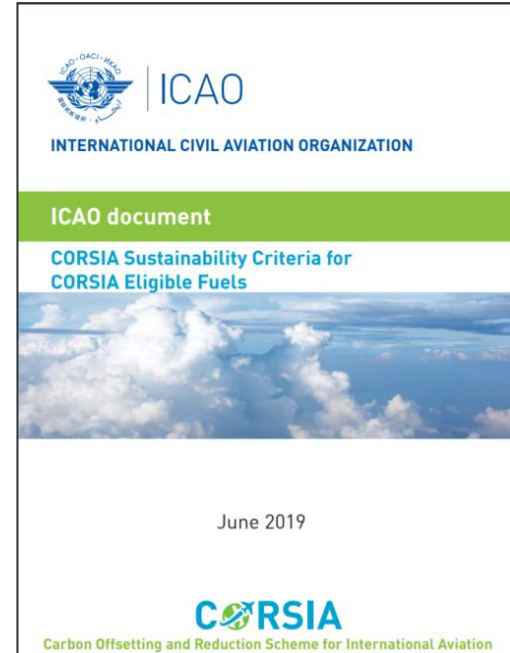
- ✓ **Default LCA methodologies published.**

Actual LCA methodologies in process for approval.

- ✓ **Framework for Sustainability Certification**

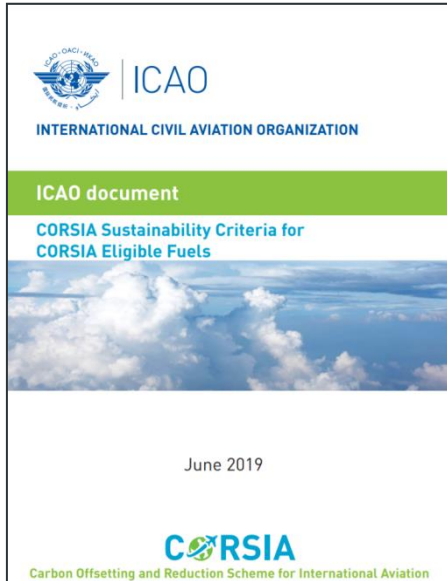
In process for approval.

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





ICAO document “CORSA sustainability criteria for CORSA eligible fuels”* Global Approach to Sustainability



Sustainability Theme 1:

Greenhouse Gases

CORSA eligible fuel should generate lower carbon emissions on a life cycle basis

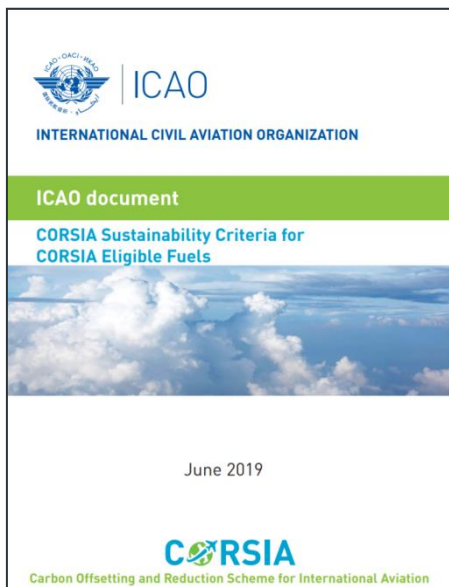


Criterion: net GHG emissions reductions of at least 10% on a life cycle basis.

*<https://www.icao.int/environmental-protection/CORSA/Pages/CORSA-Eligible-Fuels.aspx>



ICAO document “CORSIA sustainability criteria for CORSIA eligible fuels”* Global Approach to Sustainability



Sustainability Theme 2
Carbon stock
CORSIA eligible fuel should not be made from biomass obtained from land with high carbon stock.

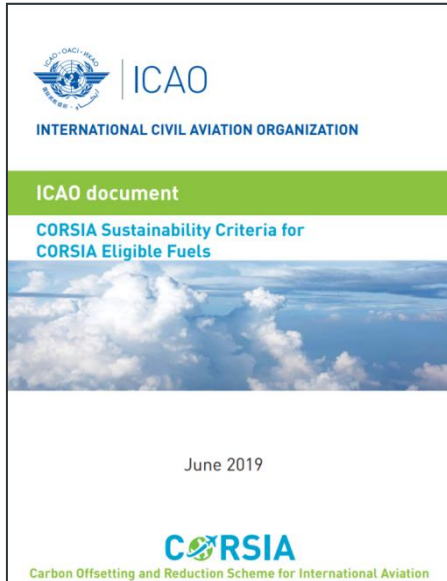


Criterion 1: no use of biomass obtained from converted land that was primary forest, wetlands, or peat lands.
Criterion 2: direct land use change (DLUC) emissions to be considered in the event of land use conversion
Land conversion threshold: 1 January 2008.

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



ICAO document “CORSIA sustainability criteria for CORSIA eligible fuels”* Global Approach to Sustainability



Work is ongoing on other Themes such as:

- Water;
- Soil;
- Air;
- Conservation;
- Waste and Chemicals;
- Human and labour rights;
- Land use rights and land use;
- Water use rights;
- Local and social development; and
- Food security.

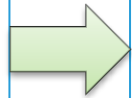
*<https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx>



How are the “net GHG reductions” obtained?

There will be two options for that:

ICAO document
“CORSIA Default Life Cycle Emissions
Values for CORSIA Eligible Fuels”

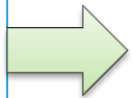


Provides “default life-cycle emission values” associated with SAF, as a function of the feedstocks and conversion processes used in its production.

Methodologies are published

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

ICAO document
“CORSIA Methodology for Calculating
Actual Life Cycle Emissions Values”



Provides methodologies for calculating “actual life-cycle emissions values” for SAF.

Global Approach to life cycle assessment

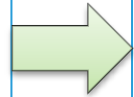


Who will certify the compliance with the Sustainability Criteria?

ICAO will approve “Sustainability Certification Schemes (SCS) ” that will:

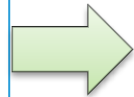
- Ensure compliance with the Sustainability Criteria
 - Ensure that the Life Cycle Emission value of the fuel has been obtained correctly.
- SCSs will need to meet specific requirements before being approved by ICAO.

ICAO document
“CORSlA Eligibility Framework and
Requirements for SCSs”



Provides the requirements that an SCS needs to meet in order to be recognized under CORSlA

ICAO document
“CORSlA Approved SCSs”



Provides the list of approved SCSs under CORSlA.



What else is ICAO doing on SAF?

- A **Stocktaking process** is supporting the definition of a **quantified long-term goal for SAF use** to be defined by 2025)
- https://www.icao.int/environmental-protection/Pages/SAF_Stocktaking.aspx
- A Stocktaking Seminar was held in 2019
- Next Seminar – planned for 28-29 April 2020



ICAO STOCKTAKING SEMINAR TOWARD THE 2050 VISION FOR SUSTAINABLE AVIATION FUELS

ICAO Headquarters, Montréal | 30 April - 1 May 2019

LEARN MORE

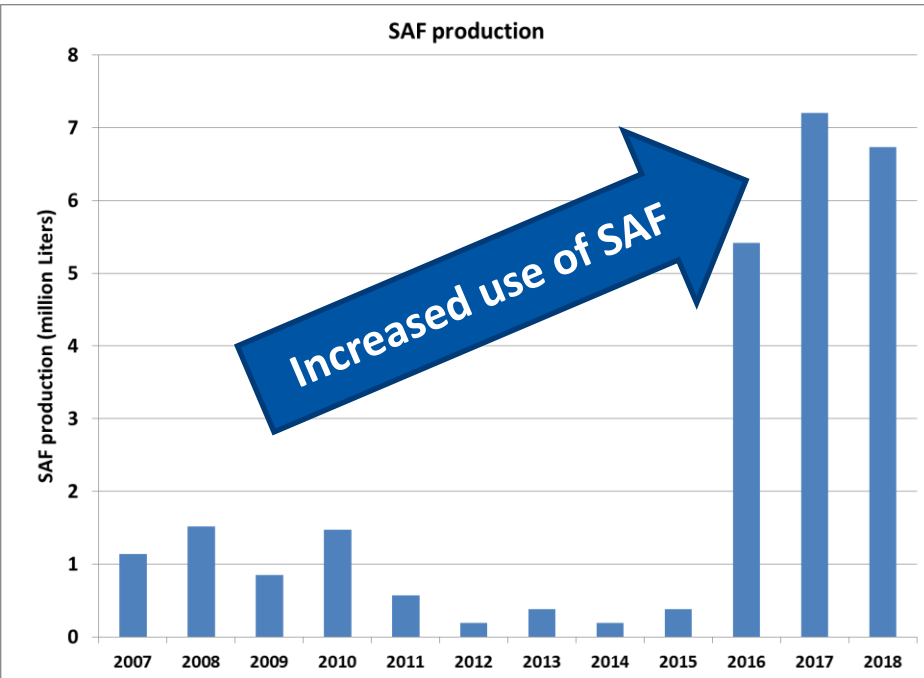
#SustainableFuels



- ICAO welcomes the provision of additional information to be considered in the stocktaking process (officeenv@icao.int).



Results of 2019 Stocktaking

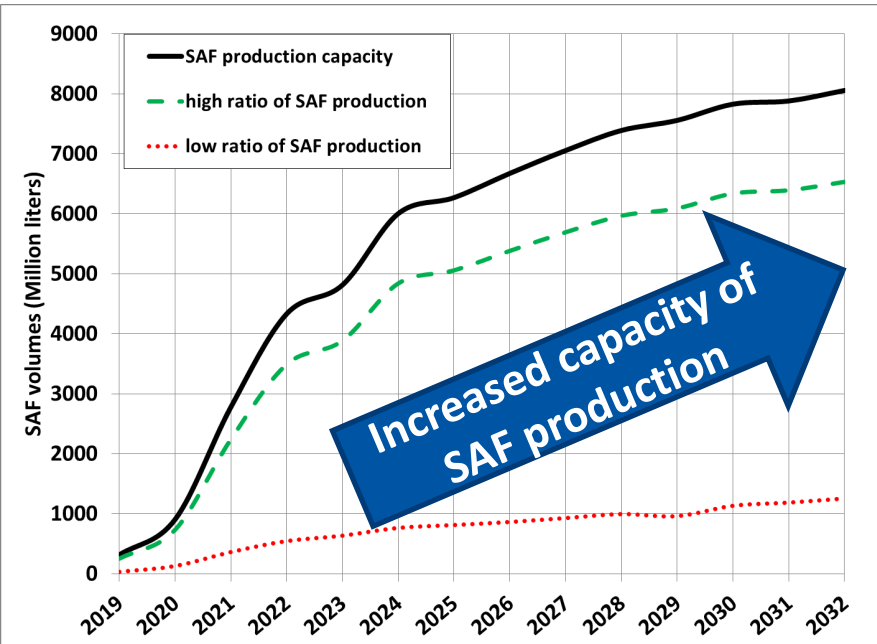


ICAO Vision is based on the assumption of a progressive increase in the use of SAF

Looking back, there was a great increase in the last three years.



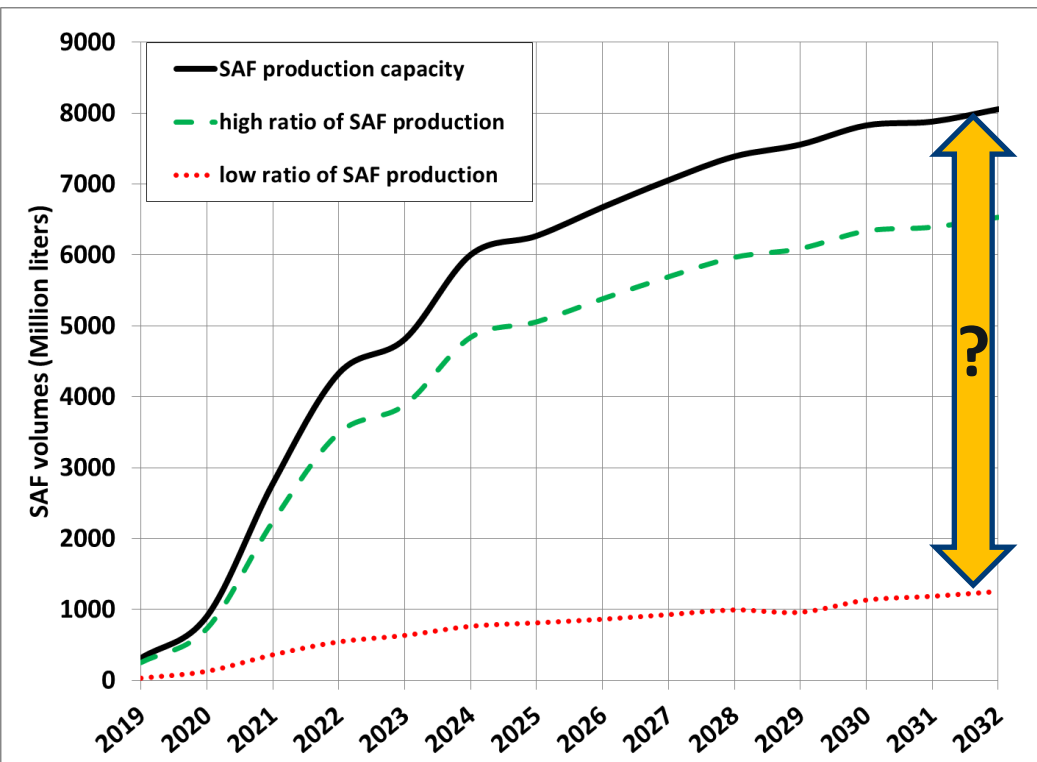
Results of 2019 Stocktaking



8 Billion litres (6.5 MT) of SAF production capacity available by 2032, and 6.3 Billion litres (5 MT) in 2025.

ICAO Vision is based on the assumptions of a progressive increase in the use of SAF.

Looking to the future - Capacity for SAF production will continue to increase.



ICAO Vision has a view to include a **quantified** proportion of SAF use by 2050.

One major uncertainty exists :

What will be the share of SAF production compared to other fuels?

CAAF/2 encouraged States to develop policies that promote the use of SAF, or promote policies that strive to establish a level playing field between aviation and other transportation sectors on the use of sustainable fuels.



ICAO is facilitating SAF development and deployment by:

- 1) Establishing **policies and measures**
- 2) Developing globally-accepted **sustainability criteria and life cycle methodologies**
- 3) Organizing **events** for information-sharing and outreach
- 4) Sharing **information and best practices**

ICAO work on SAF will continue, in support of the ICAO 2050 Vision



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For more information
www.icao.int/environmental-protection
OfficeEnv@icao.int



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THANK YOU