ISCC Stakeholder Meeting North America

19 November 2019

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

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 CO$_2$ reduction.

Range of CO$_2$ reductions from Sustainable Aviation Fuels (SAF)

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

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
• 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 “CORSIA sustainability criteria for CORSIA eligible fuels”*

Global Approach to Sustainability

Sustainability Theme 1: Greenhouse Gases
CORSIA 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/CORSIA/Pages/CORSIA-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.

*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 “CORSIA Eligibility Framework and Requirements for SCSs”

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

ICAO document “CORSIA Approved SCSs”

Provides the list of approved SCSs under CORSIA.
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](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 welcomes the provision of additional information to be considered in the stocktaking process ([officeenv@icao.int](mailto: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
For more information
www.icao.int/environmental-protection
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