



ICAO

ENVIRONMENT



ICAO Environmental  
Symposium 2019

DESTINATION GREEN: THE NEXT CHAPTER



# ICAO SAF Stocktaking Seminar outcomes

Jane Hupe

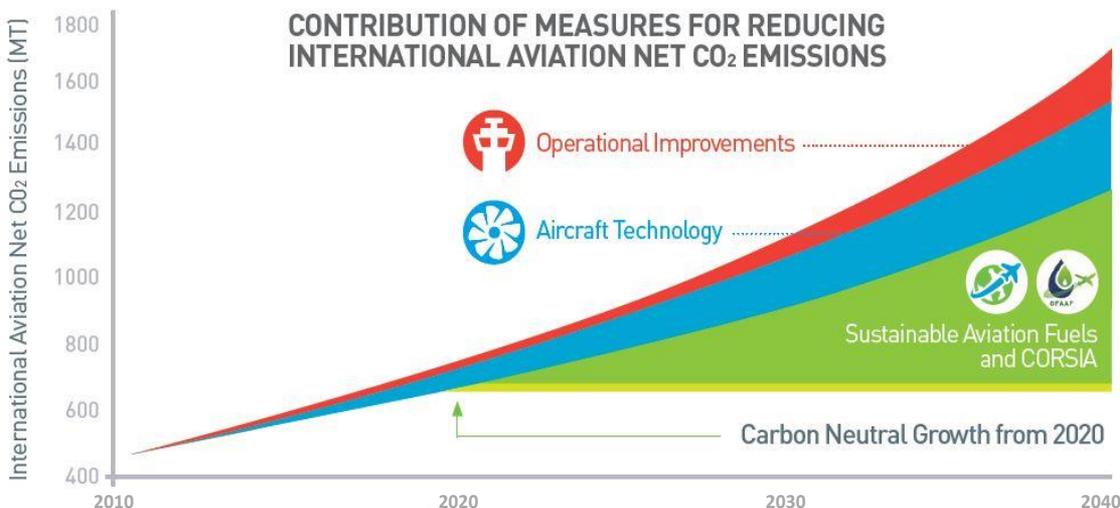
Deputy Director Environment, ICAO





# ICAO Global Aspirational Goals

- ICAO aspirational goal - Carbon neutral growth (CNG) from 2020 onwards.
- To be achieved with a “basket of measures” for CO<sub>2</sub> reduction (A39-2).



## ICAO Basket of Measures

- Technology and Standards
- Operational Improvements
- Sustainable Aviation Fuels
- Market-Based Measures

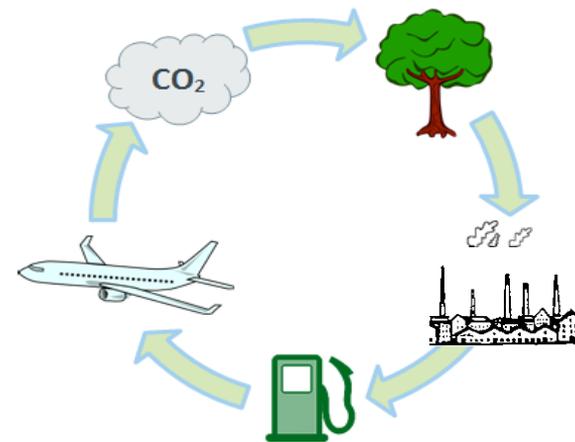
**Range of CO<sub>2</sub> reductions from Sustainable Aviation Fuels (SAF)**



# What are Sustainable Aviation Fuels (SAF)?

- Must meet the same safety standards as current aviation fuels
- “Drop-in” fuels : fuels that are fully compatible with existing aircraft and fuel-supply systems
- In addition to safety standards, SAF needs to meet **Sustainability Criteria** (e.g. minimum CO<sub>2</sub> reductions on a life cycle basis)

Example: *Fuels made from biomass*



CO<sub>2</sub> emitted by combustion is up-taken by plant growth



## ICAO is facilitating SAF development and deployment by:

- 1) Establishing **policies and measures** that foster the use of SAF (i.e., CORSIA, Assembly Resolution A39-3)
- 2) Developing globally-accepted **sustainability criteria** and **life cycle methodologies** (through the work of CAEP)
- 3) Organizing **events** for information-sharing and outreach
- 4) Sharing information and best practices, including through ICAO's **Global Framework for Aviation Alternative Fuels (GFAAF)**
- 5) Assisting on the development on SAF feasibility studies.



## 10 years ago

- Technical feasibility and safety under consideration
- No certified conversion processes
- Very few demonstration flights
- Then, in 2009, the first Conference on Aviation and Alternative Fuels (CAAF/1) was convened





## Since 2009...

6

conversion  
processes  
certified for use  
in aviation

4

Feasibility  
studies  
concluded at  
ICAO

6

Airports regularly  
distributing  
blended  
alternative fuel

&gt;160,000

Commercial flights  
have used a blend of  
alternative fuel

CORSIA-  
Related  
agreements

## ICAO Global Framework for Aviation Alternative Fuels (GFAAF)



Global Framework for Aviation Alternative Fuels

- Over 600 news announcements dating back to 2005
- Details of 35 past and on-going projects
- Answers to frequently asked questions
- Facts and Figures
- Live feed of SAF flights



## Second ICAO Conference on Aviation Alternative Fuels in Mexico City (CAAF/2) (11 to 13 October 2017) - <https://www.icao.int/Meetings/CAAF2/>



- Endorsement of the **2050 ICAO Vision for Sustainable Aviation Fuels**
- Calls for a **significant proportion of SAF use by 2050**
- **A quantified long-term goal for SAF** to be defined in CAAF/3 (by 2025)
- A **Stocktaking process** will support the definition of this goal



# SAF Stocktaking Seminar

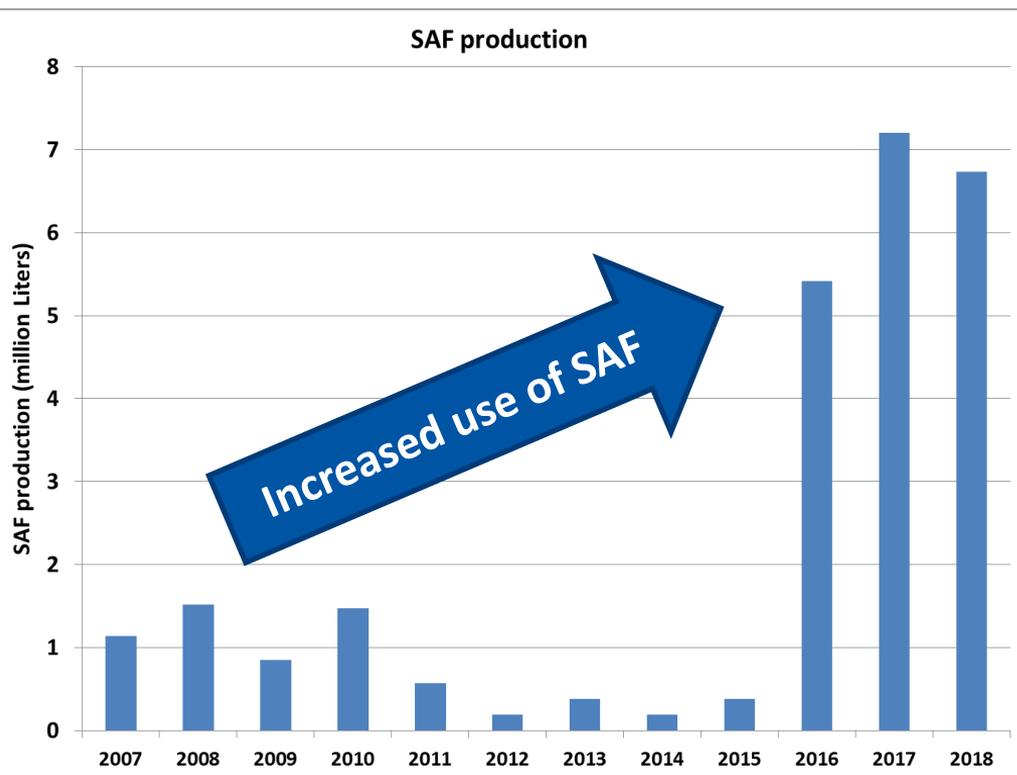
## Aim:

- Take stock of the progress in the deployment of Sustainable Aviation Fuels
- The first step towards the establishment of a quantified 2050 ICAO Vision for SAF (expected by 2025).

## Seminar outcomes:

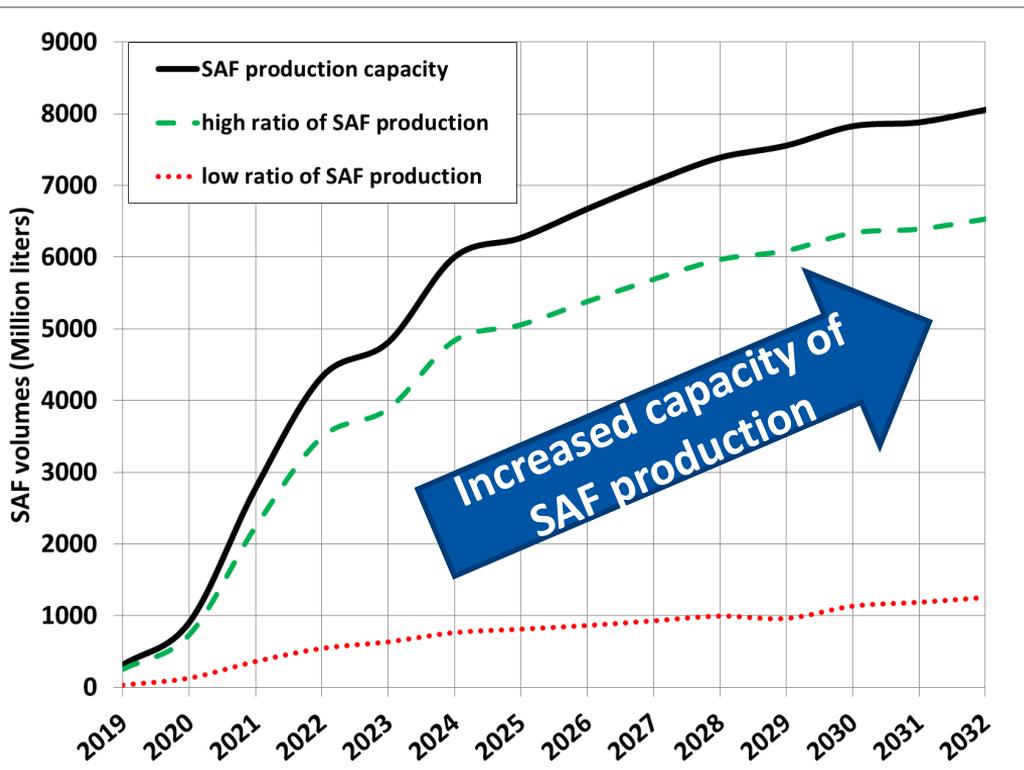
- 25 questionnaires submitted with information on SAF deployment
- 26 presentations made through the Seminar (many with quantified information)

**Data was aggregated to provide a view on  
SAF deployment progress**



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

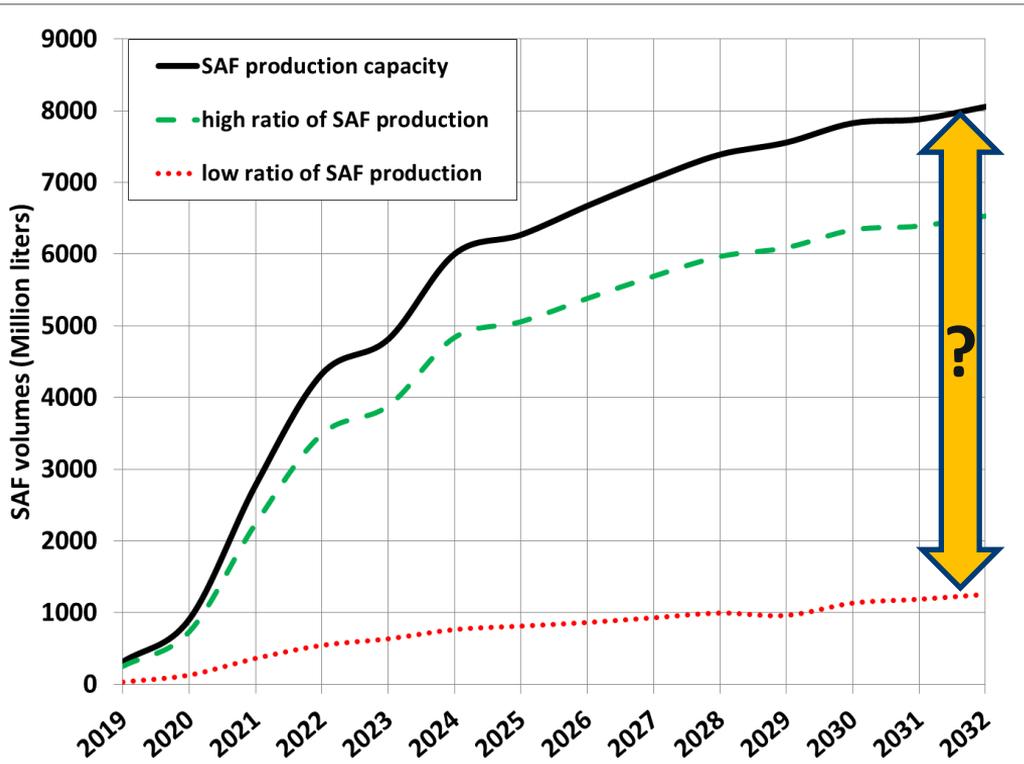
*Looking back, there was a  
great increase in the last  
three years.*



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.



## Meeting participants views on **Actions to promote SAF deployment**

- **Stable policies will be required to incentivize SAF.**
  - Regulatory measures and incentives that level the playing field for SAF, since SAF technologies can produce other fuels.
- **SAF development and deployment should be tailored to the specific situation of the State and the production processes and not one solution for all.**
- **Various financing options should be pursued**
- **ICAO should continue to provide assistance to member States, in line with the “no country left behind” initiative**
- **ICAO also has a role in public outreach and communicating complex SAF aspects in a simple manner**



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# Second ICAO SAF Stocktaking Seminar

## 28 – 29 April 2020



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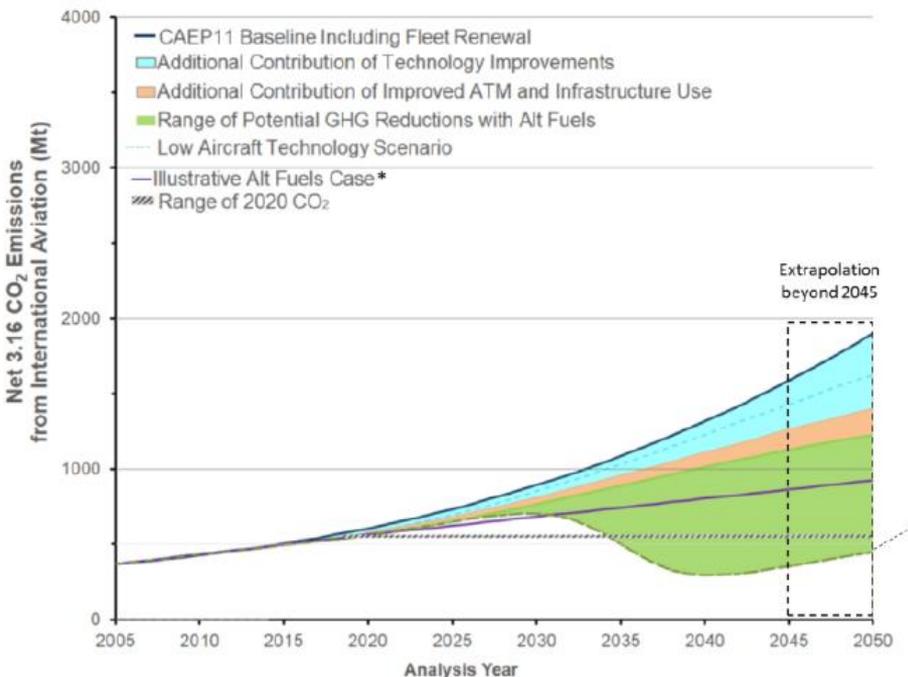




# Future

## SAF can be a game changer!

- SAF can play a major role in reducing international aviation emissions.
- ICAO 40<sup>th</sup> Assembly is an opportunity to establish policies to support SAF deployment





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THANK YOU