



| ICAO

# INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY





ICAO

ENVIRONMENT

# Developments in ACT-SAF SAF as a key future element of State Action Plans Road towards ICAO CAAF/3



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# I. Updates on ACT-SAF



## ACT-SAF website provides the details on ACT-SAF participation and initiatives

### 85 States

Acceptance to ... ● Pending ● Yes

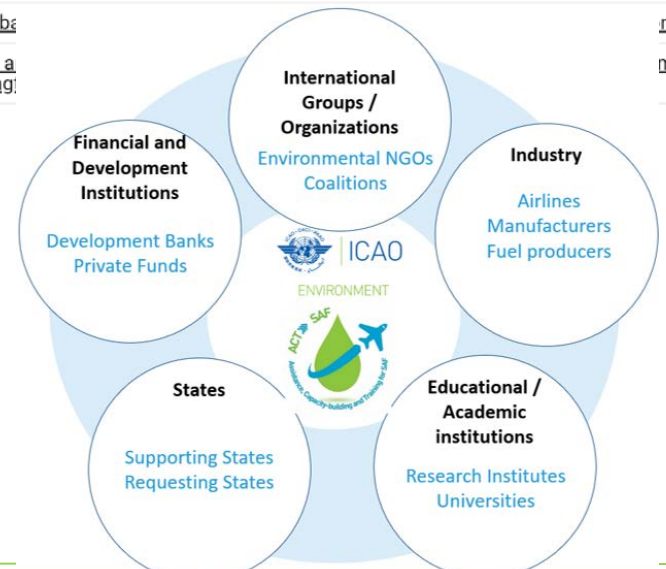
### 45 Organizations

Acceptance T&C ● (Vide) ● Pending ● Yes

### Latest news (click for details)



Date ▾	Link
5 juil. 2023	<a href="#">Australia's Government Pledges AU\$30M for SAF Growth</a>
30 juin 2023	<a href="#">Korean Air partners with GS Caltex to test sustainable aviation fuel</a>
29 juin 2023	<a href="#">Virgin and Boeing join up for sustainable aviation fuel partnership</a>
22 juin 2023	<a href="#">Sasol and Topsoe plan sustainable aviation fuel venture</a>
20 juin 2023	<a href="#">Boeing Launches SAF Dashboard to Track and Project Sustainable Aviation Fuel Production</a>
20 juin 2023	<a href="#">Manitoba</a> <a href="#">n fuel facility</a>
19 juin 2023	<a href="#">Twelve a</a> <a href="#">m CO2 in</a>



\* States and Organizations that expressed intention to actively participate in the ACT-SAF Programme

# HOW DOES ACT-SAF WORK

1) Interested party expresses interest in becoming an ACT-SAF Partner

2) ICAO deploys ACT-SAF activities based on States tailored needs and capabilities

3) ICAO connects ACT-SAF Participants

4) ICAO facilitates agreements and coordinates concrete SAF projects

## Deployment of ACT-SAF activities

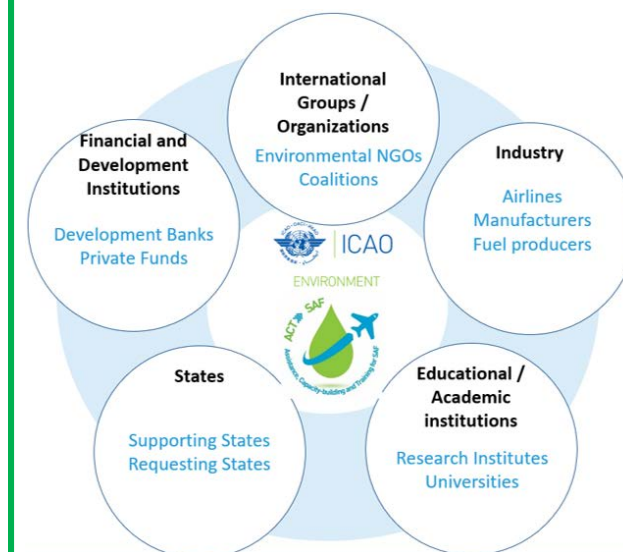
- Coordination calls with States to assess needs and offers
- **ACT-SAF Series** on a monthly basis
- Preparations to launch **feasibility studies**
- Development of ICAO **template for feasibility studies**
- Inception of **ACT-SAF Platform** on monitoring and reporting of SAF

## Connection with financing institutions

Regional workshops & meetings with banks  
Identification of financial tools relevant for SAF





## Ongoing

**Facilitate** the matching of needs and opportunities between States and industry



Replay the trainings on the ACT-SAF website

- Technical training on SAF is a key request of States under ACT-SAF
- The “ACT-SAF Series” provides ACT-SAF Partners with trainings on various key technical aspects of SAF
  - 4 trainings have taken place (Introduction to SAF, Sustainability and reporting under CORSIA, SAF technology and certification, SAF policies)
  - Several additional trainings are coming up: SAF economics and financing, SAF Market Outlook, SAF logistics, SAF feasibility assessment. And more!
  - ACT-SAF partners participate live and can directly ask questions and have feedback

ACT-SAF Series	Date	Topics	Contributor(s)	Abstract	Video and Presentation
#1	25 November 2022	An introduction to SAF	ICAO	<ul style="list-style-type: none"> <li>Introduction to ACT-SAF</li> <li>Basics of SAF</li> </ul>	 <p>Download Presentation</p>
#2	25 January 2023	SAF sustainability and reporting under CORSIA	ISCC RSB Verifavia	<ul style="list-style-type: none"> <li>process for sustainability certification of SAF</li> <li>Reporting and verification of SAF Claims under CORSIA</li> </ul>	 <p>Download Presentation</p>
#3	23 February 2023	SAF technology and certification	Airbus US FAA Safran	<ul style="list-style-type: none"> <li>specifications for aviation turbine fuels</li> <li>process for approval for new production pathways</li> </ul>	 <p>Download Presentation</p>
#4	23 March 2023	SAF policies	Brazil, European Commission, France, Japan, Singapore, United Arab Emirates, United States	<ul style="list-style-type: none"> <li>Practical experiences from States that are developing a policy for SAF</li> <li>Sharing of</li> </ul>	 <p>Download Presentation</p>



Introduction to SAF  
Nov/2022



SAF sustainability and reporting under CORSIA  
Jan/2023



SAF technology & certification  
Feb/2023



SAF policies  
Mar/2023



SAF Economics and financing  
Jun/2023



SAF market outlook  
Jul/2023



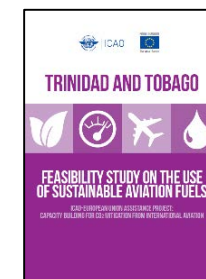
SAF logistics  
Sep/2023



SAF feasibility assessment  
Oct/2023

## Feasibility studies are the first step to assessing the SAF potential in a State

- Four successful feasibility studies previously developed under an ICAO-EU project
- Many feasibility studies will be developed in the ACT-SAF programme
  - Three new SAF feasibility studies under the existing ICAO-EU project (Cote d'Ivoire, Rwanda, Zimbabwe)
  - European Commission announced 1.6 million euros for SAF feasibility studies under ACT-SAF.
  - Several SAF feasibility studies will be conducted thanks to funds from France and the Netherlands.
  - ICAO and World Bank project being structured
  - Studies also being pursued by other ACT-SAF partners (e.g. US)



## Capacity Building for SAF eligible under CORSIA and in support of achieving net zero emissions by 2050

- The project involves 10 partner states: Cameroon, Egypt, Equatorial Guinea, Ethiopia, Gabon, India, Mauritania, Mozambique, Senegal and South Africa.
- SAF feasibility studies to be conducted in 10 States (India and Africa)





## ICAO is currently developing a template for SAF Feasibility Studies



- Ensure coherence across studies, increased quality
- Harmonized structure (more practical/quantitative)
- Ensure alignment with ICAO's methodologies and guidance
- Include information relevant to facilitate financing
- Facilitate outreach of results of the studies

- ICAO consulted more than 100 ACT-SAF Partners on the draft template by end of May

- Very useful feedback received, to be consolidated in the final version.

## ICAO is connecting with financial institutions across all regions to:

- 1. Raise awareness of financial institutions on the role of SAF** to achieve the LTAG, and on the interest of aviation/fuel industries for immediate and massive SAF scale-up;
- 2. Inform financial institutions of the significant investments needed** to scale-up SAF production capacity across all regions, in particular for developing countries.
- 3. Explore financial institutions' existing or future financing opportunities** to support SAF deployment and inform financing institutions of ways in which they can best contribute to SAF deployment.

- Since September 2022, ICAO has organised workshops and initial discussions with 35 public and private financing institutions and foundations
  - 13 public institutions: Brazil Development Bank (BNDES), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Emirates Development Bank (EDB), Arab Bank for Economic Development in Africa (BADEA), Asian Development Bank (ADB), World Bank, Green Climate Fund (GCF), Caribbean Development Bank (CDB), Asian Infrastructure Investment Bank, European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), Finance Lab (Climate Policy Initiative), UNEP Financing Initiative (UNEP FI).
  - 18 private investment institutions: SmartEnergy, ING Group, Green Investment Group, The Arab Investment & Export Credit Guarantee Corporation (Dhaman), Genzero, Deutsche Bank, Investor Group on Climate Change, Banque de Montreal (BMO), First Abu Dhabi Bank (FAB), Hamilton Clark and Breakthrough Energy, Barclays, ING, Societe Generale, Credit Agricole, BNP Paribas, KWF, Standard Chartered.
  - 1 foundation: ClimateWorks Foundation.
- On March 28th 2023, the Council held an informal meeting with high-level representatives from international financing institutions.



## The ACT-SAF Programme is open to all interested parties in supporting the programme.

To become a partner, the interested party shall accept the Terms and Conditions on the ICAO website.

### How to become an ACT-SAF Partner?

You can become an ACT-SAF Partner by agreeing to the [ACT-SAF Terms and Conditions](#). For those interested in further information, an e-mail can be sent to the Office of Environment ([officeenv@icao.int](mailto:officeenv@icao.int)). ICAO will schedule a meeting to discuss potential needs and/or contributions under ACT-SAF and further steps into the programme.

[docs.google.com/forms/d/e/1FAIpQLSf28JBcRZNR9Xdj-LGB4XCZuhfwfIBSmsl9zjqeBGz5fGoUZA/viewform](https://docs.google.com/forms/d/e/1FAIpQLSf28JBcRZNR9Xdj-LGB4XCZuhfwfIBSmsl9zjqeBGz5fGoUZA/viewform)

#### 1. Abbreviations and Definitions

1.1 In this document, unless the context otherwise requires, the following words or abbreviations shall have the corresponding meanings indicated below:

ACT-SAF            ICAO's Assistance, Capacity-building and Training for Sustainable Aviation Fuels Programme

ENV                ICAO's Office of Environment, a branch of the Air Transport Bureau (ATB)

ICAO                The International Civil Aviation Organization, with Headquarters at 999 Robert- Bourassa Boulevard, Montréal, Quebec, Canada, H3C 5H7.

Partner            An entity (State, Organization, or Institution) that has accepted the Terms and Conditions of the ACT-SAF in order to participate in the activities envisaged in the programme either as a supporting Entity or as a Requesting State.

Requesting State    A Partner State that requests or receives support under the ACT-SAF Programme

SAF                 Sustainable Aviation Fuels

Supporting Entity    A Partner entity that provides resources for the ACT-SAF Programme



## II. SAF as a key future element of State Action Plans



# Why develop a State Action Plan?

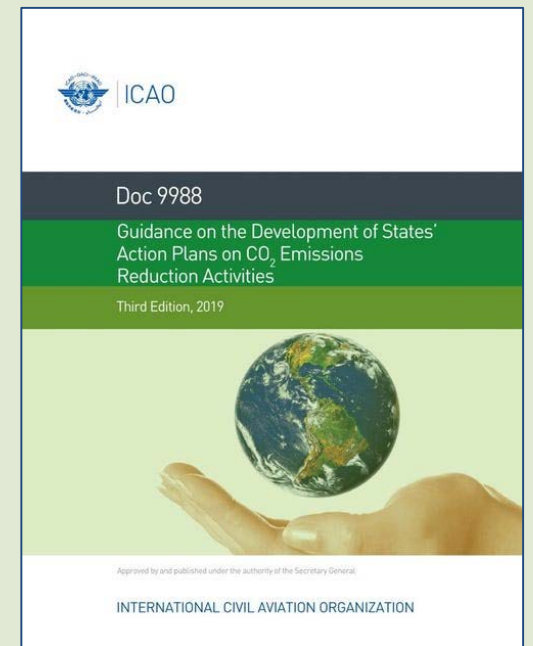
## A State Action Plan can help States:

- Report international aviation CO<sub>2</sub> emissions
- Outline their policies and actions
- Provide information on their basket of measures and any specific assistance needs

## A State Action Plan will help ICAO:

- Compile information on achieving the global aspirational goals
- Provide guidance and technical assistance on preparing action plans
- Identify and respond to States' needs for technical and financial assistance

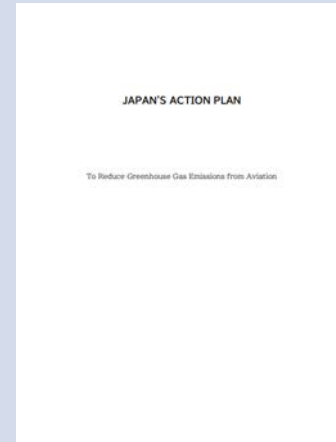
## ICAO Doc 9988 provides guidance to develop a State Action Plan





- Out of the 138 action plans that were submitted, 84 States in total consider SAF as one of the mitigation measures to reduce CO<sub>2</sub> emissions. SAF in the action plans considered in the following ways:
  - SAF Policies in place
  - SAF Policies planned to be implemented
  - SAF development and deployment
  - Research and Development (R&D)
  - Pilot projects
  - Feasibility studies

# SAF and Cleaner Energy initiatives from SAPs



## United Kingdom

Renewable Transport Fuel Obligation - fuel suppliers to ensure a proportion of fuel from renewable origin

## Canada

Identification of local SAF feedstocks (Canola, forestry residues, carinata, used cooking oil, poplar, camelina)

## Dominican Republic

Use of photovoltaic energy in airports

## Japan

Target of replacing 10% of fuel consumption by Japanese airlines with SAF by 2030

## United States

SAF grand challenge - commitment to increase the production of SAF to at least 3 billion gallons per year by 2030

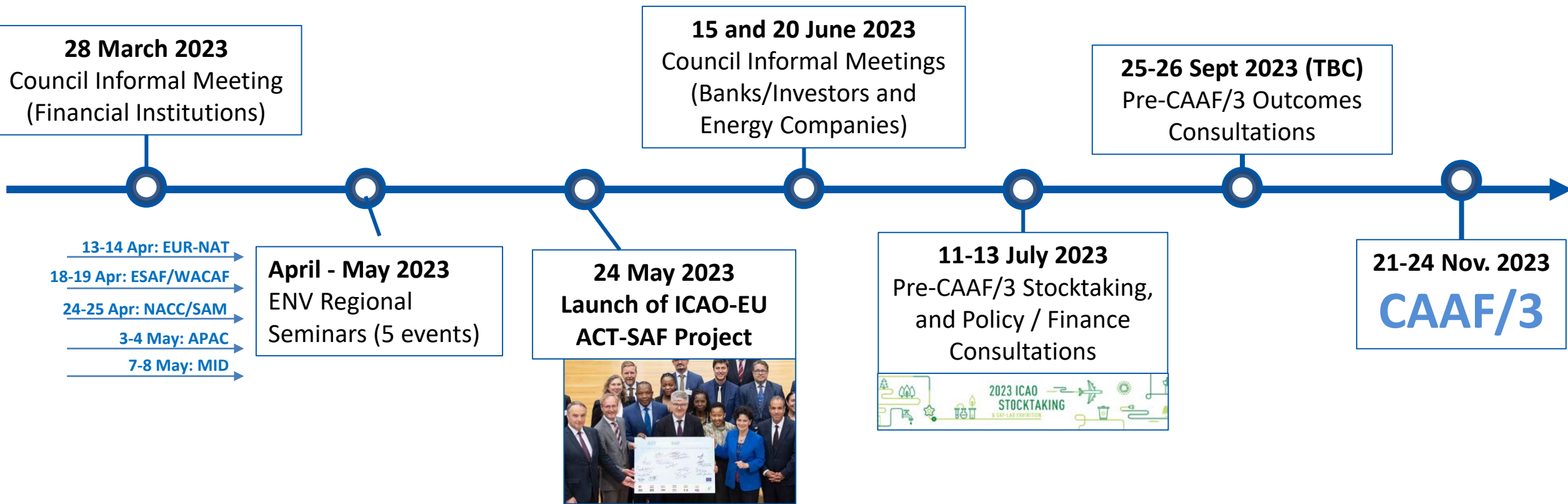




### III. ICAO CAAF/3 process and timeline



# ICAO CAAF/3 PROCESS AND TIMELINE





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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