



| ICAO

ENVIRONMENT



Launch of ACT-SAF Season 2

25 January 2024



1. Opening

Neil Dickson
Chief, Environmental Standards
ICAO Environment



- 1. Recap of ACT-SAF Activities in 2023**
2. ACT-SAF Survey: debrief of feedback received from Partners
3. ACT-SAF Activities in 2024
4. Questions & Answers
5. Closing

- Adoption of a new **ICAO Global Framework** for Sustainable Aviation Fuels (SAF), Lower Carbon Aviation Fuels (LCAF) and other Aviation Cleaner Energies.
- Collective global aspirational Vision **to reduce CO₂ emissions in international aviation by 5 per cent by 2030**, compared to zero cleaner energy use.
- Support the clean energy transition of the aviation sector needed to achieve the current goal of Net-Zero carbon emissions by 2050



1. Policy and Planning

- Collective global aspirational Vision to reduce CO₂ emissions in international aviation by **5 per cent by 2030** through the use of SAF, LCAF and other cleaner energies (compared to zero cleaner energy use).
- States are encouraged to implement policies in support of the Vision; harmonization of policies amongst States is encouraged.
- The role of State Action Plans is recognized.
- The Vision is a collaborative effort with action required from different stakeholders.
- Monitoring and reviewing the global framework, including through annual ICAO stocktaking and the convening of CAAF/4 no later than 2028.

3. Implementation support

- All States should have access to the means to participate across all stages of the development and deployment of SAF, LCAF and other aviation cleaner energies; work together in a spirit of solidarity.
- Need for robust and substantial capacity-building and implementation support programme; ICAO capacity-building and implementation support to be delivered under the one-ICAO approach.
- Access to technology for States to contribute to, and benefit from, cleaner energy development and deployment.
- ICAO should regularly monitor the progress and effectiveness of the capacity-building and implementation support efforts.

2. Regulatory Framework

- Use the CORSIA sustainability framework as the **accepted basis for the eligibility of SAF, LCAF and other aviation cleaner energies**.
- Increase the number of ICAO approved SCS, in all regions.
- Accelerate the certification of additional fuel production pathways.
- Accounting methodologies such as the CORSIA MRV, provides confidence in the use of such fuels; States agreed on a set of parameters and further work from CAEP to undertake a study of fuel accounting systems for international aviation currently used in the open market.

4. Financing cleaner energy

- The primary objective for ICAO and its Member States with respect to financing should be to support countries in particular developing countries and States with particular needs, to improve access to low-cost financing and funding, and further de-risking of projects.
- The need for significant cooperation and collaboration between stakeholders to mitigate investment risk.
- Key role of ICAO, States and industry in advocating for greater investment in SAF, LCAF and other cleaner energy projects.
- Support to Fininvest Hub and request to urgently operationalize the initiative.



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ACT-SAF Season 1 - RECAP

ACT»SAF

ACT-SAF Training Series

ICAO ACT-SAF Platform

ACT-SAF Feasibility Studies

SAF Feasibility Studies

ACT-SAF Series

Coordination with ACT-SAF partners identified that many States need conceptual training on SAF.

To address that, ICAO is developing the ACT-SAF Series of training sessions, to be held on a monthly basis. This will allow delivering comprehensive training to ACT-SAF Partners on an array of important SAF-related topics, ranging from sustainability, to policy, economics/financing certification and logistics.

The ACT-SAF Series will empower the ACT-SAF Partners with training material designed with the support of Supporting States and Organisations from the air transport, fuels and finance sectors, as well as academics and actors with niche expertise such as SAF reporting under CORSIA.

Want to participate on the ACT-SAF Series? Join ACT-SAF now ([click here to access the ACT-SAF Terms and Conditions](#)). Participation is open to all States and Organizations interested in further action on SAF.

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"> Introduction to ACT-SAF Basics of SAF 	 Download Presentation
#2	25 January 2023	SAF sustainability and reporting under CORSIA	ISCC RSB Verifavia	<ul style="list-style-type: none"> process for sustainability certification of SAF Reporting and verification of SAF Claims under CORSIA 	 Download Presentation
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#4	23 March 2023	SAF policies	Brazil, European Commission, France, Japan, Singapore, United Arab Emirates, United States	<ul style="list-style-type: none"> Practical experiences from States that are developing a policy for SAF Sharing of knowledge in the policy development 	 Download Presentation

ICAO ACT-SAF platform of implementation support initiatives

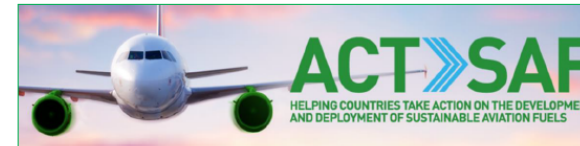
Many ACT-SAF partners and aviation stakeholders are supporting implementation of cleaner energies for aviation, including Sustainable Aviation Fuels. The dashboards below provides a summary of these initiatives ([click on the drops for details](#))



4 Upcoming Events				
Dates	Event	Venue	Reference	
11-13 July 2023	ICAO Stocktaking 2023	Montreal, Canada	https://www.icao.int/SAF/Assessments/ACT-SAF/ACT-SAF%20Feasibility%20Studies%20List%20-%20Public%20Version%20-%2020230301.pdf	
9-5 July 2023	First AFACAC Workshop on Acceleration of Development and Deployment of Sustainable Aviation Fuels (SAF)	Addis Ababa, Ethiopia	N/A	
2-4 October 2023	Sustainable Aviation Futures North America	Houston, USA	https://www.icao.int/SAF/Assessments/ACT-SAF/ACT-SAF%20Feasibility%20Studies%20List%20-%20Public%20Version%20-%2020230301.pdf	
21-24 November 2023	Third ICAO Conference on Aviation and Alternative Fuels (CAAF-3)	Paris, France	https://www.icao.int/SAF/Assessments/ACT-SAF/ACT-SAF%20Feasibility%20Studies%20List%20-%20Public%20Version%20-%2020230301.pdf	

Template and Guide

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TEMPLATE FOR FEASIBILITY STUDIES ON SUSTAINABLE AVIATION FUELS

The ICAO Assistance, Capacity-building and Training for Sustainable Aviation Fuels (ACT-SAF) Programme was launched in June 2022. Its objective is to enable States to develop their full potential in SAF development and deployment, in line with the ICAO's *No Country Left Behind initiative*, the 2050 ICAO Vision for SAF, and the three main pillars of sustainable development recognized by the United Nations.

This template has been developed in the context of the ICAO ACT-SAF Programme to facilitate the preparation of standardized feasibility studies on SAF. The template can be used to assess the feasibility of SAF development and deployment both at the State and Regional level. ICAO has developed an interactive guide to assist in the preparation of feasibility studies following the structure defined in this template ([link to be provided once the guide is developed](#)).

The information to be included in a feasibility study will be determined by the preparer to demonstrate the potential for the SAF development and deployment in the State under consideration. To ensure the consistency of information across different feasibility studies, it is recommended that all sections of the template be elaborated in a clear and concise manner. In parts where this may not be applicable, an appropriate explanation should be provided. It should also be noted that this template is by no means exhaustive, and a feasibility study may incorporate additional elements as appropriate.'

The structure of the template is summarized as follows ([to be reviewed upon finalization of template](#)):

- Executive Summary
- Section 1: State-specific Information
- Section 2: Evaluation of Feedstocks and Pathways for SAF Production
- Section 3: Implementation Support and Financing
- Section 4: Action Plan

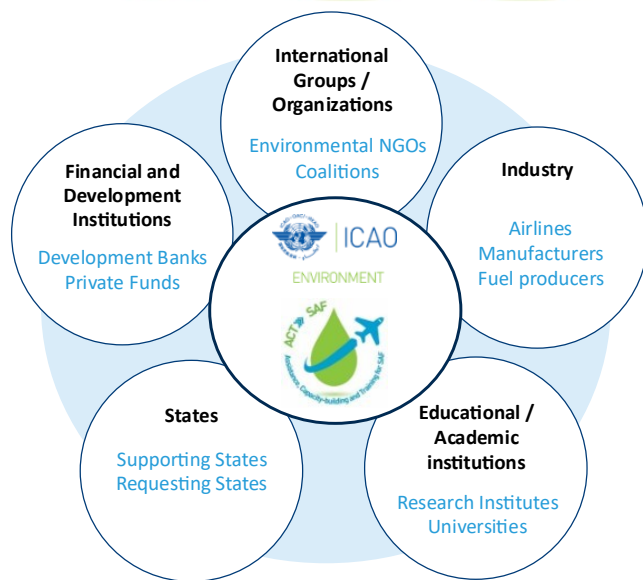
For any questions or assistance, please contact the ICAO Secretariat by email (officeenv@icao.int) indicating "ACT-SAF FS template" in the subject of the email message.

Events and Regional Seminars



ACT-SAF platform provides the most recent information:

- List of Partners constantly updated
- SAF trackers
- ACT-SAF series material available online



90
States



ICAO ACT-SAF Platform
Here you will find more information on our ACT-SAF Participants*



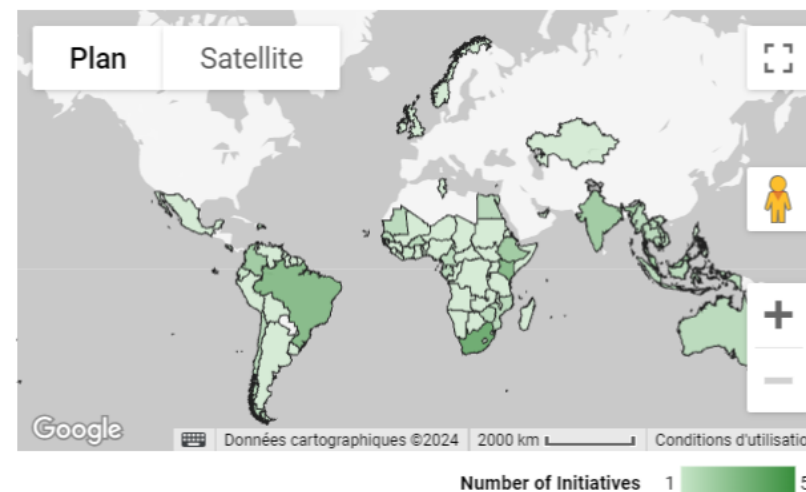
60
Organizations



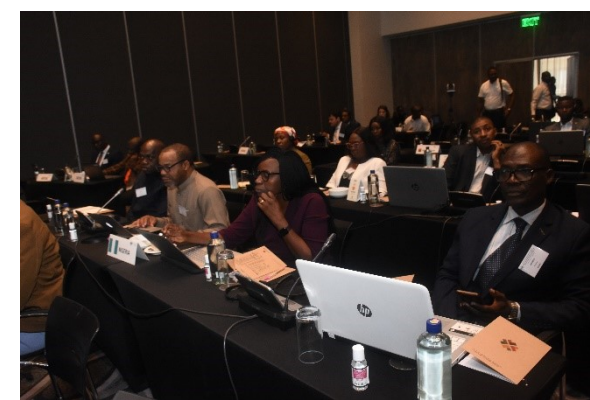
Feasibility Studies 53

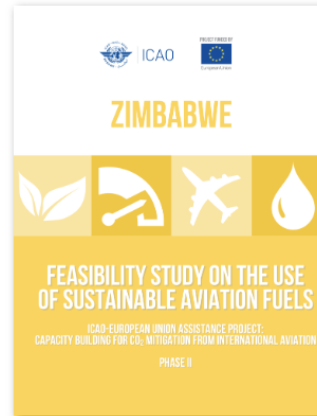
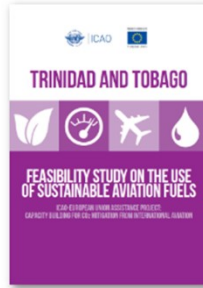
	Supported State	Number of initiatives
1.	South Africa	5
2.	Kenya	4
3.	Brazil	4
4.	Malaysia	3

1 - 89 / 89



- **5 Regional Seminars** in April/May 2023 (Rotterdam, Nairobi, Bangkok, Dominican Republic, Cairo) with a focus on SAF regulatory framework, policies, financing, assistance and implementation support.
- **4 regional online workshops** focusing on **Financing SAF, LCAF and cleaner energy for aviation**, with public and private financing institutions across all regions.
- **ICAO Stocktaking and Pre-CAAF/3 Policy and Finance Consultation** event (July 2023).





- **Three Feasibility studies** (Cote d'Ivoire, Rwanda, Zimbabwe) have been completed under ACT-SAF, funded by the EU, using the **ACT-SAF “Template for Feasibility Studies on Sustainable Aviation Fuels”** and contain:

- Information on the **specific situation of the State**
- Identification of **priority pathways for SAF** production
- Information on **implementation support** and **financing needs** for the implementation of the priority pathways identified; and
- **Recommendation of an Action Plan** aligned with the State's governmental policies related to the SAF development, with a focus on the priority pathways identified.



ACT-SAF Series - SEASON 1

#1 Introduction to SAF

#2 SAF sustainability and reporting under CORSIA

#3 SAF production technology and certification

#4 SAF policies

#5 SAF conversion processes

#6 SAF accounting and Book and Claim systems

#7 SAF logistics

ACT-SAF Series

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Special thanks to States and organisations who supported ACT-SAF Series in 2023:

- Brazil, France, Japan, Singapore, United Arab Emirates, United States.
- European Union
- Airbus, Ascent, BP, CoSAFA, GEVO, IATA, IBAC, ISCC, Kenya Airways, Neste, RMI/SABA, RSB, SAF+ Consortium, Safran, San Francisco International Airport, Sasol, Verifavia, Topsoe, TFS.

1. Recap of ACT-SAF Activities in 2023
- 2. ACT-SAF Survey: Results**
3. ACT-SAF Activities in 2024
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ACT-SAF Survey

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Survey was disseminated to ACT-SAF Partners in December 2023

- Gather feedback and views
- Collaboratively shape ACT-SAF initiatives (training, feasibility studies, support towards SAF certification, outreach) in 2024
- Ensure that ACT-SAF continues to align with your needs and expectations
- As of 19 January, 58 Responses

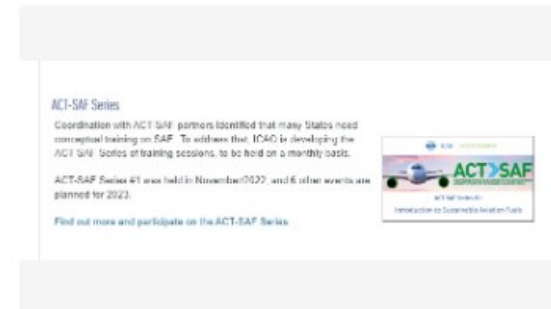
4. On a scale of 1 to 10, how satisfied are you with the overall experience of ACT-SAF? (0 = very dissatisfied, 10 = very satisfied) *

0	1	2	3	4	5	6	7	8	9	10
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Very dissatisfied

Very satisfied

5. Which resources in ACT-SAF have you accessed? (select all which may apply)



☐ ACT-SAF Training Series (7 sessions have been conducted to date)

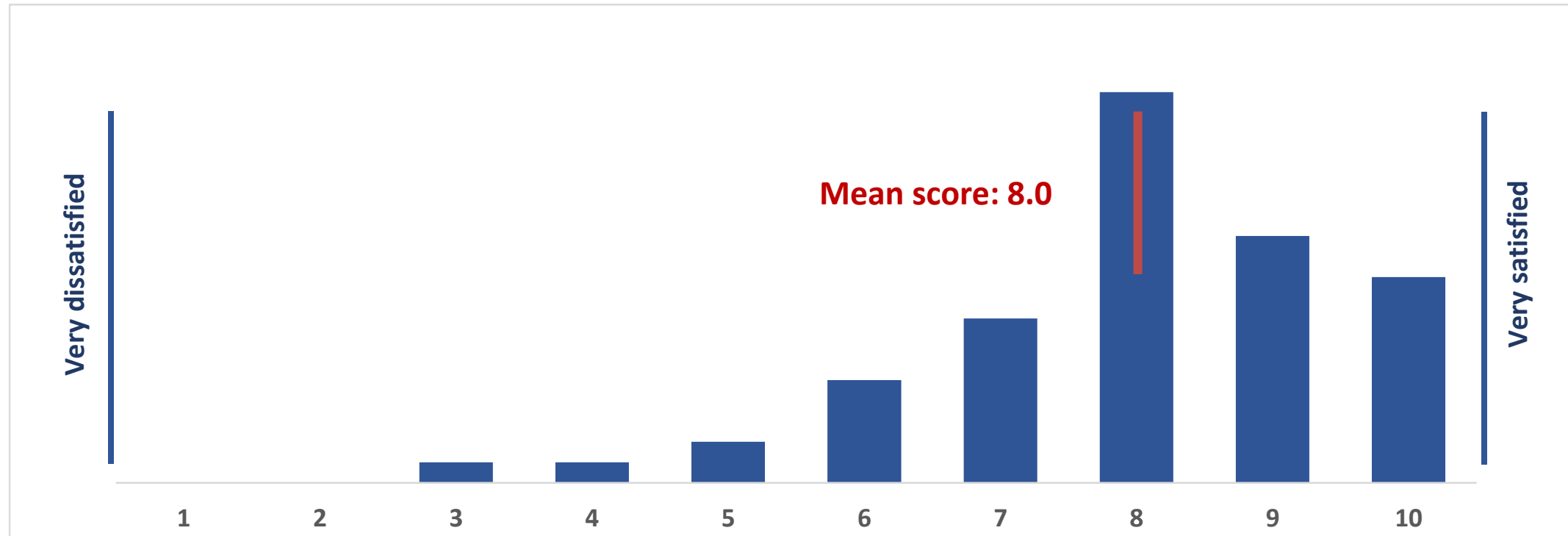


☐ ICAO SAF Trackers



Overall Satisfaction

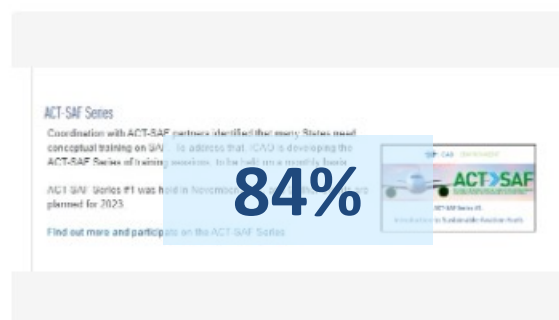
- On a scale from 1 (very dissatisfied) to 10 (very satisfied)
- **Generally positive overall satisfaction**
 - Most respondents rated 8



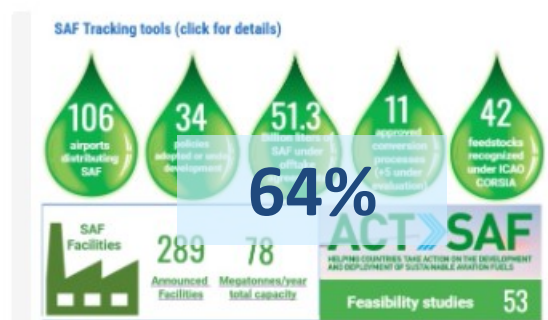
Significant outreach of ACT-SAF initiatives and resources

- ACT-SAF Training Series has more than 8 in 10 utilizing the materials
- **Special thanks** to States and organizations who supported in 2023

ACT-SAF Training Series



ACT-SAF events (Stocktaking, ENV Regional Seminars, others)



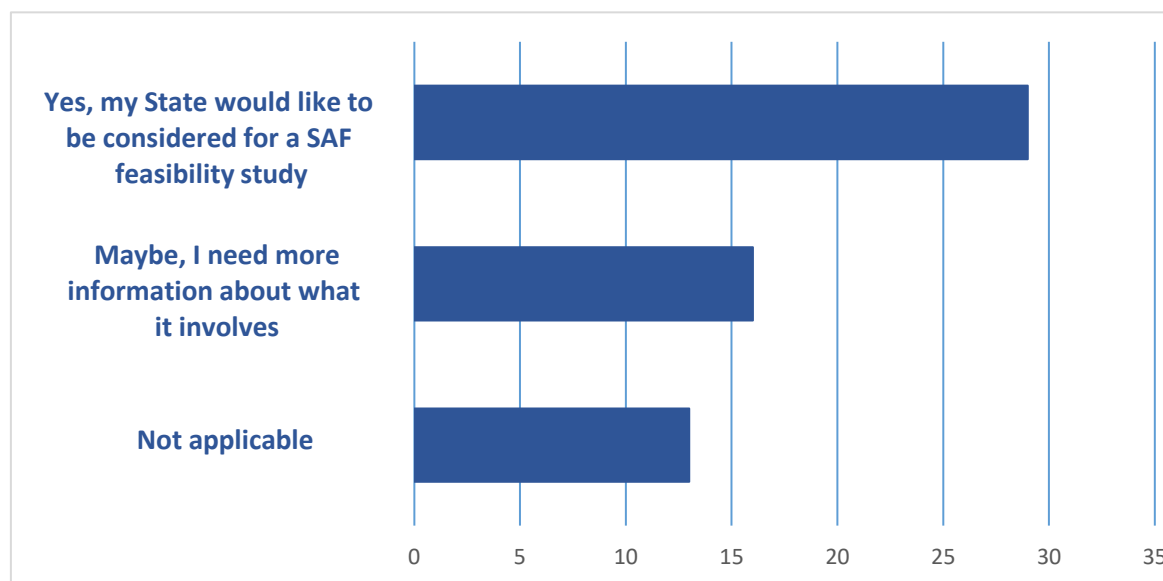
ICAO SAF Trackers

Support material for SAF feasibility studies (Reports, Template, Guide)



Strong need for support in SAF feasibility studies

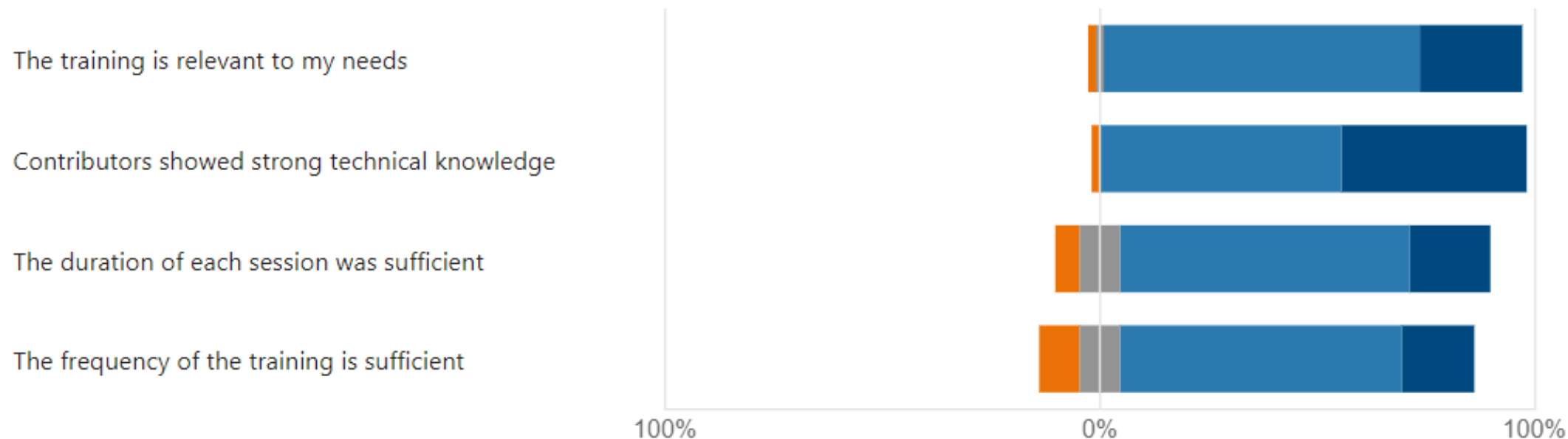
- Half (50%) wanted to be considered for SAF feasibility studies, with additional follow up support (e.g. business case development) where applicable
- Others (28%) wanted more information before committing to a request
- Remainder (22%) expressed that this was not applicable
 - Responses mainly from organizations, States which have already completed feasibility studies
- **Implementation** of feasibility studies will be a key item on the agenda for ICAO in 2024



ACT-SAF Training Series

- **Most (91%)** expressed that the ACT-SAF Training Series was able to meet their expectations
- Additional views expressed on the ACT-SAF Training Series

■ Not Applicable
 ■ Strongly Disagree
 ■ Disagree
 ■ Agree
 ■ Strongly Agree



Suggestions on content of upcoming ACT-SAF Training Sessions

Impact assessments of policy options
SAF production pathways and feedstocks by region
Considerations surrounding SAF production
Claim of SAF environmental attributes for Scope 3 vs CORSIA
Highlighting examples of successful SAF flights
Finance
Life cycle assessments
Assessment on feedstock availability
Technical content on certification, chain of custody, SAF project design
Fuel composition and emissions
Translating SAF requirements for the newly adopted CAAF/3 framework
Detailed information on SAF blending infrastructure
SAF roadmaps
Regulatory aspects
SAF conversion pathways
SAF technology adoption and SAF investment analysis
Considerations for States where SAF production is not feasible



How ICAO can enhance dialogue and collaboration between ACT-SAF partners, as well as increasing support to States?



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Scale up of SAF feasibility studies thanks to financial contributions from or cooperation with:

- European Union: 10 SAF feasibility studies in Cameroon, Egypt, Equatorial Guinea, Ethiopia, India, Gabon, Mauritania, Mozambique, Senegal and South Africa.
- France: Business Implementation report in Ethiopia and studies in 2 or 3 other States;
- Netherlands: feasibility studies in 3 States (Jordan and Chile + 1 TBC);
- United Kingdom: 3 SAF feasibility studies + SAF training for 3 States;
- Austria: to be announced;
- Cote d'Ivoire: to be announced;
- Airbus : 3 Feasibility Studies in South America





In 2024, ICAO HQ will continue to organize ACT-SAF Series trainings, including with the involvement of the ICAO Regional Offices.

ACT-SAF Series - SEASON 2
#8 Green Hydrogen for aviation
#9 ICAO SAF supporting tools
#10 SAF in State Action Plans
#11 CAAF/3 Global Framework
#12 Multi-stakeholder SAF Alliances
#13 Feasibility assessments
#14 Economics and Financing (SAF projects)
#15 Updates on recent developments (policies)

- Update of the SAF Feasibility Study template
- Creation of a template for Business Implementation reports
- 1-on-1 ACT-SAF trainings (including buddy-partnerships)
- Outreach activities on SAF, LCAF, cleaner aviation energies and financing
- Update of the State Action Plan guidance document 9988.
- Events
 - Green Airports
 - Non-CO2 emissions
 - ICAO Stocktaking event 2024

As ACT-SAF Partner, how can I contribute?

Contribute resources to support training, feasibility studies or business implementation report.



Inform ICAO ACT-SAF team if your States requests training a feasibility study or business implementation report.

- **Provide feedback on ACT-SAF, including proposals for new trainings by the end of January**
- **Volunteer to contribute to an ACT-SAF training**
- **Look out for invitation to provide feedback on the template/guide for feasibility studies**
- **Support the process for creating a template for business implementation reports (e.g. suggesting reference material)**
- **Contribute to the SAF trackers by informing the ACT-SAF team of recent developments**



Questions and Answers





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Closing Remarks





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Lima

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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
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Bangkok

THANK YOU