



International Civil Aviation Organization

WORKING PAPER

A42-WP/338¹

EX/141

29/7/25

ASSEMBLY — 42ND SESSION

Executive Committee

Agenda Item 16: Environmental Protection – International Aviation and Climate Change

AIR TRANSPORT INDUSTRY'S VIEWS ON THE ICAO CAAF/3 IMPLEMENTATION ROADMAP ON GLOBAL FRAMEWORK FOR SAF, LCAF AND OTHER AVIATION CLEANER ENERGIES

(Presented by the International Air Transport Association – (IATA))

EXECUTIVE SUMMARY

This paper presents the views from the International Air Transport Association (IATA) on the progress report made by the International Civil Aviation Organization (ICAO) since the 41st Session of the Assembly relating to international aviation and climate change, focusing on the ICAO Roadmap for the implementation of the outcomes from the Third ICAO Conference on Aviation and Alternative Fuels (CAAF/3) and the Long-Term Aspirational Goal (LTAG).

Action: The Assembly is invited to:

- urge States to take proactive actions to address the unintended consequences of recently implemented Sustainable Aviation Fuels (SAF) mandates, which present commercial and operational obstacles to SAF deployment, and engage stakeholders across the value chain in the process;
- urge States to take stronger policy action in upscaling SAF production; and
- urge States to integrate a global and robust SAF accounting and reporting methodology in policy setting to facilitate the claiming of SAF environmental benefits, consistent with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and other relevant internationally recognized recommended practices.

<i>Strategic Goals:</i>	This working paper relates to the Strategic Goal – <i>Aviation is Environmentally Sustainable</i>
<i>Financial implications:</i>	It is not expected that there will be financial implications for ICAO.
<i>References:</i>	Doc 10201, Third ICAO Conference on Aviation and Alternative Fuels (CAAF/3) Report A42-WP/25, Climate Change – Global Framework for SAF, LCAF and other Aviation Cleaner Energies A42-WP/27, Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate Change A42-WP/339, Update on Civil Aviation Decarbonization Organization (CADO) Information Paper

¹ English, Arabic, Chinese, French, Russian and Spanish versions provided by IATA.

1. INTRODUCTION

1.1 There is a global consensus across various decarbonization roadmaps that cleaner fuels will make the largest contribution to aviation CO₂ emission reductions by 2050.² To help expedite the energy transition of the aviation industry, the Third ICAO Conference of Aviation Alternative Fuels (CAAF/3) held in Dubai, United Arab Emirates in November 2023, has adopted an ICAO Global Framework for Sustainable Aviation Fuels (SAF), Lower Carbon Aviation Fuels (LCAF) and other aviation cleaner energies to facilitate the global scale up in the development, production, and deployment of aviation cleaner energies to support the achievement of the Long-Term Aspirational Goal (LTAG) which was adopted at ICAO's 41st Assembly.³

1.2 Through the landmark agreement, ICAO and its Member States strive to achieve a collective global aspirational vision to reduce international aviation CO₂ emissions by 5 per cent by 2030, through the use of aviation cleaner energies.

1.3 While the declaration is non-binding in nature, this agreement and development creates a market signal to help increase the production of aviation cleaner fuels globally. A global framework for SAF, LCAF and other aviation cleaner energies could also help in setting a harmonized global approach to policymaking and avoiding unintended consequences that may lead to market distortion.

1.4 To meet these international commitments, a rapid expansion of the supply of aviation cleaner energies at competitive prices is essential. The pace at which this can be achieved depends critically upon governments enacting early and effective policy support to boost production of SAF, LCAF and other aviation cleaner energies while enabling a functioning market for them.

1.5 In supporting and achieving the global aspirational vision agreed at CAAF/3, the framework must also ensure the ability of airlines to claim the environmental benefits from their purchases of SAF, LCAF, and other aviation cleaner energies to support the sector's decarbonization commitments. As such, the adoption of a global and robust SAF accounting and reporting mechanism that complements the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) Standards and Recommended Practices (SARPs) is a critical piece of administrative market infrastructure enabling the implementation of relevant policies.

2. THE IMPORTANCE AND URGENCY OF BALANCED POLICY SUPPORT TO BOOST PRODUCTION OF SAF, LCAF AND OTHER AVIATION CLEANER ENERGIES

2.1 Government policy has an instrumental role to play in the deployment of SAF, LCAF, and other aviation cleaner energies. Policies should be targeted to create and accelerate the development of the requisite new markets and ensure they can perform their necessary functions. The International Air Transport Association – (IATA) Net Zero CO₂ Emissions Policy Roadmap, published in September 2024, provides a chronological "menu" of policy options to facilitate the air transport industry's journey towards net zero CO₂ emissions.⁴

2.2 In creating a functioning SAF market, it is important to learn from the success of other new renewable energy markets that have been created from scratch in the past, in particular the wind and solar

² Example of industry net-zero roadmaps from IATA, published September 2024, accessible [here](#).

³ ICAO Global Framework for SAF, LCAF and other Aviation Cleaner Energies, adopted on 24 November 2023, accessible [here](#).

⁴ IATA Net Zero CO₂ Policy Roadmap published September 2024, accessible [here](#).

energy. In a study conducted by IATA,⁵ key findings indicate that the sequencing of policies matters, that technology-push policies should come first, that incentives are needed in the early stages, and that mandates should only be used as part of a broader strategy to increase the production of SAF.

2.3 Harmonization in standard setting remains key to developing a global, transparent, and liquid SAF market. This new market necessarily requires a robust set of sustainability criteria, globally harmonized sustainability certification practices, and a SAF accounting and reporting methodology with a robust chain of custody, ensuring immutable tracking of the environmental attributes to enable verification and facilitate claims. Further considerations regarding policies to support SAF, LCAF and other aviation cleaner energies can be found in the IATA policy paper on SAF Deployment.⁶

3. UNINTENDED CONSEQUENCES FROM SAF MANDATES

3.1 As of now, the policy measures that countries have put in place are insufficient to secure the requirements for air transport's energy transition and additional action must be taken without further delay. Remedial action is also immediately necessary regarding tackling unintended consequences caused by the imposition of mandates. IATA and its members remain committed to work with governments in addressing any unintended consequences. States seeking to develop policies to upscale SAF production should take note of the shortcomings of policies already implemented elsewhere, to avoid them.

3.2 The ReFuelEU Aviation regulation introduced in the European Union (EU), and the United Kingdom (UK) SAF mandate, both introduced in January 2025, require aviation fuel suppliers to ensure that an average 2% of SAF is contained in the jet fuel uplifted at EU and UK airports.

3.3 Most fuel suppliers subjected to these mandates have imposed a self-assessed additional profit margin put on top of the price of each tonne of fossil jet fuel purchased. This pricing behaviour deprives airlines of their right to self-determination in their fuel procurement, be it fossil jet fuel or SAF. Moreover, the additional margin exploits the pricing power of fuel suppliers who operate in oligopolistic market settings. Finally, the outcome is that costs increase for airlines, CO₂ emission cuts are uncertain, and airlines can find themselves unable to claim these "SAF purchases" against their regulatory obligations.

3.4 Based on an IATA survey, the increased margin amounts to around USD 54 per tonne of jet fuel, over twice the per tonne fee of USD 22 based on the market price of SAF, as assessed by price reporting agencies.⁷

3.5 Given the 42 million tonnes of fuel sold annually in the EU, airlines will face an additional USD 1.3 billion charge in 2025 in the form of the increased margin imposed on fossil jet fuel. This amount could otherwise be used to purchase an additional 1.2 million tonnes of SAF (average SAF market premium of USD 1,100 per tonne since implementation of the European mandates). That equates to a missed opportunity of 2.7 million tonnes of CO₂ emission reduction annually. Similar perverse pricing behaviour related to the UK SAF mandate means foregoing a further 0.8 million tonnes of CO₂ emission reduction.⁸

3.6 In addition, patchworks of regulations and increased fragmentation are detrimental as they increase administrative burdens and create compliance fatigue for airlines. It is also counter-productive in

⁵ IATA brief: A reflection on policies used to support the creation of new renewable energy markets - Lessons for aviation?, published July 2024, accessible [here](#).

⁶ IATA paper on SAF deployment and considerations for policy approach, accessible [here](#).

⁷ Example of source: S&P Global Commodity Insights.

⁸ IATA chart of the week, Excessive SAF Fees in the EU: A lost opportunity to abate 2.7 million tonnes of CO₂, accessible [here](#).

the sense that costs increase per unit of CO₂ emission reduction, if any reductions occur. This is unnecessary, as States have agreed on a global framework through ICAO to support the sector's energy transition.

4. THE IMPORTANCE OF ADOPTING A GLOBAL AND ROBUST ACCOUNTING FRAMEWORK

4.1 It is widely recognized that a global and robust accounting and reporting framework for aviation cleaner energies, is necessary to support the global aviation industry's goal to reach net-zero carbon emissions by 2050. This is needed to ensure a cost-effective and environmentally efficient way to incentivize the scaling up of all technologies, feedstocks, methods, and approaches required for reducing lifecycle greenhouse gas (GHG) emissions across the SAF supply chain, and for rendering immaterial the physical matching of SAF supply and demand in any specific geographic location.⁹

4.2 The CORSIA SARPs outline the conditions for aircraft operators to claim the environmental benefits from CORSIA Eligible Fuels (CEF) to reduce their offsetting obligations related to their international aviation emissions. This is managed through the purchase and blending records of the CEF, regardless of the physical location where the fuel is uplifted, and whether the fuel is used for domestic or international flights.¹⁰

4.3 ICAO or States do not need to establish an independent accounting methodology or platform to monitor the use of the CEF. Current CORSIA SARPs already describe the necessary procedures to monitor the use of CEF under the scheme. However, the adoption and recognition of a SAF accounting approach, backed by robust transaction principles and methodology, would facilitate the scale-up of CEF.

4.4 To provide a consistent guidance to airlines regarding the accounting and reporting of environmental attributes from SAF in the relevant regulatory and voluntary GHG frameworks, IATA published a SAF Accounting and Reporting Methodology in January 2025, developed based on, in accordance with, and complementing the CORSIA accounting methodology. Developed in collaboration with more than 40 airline experts worldwide, the methodology aims to ensure transparency, fairness, integrity, and accessibility regarding the claiming of the environmental benefits from SAF.¹¹ The IATA methodology is fully embedded in the Civil Aviation Decarbonization Organization's (CADO) SAF registry, developed by IATA. Further information can be found in the information paper A42-WP/339.

4.5 Through ICAO's Committee on Aviation Environmental Protection (CAEP) and its technical experts, IATA also strives to facilitate and contribute to the study of fuel accounting systems for international aviation currently used in the open market, with a view to identifying any possible role for ICAO, which should leverage existing methodologies and procedures under CORSIA, as clearly laid out in the CAAF/3 declaration. IATA urges ICAO and States to collaborate with the solutions already widely adopted and implemented by the industry, to avoid duplication of efforts, which could further delay the adoption of such accounting and reporting frameworks to support the deployment of SAF, LCAF and other aviation cleaner energies.

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⁹ IATA paper on benefits of a global and robust SAF accounting framework, accessible [here](#).

¹⁰ [ICAO SARPs on CORSIA](#) clause 2.2.4 Monitoring of CORSIA eligible fuels claims and [ICAO Environmental Technical Manual \(ETM\) Doc 9501](#), clause 3.3.5.5 Use of CORSIA eligible fuels

¹¹ IATA SAF Accounting & Reporting Methodology, published January 2025, accessible [here](#).