



Item 3A of Agenda: Environment

COLOMBIA DRIVES THE DEVELOPMENT OF SUSTAINABLE AVIATION FUELS (SAF) TOWARD THE DECARBONIZATION OF AIR TRANSPORT

Working Paper presented by Colombia, "*The Country of Beauty*"

SUMMARY	
<p>Colombia, the Land of Beauty, Advances Toward Decarbonization with a SAF Industry Aligned to the Net-Zero Emissions Goal by 2050.</p> <p>Ecopetrol is spearheading tests at its Cartagena refinery, producing 32,000 barrels of jet fuel co-processed with vegetable oils. While it does not yet meet all SAF criteria, this marks a crucial step forward. In 2025, Ecopetrol plans to continue producing sustainable fuels, aiming for continuous production by 2028. Additionally, Colombia will host the first Pan-American SAF meeting at the F-AIR 2025 expo, positioning itself as a regional leader in this field.</p>	
References:	
<ul style="list-style-type: none"> - Ecopetrol. (2024, octubre 3). <i>Refinería de Cartagena iniciará prueba de producción de combustible sostenible de aviación</i>. [Comunicado de prensa]. Ecopetrol.Strategic Plan 2026-2050 ICAO - Ecopetrol. (2024, noviembre 5). <i>Finalizó con éxito prueba de producción de combustible sostenible de aviación (SAF) en la refinería de Cartagena</i>. [Comunicado de prensa]. Ecopetrol. - 2024, Ecopetrol industrial test SAF https://www.youtube.com/watch?feature=shared&v=LE9GK4uFuOQ 	
ICAO Strategic Objectives:	<ul style="list-style-type: none"> • Aviation is Environmentally Sustainable.

1. Introduction

1.1 The Government of Colombia, in line with the provisions of the 41st Assembly, which established that: "...ICAO and its Member States are encouraged to work together to achieve an ambitious global long-term aspirational goal (LTAG) of net-zero carbon emissions by 2050 as a contribution to the temperature goal of the Paris Agreement..." has been carrying out a series of activities since 2023 to consolidate a SAF industry capable of meeting decarbonization needs both nationally and internationally.

1.2 Ecopetrol S.A. is a publicly traded company of national order, linked to the Ministry of Mines and Energy of Colombia. It is an integrated energy group that operates across all segments of the hydrocarbons value chain, including exploration, production, transportation, refining, and commercialization.

1.3 As part of its vision, Ecopetrol S.A. aims to diversify its portfolio toward businesses that enable it to continue reducing its carbon footprint and progress toward its goal of becoming a net-zero emissions company by 2050.

1.4 As part of this effort, since 2023, Ecopetrol has been part of the so-called "SAF ecosystem," a participatory space led by Aerocivil that includes actors from the triple helix (academia, industry, and the state). In this space, inputs are discussed and developed to enable Colombia to advance toward the decarbonization of air transport.

2. Discussion

2.1 In October 2024, Ecopetrol conducted an industrial test for the production of co-processed JET fuel using a feedstock of new and used vegetable oils (UCO) at its Cartagena refinery. The seven-day test aimed to assess the feasibility of using the existing facilities to produce co-processed JET fuel as a step toward continuous SAF production. Additionally, the test analyzed the technical, operational, and financial requirements for sustained production in the medium term.

2.2 The test involved using a conventional hydrocracking unit to produce fuel by replacing 5% of the conventional hydrocarbon feedstock with bleached palm oil. A portion of this oil came from used cooking oil (UCO), while the remainder was virgin bleached palm oil.

2.3 After the test, approximately 32,000 barrels of coprocessed fuel were produced, which were subjected to laboratory studies to certify that they met the quality standards required by ASTM 1655 (see Table 1 and Annex Table A1).

2.4 Currently, Ecopetrol S.A. is working alongside Colombian air operators to commercialize this production. Although it cannot be considered SAF as it does not meet all the criteria set by the ICAO, it can be stated that this fuel reduces emissions compared to traditional JET fuel and represents the first step towards continuous SAF production in Colombia. In 2025, Ecopetrol intends to continue producing fuels from organic sources in preparation for continuous production by 2028.

2.5 In line with the goal of promoting the SAF industry in Colombia and building capabilities, the first Pan American SAF meeting will be held as part of the F-AIR aviation fair, which takes place in Rionegro, Antioquia – Colombia. This event aims to promote the SAF industry and solidify Colombia as a key player in this field.

3. **Suggested Action**

3.1 The Meeting is invited to:

- a) Participate as representatives of civil aviation from the States in the Pan American SAF meeting, which will take place during F-AIR from July 7 to 9 in Rionegro, Colombia.
- b) Invite companies and key stakeholders in the SAF supply chain to participate in the Pan American SAF meeting, which will take place during F-AIR.
- c) Share the results of Ecopetrol's industrial SAF test within the nations to strengthen a regional SAF system.

- END -