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WORKING PAPER

ASSEMBLY — 41ST SESSION

EXECUTIVE COMMITTEE

Agenda Item 17: Environmental Protection – International Aviation and Climate Change

PROMOTING A COMPREHENSIVE REGULATORY SCHEME FOR THE DEVELOPMENT OF SUSTAINABLE AVIATION FUELS

(Presented by the States of the Central American Corporation for Air Navigation Services, COCESNA[2] and IATA and supported by Argentina, Bolivia (Plurinational State of), Chile, Cuba, the Dominican Republic, Panama, Paraguay and Uruguay[3])

EXECUTIVE SUMMARY

Environmental protection is a Strategic Objective of ICAO that entails various initiatives aimed at reducing CO_2 emissions of the international aviation sector, in keeping with the United Nations Sustainable Development Goals.

It should be recalled that the 38th Assembly first voiced support for the use of aviation alternative fuels, in particular drop-in fuels, as an important means to reduce emissions in the international aviation sector, as stated in Resolution A38-18 *Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change*. Significantly, this support is once again expressed in paragraph 2.1 of the recent feasibility report on a long-term aspirational goal (LTAG) to reduce CO_2 emissions in international civil aviation, published in March 2022.

It must also be recalled that the Conference on Aviation and Alternative Fuels in 2009 (CAAF/1) created an ICAO Global Framework for Alternative Aviation Fuels (GFAAF). This was in response to the demonstrated technical feasibility of drop-in sustainable aviation fuels, with pointed recognition of the need to introduce appropriate policies and incentives for uptake of such fuels.

The Second Conference on Aviation and Alternative Fuels (CAAF/2) in October 2017 issued recommendations and a declaration introducing the *ICAO 2050 Vision on Sustainable Aviation Fuels* as a living instrument to enable SAF to make up a major share of fuel use by 2050.

The objective is to create long-term market visibility, recognizing that these fuels must be developed and rolled out in a way that is technically and economically viable, safe, socially sensitive and environmentally acceptable. There is also a clear need to broaden harmonization and create incentives for further research and uptake of SAF by international civil aviation stakeholders.

[1] Spanish version provided by COCESNA.
[2] Belize, Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua.
[3] LACAC member States.

Action: The Assembly is respectfully invited to:

a) thank the Member States of ICAO and CAEP, the various expert groups on the environment and climate change in the ICAO Environment Section, as well as industry task forces in the international aviation sector, for their efforts in bringing about energy transition for the economic, social and environmental sustainability of aviation;

b) request the Council of ICAO to continue encouraging, within the competent internal entities, technical proposals for a comprehensive global framework of policies and recommended practices on sustainable aviation fuels (SAF) to be presented for approval at the 41st Assembly. The intent is for Member States to be able to develop a regulatory framework and implementation plan as a priority action in pursuit of the LTAG environmental goals; and

c) request the ICAO Technical Cooperation Bureau (TCB) to source technical and economic resources through the global funds for the environment and climate change to finance State plans and programmes, for effective technology transfer that will enable the transition to SAF.

Strategic Objectives:	This working paper relates to Strategic Objective – *Environmental Protection.*
Financial implications:	Additional financial resources will be required for the implementation of ICAO Standards and Recommended Practices.
References:	Resolution A38-18 - *Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change*

1. INTRODUCTION

1.1 Since 2009, the International Civil Aviation Organization (ICAO) has been encouraging Member States and the aviation sector to promote and harmonize initiatives for the production of sustainable aviation fuels (SAF). At the 38th Assembly of ICAO, Resolution A38-18 was passed, noting that SAF production requires States to introduce appropriate policies and incentives that contribute to long-term market visibility.

1.2 In the Resolution, ICAO requests Member States to adopt a coordinated approach among national authorities in creating such policies. Authorities in several Member States have developed or are currently developing various instruments to support the rollout and uptake of SAF.

1.3 It is expected that aviation authorities around the world will formulate regulatory frameworks and requirements with similar objectives. Without a harmonized approach, there is the risk of ending up with many different requirements and regulations, which may incur economic and administrative burdens affecting the competitiveness of the aviation sector.

1.4 It should be recalled that the first Conference on Alternative Aviation Fuels (CAAF/1) established an ICAO Global Framework for Alternative Aviation Fuels (GFAAF) that has yielded advances such as new methods for certifying SAF and an increase in the number of airports regularly distributing these fuels.

1.5 The second Conference on Alternative Aviation Fuels (CAAF/2) in October 2017 issued recommendations and a declaration setting out the *2050 ICAO Vision for Sustainable Aviation Fuels*. To achieve this vision, it is necessary to identify the different phases of implementation and rollout, and the regulatory framework.

2. DISCUSSION

2.1 Currently, SAF produced from renewable biomass can serve as a drop-in alternative fuel, which means that aeroplanes do not need a refit to use it, and it is safe to blend with conventional fossil fuels. Some experts[4] think that SAF and market-based measures (MBMs) are presently the only options for reducing CO_2 emissions over the long term. In view of the required energy density and flight mechanisms, liquid fuels are the only realistic option for commercial aviation. Despite criticism regarding the various drawbacks of SAF, the fuels do have benefits for the aviation sector in terms of economics (reduced exposure to petroleum price fluctuations), efficiency (higher energy content), the environment (up to 80 per cent emissions reduction), and the common good (direct and indirect job creation).

2.2. In its *Waypoint 2050* report, the Air Transport Action Group (ATAG) indicates that it is possible to meet the carbon neutral goals established in 2013 through compliance with ICAO Resolution A38-18. However, this is contingent upon collective action, not only by aviation stakeholders but also governments, researchers and the energy industry. *Waypoint 2050* finds that governments will have to take concrete actions to incentivize or invest in SAF development, and that the best means to achieve and exceed the 2050 industry goal is through the rapid global expansion of SAF and other new energy sources. The report concludes that between 330 and 445 million tonnes of SAF will be needed by 2050.

2.3 Today, less than 0.1 per cent of fuels used in aviation are derived from SAF. To achieve critical mass, experts say that production will need to reach 2 per cent in 2025, and then increase quickly. It is likely that this level will be an inflection point at which a drop in SAF prices will significantly boost production. To pass the 2 per cent mark, though, governments and authorities will need to provide support.

2.4 It is essential for ICAO as the top regulator of international civil aviation to continue driving efforts to develop the comprehensive regulatory framework as a stimulus for States and sectors involved in SAF development. Despite great efforts by States and industry, not enough has been done to achieve the objectives set forth in the report on LTAG feasibility presented in the course of the Global Aviation Dialogues (GLADs) in March/April 2022.

2.5 Some States in our Region have made noteworthy progress in SAF owing to the natural resources, diversity of feedstock and new technologies available. This is why we believe that the countries of Latin America and the Caribbean have enormous potential for development of a SAF industry that would assist States in their economic development. Accordingly, several countries in the Region are promoting and implementing policies for future SAF production. If these policies are developed in an environmentally, socially and economically sustainable fashion, they will offer a strategic opportunity for local development and for the diversification of local and national energy matrices. In other parts of the world, SAF have become valuable to governments, private investors, farmers and the general public, in particular because of their potential contribution to a reduction in greenhouse gas emissions.

2.6 We commend the work of ICAO and its Member States, the regional commissions and IATA as manifested in the commitment to *Zero net CO_2 emissions by 2050*, which devises the ambitious plan for SAF to account for 65 per cent of emissions reduction. This will definitely require extensive coordination among the stakeholders within a framework of policies and recommended practices.

[4] *Waypoint 2050* study: https://aviationbenefits.org/media/167187/w2050_full.pdf .

3. CONCLUSIONS

3.1 SAF represent a major opportunity for States around the world and in the Latin American Region to enable highly profitable economic, social and environmental ventures in the medium- and long-term. However, this requires ICAO to help build an architecture of policies and recommended practices that comprises at least some of the following elements:

a) promote use of the global environment and climate funds to provide economic and technological resources that allow for the environment aspirational goals to be achieved through the energy transition;

b) develop a framework of policies and recommended practices that gives potential investors certainty and confidence in the funding of research and production facilities in States;

c) design a system of multipliers to grow the investments already being made, as well as pollution prevention certificates from the international aviation sector, in order to drive research and investment in the field and secure broad social, environmental and economic benefits; and

d) encourage capacity building and training in topics related to the use and benefits of SAF in support of member States.

— END —