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North American, Central American and Caribbean Office

WORKING PAPER

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(NACC/DCA/10)**

Martinique, France, 21 to 23 June 2022

**Agenda Item 8: Environmental Protection Matters**

**LATEST DEVELOPMENTS ON ICAO'S WORK ON CLIMATE CHANGE**

(Presented by the Secretariat)

<b>EXECUTIVE SUMMARY</b>	
This paper reports on progress made by the International Civil Aviation Organization (ICAO) since the 40th Session of the Assembly relating to international aviation and climate change, including on the feasibility of a long-term global aspirational goal (LTAG) for international aviation, on the ICAO State Action Plans initiative for aviation CO <sub>2</sub> emissions reduction, and on related assistance and capacity-building projects.	
<b>Action:</b>	The suggested actions are presented in section 5.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Environmental Protection</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• Assembly Resolution A40-18 — <i>Consolidated statement of continuing ICAO policies and practices related to environmental protection - Climate change</i></li></ul>

**1. INTRODUCTION**

1.1. This paper reports on progress made by ICAO since the 40th Session of the Assembly relating to international aviation and climate change, including on the feasibility of a long-term global aspirational goal (LTAG) for international aviation, on the ICAO State Action Plans initiative for aviation CO<sub>2</sub> emissions reduction, and on related assistance and capacity-building projects. Specific information regarding the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is provided in NACC/DCA/10 — WP/35

## 2. FEASIBILITY OF A LONG-TERM ASPIRATIONAL GOAL (LTAG) FOR INTERNATIONAL AVIATION CO<sub>2</sub> EMISSIONS REDUCTIONS

2.1. Following the ICAO Assembly's request to the ICAO Council to explore the feasibility of a LTAG for international aviation, the Committee on Aviation Environmental Protection (CAEP) conducted a technical analysis through a collaborative, inclusive and transparent process, and unanimously approved the technical report on the feasibility of an LTAG. Under the LTAG report, three integrated scenarios (IS1, IS2, and IS3) were developed to cover a range of readiness, attainability, and aspirations for aviation in-sector CO<sub>2</sub> emissions reduction. In the most ambitious IS3 scenario, CO<sub>2</sub> emissions could be reduced by 87% in 2050, broken down into 21% from aircraft technologies, 11% from operations and 55% from fuels.

2.2. The LTAG report was published on the ICAO public website<sup>1</sup> as the input for discussions by all Member States and stakeholders during the LTAG Global Aviation Dialogues (GLADs)<sup>2</sup> held in March and April 2022. As the next steps, ICAO High-level meeting on the feasibility of a LTAG on CO<sub>2</sub> emissions reduction (HLM-LTAG)<sup>3</sup> will be held from 20 to 22 July 2022 in Montréal, Canada as a hybrid format, and the final LTAG deliberations that will occur at the 41st Session of the ICAO Assembly. The HLM-LTAG will be preceded by the 2022 ICAO Stocktaking<sup>4</sup>, from 18 to 19 July 2022 as a virtual event, to enable the sharing of the latest relevant information, including the latest innovations on technology, operations and fuels, and to set the scene for the subsequent HLM-LTAG. In this regard, NACC Member States are invited to actively participate in the LTAG process leading up to the 41st Session of the ICAO Assembly.

## 3. SUSTAINABLE AVIATION FUELS AND LOWER CARBON AVIATION FUELS

3.1. The ICAO LTAG report highlights the importance of Sustainable Aviation Fuels (SAF), Lower Carbon Aviation Fuels (LCAF) and cleaner energy sources for aviation, including hydrogen and renewable electricity. To support the further development and deployment of these fuels by States and relevant stakeholders, ICAO is working on the launch of a new ICAO Assistance, Capacity-building and Training to support the development and deployment of SAF and cleaner energy sources for aviation, including the establishment of partnerships among States and relevant stakeholders, in line with the *No Country Left Behind* (NCLB) initiative. NACC Member States are invited to express interest in joining this initiative.

3.2. Work on SAF and LCAF is also ongoing in the context of CORSIA<sup>5</sup>, with the development of global life cycle assessment methodologies and sustainability criteria for these fuels. In November 2021 the ICAO Council approved an extended set of sustainability criteria for SAF, encompassing environmental and socio-economic criteria, to be applicable after the CORSIA pilot phase (from 2024). Regarding LCAF, the 12<sup>th</sup> meeting of the Committee on Aviation Environmental Protection (CAEP/12) in February 2022, agreed to recommend specific life cycle assessment methodologies and sustainability criteria for LCAF, which have been under consideration by the ICAO Council.

3.3. On a related initiative, the ICAO Global Coalition for Sustainable Aviation<sup>6</sup> was established with the objective of providing a forum of stakeholders to facilitate the development of new ideas and accelerate the implementation of environmental innovative solutions. In the context of the Coalition,

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<sup>1</sup> <https://www.icao.int/environmental-protection/Pages/LTAG.aspx>

<sup>2</sup> <https://www.icao.int/Meetings/2022-ICAO-LTAG-GLADS/Pages/default.aspx>

<sup>3</sup> <https://www.icao.int/Meetings/HLM-LTAG/Pages/default.aspx>

<sup>4</sup> <https://www.icao.int/Meetings/Stocktaking2022/Pages/default.aspx>

<sup>5</sup> <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx>

<sup>6</sup> ICAO Coalition: <https://www.icao.int/environmental-protection/SAC/Pages/learn-more.aspx>

ICAO developed the Tracker Tools website<sup>7</sup>, where all the latest information on aviation CO<sub>2</sub> emissions reduction initiatives is updated from three streams – technology, operations and fuels, as well as on aviation net zero initiatives. As of April 2022, the Fuels trackers provides details on announced SAF offtake agreements, which sum up to 26 billion litres of SAF, 47 airports that are regularly distributing SAF, and 23 SAF-supporting policies adopted or under development. The Trackers also provide details on 185 facilities that could produce SAF.

#### 4. STATE ACTION PLANS AND ASSISTANCE

4.1. ICAO continues to work directly with Member States in order to support the development and update of State Action Plans. The State Action Plan initiative has become a key element of the Organization’s comprehensive capacity-building and assistance strategy to support Member States implement a broad range of CO<sub>2</sub> emissions mitigation measures selected from the ICAO basket of CO<sub>2</sub> mitigation measures.

4.2. At the time of publication of this Working Paper, 128 Member States had voluntarily submitted action plans to ICAO, representing 98 percent of international aviation traffic. These outcomes indicate the high level of interest and participation in this effort amongst Member States, as well as the positive impact of ICAO's assistance and capacity-building efforts.

4.3. Fourteen of the 22 countries in the NACC region have submitted their action plans to ICAO since the start of the initiative, with only three countries having updated their action plans during the 2020-2022 triennium. Table 1 lists the States of the NACC Region that have thus far submitted their State Action Plans to ICAO. States in the NACC Region that have not yet submitted their SAP to ICAO are invited to prepare it, in order to communicate their long-term strategy on climate change for the international aviation sector. This will also allow for the clear definition of assistance needs in the SAP, which could provide opportunities to access financial support for the implementation of innovative emissions reduction projects, including feasibility studies and pilot projects etc.

**Table 1 — States in the NACC Region that submitted their SAP to ICAO**

Barbados	Dominican Republic*	Mexico
Belize	El Salvador*	Nicaragua
Canada	Guatemala	Trinidad and Tobago
Costa Rica	Honduras	United States*
Cuba	Jamaica	
*: States updated their SAP in 2020-2022 triennium		

4.4. In relation to the ICAO State Action Plan Buddy Program<sup>8</sup>, Assembly Resolution A40-18 encourages States who have previously submitted action plans to share information contained in them and develop partnerships with other Member States in order to assist States that have not yet developed action plans. In this respect, ICAO has been working with Member States to facilitate and support the establishment of these partnerships, including the development of a draft agreement of cooperation which aims to establish a model framework by which ICAO Member States can help other Member States

<sup>7</sup> ICAO Tracker Tools website: [Aviation CO2 emissions reduction initiatives - Tracker Tool \(icao.int\)](https://www.icao.int/environmental-protection/pages/BuddyPartnerships.aspx)

<sup>8</sup> <https://www.icao.int/environmental-protection/pages/BuddyPartnerships.aspx>

to prepare and submit a State Action Plan. To date, nine partnerships have been established under the Buddy Programme. States in the NACC Region that have developed and updated their SAPs are encouraged to establish buddy partnership with other States in the region who have not yet developed SAP.

4.5. While State Action Plans remain an important tool for communicating national plans of climate action for international aviation, they also serve as a key tool for ICAO to assess Member States' progress toward achieving their collective global aspirational goals. Some States have recently developed more concrete long-term strategies and plans to reduce carbon emissions from international aviation with the use of new innovative technologies, operations and sustainable aviation fuels, since ICAO has been working on the feasibility of LTAG. Future updates and submissions of State Action Plans should focus on the latest innovative solutions available, while also enabling States to tap into potential funding sources, in order to facilitate States' voluntary contributions to reduce international aviation CO<sub>2</sub> emissions.

4.6. To support States, ICAO activities also included the implementation of two assistance and capacity-building projects, namely: the ICAO assistance project on Capacity Building for CO<sub>2</sub> Mitigation from International Aviation with European Union (EU) funding (Phase I and Phase II); and the ICAO-United Nations Development Programme (UNDP) assistance project on Transforming the global aviation sector, with funding from the Global Environment Facility (GEF). These projects have included the development of guidance documents, the elaboration of training material, installation of the ICAO Aviation Environmental System (AES), the development of SAF feasibility studies, the design of tools and the implementation of CO<sub>2</sub> mitigation measures, such as the installation of solar panel arrays and airport gate electrification.

## **5. ACTION BY THE MEETING**

4.1 The meeting is invited to:

- a) note the ICAO report on the feasibility of a long-term aspirational goal (LTAG) for international civil aviation as the technical basis for deliberations at the ICAO High-level Meeting on LTAG (HLM-LTAG) and the 41st Session of the ICAO Assembly;
- b) encourage States to attend the ICAO High-level Meeting on LTAG (HLM-LTAG);
- c) invite States in the NACC Region to express interest in joining the new ICAO assistance, capacity building and training programme to further facilitate the development and deployment of SAF and cleaner energy sources for aviation;
- d) encourage States in the NACC Region to develop and update State Action Plans (SAP) in order to communicate their long-term strategy on climate change for the international aviation sector, including the assistance needed for the implementation of identified action to reduce aviation CO<sub>2</sub> emissions, for submission prior to the 41st Session of the ICAO Assembly; and
- e) encourage States in the NACC Region which already submitted and updated their SAP to establish buddy partnership with other States to develop SAP.