



**WORKING PAPER**

**HIGH-LEVEL MEETING  
ON THE FEASIBILITY OF A LONG-TERM ASPIRATIONAL GOAL FOR  
INTERNATIONAL AVIATION CO<sub>2</sub> EMISSIONS REDUCTIONS (HLM-LTAG)**

**Montréal, 19 to 22 July 2022**

**Agenda Item 3: Means of monitoring progress and next steps**

**Agenda Item 4: Conclusions and Recommendations of the Meeting**

**MEANS OF MONITORING PROGRESS (BUILDING BLOCK 6)**

(Presented by the ICAO Secretariat)

**SUMMARY**

This paper discusses possible means for regularly monitoring progress towards the achievement of an LTAG, including through the ICAO Stocktaking process, further assessment of the CO<sub>2</sub> emissions reductions benefits and cost impacts, and complementary information from State Action Plans to Reduce International Aviation CO<sub>2</sub> Emissions.

Action by the Meeting is in paragraph 6.

**1. INTRODUCTION**

1.1 As part of consideration of a long-term global aspirational goal for international aviation (LTAG), it would be important to establish the process and mechanism to enable the monitoring of progress toward the achievement of LTAG, once the LTAG is established.

1.2 This paper summarizes various existing means to collect and share data and information that may also support such monitoring of the LTAG progress, such as the ICAO Stocktaking process, tracker tools, State Action Plans initiative, and the CO<sub>2</sub> reporting requirements under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

**2. ICAO STOCKTAKING**

2.1 As part of the ICAO LTAG work, in particular for data collection and information sharing on aviation in-sector CO<sub>2</sub> emissions reductions, the 2020 and 2021 ICAO Stocktaking events were convened in September 2020<sup>1</sup> and September 2021<sup>2</sup>, respectively. During these events, States, industry leaders, researchers and innovators shared their ambitious plans, solutions and policies for carbon emissions

<sup>1</sup> 2020 Stocktaking website: <https://www.icao.int/Meetings/Stocktaking2020/Pages/default.aspx>

<sup>2</sup> 2021 Stocktaking website: <https://www.icao.int/Meetings/Stocktaking2021/Pages/default.aspx>

reduction from international aviation, including measures from technology, operations and fuels, as well as the latest scientific information and findings of relevance to international aviation. The 2021 Stocktaking also included six pre-Stocktaking webinars from March to August 2021, with the focus on various specific topics on green technologies and innovations.

2.2 The ICAO Secretariat will continue to facilitate the monitoring of the latest environment-driven technologies and innovations to reduce aviation CO<sub>2</sub> emissions, including through the continued ICAO Stocktaking process. As part of the process, and in response to the request by the second ICAO Conference on Aviation and Alternative Fuels (CAAF/2) in 2017 (HLM-LTAG-IP/4 refers), ICAO plans to convene the third conference (CAAF/3) in 2023, with the aim of updating the 2050 ICAO Vision for Sustainable Aviation Fuels to include a quantified proportion of such fuels to be used by 2050.

### 3. ICAO TRACKER TOOLS AND GLOBAL COALITION

3.1 In addition, ICAO developed the Tracker Tools website<sup>3</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. These trackers provide one single source that is frequently updated to access all the latest CO<sub>2</sub> reduction innovations for aviation.

3.2 Information on partner projects within the ICAO Global Coalition for Sustainable Aviation is also updated and shared on the website<sup>4</sup>. The Coalition is a forum of stakeholders which aims to facilitate the development of new ideas and accelerate the implementation of innovative solutions that will further reduce greenhouse gases (GHG) emissions at source, on the ground, or in the sky. The ICAO Secretariat, working with the Coalition partners, released the first edition of the publication *Innovation Driving Sustainable Aviation*, which provided an overview of the innovations presented during the 2021 ICAO Stocktaking.

### 4. ICAO STATE ACTION PLANS INITIATIVE

4.1 As described in HLM-LTAG-WP/6, the ICAO State Action Plans initiative is a key element of the Organization's capacity-building and assistance strategy to support Member States in implementing a broad range of CO<sub>2</sub> reduction measures selected from the ICAO basket of measures.

4.2 While the States Action Plans continue to be an essential tool for States to communicate their national plans of climate action for international aviation, they also serve as an important vehicle for ICAO to monitor the progress for achievement of Member States' collective global aspirational goals. The Assembly Resolution A40-18, paragraph 11 invites States to prepare and update action plans to submit them to ICAO once every three years, so that ICAO can compile the quantified information in relation to the achievement of the global aspirational goals.

4.3 In this regard, several States are recently developing more concrete and longer-term strategies and plans for the reduction of carbon emission from international aviation, with the use of new innovative technologies, operations, and sustainable aviation fuels.

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<sup>3</sup> ICAO Tracker Tools website: [Aviation CO<sub>2</sub> emissions reduction initiatives - Tracker Tool \(icao.int\)](https://www.icao.int/aviation-co2-emissions-reduction-initiatives-tracker-tool)

<sup>4</sup> ICAO Global Coalition: <https://www.icao.int/environmental-protection/SAC/Pages/learn-more.aspx>

## 5. CORSIA CO<sub>2</sub> REPORTING REQUIREMENTS

5.1 Since the adoption of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) at the 39th Session of the Assembly in 2016, the ICAO Council with the support of its technical subsidiary bodies, have been developing and updating all necessary components of the CORSIA implementation package, namely: Standards and Recommended Practices (SARPs) in Annex 16, Volume IV; guidance in Doc 9501, *Environmental Technical Manual (ETM)*, Volume IV; and the CORSIA Implementation Elements, as reflected in various ICAO documents directly referenced in Annex 16, Volume IV.

5.2 The CORSIA-related SARPs in Annex 16, Volume IV became applicable on 1 January 2019, the starting date for the monitoring, reporting and verification (MRV) of CO<sub>2</sub> emissions under CORSIA. In line with the MRV requirements, more than 97% of the total CO<sub>2</sub> emissions have been reported by States through the CORSIA Central Registry for both year 2019 (606 Million tonnes of CO<sub>2</sub> in total) and year 2020 (265 Million tonnes of CO<sub>2</sub> in total), which is testament of the determination of both States and aeroplane operators to ensure the successful implementation of CORSIA.

5.3 Part of the CORSIA implementation elements is the five ICAO documents related to CORSIA eligible fuels (i.e., Sustainable Aviation Fuel (SAF) and Lower Carbon Aviation Fuel (LCAF)), including the default life-cycle emissions values, and methodologies for calculating actual life-cycle emissions values, as well as sustainability criteria, and the eligibility for sustainability certification schemes (SCS). Those ICAO documents were completed, and have been updated as necessary, with the aim of providing an incentive and means to reduce an aeroplane operator's CO<sub>2</sub> offsetting requirements under CORSIA, through the use of CORSIA eligible fuels.

## 6. ACTION BY THE HLM-LTAG

6.1 The HLM-LTAG is invited to:

- a) recognize the importance of establishing the means to monitor the progress for the achievement of an LTAG, bearing in mind various existing means to collect and share data and information, such as the ICAO stocktaking process, tracker tools, State Action plans initiative, and the CORSIA CO<sub>2</sub> reporting requirements;
- b) request ICAO to regularly monitor progress on the implementation of all elements of the basket of measures towards the achievement of LTAG, including through: the ICAO stocktaking process on the latest technologies, innovations and science; further assessment of the CO<sub>2</sub> reduction benefits and cost impacts on international aviation and all countries, in particular developing countries; and information from State Action Plans for international aviation CO<sub>2</sub> emissions; and
- c) use the information contained in this paper, for consideration of possible outcomes of the HLM-LTAG related to the LTAG Building Block 6: *Means of Monitoring Progress*, regarding the means to monitor the progress for the achievement of LTAG.