ICAO ENVIRONMENT

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

Subsidiary Body for Scientific and Technological Advice
Fifty-sixth session (SBSTA56)
Bonn, 6–16 June 2022

Agenda item 10 (g). Methodological issues under the Convention: Emissions from fuel used for international aviation and maritime transport

Submission by the International Civil Aviation Organization (ICAO)

Executive Summary

As ICAO leads the international aviation sector's efforts on climate change, building back better in a post COVID-19 environment is a key priority. Close collaboration across aviation stakeholders will be crucial to take full advantage of innovations in the green transition.

Good progress has been achieved by ICAO in exploring the feasibility of a long-term global aspirational goal (LTAG) for international aviation CO_2 emissions reductions. Following three years of intensive work involving around 300 experts, the ICAO report on the feasibility of a long-term global aspirational goal (LTAG) for international civil aviation CO_2 emission reductions was concluded and is publically available on the ICAO website. It identified various technical scenarios, highlighting the potential for aviation (in-sector) CO_2 reductions through aircraft technologies, operations and fuels, while recognizing that fuel-related solutions have the greatest potential to reduce aviation CO_2 emissions.

In July 2022, the ICAO High-level Meeting on LTAG will address important building blocks for the decision of the LTAG, including the feasibility of CO_2 emissions reduction scenarios and options, the level of ambition, the means of implementation, and the monitoring of progress. The Meeting's outcomes will inform the ICAO Council on the proposal on LTAG, for consideration by the 41st Session of the ICAO Assembly to be held in September 2022.

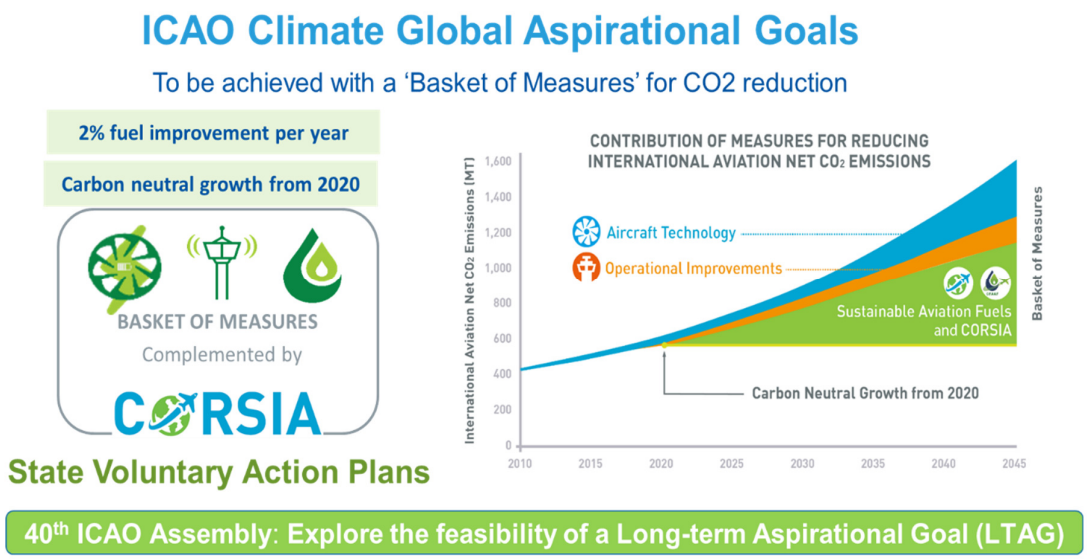
ICAO's associated event for the UN Stockholm+50 conference was held on 1 June 2022. On the occasion, ICAO launched the Assistance, Capacity-building and Training for Sustainable Aviation Fuels (ACT-SAF) programme, as one of the means to facilitate the establishment of partnerships and cooperation among States and relevant stakeholders for the increasing use of sustainable, cleaner aviation energy sources. The ACT-SAF provides opportunities for all ICAO Member States to be engaged with exploring the feasibility of sustainable fuel development and deployment, and unlock feedstock potentials for SAF markets.

In parallel to the LTAG work, ICAO continued its work towards the achievement of the existing goals. Under the ICAO State Action Plans initiative, 129 Member States already developed and submitted their action plans, incorporating a basket of measures to reduce CO_2 emissions from international aviation. To complement these in-sector measures and ensure the achievement of carbon-neutral growth, a global market-based measure – Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) – was established and its global implementation is on track, including the annual reporting of CORSIA CO_2 emissions data from States through the ICAO CORSIA Central Registry.

The ICAO Council also approved, and is updating, globally harmonized sustainability criteria, life-cycle CO_2 values, and certification schemes, to incentivize the use of CORSIA eligible fuels for reducing airline operators' CO_2 offsetting requirements under CORSIA. A set of CORSIA eligible emissions units have also been approved that can be used by operators to meet CO_2 offsetting requirements. In this regard, ICAO welcomes the breakthroughs made in Glasgow COP26 last year, and will continue to follow-up further developments related to Article 6 of the Paris Agreement, in particular, any implications for the implementation of CORSIA and its eligible emissions units.

1. INTRODUCTION

1.1 The ICAO Assembly at its 40th Session in 2019 adopted Resolution A40-18, which reiterated two global aspirational goals for the international aviation sector of 2% annual fuel efficiency improvements, and carbon-neutral growth from 2020 onwards, which was established at the 37th Session of the Assembly in 2010.



1.2 The 40th Session of the ICAO Assembly also requested the Council to continue to explore the feasibility of a long-term global aspirational goal for international aviation (LTAG), through conducting detailed studies assessing the attainability and impacts of any goals proposed, including the impact on growth as well as costs in all countries, especially developing countries, for the progress of the work to be presented to the 41st Session of the ICAO Assembly.

1.3 Good progress has been achieved due to intensive and rigorous efforts of Member States, industry, civil society and other stakeholders participating in the ICAO LTAG process and a decision is expected following discussion at the upcoming ICAO High-level Meeting on LTAG in July 2022 and the ICAO Assembly in September 2022 (refer to paragraph 2 below).

1.4 As one of the means to facilitate the establishment of partnerships and cooperation among States and relevant stakeholders for the increasing use of Sustainable Aviation Fuel (SAF), Lower Carbon Aviation Fuel (LCAF) and other cleaner energy sources and technologies for aviation, ICAO recently launched the Assistance, Capacity-building and Training for Sustainable Aviation Fuels (ACT-SAF) programme on 1 June 2022 (refer to paragraph 3 below).

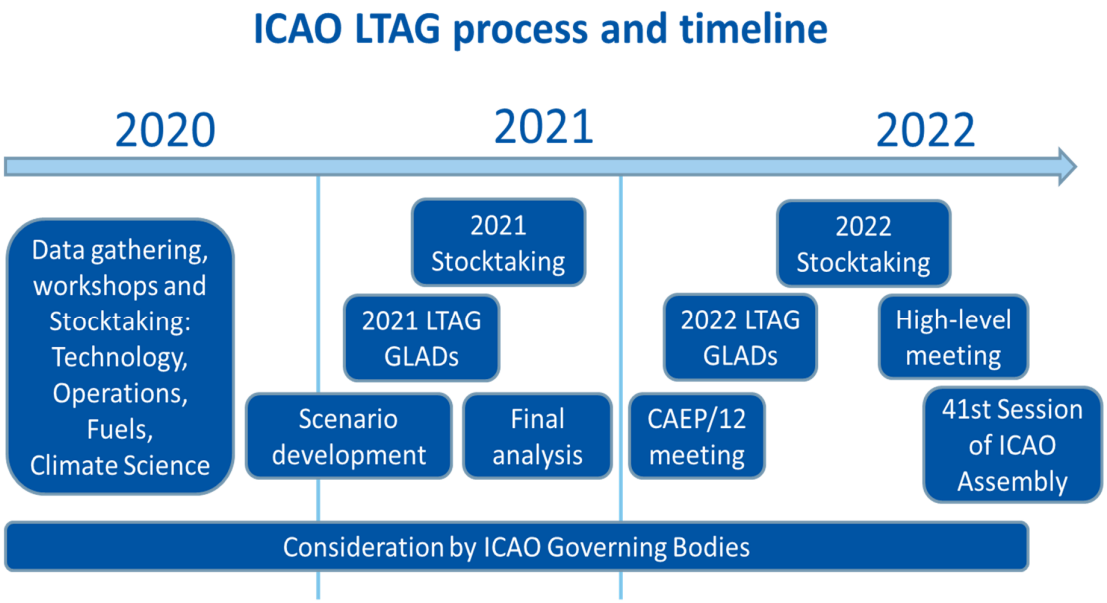
1.5 In parallel to the ongoing LTAG work, a concrete mechanism is already put in place for the achievement of the existing climate goals. Under the ICAO State Action Plans initiative, 129 Member States have already developed and submitted, and have been updating, their action plans, incorporating a basket of measures to reduce CO_2 emissions from international aviation, including aircraft technologies, operational improvements, and sustainable fuels (refer to paragraph 4 below).

1.6 To complement these aviation in-sector CO_2 reduction measures and ensure the achievement of the 2020 carbon-neutral growth goal, a global market-based measure – Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) was established (refer to Assembly Resolution A40-19) in 2016 and the Scheme is globally and robustly implemented by Member States (refer to paragraph 5 below).

1.7 As ICAO leads the international aviation sector's efforts on climate change, building back better in a post COVID-19 environment is a key priority. Innovations within the sector, such as developments in aircraft technology, operations, and Sustainable Aviation Fuel (SAF) will be essential in ensuring that the sector will be able to attain its goals. Through the various measures, ICAO is fully committed in leading the international aviation sector's efforts towards supporting the long term temperature goals of the Paris Agreement.

2. LONG-TERM GLOBAL ASPIRATIONAL GOAL FOR INTERNATIONAL AVIATION[1]

2.1 Following the request by the 40th Session of the ICAO Assembly to study the feasibility of a long-term global aspirational goal (LTAG) for international aviation, the Council in March 2020 further agreed on the ICAO LTAG process and timeline, as illustrated below, including: 1) data collection and information sharing; 2) technical assessment of CO_2 emissions reduction scenarios with analyses of costs and necessary investments; and 3) consultation and dialogues among States and stakeholders, and engagement of high-level representatives to facilitate decision.

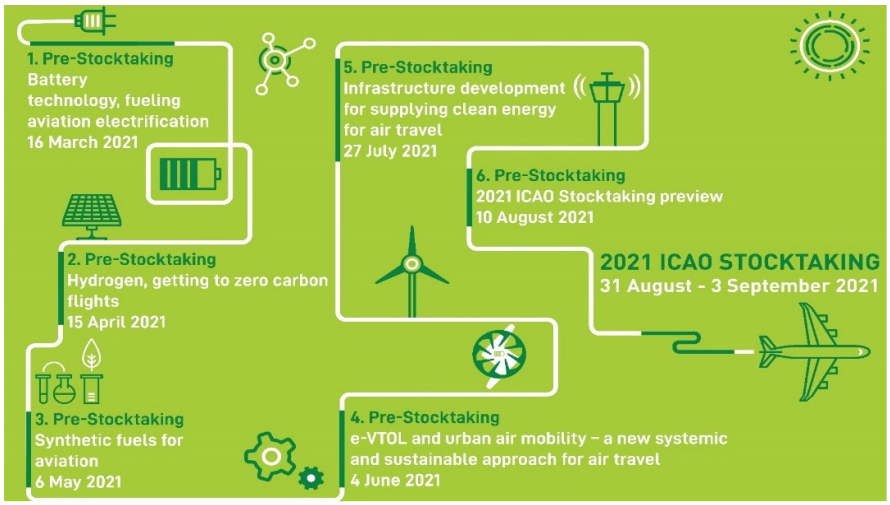


Data Collection and Stocktaking

2.2 As part of the ICAO LTAG work, in particular for data collection and information sharing on aviation in-sector CO_2 emissions reductions, the 2020 and 2021 ICAO Stocktaking events were convened in September 2020[2] and September 2021[3], respectively. During these events, States, industry leaders, researchers and innovators shared their ambitious plans, solutions and policies for carbon emissions reduction, including measures from technology, operations and fuels. The 2021 Stocktaking also included six pre-Stocktaking webinars from March to August 2021, with focus on various specific topics on green technologies and innovations (see Figure below).

[1] ICAO LTAG webpage: https://www.icao.int/environmental-protection/Pages/LTAG.aspx
[2] 2020 ICAO Stocktaking website: https://www.icao.int/Meetings/Stocktaking2020/Pages/default.aspx
[3] 2021 ICAO Stocktaking website: https://www.icao.int/Meetings/Stocktaking2021/Pages/default.aspx

2.3 In addition, ICAO developed a series of Tracker Tools[4], where all the latest information on aviation CO_2 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_2 reduction innovations for aviation. Information also contains the partners' projects within the ICAO Global Coalition for Sustainable Aviation, which provides a forum of stakeholders, aiming to facilitate the development of new ideas and accelerate the implementation of innovative solutions that will further reduce emissions at source, on the ground or in the sky.



2.4 Prior to the 2010 ICAO Assembly which adopted the existing climate goals for the international aviation sector, the global air transport industry announced their collective commitment to reduce aviation carbon emissions by 50 per cent by 2050 compared to 2005 levels. In light of recent scientific findings and in support of the 1.5°C temperature goal, the aviation industry has further raised their level of ambition in 2021, and collectively committed to achieve net-zero carbon emissions by 2050[5], which would be supported by accelerated efficiency measures, energy transition and innovation across the aviation sector and in partnership with governments around the world.

LTAG Scenarios and Analyses (LTAG Report)

2.5 Following the 40th Session of the Assembly and subsequent request by the Council, the ICAO Committee on Aviation Environmental Protection (CAEP) undertook its technical work on the feasibility study on LTAG since early 2020, focused on the attainability and readiness of aviation in-sector CO_2 reduction measures, including innovative aircraft technologies, operations and fuels, as it would be necessary to assess the in-sector CO_2 reduction potentials before considering the need and extent of any complementary measure.

2.6 The CAEP/12 meeting in February 2022 unanimously approved its technical report on the feasibility of LTAG[6] including long-term emissions reduction scenarios, highlighting the potential for substantial CO_2 reductions from innovative aircraft technologies, operations and fuels, with the assessment of required costs and investments. In addition, the LTAG report includes other outcomes, such as the need for capacity building and assistance for the implementation of CO_2 reduction measures, as well as the need for progress reporting for the achievement of LTAG.

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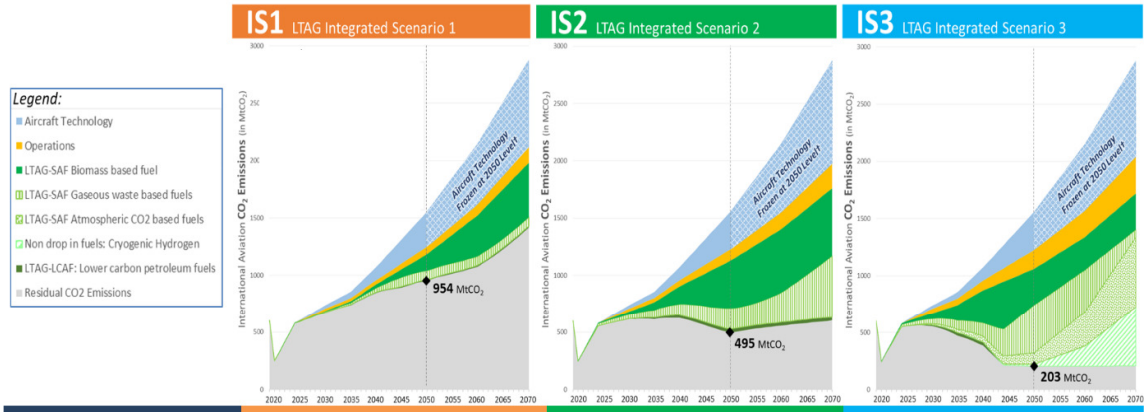
[4] ICAO Tracker Tools website: Aviation CO2 emissions reduction initiatives - Tracker Tool (icao.int)
[5] Commitment to Fly Net Zero: https://aviationbenefits.org/FlyNetZero
[6] ICAO LTAG report website: https://www.icao.int/environmental-protection/LTAG/Pages/LTAGreport.aspx

2.7 In the LTAG report, three integrated scenarios (IS1, IS2, and IS3) were developed, over a time frame extended to 2070, to cover a range of readiness, attainability, and aspiration, as follows:

1) under the low/nominal scenario (IS1), emissions in 2050 would be reduced by 39%, broken down into 20% from aircraft technologies, 4% from operations and 15% from fuels, meaning emissions could reach approximately 950 $MtCO_2$ in 2050 (or 1.6 times the 2019 CO_2 emissions level);

2) under the middle scenario (IS2), CO_2 emissions could reach approximately 500 $MtCO_2$ in 2050 (0.8 times the 2019 CO_2 emissions level), meaning emissions in 2050 would be reduced by 68%, broken down into 21% from aircraft technologies, 6% from operations, and 41% from fuels; and

3) under the most ambitious scenario (IS3), residual CO_2 emissions could reach approximately 200 $MtCO_2$ in 2050 (a third of the 2019 CO_2 emissions level), meaning a reduction by 87%, broken down into 21% from aircraft technologies, 11% from operations and 55% from fuels.



Metrics	IS1	IS2	IS3
CO_2 Emissions in 2050 after Reductions	**≈950 $MtCO_2$** in 2050 *(**160%** of 2019 CO_2 emissions)*	**≈500 $MtCO_2$** in 2050 *(**80%** of 2019 CO_2 emissions)*	**≈200 $MtCO_2$** in 2050 *(**35%** of 2019 CO_2 emissions)*
Reduction in 2050 from the Baseline	**39% total** through: Technologies - 20%, Operations - 4%, Fuels - 15%	**68% total** through: Technologies - 21%, Operations - 6%, Fuels - 41%)	**87% total** through: Technologies - 21%, Operations - 11%, Fuels - 55%
Cumulative residual Emissions from 2020 to 2070	23 $GtCO_2$ (2020 to 2050) 23 $GtCO_2$ (2051 to 2070)	17 $GtCO_2$ (2020 to 2050) 11 $GtCO_2$ (2051 to 2070)	12 $GtCO_2$ (2020 to 2050) 4 $GtCO_2$ (2051 to 2070)

2.8 Recognizing the invaluable contributions of CAEP to deliver a high standard and quality of work, within a short timeframe, the ICAO Council agreed that the report would be used as the input for further considerations by States and stakeholders on LTAG.

LTAG Global Aviation Dialogues (GLADs) and High-level Meeting

2.9 To ensure a transparent and inclusive process through consultation among Member States, ICAO organized a series of regional Global Aviation Dialogues (GLADs) dedicated to LTAG in May 2021[7] and March/April 2022[8]. The dialogues raised awareness on the LTAG process and technical analyses, as well as allowed for the exchange of views to facilitate further LTAG work and decision-making.

2.10 During the 2022 GLADs, representatives of States and stakeholders exchanged views on possible building blocks for LTAG considerations, such as: scientific understanding and context,

[7] 2021 LTAG GLADs website: https://www.icao.int/Meetings/2021-ICAO-LTAG-GLADS/Pages/default.aspx
[8] 2022 LTAG GLADs website: https://www.icao.int/Meetings/2022-ICAO-LTAG-GLADS/Pages/default.aspx

expected potential CO_2 reduction contributions of technology, operations and fuels, and the level of LTAG ambition. The participants also discussed on possible means of implementation, expected support to States with action plans and roadmaps, and ways of monitoring progress. While the findings of the LTAG report were well received and most participants recognized the importance of taking action to address international aviation CO2 emissions, there were a number of questions raised and associated views expressed during the GLADs.

2.11 Specifically, on the cost impacts assessment in the LTAG report and on who would bear the costs, it was clarified that the LTAG analysis was undertaken at a global level without attributing costs to individual States, as LTAG would be a collective goal of the global international aviation sector and it would not set obligations in the form of emission reduction goals to individual States. Once decision on LTAG is made, States will be contributing to the collective goal differently, and the level of international aviation activity, the cost and many other specificities and implications might be different for individual States.

2.12 A number of the GLADs participants also expressed concern regarding the different circumstances and readiness levels of individual States in their capacity to respond to the challenges associated with climate change. They emphasized the critical need to provide necessary support to States having particular needs, in particular to developing countries, including for the planning and implementation of specific aviation CO_2 reduction measures through the State Action Plans (refer to paragraph 4 below), and the provision of necessary means of implementation such as the establishment of partnerships and cooperation among States and stakeholders to facilitate access to capacity building and financial resources.

2.13 In July 2022, ICAO will organize another ICAO Stocktaking event to enable the sharing of the latest relevant information, including on innovations for technology, operations and fuels, and to set the scene for the subsequent ICAO High-level Meeting on LTAG. The High-level Meeting is expected to discuss the CO_2 emissions reduction scenarios and options for LTAG, along with the means of implementation and the monitoring of progress, before concluding with recommendations. The results of the High-level Meeting will inform the ICAO Council to make its proposal on LTAG, for consideration by the 41st Session of the ICAO Assembly from 27 September to 7 October 2022 in Montréal, Canada.

3. ICAO ACT-SAF PROGRAMME[9]

3.1 The ICAO LTAG report assessed the technical feasibility of various aviation in-sector CO_2 reduction scenarios, including the use of technology, fuels, and operations, noting that fuel-related solutions, in particular Sustainable Aviation Fuel (SAF), have the greatest potential to reduce aviation CO_2 emissions (refer to paragraph 2 above). The main advantage of drop-in aviation fuels is that they do not require changes to the aircraft or the fuel infrastructure. At present 47 airports worldwide have already distributed SAF in their regular operations, with more than 360,000 commercial flights using those fuels. While liquid fuels may remain necessary for air transport, these fuels may undergo a full transition to sustainable low-carbon energy sources. Fuels today can be made from various waste types, like Municipal Solid Waste, forestry and agricultural residues, and even from CO_2 recycled or directly captured from the atmosphere.

3.2 In this regard, ICAO's associated event for the UN Stockholm+50 conference was held on 1 June 2022. In the occasion, ICAO launched the Assistance, Capacity-building and Training for Sustainable Aviation Fuels (ACT-SAF) programme, as one of the means to facilitate the establishment of partnerships and cooperation among States and relevant stakeholders for the increasing use of sustainable, cleaner aviation energy sources, under the umbrella of ICAO coordination. The ACT-SAF

[9] ICAO ACT-SAF programme: https://www.icao.int/environmental-protection/Pages/act-saf.aspx

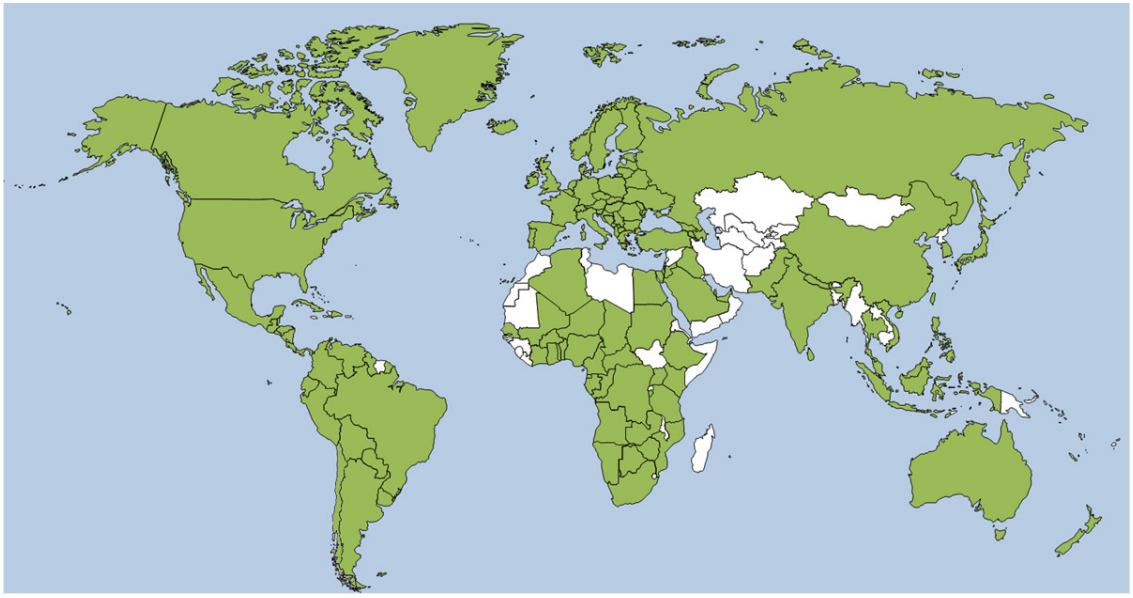
provides opportunities for all ICAO Member States to be engaged with exploring the feasibility of sustainable fuel development and deployment, and unlock feedstock potentials for SAF markets.

3.3 There are still many challenges for increasing the use of Sustainable Aviation Fuel (SAF), Lower Carbon Aviation Fuel (LCAF) and other cleaner energy sources and technologies for aviation, towards their full potential, including technical and financial resources available to all States, price gap with conventional fuels, a limited number of the production facilities, and their share of production capacity directed to aviation. It is crucial that all States and relevant partners and stakeholders work together and build partnerships to provide support for the global development and deployment of such solutions, in line with the ICAO's *No Country Left Behind* initiative, while taking into account different circumstances of individual States and regions.

3.4 The potential for increased ambition on sustainable aviation will allow ICAO to explore extending the existing model used in the ACT-SAF programme, to galvanize support and implement similar ICAO programmes for additional aspects that contribute to aviation CO_2 emission reductions (e.g., aircraft technologies, operational improvements, infrastructural changes, and other cleaner energy sources for aviation).

4. ICAO STATE ACTION PLANS INITIATIVE[10]

4.1 ICAO continued to work together with Member States in order to support the development and update of State Action Plans to reduce international CO_2 emissions. This initiative has become a key element of the Organization's capacity-building and assistance strategy to support Member States in implementing a broad range of CO_2 emissions mitigation measures selected from the ICAO basket of measures. As of 31May 2022, 129 Member States, representing more than 98 percent of international aviation traffic, voluntarily submitted action plans to ICAO. These successful results demonstrate the high interest and engagement of Member States in this initiative, as well as the positive impact of ICAO's assistance and capacity-building activities.



129 Member States submitted their Action Plans

[10] ICAO State Action Plans initiative: https://www.icao.int/environmental-protection/Pages/ClimateChange_ActionPlan.aspx

4.2 The Assembly encouraged States that have already submitted action plans to share information contained in the action plans and build partnerships with other States in order to support those States that have not prepared action plans. In this respect, ICAO has been facilitating the establishment of buddy partnerships between States, including the development of a draft agreement of cooperation aiming to establish a model framework by which States can help other States. To date, nine partnerships have been established under the ICAO State Action Plan Buddy Programme.

4.3 The States Action Plans continue to be an essential tool for States to communicate their national plans of climate action for international aviation, while they also serve as an important vehicle for ICAO to monitor the progress for the achievement of Member States' collective global aspirational goals. As ICAO has been working on the feasibility of LTAG since the 40th Session of the Assembly (refer to paragraph 2 above), 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.

4.4 To facilitate the contributions of States to reduce international aviation CO_2 emissions and thus to achieve collective ICAO global aspiration goals, future updates and submissions of State Action Plans should focus on the latest innovative solutions available and should also enable States to leverage potential sources of funding. ICAO aims to update the ICAO Doc 9988, *Guidance on the Development of State Action Plans on CO_2 Emissions Reduction Activities*, to ensure State Action Plans become more robust, more quantitative, more forward-looking, while being an effective tool for facilitating green financing through fully quantified environmental benefits the action plans.

4.5 In addition to the regular ICAO support to Member States on the development and update of their State Action Plans, ICAO also established partnerships with other organizations. The ICAO and European Union (EU) assistance project[11] was a successful environmental initiative, funded by the EU and implemented by ICAO from 2014 to 2019, and it supported 14 beneficiary States in Africa and the Caribbean with the development and implementation of State Action Plans. Building on the successful partnership, Phase II of the ICAO-EU assistance project was launched with an implementation period from 2020 to 2023, to support an additional 10 beneficiary States in Africa on the development of their State Action Plans.

4.6 The ICAO and United Nations Development Programme (UNDP) assistance project[12], being financed by Global Environment Facility (GEF), was also a successful environmental initiative from 2015 to 2019 to provide assistance to developing countries and Small Island Developing States (SIDS) and build their capacity to implement aviation emissions reduction measures, including the development of four guidance documents.

5. CORSIA IMPLEMENTATION[13]

5.1 The ICAO's agreement at the 39th Session of the Assembly in 2016 on the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA): the first-ever global market-based measure for any industry sector, reflects many years of intensive efforts by ICAO and its Member States in cooperation with the aviation industry and other stakeholders.

5.2 The timely implementation of CORSIA has been a top priority for ICAO since the scheme's adoption. Despite the challenges of the COVID-19 pandemic on international aviation, the joint efforts of ICAO Member States have made it possible for the implementation of CORSIA according to its established schedule.

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[11] ICAO-EU Assistance Project: https://www.icao.int/environmental-protection/Pages/Assistance.aspx
[12] ICAO-UNDP Assistance Project: https://www.icao.int/environmental-protection/Pages/ICAO_UNDP.aspx
[13] ICAO CORSIA website: www.icao.int/corsia

Milestones for CORSIA Implementation

a) In June 2018 – less than 2 years since the adoption of CORSIA – the ICAO Council adopted the Standards and Recommended Practices that put in place the concrete and robust CO_2 emissions Monitoring, Reporting and Verification (MRV) requirements under CORSIA;

b) In July 2018, ICAO launched the Assistance, Capacity-building and Training for CORSIA (ACT-CORSIA) programme to assist the implementation of the Scheme, including the establishment of partnerships among Member States (see more information below);

c) On 1 January 2019, in accordance the CORSIA CO_2 MRV requirements, aeroplane operators started monitoring, collecting and reporting CORSIA-specific data to their States; and States started reporting CORSIA-specific information and data through the ICAO CORSIA Central Registry on an annual basis. As of May 2022, 117 States had reported 2019 CO_2 emissions data, while 110 States had reported 2019 CO_2 2020 data (representing 97% of global air traffic in respective years);

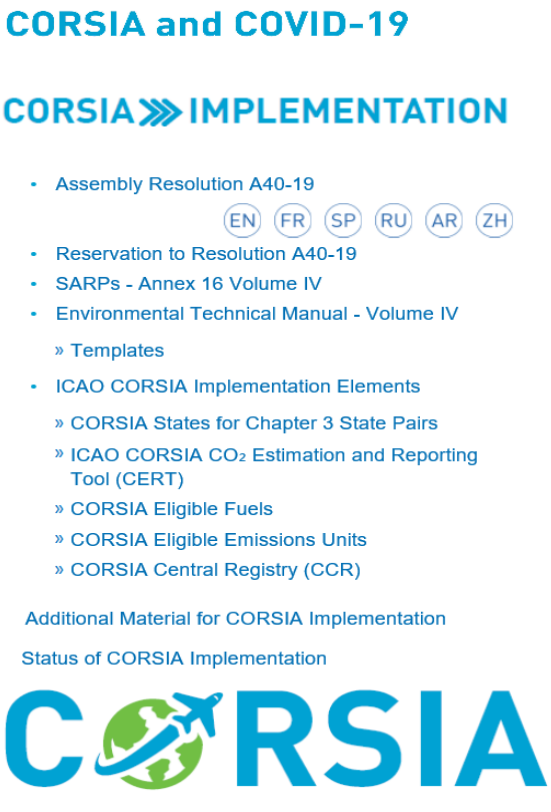
d) 1 January 2021 was another key date for the Scheme, as it heralded the beginning of the CORSIA pilot phase and the onset of calculating CO_2 offsetting requirements, which aeroplane operators need to meet through the use of CORSIA eligible fuels and CORSIA eligible emissions units;

e) In this regard, prior to 2021, all necessary CORSIA Implementation Elements had been put in place to facilitate the smooth operation of the Scheme. The ICAO Council approved the sustainability criteria, life-cycle CO_2 reduction values and methodologies, and certification schemes for CORSIA eligible fuels (i.e. sustainable aviation fuel and lower carbon aviation fuel) that are used during the CORSIA pilot phase (2021 to 2023).

f) The ICAO Council also approved eight emissions unit programmes that can supply CORSIA eligible emissions units for the pilot phase. Work continues in 2021 and 2022 to provide updates on these two elements, including their application after the pilot phase. In this regard, ICAO welcomes the breakthroughs made in Glasgow last year at the COP 26, and will continue to monitor further developments on Article 6 of the Paris Agreement, in particular, any implications for the implementation of CORSIA and its eligible emissions units.

g) The number of Member States that decided to voluntarily participate in the offsetting requirements of CORSIA has increased from 88 States for 2021, to 107 States for 2022, with more States are recently announcing to participate for 2023. The number of volunteer States for 2023 will be determined by the end of June 2022. More participating States bring ICAO closer to meeting the global aspirational goal of carbon-neutral growth for international aviation; and

h) In October 2021, on the 5th anniversary from the adoption of CORSIA, ICAO organized the CORSIA Forum, which provided an overview of the "state of play" in CORSIA implementation, and served as a platform for States to share success stories and lessons learned regarding CORSIA implementation. The Forum also provided information on the process and progress for the 2022 CORSIA periodic review and the analysis of the impact of the COVID-19 pandemic on CORSIA and recovery scenarios, with a view to ensuring a solid information base for the discussions at the 41st Session of the ICAO Assembly in 2022 (see more information below).



Information on the status of CORSIA implementation is available on the ICAO CORSIA website www.icao.int/corsia

ICAO ACT-CORSIA (Assistance, Capacity-building and Training for CORSIA) Programme

5.3 In July 2018, ICAO launched the ACT-CORSIA (Assistance, Capacity-building and Training for CORSIA) programme as part of the ICAO's *No Country Left Behind* initiative, with the aim to assist all Member States with the implementation of CORSIA. The 2019 Assembly emphasized the importance of a coordinated approach under the ACT-CORSIA to harmonize and bring together all relevant actions and promote coherence to capacity building efforts.

5.4 The Buddy Partnerships among States are the cornerstone of the ACT-CORSIA programme, currently involving 16 supporting States and 118 requesting States. Through such partnerships, supporting States offer experts on CORSIA to provide individual training and undertake the necessary follow-up with the CORSIA focal points of the requesting States, in close coordination with the ICAO Secretariat. In this regard, those experts from supporting States have been trained by ICAO to provide harmonized training to the requesting States.

5.5 Recognizing the importance of providing continued support to States for CORSIA implementation, ICAO Secretariat has also organized a series of seminars/webinars and training sessions, which focused on the verification of CO_2 emissions from international aviation, and hands-on training for the use of CORSIA Central Registry.

ACT CORSIA Phase III Assistance, Capacity-building and Training on CORSIA

AUSTRALIA
1. BRUNEI DARUSSALAM
2. INDONESIA
3. NAURU
4. PAPUA NEW GUINEA
5. SRI LANKA
6. THAILAND

BRAZIL
1. ANGOLA
2. CABO VERDE
3. MOZAMBIQUE
4. SAO TOME AND PRINCIPE

CANADA (Facilitated by CASSOS)
1. ANTIGUA AND BARBUDA
2. BARBADOS
3. GUYANA
4. HAITI
5. JAMAICA
6. SURINAME
7. TRINIDAD AND TOBAGO

CANADA / FRANCE
1. BENIN
2. BURKINA FASO
3. BURUNDI
4. CAMEROON
5. CENTRAL AFRICAAN REPUBLIC
6. CHAD
7. COMOROS
8. CONGO
9. DJIBOUTI
10. D. R. OF CONGO
11. GABON
12. GUINEA
13. MADAGASCAR
14. MALI
15. MAURITANIA
16. MAURITIUS
17. NIGER
18. SENEGAL
19. TOGO

FRANCE (* Facilitated by ACAO)
1. ALGERIA *
2. COTE D'IVOIRE
3. MOROCCO *
4. SAUDI ARABIA*
5. TUNISIA *

GERMANY
1. ALBANIA
2. ARMENIA
3. AZERBAIJAN
4. BELARUS
5. GEORGIA
6. KAZAKHSTAN
7. NORTH MACEDONIA
8. REPUBLIC OF MOLDOVA
9. SERBIA
10. TAJIKISTAN
11. TURKMENISTAN

ITALY
1. BAHAMAS
2. COLOMBIA
3. ERITREA
4. ETHIOPIA
5. PARAGUAY
6. SOMALIA
7. UNITED REPUBLIC OF TANZANIA

JAPAN
1. AFGHANISTAN
2. BANGLADESH
3. BHUTAN
4. CAMBODIA
5. MALAYSIA
6. MYANMAR

KENYA
1. RWANDA
2. SEYCHELLES
3. SOUTH SUDAN
4. UGANDA

NEW ZEALAND
1. FIJI
2. SAMOA
3. SOLOMON ISLANDS
4. VANUATU

NIGERIA
1. GAMBIA
2. GHANA
3. LIBERIA
4. SIERRA LEONE
5. SUDAN

REPUBLIC OF KOREA
1. LAO PEOPLE'S D. R.
2. MONGOLIA
3. PAKISTAN
4. PHILIPPINES
5. VIETNAM

QATAR
1. BAHRAIN
2. IRAN
3. IRAQ
4. KUWAIT
5. LIBYA
6. OMAN

SINGAPORE
1. COOK ISLANDS
2. KIRIBATI
3. MARSHALL ISLANDS
4. PALAU
5. TONGA
6. TUVALU

SOUTH AFRICA
1. BOTSWANA
2. ESWATINI
3. LESOTHO
4. MALAWI
5. NAMIBIA
6. ZAMBIA
7. ZIMBABWE

SPAIN (* Facilitated by COCESNA)
1. BELIZE *
2. BOLIVIA
3. COSTA RICA *
4. CUBA
5. EL SALVADOR *
6. EQUATORIAL GUINEA
7. GUATEMALA *
8. HONDURAS *
9. MEXICO
10. NICARAGUA *
11. PERU
12. URUGUAY

USA
1. ARGENTINA
2. DOMINICAN REPUBLIC
3. ECUADOR
4. PANAMA

ACT CORSIA Assistance, Capacity-building and Training

16 SUPPORTING STATES
118 REQUESTING STATES

The ICAO ACT-CORSIA involves more than 130 States, and a live example of the spirit of ICAO's "No Country Left Behind" initiative.

***COVID-19 Pandemic Impact and 2022 CORSIA Periodic Review*[14]**

5.6 In June 2020, the ICAO Council made a series of deliberations and decisions in light of the impacts of the COVID-19 pandemic on international aviation emissions and CORSIA, which were supported by technical inputs and analyses provided by ICAO Committee on Aviation Environmental Protection (CAEP).

5.7 Particularly, considering the potential impact of the COVID-19 pandemic on the 2019/2020 average CO_2 emissions (so-called "CORSIA baseline") as well as the related impact on the CORSIA offsetting requirements, and in light of paragraph 16 to ICAO Assembly Resolution A40-19 on safeguard against inappropriate economic burden on aeroplane operators, the Council decided that 2019 emissions shall be used for 2020 emissions for the calculation of CORSIA baseline, during the CORSIA pilot phase from 2021 to 2023.

5.8 The ICAO Council has also been undertaking its work on the 2022 CORSIA periodic review as requested by the 40th Session of the ICAO Assembly. This process serves as an important basis for the Council to consider whether it is necessary to make adjustments to CORSIA in the future. In March 2021, the ICAO Council agreed on the process and methodology for the CORSIA periodic review toward 2022, and on the framework for the consideration of inputs from its technical bodies. A consultation process with Member States through a questionnaire was also undertaken during the third quarter of 2021 with which the ICAO Council considered the results of States' inputs in November 2021.

5.9 As part of the 2022 CORSIA periodic review, the ICAO Council has also been examining the impact of COVID-19 on CORSIA on various issues, including the impact on the CORSIA baseline emissions and associated cost impacts in its future phases. Any recommendations by the ICAO Council as result of the CORSIA review will be considered by the 41st Session of the ICAO Assembly in September 2022.

6. UNFCCC – CLIMATE FINANCE

6.1 While the Paris Agreement and associated COP21 decision did not include a reference to international aviation, one of the key elements in the Agreement is that developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, with a concrete roadmap to achieve the goal of jointly providing USD 100 billion annually by 2020 for mitigation and adaptation through 2025. In addition, the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall set a new financial goal prior to 2025 from a floor of USD 100 billion per year (Paris Agreement, Article 9, paragraph 3, and associated COP21 Decision 1/CP.21, paragraphs 53 and 114).

6.2 It should be highlighted that in 2010, ICAO Member States adopted global aspirational goals for the international aviation sector of improving the sector's fuel efficiency by two per cent per year and keeping its global CO_2 emissions from 2020 at the same level (carbon neutral growth from 2020). These aspirational goals were affirmed by the 38th (2013), 39th (2016) and 40th (2019) Sessions of the ICAO Assembly. In addition, ICAO Member States have been exploring the feasibility of a long-term global aspirational goal for international aviation (refer to paragraph 2 above).

[14] COVID-19 impacts on CORSIA implementation and the 2022 CORSIA review webpage: https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-and-Covid-19.aspx

6.3 The achievement of the ICAO global aspirational goals requires adequate financial resources within the sector itself, enabling it to effectively respond to the global climate change challenge. The growing commitment of partners to support ICAO's capacity-building and assistance efforts also demonstrates how critical these activities and resources are to the achievement of ICAO's global aspirational goals.

6.4 In this regard, the 40th Session of the ICAO Assembly urged that "ICAO and its Member States express a clear concern, through the UNFCCC process, on the use of international aviation as a potential source for the mobilization of revenue for climate finance to the other sectors, in order to ensure that international aviation would not be targeted as a source of such revenue in a disproportionate manner" (refer to Assembly Resolution A40-18, paragraph 16).

— END —