



الهيئة العامة للطيران المدني  
GENERAL CIVIL AVIATION AUTHORITY



## ICAO MID DGCA/ 6 Meeting

1<sup>st</sup> -3<sup>rd</sup> Nov 2022 Abu Dhabi - UAE



### Agenda Item 7: Environment

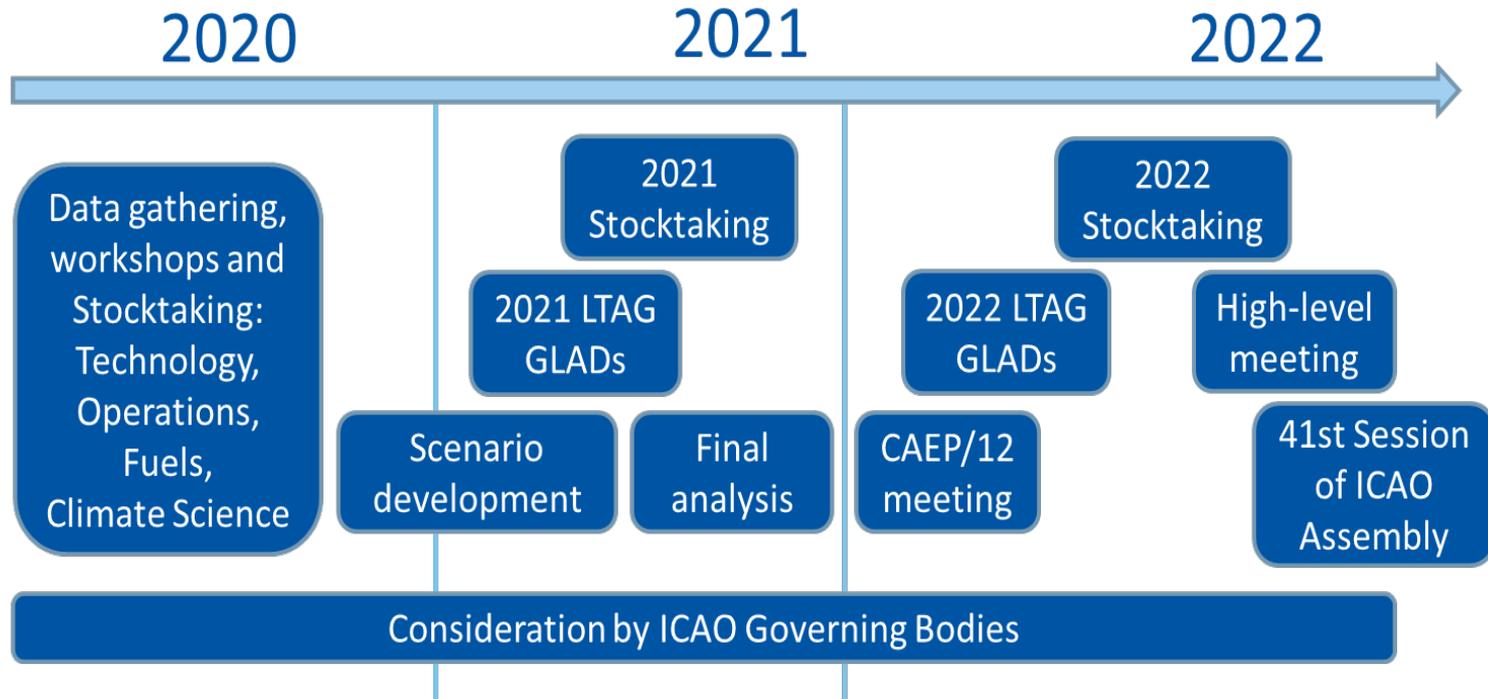
## Civil Aviation and the Environment (presented by ICAO Secretariat)



## The 41st Session of the ICAO Assembly adopted:

- Resolution A41-20: Consolidated statement of continuing ICAO policies and practices related to environmental protection – **General provisions, noise and local air quality**
- Resolution A41-21: Consolidated statement of continuing ICAO policies and practices related to environmental protection – **Climate change**
- Resolution A41-22: Consolidated statement of continuing ICAO policies and practices related to environmental protection – **Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)**

## ICAO LTAG Process and Timeline:



# ICAO LTAG Report and Supporting Material:

## LTAG Report Appendices (English only)



Appendix B1  
Background  
(18 pages)



Appendix R1  
Summary Sheets  
(61 pages)



Appendix R2  
Comparison to Trends  
(8 pages)



Appendix R3  
Results in the Climate  
Science Context  
(10 pages)



Appendix S1  
Climate Science Context  
(24 pages)



Appendix M1  
Overview of the Modelling  
Approaches  
(99 pages)



Appendix M2  
COVID-19 Forecast  
Scenario Development  
(8 pages)



Appendix M3  
Technology  
(181 pages)



Appendix M4  
Operations  
(12 pages)



Appendix M5  
Fuels  
(84 pages)



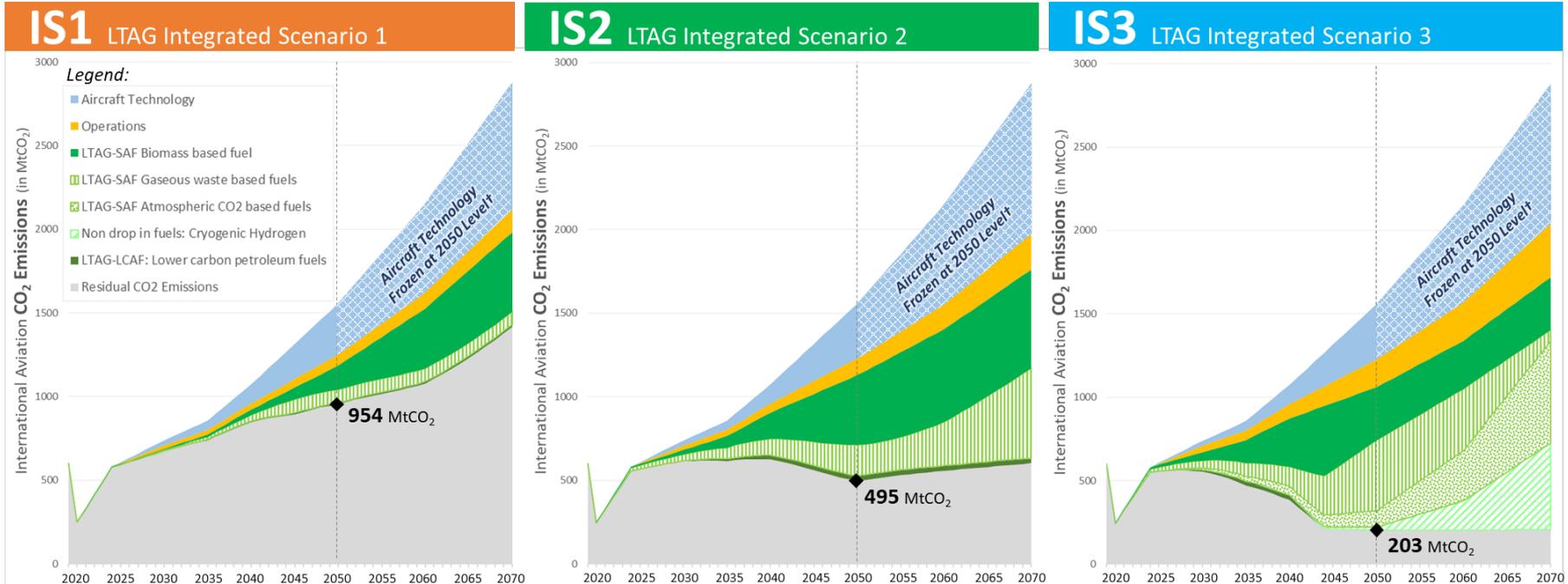
- ICAO Council briefing



- Videos on LTAG Report



# LTAG Report and 3 Integrated Scenarios:



## LTAG GLADs (Global Aviation Dialogues) and High-Level Meeting:

1) Recognition of scientific understanding

2) Technical feasibility of LTAG scenarios

3) Level of LTAG ambition

4) Means of implementation (e.g. capacity building)

5) Support to States with action plans and roadmaps

6) Monitoring of progress to achieve LTAG





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## Assembly Resolution A41-21 (climate change):

- **Level of Ambition:** ICAO and its Member States are encouraged to work together to strive to achieve a **collective long-term global aspirational goal for international aviation (LTAG) of net-zero carbon emissions by 2050**, in support of the Paris Agreement's temperature goal, recognizing that each State's special circumstances and respective capabilities will inform the ability of each States to contribute to the LTAG within its own national timeframe
- **Monitoring of Progress:** The Assembly requested the Council to **regularly monitor the progress on the implementation of all elements of the basket of measures** towards the achievement of the LTAG, including through the ICAO stocktaking process, updates of the ICAO Vision for Sustainable Aviation Fuels (SAF), and monitoring of State Action Plans



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## Assembly Resolution A41-21 (climate change):

- **Means of Implementation:** The Assembly recognized that various possible modalities and/or funding mechanisms could be used by ICAO, and requested the Council to **initiate specific measures or mechanisms for ICAO to facilitate better access to financing for developing countries and States having particular needs, and to consider the establishment of a possible finance initiative or funding mechanism under ICAO**, for reporting at the 42nd Session of the Assembly. This is complementary to a robust assistance and cooperation programme for LTAG, such as the **ICAO Assistance, Capacity-building and Training for Sustainable Aviation Fuels (ACT-SAF) programme, which should be extended to an ACT-LTAG programme** to add support to other CO2 reduction measures



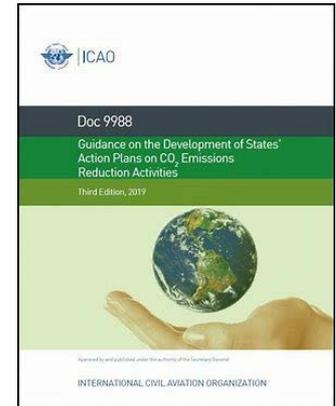
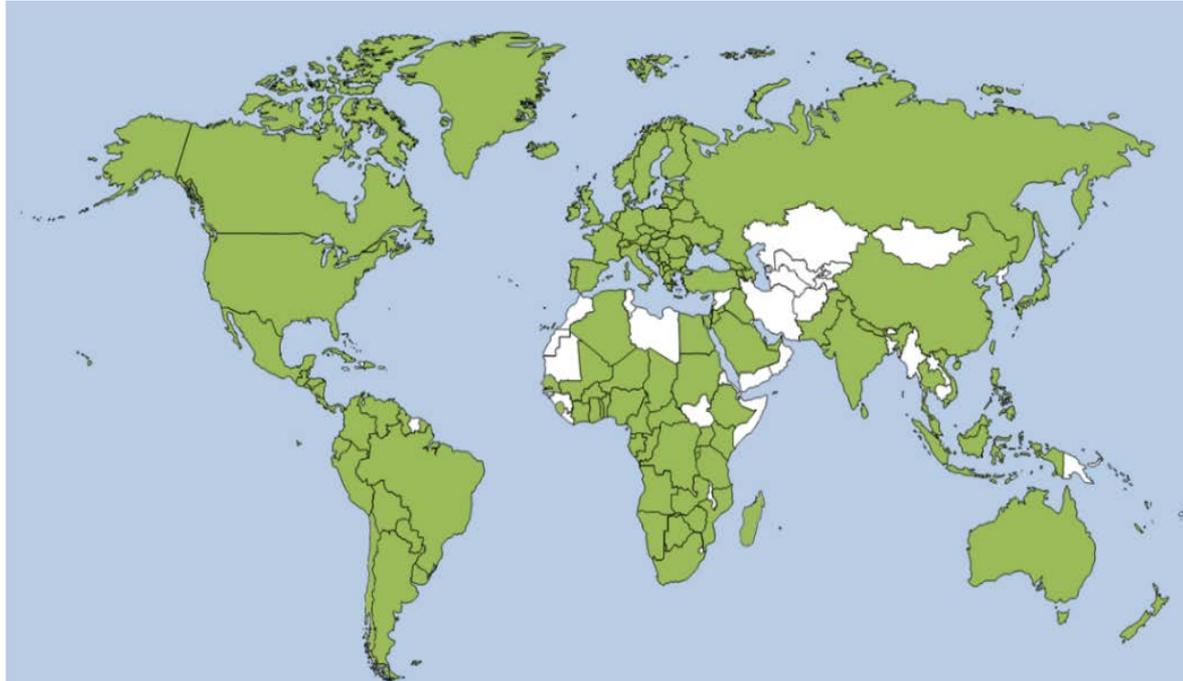
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## Assembly Resolution A41-21 (climate change):

- **State Action Plans:** The Assembly reiterated the important role of State Action Plans, **encouraging all States to submit and update action plans** to reduce CO2 emissions from international aviation, outlining policies, actions and roadmaps, including long-term projections, and requested the Council to provide guidance and assistance
- **Actions on Technology, Operations and Fuels:** The Assembly requested specific actions for the Council and Member States in the areas of technology, operations and fuels, including the convening of the **third ICAO Conference on Aviation and Alternative Fuels (CAAF/3) in 2023**, with a view to updating the 2050 ICAO Vision for SAF, including Lower Carbon Aviation Fuels (LCAF) and other cleaner energy sources for aviation, in order to define a global framework

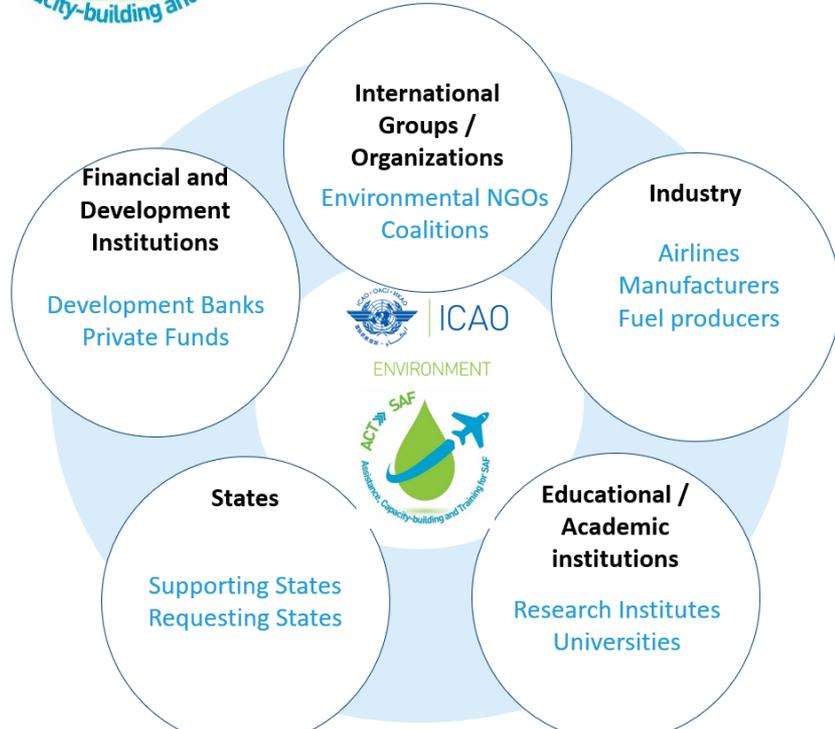
## ICAO State Action Plans Initiative:



**135 States over 98% of global RTK have voluntarily submitted their State Action Plans**



# ICAO ACT-SAF Programme.



<p><b>7 October 2022</b> Equatorial Guinea signs the ACT-SAF Terms and Conditions</p> 	<p><b>6 October 2022</b> France signs the ACT-SAF Terms and Conditions</p> 	<p><b>6 October 2022</b> Singapore signs the ACT-SAF Terms and Conditions</p> 
<p><b>4 October 2022</b> Brazil signs the ACT-SAF Terms and Conditions</p> 	<p><b>29 September 2022</b> European Commission signs a declaration of intent to finance a project under ICAO ACT-SAF</p> 	<p><b>29 September 2022</b> Spain signs the ACT-SAF terms and Conditions</p> 



## CORSIA Implementation is On Track:

- 1 January 2021: start of CORSIA's pilot phase
- Reporting of 2019 and 2020 CO<sub>2</sub> emissions
- Finalizing MRV cycle of 2021 CO<sub>2</sub> emissions

117

2019 CO<sub>2</sub> Reports  
in CCR

606

Mtonnes of 2019  
CO<sub>2</sub> submitted



- Amendments to Annex 16, Volume IV and Doc 9501, Volume IV
- 2022 version of the ICAO CORSIA CERT
- Updates to various ICAO documents (CORSIA eligible fuels / emissions units)



118  
States in  
CORSIA

**Sierra Leone, Seychelles and Solomon Islands are the latest States that announced their voluntary participation in CORSIA, bringing the total number of volunteer States to 118**



# ICAO ACT-CORSIA Programme:

ACT-CORSIA Phase III Assistance, Capacity-building and Training on CORSIA	
<b>AUSTRALIA</b>	<b>KENYA / UNITED KINGDOM</b>
1. BRUNEI DARUSSALAM	1. ETHIOPIA
2. INDONESIA	2. RWANDA
3. NAURU	3. SEYCHELLES
4. PAPUA NEW GUINEA	4. SOUTH SUDAN
5. SRI LANKA	5. UGANDA
6. THAILAND	6. UNITED REPUBLIC OF TANZANIA
<b>BRAZIL</b>	<b>NEW ZEALAND</b>
1. ANGOLA	1. FIJI
2. CABO VERDE	2. SAMOA
3. MOZAMBIQUE	3. SOLOMON ISLANDS
4. SAO TOME AND PRINCIPE	4. VANUATU
<b>CANADA (Facilitated by CASSOS)</b>	<b>NIGERIA</b>
1. ANTIGUA AND BARBUDA	1. GAMBIA
2. BARBADOS	2. GHANA
3. GUYANA	3. LIBERIA
4. HAITI	4. SIERRA LEONE
5. JAMAICA	5. SUDAN
6. SURINAME	<b>REPUBLIC OF KOREA</b>
7. TRINIDAD AND TOBAGO	1. LAO PEOPLE'S D. R.
<b>CANADA / FRANCE</b>	2. MONGOLIA
1. BENIN	3. PAKISTAN
2. BURKINA FASO	4. PHILIPPINES
3. BURUNDI	5. VIETNAM
4. CAMEROON	<b>QATAR</b>
5. CENTRAL AFRICAN REPUBLIC	1. SAUDI ARABIA
6. CHAD	2. BAHRAIN
7. COMOROS	3. IRAN
8. CONGO	4. IRAQ
9. COTE D'IVOIRE	5. JORDAN
10. DJIBOUTI	6. KUWAIT
11. D. R. OF CONGO	7. LIBYA
12. GABON	8. OMAN
13. GUINEA	<b>SINGAPORE</b>
14. MADAGASCAR	1. COOK ISLANDS
15. MALI	2. KIRIBATI
16. MAURITANIA	3. MARSHALL ISLANDS
17. MAURITIUS	4. PALAU
18. NIGER	5. TONGA
19. SENEGAL	6. TUVALU
20. TOGO	

<b>FRANCE (Facilitated by ACAO)</b>	<b>SOUTH AFRICA</b>
1. ALGERIA	1. BOTSWANA
2. MOROCCO	2. ESWATINI
3. TUNISIA	3. LESOTHO
<b>GERMANY</b>	4. MALAWI
1. ALBANIA	5. NAMIBIA
2. ARMENIA	6. ZAMBIA
3. AZERBAIJAN	7. ZIMBABWE
4. BELARUS	<b>SPAIN (* Facilitated by COCESNA)</b>
5. GEORGIA	1. BELIZE *
6. KAZAKHSTAN	2. BOLIVIA
7. NORTH MACEDONIA	3. COLOMBIA
8. REPUBLIC OF MOLDOVA	4. COSTA RICA *
9. SAUDI ARABIA	5. CUBA
10. SERBIA	6. EL SALVADOR *
11. TAJIKISTAN	7. EQUATORIAL GUINEA
12. TURKMENISTAN	8. GUATEMALA *
<b>ITALY / UNITED KINGDOM</b>	9. HONDURAS *
1. BAHAMAS	10. MEXICO
2. ERITREA	11. NICARAGUA *
3. SOMALIA	12. PARAGUAY
<b>JAPAN</b>	13. PERU
1. AFGHANISTAN	14. URUGUAY
2. BANGLADESH	<b>USA</b>
3. BHUTAN	1. ARGENTINA
4. CAMBODIA	2. DOMINICAN REPUBLIC
5. MALAYSIA	3. ECUADOR
6. MYANMAR	4. PANAMA



17 SUPPORTING STATES  
119 REQUESTING STATES



## Assembly Resolution A41-22 (CORSIA):

- Adjustments to **CORSIA baseline emissions**:
  - **2019 CO2 emissions as the CORSIA baseline for pilot phase (2021 – 2023)**
  - **85% of 2019 CO2 emissions as the CORSIA baseline after pilot phase (2024 – 2035)**
- Changes to the **percentage use of sectoral and individual operator's growth factors** for the calculation of CORSIA offsetting requirements from 2030 onwards:
  - **100% sectoral and 0 % individual for 2030 – 2032 period**
  - **85 % sectoral and 15% individual for 2033 – 2035 period**



## Summary:

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- ICAO continues to lead the global efforts to address international aviation and climate change, while the sector is building back better in a post pandemic environment.
- ICAO Assembly reached a historic agreement on a global aspirational goal for international aviation of “net-zero carbon emissions by 2050”
- Achieving net-zero carbon emissions by 2050 will require concrete means of implementation (e.g. ICAO ACT-SAF / ACT-LTAG)
- CORSIA implementation continues to be on track, in accordance with its established timeline
- ICAO Assembly adjusted the CORSIA baseline and other design elements to maintaining the balance among the design elements, as well as the scheme’s integrity and level of ambition
- Close cooperation across all aviation stakeholders remains the key to take full advantage of innovations that are necessary for a green transition over the coming decades



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# Thank You

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