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ICAO ENVIRONMENT NO COUNTRY LEFT BEHIND

ICAO Mission

To serve as the global forum of States for international civil aviation

UN Specialized Agency

193 Member States

ICAO Strategic Objective Environmental Protection

Minimize the adverse effect of global civil aviation on the environment

ICAO Objectives

- STRATEGIC OBJECTIVE: SAFETY
- STRATEGIC OBJECTIVE: ENVIRONMENTAL PROTECTION
- STRATEGIC OBJECTIVE: CAPACITY AND EFFICIENCY
- STRATEGIC OBJECTIVE: SECURITY AND FACILITATION
- STRATEGIC OBJECTIVE: ECONOMIC DEVELOPMENT

SUSTAINABLE DEVELOPMENT GOALS

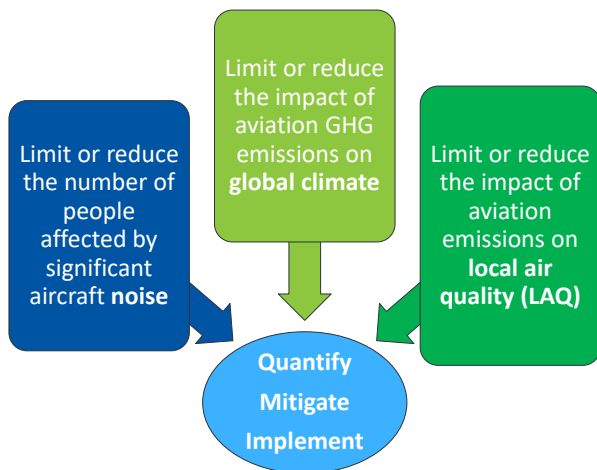
2. ZERO HUNGER
3. GOOD HEALTH AND WELL-BEING
4. QUALITY EDUCATION
5. GENDER EQUALITY
7. AFFORDABLE AND CLEAN ENERGY
8. DECENT WORK AND ECONOMIC GROWTH
9. INDUSTRY, INNOVATION AND INFRASTRUCTURE
10. REDUCED INEQUALITIES
11. SUSTAINABLE CITIES AND COMMUNITIES
12. RESPONSIBLE CONSUMPTION AND PRODUCTION
13. CLIMATE ACTION
15. LIFE ON LAND
16. PEACE, JUSTICE AND STRONG INSTITUTIONS
17. PARTNERSHIPS FOR THE GOALS

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ICAO Environmental Goals

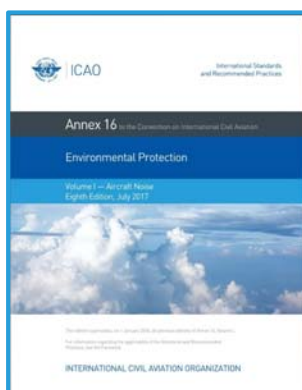


Committee on Aviation Environmental Protection (CAEP)

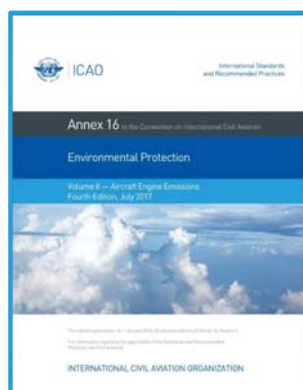
- Established in 1983 by ICAO Council
 - 31 Members (States)**
 - 21 Observers (States, UN, Aviation Industry, ENV. NGOs)**
 - 600 world experts in the field**
- Formulates new policies and **Standards and Recommended Practices (SARPs)** related to aircraft noise and emissions, and more generally to aviation environmental impact.



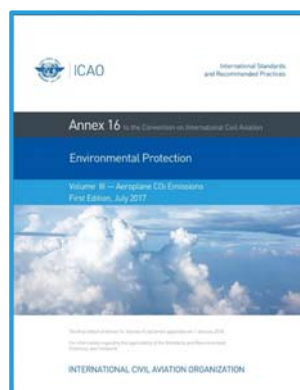
Annex 16 - Environmental Protection



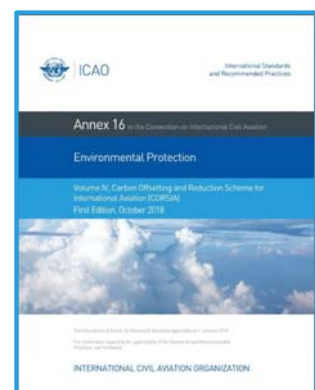
Volume I
Aircraft noise



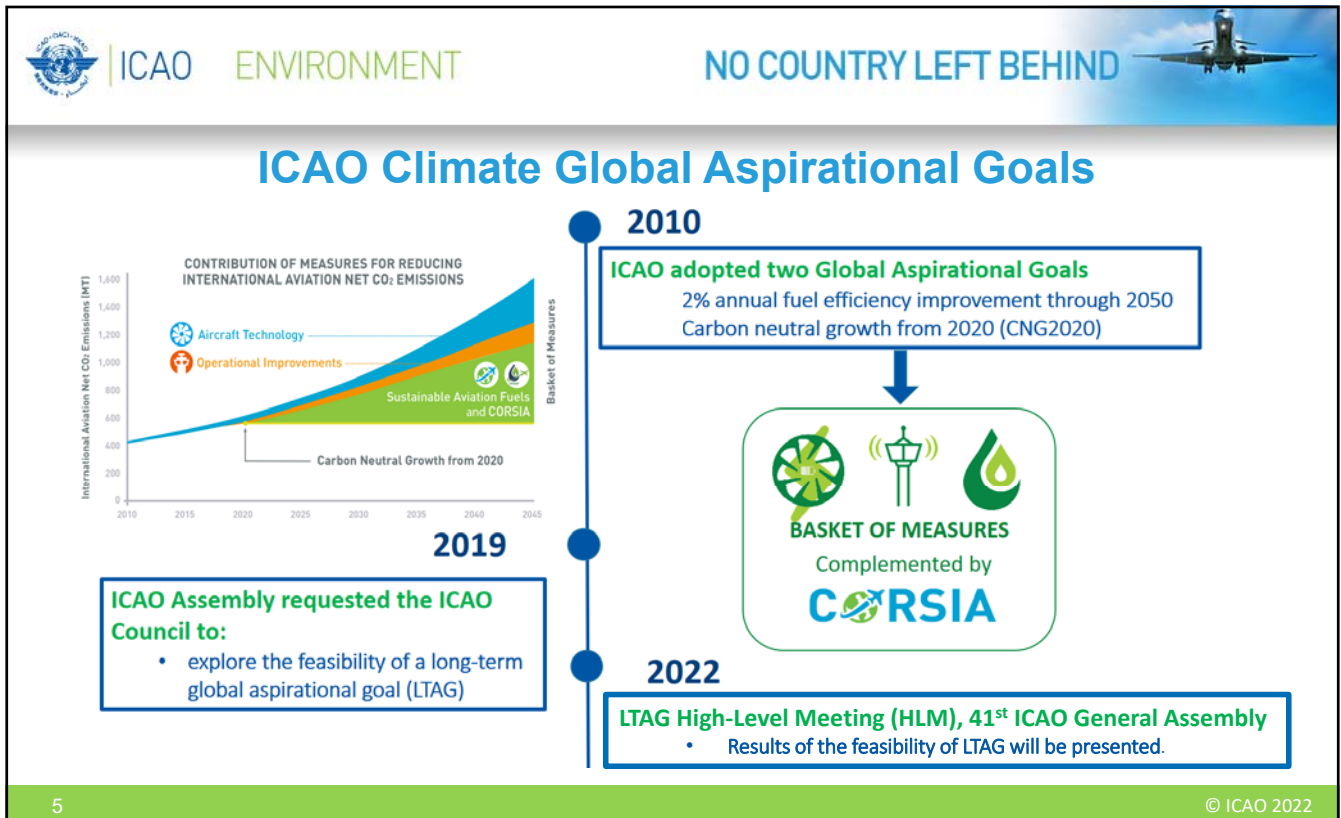
Volume II
Aircraft Engine Emissions



Volume III
Aeroplane CO₂ Emissions



Volume IV
CORSIA



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ICAO

ENVIRONMENT

NO COUNTRY LEFT BEHIND



Basket of CO₂ mitigation measures

Aircraft technology	First-ever global CO ₂ certification Standard for new types and in-production aeroplanes. Fast-paced innovation (new designs, composite materials, hybrid-electric aircraft, renewable energy, etc.)	
Operational improvements	CO ₂ benefits from air traffic management; air navigation; green airports; etc.	
Sustainable aviation fuels	More than 360,000 commercial flights with drop-in aviation fuels; 9 conversion processes; 43 airports distributing SAF, 20 policies adopted or under development, 19.5 billion litres of SAF under offtake agreements.	
Market-based measures	Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) CORSIA implementation fully on track All necessary ICAO CORSIA documents are in place 88 volunteer States in 2021/ 107 volunteer States in 2022	

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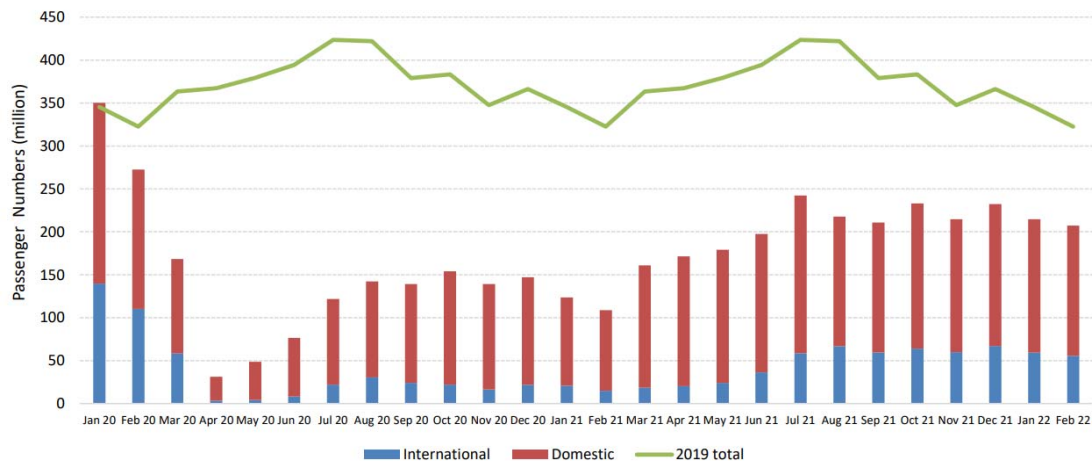
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Impact of COVID-19 and Near Term Outlook

Monthly passenger numbers in 2020-21 vs. 2019



<https://www.icao.int/sustainability/Pages/Economic-Impacts-of-COVID-19.aspx>

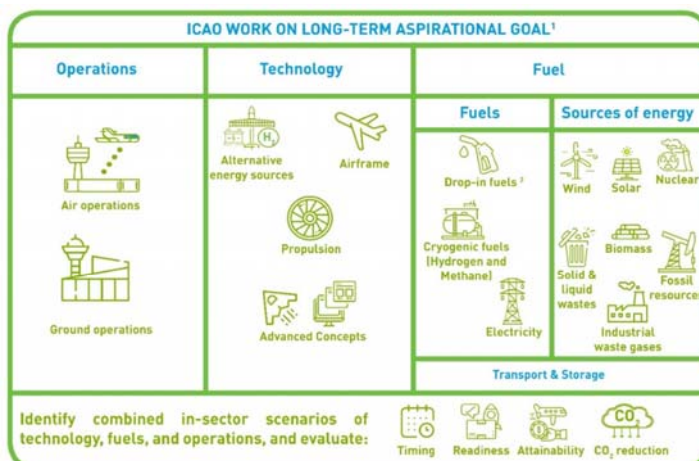
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Long Term Aspirational Goal (LTAG)



¹ This work should identify and evaluate existing, foreseen, and innovative in-sector measures in technology, fuels and operations, and their enablers, including information of probable costs. This will assist in identifying gaps, and information and expertise needed, in order to complete a thorough assessment of all in sector CO₂ reductions for international aviation. This should include timing, readiness, attainability and the quantity of CO₂ reduction possible, based on a feasible roll out into the aviation sector.

² Sustainable Aviation Fuels (SAF), Low Carbon Aviation Fuels (LCAFs), E-Fuels. Icons made by Freepik from www.flaticon.com

- ICAO 40th Assembly (2019) – Exploration of the feasibility of a Long-Term Global Aspirational Goal (LTAG) for international aviation
- **Open and Inclusive**
Existing, foreseen and innovative measures on technology, operations and fuels.
- **New innovations** are arising such as electrification and LH₂
- Focused on **in-sector measures**
- ICAO 41th Assembly in 2022

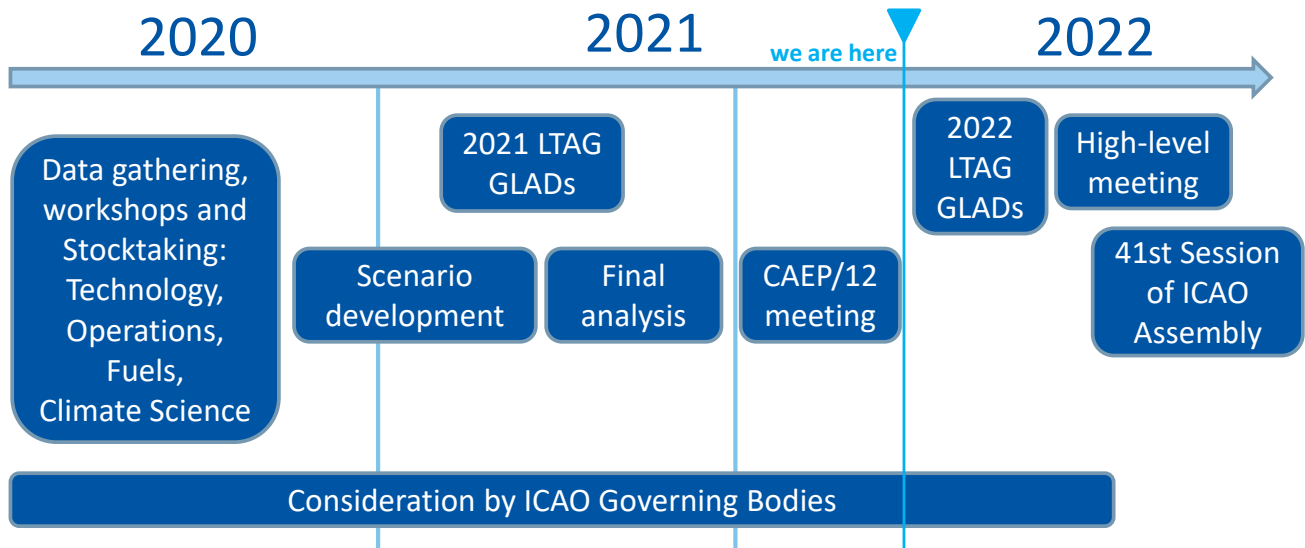
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ICAO High-Level LTAG Timeline



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LTAG Data Gathering

ICAO Stocktaking

Stocktaking 2019	Stocktaking 2020	Stocktaking 2021
- Focused on fuels (CAAF/2 request) - Mapping of technologies and production initiatives	- Expanded scope - technologies, operations, and fuels - Open invitation to provide information - more than 100 solutions submitted - Nearly 100 speakers	- From 31/Aug to 3/Sept - Pre-stocktaking webinars (1 per month) - More than 80 evolutionary & revolutionary innovations

All presentations and videos available on the event websites



CAEP LTAG Data Gathering

more than 280 experts contributing with information and expertise

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The 2022 ICAO Stocktaking is scheduled to be held on 18 and 19 July 2022

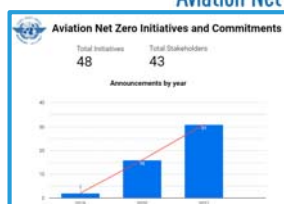
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ICAO Trackers on Aviation CO₂ Emissions Reduction Initiatives



Aviation Net Zero Initiatives



Other Climate Initiatives

Year	Details	Category	Country / Stakeholder	Status
2017-08-01	Norway proposes global emissions in carbon tax to incentivise fuel by 2020 initiative	Carbon	Norway	Negative
2017-04-26	Poland commits to 12% emissions reduction by 2020 initiative	Emissions Reduction	Poland	Neutral
2017-05-28	China's March 4th Earth Day 2017 will reduce commitment to sustainable agriculture	Climate Act	China	Climate
2017-10-16	Saudi Arabia Culture to be the catalyst of climate impact by 2020	Stakeholders Group Action	Saudi Arabia & Global Alliance	International
2017-01-27	Brazil commits to reducing air quality by 100 per cent by 2020	Brazil	Brazil	International
2017-01-27	UK's new consultation on opening computers and public policy for international	COMRA	United Kingdom	Negative

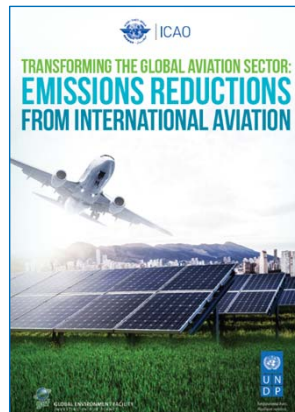
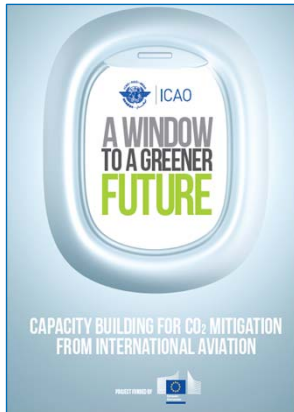
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ICAO Capacity Building and Assistance Activities



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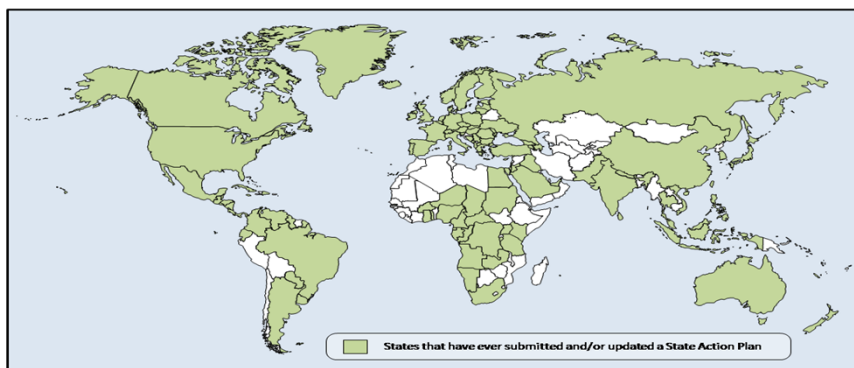
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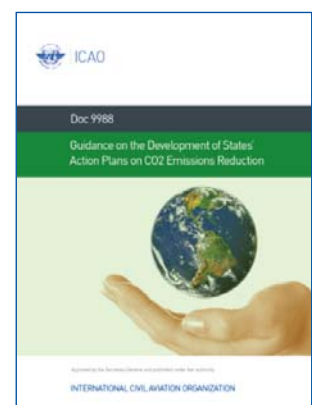
State Action Plans

State action plans includes range of airport-specific emission reduction options to implement

127 States representing 97.56% of global RTK have voluntarily submitted their State Action Plan to ICAO



ICAO Doc 9988



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A forum of stakeholders which aims at facilitating the development of new ideas and accelerate the implementation of innovative solutions that will further reduce greenhouse gas emissions at source, on the ground or in the sky.

All stakeholders involved in making the sector greener are welcome to join!



ICAO Flying Forest Fire Fighting (I4F) Dialogue

Collaboration on Aerial Fire Fighting, I4F, November 2021

- Potential to work together with GFMC, International Fire Aviation Working Group (IFAWG), ICAO, INSARAG and JEU





In Conclusion

- Now is the time to **design for the future we want**
- There is a flying future with the beginnings of a **green revolution leading to major reductions in carbon emissions**
- To support LTAG deliberations on the **41st Session of the ICAO Assembly** in September-October 2022, ICAO is organizing:
 - **2022 LTAG GLADs, 28 March - 8 April 2022**
 - **Pre-HLM Stocktaking, 18 and 19 July 2022**
 - **High-Level Meeting on LTAG (HLM-LTAG), 20-22 July 2022**
- In 2022 the **ICAO Council will conduct a periodic review of CORSIA**
- Global engagement is key and **ICAO plays a crucial and leading role**

