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ENVIRONMENT



ICAO Environmental
Symposium 2019

DESTINATION GREEN: THE NEXT CHAPTER



Destination Green: The Next Chapter

Ms. Jane Hupe

Deputy Director, Environment, ICAO





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Vision

Achieve the sustainable growth of the global civil aviation system.

Mission

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

ICAO Strategic Objectives:

Safety

Security & Facilitation

Environmental Protection

Air Navigation Capacity and Efficiency

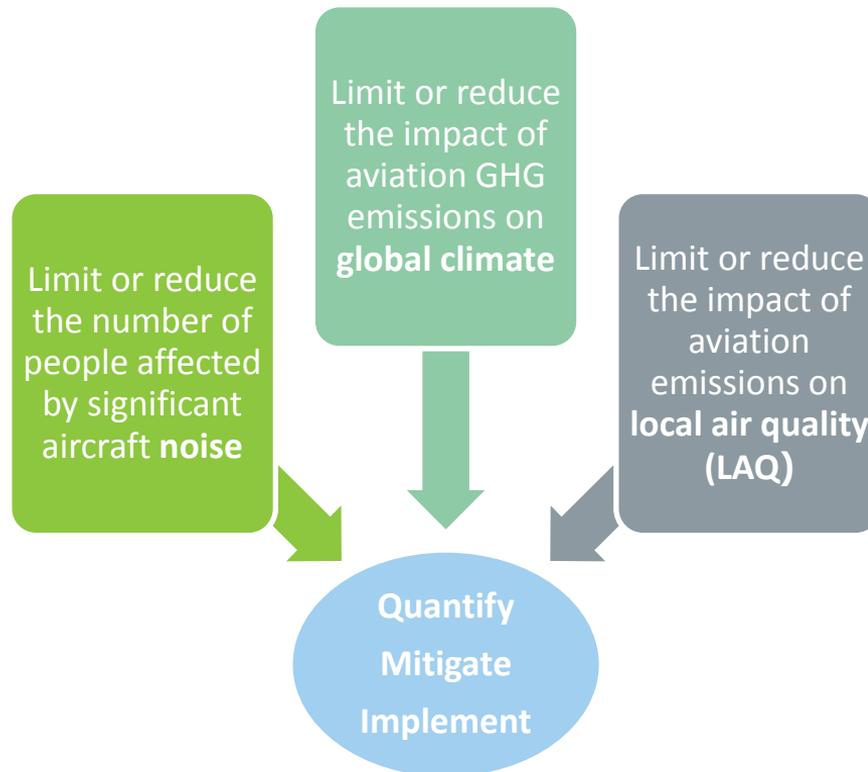
Economic Development of Air Transport



ICAO Environmental Goals

ICAO Strategic Objective on Environmental Protection:

Minimize the adverse effect of global civil aviation on the environment





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**Sustainable Aviation
Fuels**

**Partnerships and
cooperation**

Aircraft Noise

**State Action
Plans**

**Financing and
Assistance**

**2013 ICAO
Symposium
Destination
Green**

Global MBM

**Technology and
Operations**

**Environmental Goals,
Tools and Data**



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And much happened since...

- Aeroplane CO₂ emissions Standard
- nvPM Engine Emissions Standard
- Adoption of the Global Air Navigation Plan (GANP) and quantification of environmental benefits of ASBU B0 and B1
- CORSIA
- ICAO 2050 Vision on Sustainable Aviation Fuel
- Science-based information on climate change adaptation



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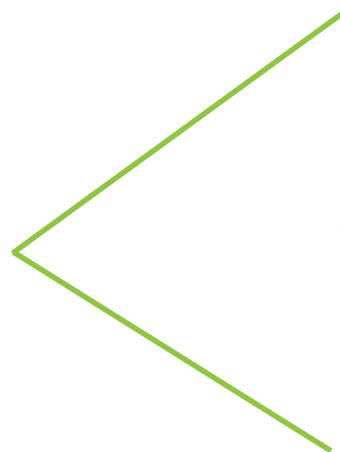
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What could shape “green aviation”?



External Drivers



Fourth Industrial Revolution:

**“Technological revolution ... that is blurring the lines between the physical, digital, and biological spheres.”
Klaus Schwab**



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Aircraft
End-of-life

Waste
Management



Renewable
Energy &
Energy
Efficiency

Natural
Resources

Sustainable
Design and
Construction



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Technology



Next generation aircraft



3D printing



Material science



Maintenance



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Clean energy

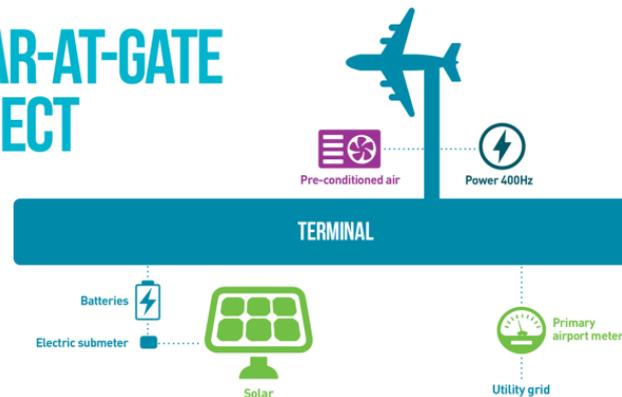
IN THE AIR

First ICAO Stocktaking Seminar toward the 2050 Vision for Sustainable Aviation Fuels (30 April – 1 May 2019)

- Supportive views on policies/regulatory; frameworks, financing, assistance and outreach
- SAF will play a major role in reducing international aviation emissions;
- ICAO will continue to facilitate the stocktaking process through: **Second ICAO SAF Stocktaking Seminar (28 – 29 April 2020)**

ON THE GROUND

SOLAR-AT-GATE PROJECT





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Green and resilient airports

- ICAO Seminar on Green Airports, in cooperation with ACI (8 and 9 May 2019)
- **Context:** air traffic growth drives the need for more airport infrastructure. They need to be environmentally sustainable.
 - Robust environmental management system is essential to secure loans in a capital intensive sector;
 - Guidance needed on climate change risk assessment;
 - Community engagement is a must;
 - Airports are engaged in expanding their social footprint: from business-to-business to business-to-people



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Climate Change Adaptation



Flooding at Kansai International Airport, Japan after typhoon Jebi.
Photo: JJI PRESS / Getty Images



Svalbard Airport, Norway



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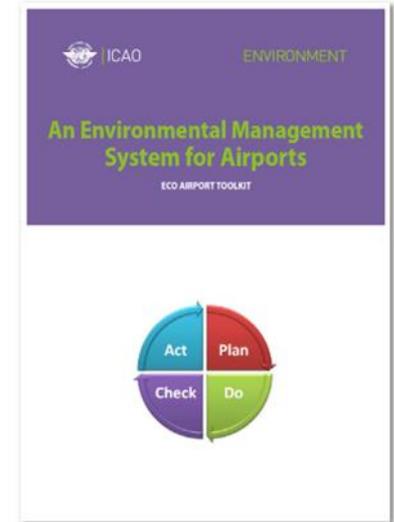
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No Country Left Behind: The power of capacity-building





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International aviation aspirational goals

- **Assembly Resolution A39-2**
 - Reaffirms the global aspirational goals of 2% annual fuel efficiency improvement and carbon neutral growth from 2020;
 - Requests the Council to continue to explore the feasibility of a long-term global aspirational goal for international aviation.
- **Industry (ATAG):** “aspirational goal to reduce net emissions from aviation by 50% by 2050 compared to 2005 levels” (ATAG, 2008)
- **IPCC Special Report on Global Warming of 1.5°C.**
- **UNFCCC Paris Agreement on domestic emissions sources.**
- **2019 Climate Summit calls for more ambitious action.**



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Agenda:

Day 1	Session 1: Setting-the-scene
	Session 2: Two decades of Balanced Approach on Aircraft Noise: Impacts and Lessons Learned
	Session 3: 50 years of Annex 16, Volume I: The Role of Technology in Reducing Aircraft Noise
	Session 4: Aircraft Noise and Annoyance - when non-acoustic factors drive out of the box thinking
Day 2	Session 5: Local Air Quality - The Role of ICAO Standards
	Session 6: The ICAO Basket of Measures on CO2 Emissions Mitigation – Focus on Technology
	Session 7: The ICAO Basket of Measures on CO2 Emissions mitigation – Focus on Operations
	Session 8: The ICAO Basket of Measures on CO2 Emissions mitigation – Focus on Sustainable Aviation Fuels
	Session 9: The ICAO Basket of Measures on CO2 Emissions mitigation – Focus on CORSIA



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Agenda continued:

Day 3

Session 10: Green and Resilient Airports

Session 11: International Aviation in a Circular Economy

Session 12: ICAO Capacity-building and assistance activities on environmental protection – a success story

Session 13: Three years to prepare for the next 30



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