

**ICAO Briefing Session:**  
*Implementing a clean energy transition for international aviation in support of the UN Sustainable Development Goals (SDGs)*

**11 November 2024**  
**13:00 – 14:00**  
**UN SDG Pavilion**  
**Blue Zone**



**COP29**  
Baku  
Azerbaijan



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**ICAO Briefing Session**  
*Implementing a clean energy transition for international aviation in support of the UN Sustainable Development Goals (SDGs)*



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- 1. Keynote Opening Remarks**  
*Mr. Salvatore Sciacchitano, President of the ICAO Council*
- 2. Overview of ICAO progress on international aviation and climate change**  
*Ms. Jane Hupe, Envoy of ICAO Secretary General to the UNFCCC COP*
- 3. State perspectives on clean energy and capacity building for international aviation**  
*Representative from the Government of Azerbaijan*
- 4. Closing Ceremony**



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## ICAO Strategic Objective

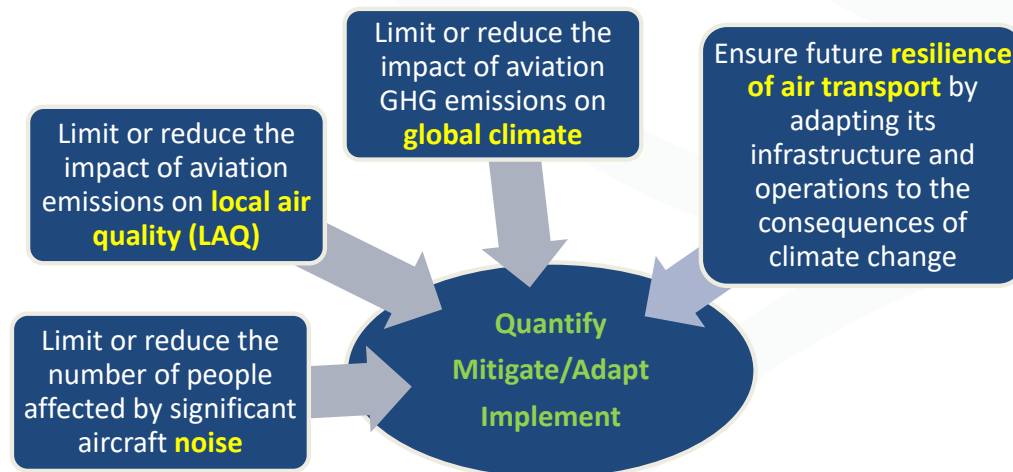
*Minimize the adverse effect of global civil aviation on the environment*



ICAO's environmental work contributes to 14 out of the 17 United Nations SDGs



## ICAO Environmental Goals



## 41st Assembly Resolutions

- **A41-20:** General provisions, noise and local air quality
- **A41-21:** Climate change
- **A41-22:** Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)



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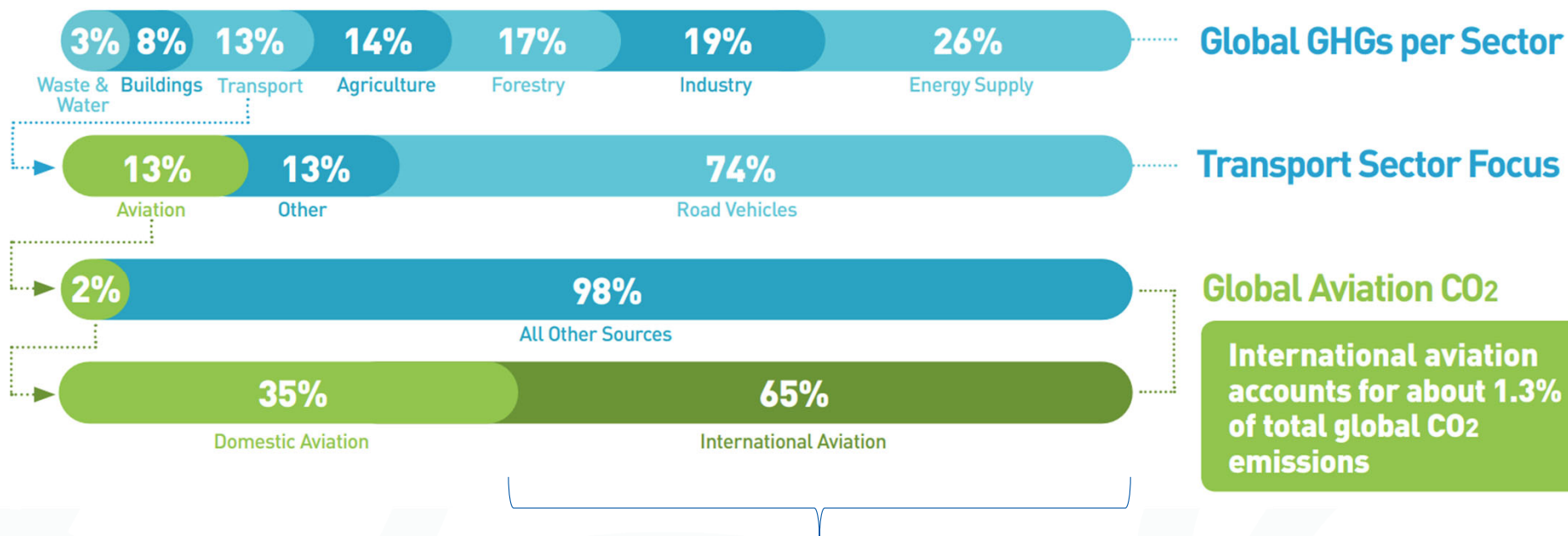
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# INTERNATIONAL AVIATION IN GLOBAL GHG EMISSIONS

Total CO<sub>2</sub> emissions from aviation (domestic and international) account for approximately 2% of total global CO<sub>2</sub> equivalent emissions (IPCC 5th Assessment Report); international aviation accounts for about 1.3% of total global CO<sub>2</sub> emissions.



**International aviation accounts for about 1.3% of total global CO<sub>2</sub> emissions**

**ICAO's mandate for emissions from international aviation**



## ICAO (international aviation) and the Paris Agreement Nationally Determined Contributions (NDCs)



- ✓ While emissions from **international aviation** and maritime sectors **are not included as part of the Nationally Determined Contributions (NDCs) under the Paris Agreement**, these are separately addressed by ICAO and the International Maritime Organization (IMO), respectively, **to complement the achievement of the Paris Agreement goals.**
- ✓ Emissions from **domestic aviation** can be addressed by the Parties to the UNFCCC through their NDCs, as part of their efforts to reduce greenhouse gas emissions from all domestic sources.



# Key Achievements on International Aviation and Climate Change

39th ICAO Assembly  
Global MBM: ORSIA



2016

- Further CORSIA developments**
- Adoption of **Annex 16, Vol IV**
  - Launch of **ICAO ACT-CORSIA** with more than 130 States
  - **CORSIA eligible fuels / credits**



2018

- 41st ICAO Assembly**
- Long-term global aspirational goal: **LTAG – 2050 net zero carbon emissions** by international aviation
  - Launch of **ACT-SAF 200 partners**



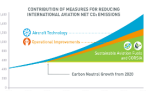
2022



**ICAO Roadmap** for the implementation of CAAF/3 outcomes and LTAG

2024

2010



- 37th ICAO Assembly**  
Adoption of two global aspirational goals
- **2% annual fuel efficiency improvements**
  - **CNG2020**

ICAO State Action Plans initiative



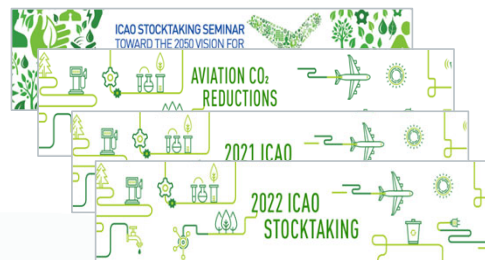
2017



- CAAF/2**
- 2050 ICAO Vision
  - Progress monitored through “Stocktaking”
  - CAAF/3 to quantify ICAO Vision
- New CO<sub>2</sub> standard for aircraft**

2019

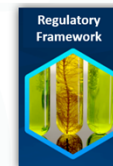
**Annual ICAO Stocktaking Events**



2023



- ICAO **Global Framework** for SAF, LCAF and other aviation cleaner energies
- Collective **global aspirational Vision** to reduce CO<sub>2</sub> emissions by 5% by 2030



2025

**42nd ICAO Assembly**  
(Sep/Oct 2025)



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## 41<sup>st</sup> Session of ICAO Assembly (Oct 2022)

ICAO Member States adopted Assembly Resolution A41-21 and reached the historic agreement on the collective long-term global aspirational goal (LTAG) of **Net-Zero Carbon Emissions from international aviation by 2050**, in support of the Paris Agreement's temperature goal (Resolution A41-21, paragraph 7).

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LTAG


NET-ZERO 2050

Long-term global aspirational goal for international aviation





**Collective global aspirational Vision  
to reduce CO<sub>2</sub> emissions in international aviation by  
5 % by 2030, through aviation cleaner energy use**



**Each State's special circumstances and  
respective capability will inform its ability to  
contribute to the Vision**





## ICAO Global Framework on SAF, LCAF and other Aviation Cleaner Energies



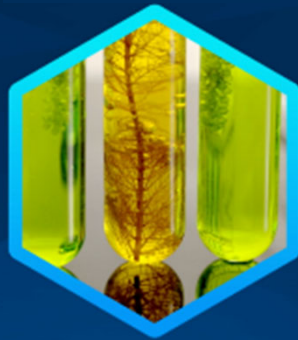
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### Policy and Planning



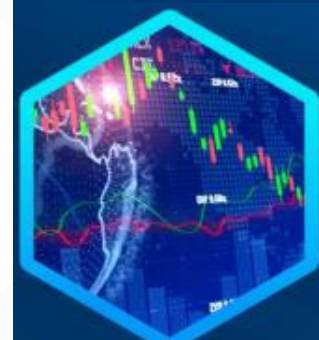
### Regulatory Framework



### Implementation Support



### Financing



- Supports global scale up of aviation cleaner energies – Collective Vision to reduce 5% CO<sub>2</sub> by 2030
- Provides clarity, consistency and predictability to all stakeholders on 1) policy and planning, 2) regulatory framework, 3) implementation support, and 4) financing – 4 Building Blocks
- Monitors the implementation progress on emissions reductions and means of implementation
- Aspiring to have cleaner energy production facilities in all regions by CAAF/4 (no later than 2028)
- To update the Vision at CAAF/4 on the basis of market developments

# ICAO Cleaner Energy Trackers



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ICAO adopted a Vision to reduce CO<sub>2</sub> emissions in international aviation by **5 per cent by 2030 through the use of SAF, LCAF and other aviation cleaner energies.**

This requires **23 million tonnes (Mt)** of cleaner energies use in international aviation on 2030  
*(according to the LTAG report data).*

This aviation cleaner energy trackers monitors progress under the ICAO Global Framework on its four building blocks

(Click on each number to open the full Tracker)



**CORSIA volunteer States**  
129 States for 2025 and increasing every year, resulting in higher coverage of international routes and CO<sub>2</sub> emissions



### 2022 CO<sub>2</sub> Emissions

**115**  
CCR CO<sub>2</sub> Reports submitted by States

**21**  
Gap-filling States (ICAO data)

**97.7%**  
CCR coverage of CO<sub>2</sub> emissions

**429**  
Mtonnes of CO<sub>2</sub> emissions\*

### 2023 CO<sub>2</sub> Emissions

**121**  
CO<sub>2</sub> Reports submitted by States

**15**  
Gap-filling States (ICAO data)

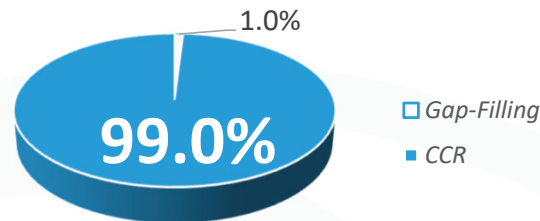
**99.0%**  
CCR coverage of CO<sub>2</sub> emissions

**530**  
Mtonnes of CO<sub>2</sub> emissions\*

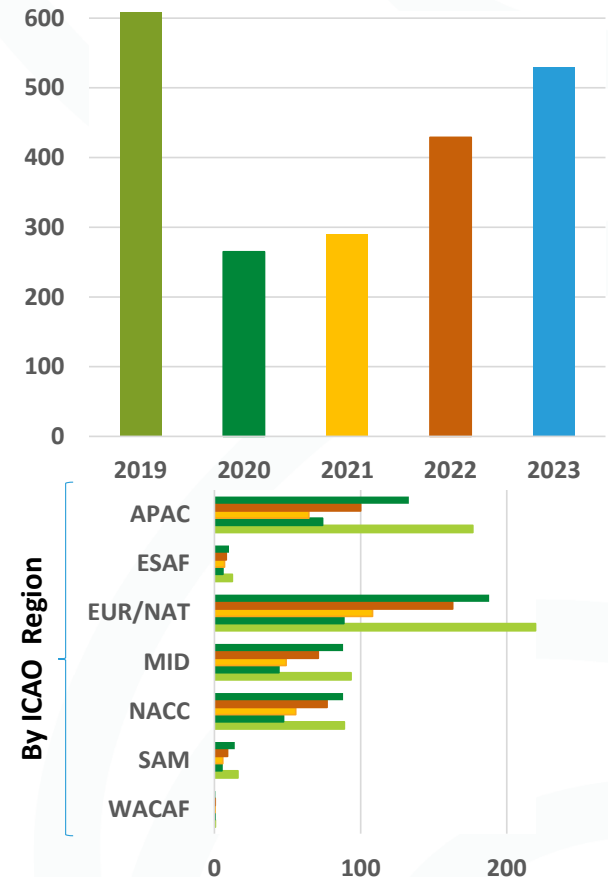
+ 6  
- 6  
+ 1.3%

**CORSIA Central Registry (CCR)**  
An unprecedented number of States reported their **2023 CO<sub>2</sub> emissions** through the ICAO CCR, increasing its coverage to a **historic record of 99% of total CO<sub>2</sub> emissions**

### CO<sub>2</sub> Emissions submitted and estimated (%)



### Total CO<sub>2</sub> Emissions\* (in Mtonnes)



\*Totals include CO<sub>2</sub> emissions submitted by States through the CORSIA Central Registry (CCR) and emissions provided by ICAO to fill the emissions gaps

# CORSIA Sustainability Criteria to cover all themes of sustainability

ICAO's globally-harmonized approach to ensure the sustainability of CORSIA eligible fuels (SAF and LCAF)



Sustainability themes	
1. Greenhouse Gases (GHG)	Carbon-reduction themes
2. Carbon Stock	
3. GHG emissions reduction permanence	Environmental themes
4. Water	
5. Soil	
6. Air	
7. Conservation	
8. Waste and chemicals	
9. Seismic and vibrational impacts (only for LCAF)	
10. Human and labour Rights	Socio-economic themes
11. Land Use Rights and Land Use	
12. Water use rights	
13. Local and social development	
14. Food security	

**Carbon reduction themes** applicable for batches of CEF produced by certified fuel producer **before 1 January 2024**

**All themes** applicable for batches of CEF produced by certified fuel producer **on or after 1 January 2024**

# CORSIA CORSIA Eligible Emissions Units



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## Six programmes eligible for CORSIA first phase (2024 to 2026 compliance period)

### 1) American Carbon Registry



### 2) Architecture for REDD+ Transactions



### 3) Climate Action Reserve



### 4) Global Carbon Council



### 5) Gold Standard



### 6) Verified Carbon Standard



- The eligible units from these programmes are from projects/activities that started their **first crediting period from 1 January 2016 and can be generated from reductions occurring from 2021 to 2026**
- Not all units from these programmes are eligible for use in CORSIA. Certain emissions units from these programmes are not eligible. **Each programme's Scope of Eligibility is described in the ICAO CORSIA document: CORSIA Eligible Emissions Units**

## Supply of CORSIA eligible emissions units for the first phase

- **Two eligible programmes** approved by ICAO Council in 2023 (American Carbon Registry, and Architecture for REDD+ Transactions) have the potential to issue up to **115 to 300 million eligible units** for mitigation years 2021-2026, if such units were to obtain host country attestation / letter of authorization
- **Four additional programmes** approved by ICAO Council in 2024 (Climate Action Reserve, Global Carbon Council, Gold Standard, and Verified Carbon Standard) have the potential to issue from **around 800 million up to more than 2 billion eligible units** for mitigation years 2021-2026, if such units were to obtain host country attestation / letter of authorization



## CORSIA Eligible Emissions Units and UNFCCC Paris Agreement Article 6



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- ICAO continues to monitor the UNFCCC discussions on matters related to **Article 6 of the Paris Agreement** on international carbon markets, in particular any implications for the eligibility of emissions units under the CORSIA, such as the **guidance on avoidance of double-claiming**
- Ensuring the effective **alignment between Article 6 of the Paris Agreement and CORSIA** is essential as the future demand for CORSIA eligible emissions units is expected to grow, and aeroplane operators will need to meet their offsetting requirements under CORSIA with the eligible units that fully meet the quality and environmental integrity criteria set by the CORSIA EUC.
- ICAO would like to encourage the issuing of **Letters of Authorization by host countries for the activities that generate CORSIA eligible emissions units**, which will facilitate the access and availability of CORSIA eligible emissions units for aeroplane operators to fulfil their offsetting requirements under CORSIA.

# ACT>>SAF

## ICAO Assistance, Capacity-building and Training for SAF (ACT-SAF) programme



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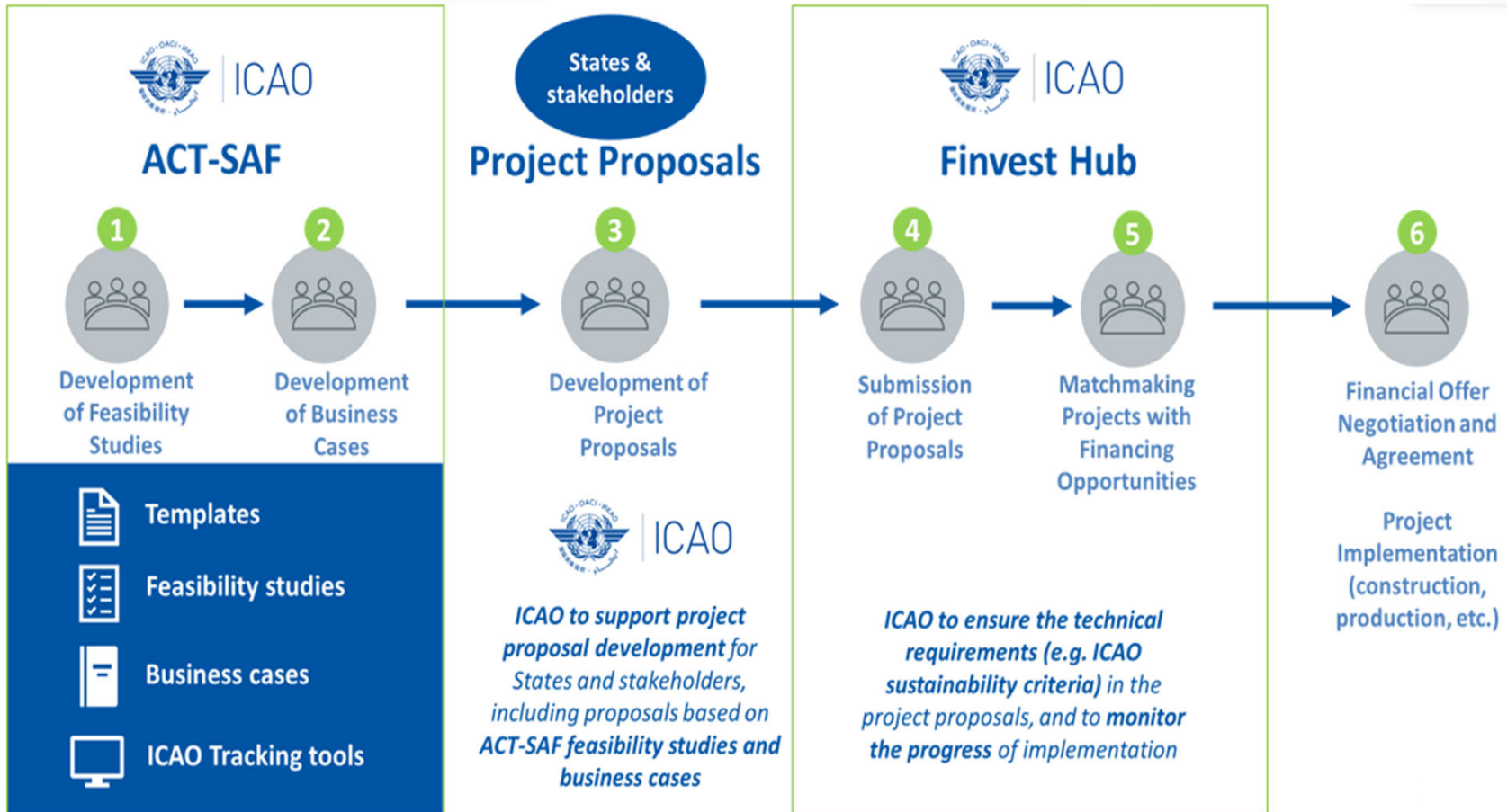


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# Operationalization of ICAO Fininvest Hub

ICAO Fininvest Hub will be a platform to connect aviation decarbonization projects with public and private investors, facilitating funding opportunities to developing countries and States with particular needs





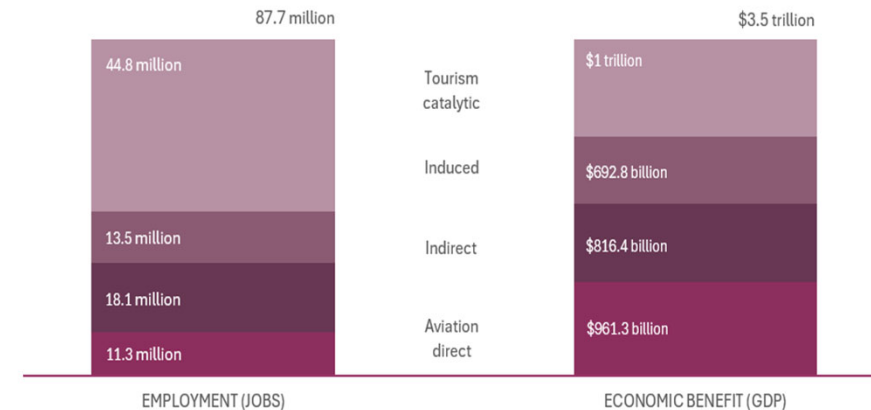
# Environment-related levies and taxation on aviation

- While the urgency of mobilizing financial resources for climate action is well understood by ICAO and its Member States, **several concerns remain regarding taxation approaches on aviation and shipping**
- A taxation approach for the aviation sector is not only disproportionate vis-a-vis the sources of emissions from the sector itself, but it also **does not have a direct correspondence to emissions reductions**
- **Negative economic impact on the development of the sector would be greater on developing countries' air transport connectivity**, which is more sensitive to ticket price increases for passengers

## Imposing taxes could severely harm these valuable benefits of aviation



Aviation's global employment and GDP impact



# Environment-related levies and taxation on aviation



- **Climate change financing to aviation decarbonization** is a key building block for achieving **ICAO's net-zero carbon emissions goal** adopted by the ICAO Assembly in 2022, and for the implementation of the **ICAO Global Framework for Aviation Cleaner Energies** adopted by the ICAO CAAF/3 in November 2023
- Achieving ICAO's global aspirational goals and aviation's clean energy transition requires **adequate financial resources within the international aviation sector itself**, enabling it to effectively respond to the global climate change challenge
- In this regard, the **ICAO Assembly Resolution A41-21**, paragraph 16, requests that ***“ICAO and its Member States express a clear concern on the use of international aviation as a potential source for the mobilization of revenue for climate finance to other sectors, in order to ensure that international aviation would not be targeted as a source of such revenue in a disproportionate manner”***

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Thank You