Airline industry’s sustainability for climate change

Dr. Jae Woon LEE
Assistant Professor
Faculty of Law
The Chinese University of Hong Kong
✓ Overview
✓ Legal framework
✓ CORSIA
✓ Regulatory and non-regulatory approach
Sustainability is “the ability to continue or be continued for a long time” defined through the following interconnected pillars: environmental, economic and social.
Introduction

✓ The growth of aviation has come concerns regarding noise, air quality, water quality and impacts on climate.

✓ Public awareness of environmental issues, and political pressure to manage environmental impacts, have increased dramatically.
Aviation Environmental Issues

Global climate
The potential impact of aviation on global climate

Community Noise Impacts
Dealing with significant aircraft noise impacts around airports

Water Quality
Limiting or reducing impact of aviation on water quality

Air Quality
Limiting or reducing impact of aviation on local air quality

Source: US FAA
Impact of Aviation on Climate

- Aircraft emit chemical species and produce physical effects that affect climate.
- CO2 is a greenhouse gas that causes an increase in global temperatures.
- Because of the very long timescales for the global carbon cycle, CO2 may remain in the atmosphere and affect the climate for 500 years after it is emitted.
Global greenhouse gas emissions by sector

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.

Energy
73.2%

Energy use in Industry
24.2%

Agriculture, Forestry & Land Use
18.4%

Energy use in buildings
17.5%

Transport
11.9%

Road Transport
11.9%

Aviation
1.7%

Shipping
1.7%

Other industry
10.6%

Unallocated fuel combustion
7.6%

Commercial
6.6%

Residential buildings
10.9%

Energy use in agriculture & fishing
1.7%

Energy from energy production
5.8%

Fugitive emissions from energy production
5.8%

Cement
3%

Cement
2.2%

Chemicals
2.2%

Wastewater
1.3%

Landfills
1.9%

Deforestation
2.2%

Crop burning
3.5%

Agricultural soils
1.8%

Livestock & manure
5.8%

Iron and steel
7.2%

Nitrates in meat
0.3%

Chemical & petrochemical
3.5%

Food & tobacco
0.6%

Paper & pulp
0.6%

Machinery
0.5%

OurWorldInData.org – Research and data to make progress against the world’s largest problems.

Source: Climate Watch, the World Resources Institute (2020).

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FLYGSKAM
THE FEELING OF SHAME FROM
FLYING IN AN
AIRPLANE, KNOWING
HOW MUCH
CARBON POLLUTION IT CAUSES

EMOTIONALGRANULARITY.COM
Article 2, paragraph 2

“The Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.”
Progress under ICAO’s Leadership?

✓ Annex 16: Environmental Protection
✓ Committee on Aviation Environmental Protection
✓ Group on International Aviation and Climate Change
✓ No global sectorial approach until 2016
✓ The Role of EU
EU Milestones


✓ June 2008: EU leaders reached a deal on the details of plans to include aviation in the EU's Emissions Trading Scheme as of 2012.

✓ Oct. 2008: EU justice ministers approved a compromise deal on including aviation activities in the EU ETS

✓ Jan 2009: Directive 2008/101/EC to include aviation into the EU Emissions Trading Scheme (ETS) was published in the Official Journal.

✓ Jan 2012: Target date for aviation sector to start trading CO2.

EU’s “stop the clock” of ETS and ICAO A38-18

✓ The EU Commission announced in November 2012 that it would “stop the clock” for a year and refrain from applying the ETS to flights to and from the European Union.

✓ It was conditioned on the ICAO 38th Assembly’s taking “meaningful international action”

✓ ICAO General Assembly Resolution A38-18 (Oct. 2013) was adopted.

✓ It was accepted that the aspirational “medium term” goal calls for neutral carbon growth only after 2020.
Finally, Carbon Offsetting and Reduction Scheme for International aviation (CORSIA) 2016

✓ **Resolution A39-3**: Consolidated statement of continuing ICAO policies and practices related to environmental protection – Global Market-based Measure (MBM) scheme
Why?
Aviation’s contribution of GHG emissions continues to increase.

What?
The design and implementation of market-based measures (MBMs) for international aviation

Who?
ICAO, not by individual states’ unilateral actions

When?
From 2021 (pilot phase) / From 2024 (first phase)

Where? (geographical coverage)
Most International Flights

“20. Requests the following actions be taken, with a view to establishing necessary mechanisms for implementation of the CORSIA from 2020: Regarding the implementation of the MRV system,

a) the Council to develop, with the technical contribution of CAEP, the SARPs and related guidance material for the implementation of the MRV system under the CORSIA, including simplified MRV procedures, for adoption by the Council by 2018;

b) all Member States whose aircraft operator undertakes international flights to develop the necessary arrangements, in accordance with the MRV SARPs, for implementation from 1 January 2019;”
The First Edition of Annex 16 — Environmental Protection, Volume IV — Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) was adopted by the Council of ICAO on 27 June 2018.
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ICAO SARPs – Chicago Convention 1944

- **Art 54**
  The Council shall...Adopt international standards and recommended practices, designate them as Annexes to this Convention

- **Art 37**
  States undertakes to collaborate in securing highest practicable degree of uniformity in regulations, standards, procedures...

- **Art 38**
  impracticable to comply international standards... give immediate notification
CORSIA in Bilateral Air Services Agreements?
ESG

Environmental:
- Climate change strategy
- Biodiversity
- Water efficiency
- Energy efficiency
- Carbon intensity
- Environmental management system

Social:
- Equal opportunities
- Freedom of association
- Health and safety
- Human rights
- Customer & products resposibility
- Child labour

Governance:
- Business ethics
- Compliance
- Board independence
- Executive compensation
- Shareholder democracy
Thank you.

Jaewoon.lee@cuhk.edu.hk