59th CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGIONS

Cebu, Philippines
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AGENDA ITEM 7: AVIATION AND ENVIRONMENT

GEOGRAPHICAL CONSTRAINTS AND ITS IMPACT ON AIRLINES UNDER CORSIA

(Presented by India)

SUMMARY

Geographical constraints, such as airspace restrictions, pose significant challenges for airlines under the Carbon Offset and Reduction Scheme for International Aviation (CORSIA). These constraints lead to increased fuel consumption, higher emissions, and greater financial burdens for managing carbon offsets. The "Fuel Use monitoring Method" would indeed have a negative financial impact on airlines. The use of ICAO CERT tool for restricted routes can prove to be a practical solution for monitoring CO2 emissions, helping airlines navigate these challenges.

GEOGRAPHICAL CONSTRAINTS AND ITS IMPACT ON AIRLINES UNDER CORSIA

1. INTRODUCTION

1.1 Assembly Resolution A39-3 decided to implement a Global MBM scheme in the form of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) as part of a basket of measures which also included aircraft technologies, operational improvements and sustainable aviation fuels to achieve ICAO's global aspirational goals.

1.2 As per para 2.2 of Annex 16 Vol IV Ed II on "CORSIA", the aeroplane operator, with annual CO2 emissions from international flights subject to offsetting requirements of greater than or equal to 50 000 tonnes, shall use a "Fuel Use Monitoring Method" as described in Appendix 2 of this Annex for these flights.

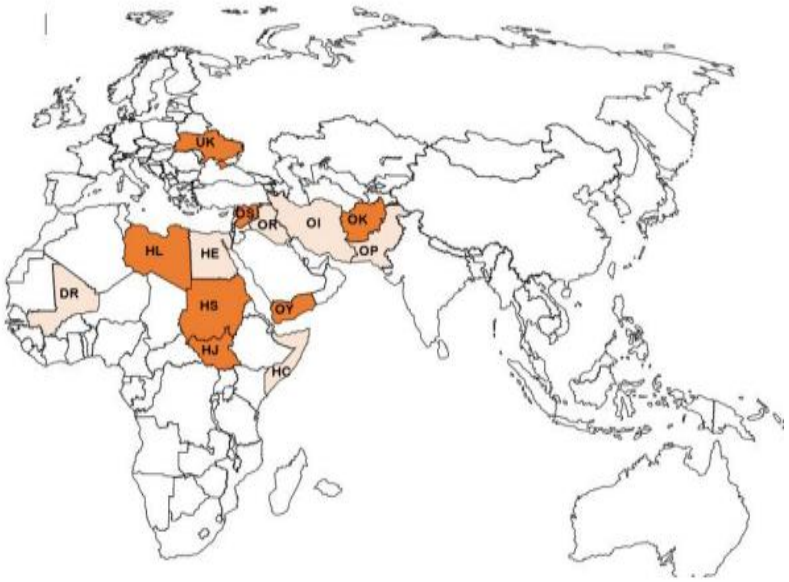
1.3 Annex 16 Vol Ed IV allows the aeroplane operator, with annual CO2 emissions from international flights subject to offsetting requirements, of less than 50 000 tonnes, to use either a Fuel Use Monitoring Method or the ICAO CORSIA CO2 Estimation and Reporting Tool (CERT).

1.4 This paper highlights the constraints for airlines operating long-distance or remote routes facing higher fuel consumption and consequently higher offsetting requirements under CORSIA due to route closures.

2. DISCUSSION

2.1 In the realm of aviation management, geopolitical events wield a profound influence, shaping the industry's trajectory, strategies, and operational landscapes. From diplomatic tensions and trade disputes to regional conflicts and global pandemics, these events create ripple effects that resonate across airports, airlines, regulatory bodies, and passengers worldwide.

2.2 Geographical constraints play a significant role in the implementation and impact of CORSIA on airlines. These constraints arise from the diverse economic, political, and environmental conditions across different regions, affecting how airlines and countries participate in and comply with the scheme.



Current Airspace Restrictions	
Syria	Conflict Zone
Yemen	Conflict Zone
Libya	Conflict Zone
South Sudan	Conflict Zone
Ukraine(Simferopol FIR)	Conflict Zone
North Korea	Conflict Zone
Afghanistan	Conflict Zone / AWY Restriction
Iran	Possible Conflict Zone / IGO Restriction
Iraq	Possible Conflict Zone / IGO Restriction
Azerbaijan	Possible Conflict Zone / AWY Restriction
Armenia	Possible Conflict Zone / AWY Restriction
Somalia	Possible Conflict Zone / AWY Restriction
Mali	Possible Conflict Zone / AWY Restriction

2.3 Regional conflicts and security threats present another dimension of challenges for aviation management. The ongoing conflict in Ukraine, Iran, Syria for example, has prompted:

- Airspace restrictions and safety concerns, compelling airlines to revise flight routes.
- Additional Fuel Burn due to increased route distance, approximate Annual additional burn is to the tune of 51,131 tonnes for an A320 aircraft.
- Additional Flying Time due Increased route distance.

2.4 Airlines operating long-distance or remote routes face higher fuel consumption and, consequently, increased operational costs and higher greenhouse gas (GHG) emissions.

E.g. - Due to airspace restrictions, the fuel cost for B 787-9 for an average 1 hour of additional flight time for 10 flights daily may account to

- Approx. 50,000 tonnes of extra CO2 emissions annually and also an additional extra fuel cost of Rs 100,00,00,000 approx annually.
- Cost may compound to cost of offsetting the additional 50,000 tonnes of extra CO2 emissions as well depending on the sector being operated.

2.5 Airlines operating in regions with fewer resources and less developed infrastructure will experience higher costs for carbon offsets. These higher costs can impact the financial stability of airlines and their ability to invest in sustainable practices.

2.6 ICAO may consider amending the provisions to allow airline operators to use the Certified Emission Reduction Tool (CERT) for calculating, monitoring, and reporting emissions on restricted routes. Since CERT uses great circle distance for sector calculations, it can help operators reduce costs associated with offsetting additional CO2 emissions resulting from

longer routes taken due to airspace restrictions. By allowing the use of CERT, ICAO can help mitigate the financial burden on operators while still promoting accurate emissions tracking and reduction efforts.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this paper.

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