

**GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
LOK SABHA
UNSTARRED QUESTION NO. : 4012
(To be answered on the 12th December 2019)**

INDIA'S AGREEMENT WITH CORSIA

4012. SHRI RAJIV PRATAP RUDY

Will the Minister of CIVIL AVIATION

नागर विमानन मंत्री

be pleased to state:-

(a) whether the Government has entered into an international agreement called Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) relating to aviation emissions on international flights and if so, the details thereof;

(b) whether as per CORSIA obligations, airlines are required to report their carbon emissions during the calendar years 2019 and 2020, which will be the baseline for the future and if so, details thereof;

(c) whether the Government recognizes that presently Indian carriers are predominantly having narrow body fleets which limits their ability on long haul operations resulting in limited baseline establishment in calendar years 2019 and 2020 and if so, the details thereof;

(d) whether the Government recognizes that after 2020, if airlines of India enhance long haul international operations, they will have to offset the emissions by the way of carbon trading, which will make the airlines in India non-competitive vis-a-vis other established airlines?

ANSWER

Minister of State (IC) in the Ministry of CIVIL AVIATION

नागर विमानन मंत्रालय में राज्य मंत्री (स्वतंत्र प्रभार)

(Shri Hardeep Singh Puri)

(a) At the 39th Session of the General Assembly of the International Civil Aviation Organisation (ICAO) held in September, October, 2016, a resolution A39-3 was passed by majority support for adopting a global market based measure called Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) relating to emissions from international aviation. This resolution has been affirmed by majority of nations at the 40th General Assembly Session of ICAO held in September/ October, 2019 by passing

Resolution A40-19. India has raised its voice at the ICAO Assembly Session against the design elements of CORSIA stating that they are not fair to the airlines of developing states who have potential to grow much more after 2020 compared to the airlines of developed states. India has also filed reservations with ICAO in this regard, both in 2016 and 2019.

(b) & (c) Yes, Sir. The salient features of CORSIA are attached as Annexure.

(d)The level of international operations by Indian carriers is currently on a high growth path. As mentioned in the Annexure, CORSIA is being implemented in two phases, viz. Voluntary Phase (2021-2026) and Mandatory Phase (2027-2035). India is not joining CORSIA in the Voluntary Phase. The offsetting requirements under CORSIA, determined by the baseline level set as per emissions in 2019 and 2020, which will come into force from 01.01.2027 will impose financial burden on a large number of global airlines including the airlines of India.

Annexure to be submitted with LS Parliament Question No. 4012 to be replied on 12.12.2019

Carbon Offsetting and Reduction Scheme for International Aviation- Salient Features

1. CORSIA scheme has mainly two design elements, viz., Monitoring, Reporting & Verification (MRV) and Offsetting, as described below:

1.1 Monitoring, Reporting & Verification (MRV): MRV requirement is applicable to all states irrespective of their participation in Offsetting under CORSIA. It consists of —

- Monitoring of fuel used on each international flight and calculation of CO2 emissions,
- Reporting of CO2 emissions information by aeroplane operators to DGCA.
- Verification of reported emissions data to ensure completeness and to avoid misstatements.
- Reporting of verified emission data by DGCA to ICAO.

All operators, who are engaged in international operations, have to capture their fuel consumption and carbon emissions data annually, starting from 1st January, 2019 every year. The emissions data calculated from fuel used on international routes by all operators globally for the year 2019 and 2020 will be used exclusively by ICAO to calculate the baseline emissions value which will be used in the subsequent years for calculation of growth in emission levels for calculation of offsetting requirements.

1.2 Offsetting Requirements: Aeroplane operators will need to offset the growth by procuring emission reduction credits from other sources e.g. emission reduction programmes approved by ICAO. The offsetting requirements of the aeroplane operators will be calculated by DGCA in accordance with the formula provided in the scheme.

2. Implementation Methodology

2.1 Phased Implementation—The scheme will be implemented in phases i.e.

- **Voluntary Phase – Pilot Phase (2021-2023) and First Phase (2024-2026)**
From 2021 until 2026, offsetting requirements will only apply to international flights between states that volunteer to participate in the pilot phase and/or the first phase. (India has opted out of both the pilot phase and the first phase)
- **Mandatory Phase – Second Phase (2027-2035)**
From 2027, offsetting requirements will apply to the international flights, operated by the aeroplane operators of all states meeting the applicability criteria given in para 2.2 below, except the states exempted under para 2.3 below.

2.2 Applicability Criteria of Member States

(i) Member states having individual share of State's international activities in Revenue Tonne Kilometres (RTKs) in 2018 above 0.5% of the total RTKs, or

ii) If the cumulative share in the list of States from the highest to the lowest amount of RTKs reaches 90% of the total RTKs.

2.3 Exempted States

Least Developed Countries, Small Island Developing States, and Landlocked Developing Countries; or States that account for less than 0.5% of total worldwide RTKs from international aviation in 2018.

2.4 Flights to be counted for offsetting

Only international flights operated on the routes between state pairs where both states are included in the CORSIA, will be covered under the scheme and their CO2 emissions will be counted for the purpose of calculating the offsetting requirements of the CORSIA. Other international flights will not be counted for offsetting purpose, but will be subject to reporting requirements.

3. Calculation of offsetting requirement under CORSIA

3.1 Calculation of CO2 emissions from aeroplane fuel use:

Each aeroplane operator shall determine the CO2 emissions from international flights using the following equation:

$$\text{CO2 Emissions (in tonnes)} = \Sigma \text{Mass of fuel (in tonnes)} \times \text{Fuel conversion factor}$$

For the purpose of above equation, the mass of fuel used includes all aviation fuels. An aeroplane operator shall use the following value of fuel conversion factor: for Jet-A fuel = 3.16 (in kg CO2/kg fuel) and for AvGas or Jet-B fuel = 3.10 (in kg CO2/kg fuel).

3.2 Calculation of CO2 Offsetting Requirements:

i. DGCA will calculate, for each of the aeroplane operators, the amount of CO2 emissions required to be offset in a given year (without emissions reduction from use of CORSIA eligible fuels), using the formula given below:

An aeroplane operator's offset requirement = [% Sectoral × (an aeroplane operator's emissions covered by CORSIA in a given year × the sector's growth factor in the given year)] + [% Individual × (an aeroplane operator's emissions covered by CORSIA in a given year × that aeroplane operator's growth factor in the given year);

ii. where the sector's growth factor = (total emissions covered by CORSIA in the given year average of total emissions covered by CORSIA between 2019 and 2020) / total emissions covered by CORSIA in the given year;

iii. where the aeroplane operator's growth factor = (the aeroplane operator's emissions covered by CORSIA in the given year - average of the aeroplane operator's emissions covered by CORSIA between 2019 and 2020) / the aeroplane operator's emissions covered by CORSIA in the given year;

iv. where the % Sectoral = (100% - % Individual) and;

v. where the % Sectoral and % Individual will be applied as follows:

Year of applicability	% Sectoral	% Individual
1 January 2024 to 31 December 2029	100%	0%
1 January 2030 to 31 December 2032	(100%-%Individual)	A specified percentage of at least 20%
1 January 2033 to 31 December 2035	(100%-%Individual)	A specified percentage of at least 70%

vi. ICAO will provide the applicable value of Sector Growth Factor on yearly basis and DGCA will calculate the aeroplane operator's Growth Factor for a given year in accordance with the CO2 emissions from the verified Emissions Reports submitted by aeroplane operators.