



India to Join International Climate Action in Civil Aviation

For Prelims: ICAO, CORSIA, LTAG

For Mains: Climate Action in Civil Aviation: CORSIA, LTAG, their advantages for India.

Why in News?

The Ministry of Civil Aviation (MoCA) has announced that India will start participating in the [International Civil Aviation Organisation's \(ICAO\) Carbon Offsetting and Reduction Scheme for International Aviation \(CORSIA\)](#) and the Long-Term Aspirational Goals (LTAG) from 2027.

- CORSIA Scheme is envisaged in 3 phases: Pilot (2021-2023) and first phases (2024-2026) are voluntary phases whereas second phase (2027-2035) is mandatory for all the member States.
 - India has decided **not to participate in the voluntary phases of CORSIA.**

What are CORSIA and LTAG?

- **Background:**
 - The ICAO has been **tasked to reduce carbon emissions from international civil aviation** as one of its focus areas.
 - In order to mitigate carbon emissions from aviation and its impact on climate change, the global body has adopted several key aspirational goals. Among them are:
 - **2% annual fuel efficiency improvement through 2050**
 - **carbon neutral growth**
 - **net zero by 2050**
 - The ICAO has clubbed them under CORSIA and LTAG.
- **CORSIA:**
 - It is a global scheme established by the ICAO **to address the growth in CO₂ emissions** from international aviation.
 - CORSIA **aims to stabilize net CO₂ emissions at 2020 levels** through a combination of measures, including carbon offsetting, [carbon credits](#), and [sustainable aviation fuel](#).
 - It offers a harmonized way **to reduce emissions from international aviation, minimizing market distortion**, while respecting the special circumstances and respective capabilities of ICAO Member States.
 - CORSIA complements the other measures by offsetting the amount of CO₂ emissions that cannot be reduced through **technological improvements, operational improvements, and sustainable aviation fuels** with emissions units from the carbon market.
 - CORSIA is **applicable only to flights originating from one country to another.**
- **LTAG:**
 - 41st ICAO Assembly **adopted LTAG for international aviation of net-zero carbon emissions by 2050** in support of the [UNFCCC Paris Agreement's](#) temperature goal.
 - The LTAG does not attribute specific obligations or commitments in the form of emissions

reduction goals to individual States. Instead, it recognizes each State's special circumstances and respective capabilities e.g., the level of development, maturity of aviation markets.

What is the ICAO?

- It is a **specialized agency of the [United Nations](#)** that was created in 1944 to promote safe, secure, and efficient air transportation around the world.
- ICAO **develops international standards and recommended practices for aviation**, including regulations for air navigation, communication, and airport operations.
- It also **works to address global aviation issues**, such as air traffic management, aviation security, and environmental protection.
- It is **headquartered in Montreal, Canada**.

What could be the Potential Advantages for Joining such Initiatives?

- **Reducing Greenhouse Gas Emissions:** Joining CORSIA and striving towards the LTAG will help reduce the greenhouse gas emissions from international aviation. This is essential for combating climate change and protecting the environment.
 - India also has set an ambitious target of achieving Net Zero by 2070.
 - India also has committed to reduce its Carbon intensity of its economy by 45% by 2030.
- **Increasing Sustainability:** CORSIA and the LTAG encourage airlines to adopt more sustainable practices, such as using more efficient aircraft, reducing fuel consumption, and investing in renewable energy.

How does Aviation Sector Affect Climate?

- **Greenhouse Gas Emissions:** Aviation is a significant source of greenhouse gas emissions, particularly carbon dioxide. The burning of fossil fuels in aircraft engines produces **carbon dioxide, water vapor, nitrogen oxides, and other greenhouse gases** that contribute to climate change.
- **Contrails:** Contrails are the white, streaky lines that airplanes leave in the sky. They are made up of ice crystals that form when water vapor in the aircraft's exhaust condenses in the cold, high-altitude atmosphere. Contrails can **have a warming effect on the planet by trapping heat in the Earth's atmosphere**.
- **Cirrus Clouds:** Similar to contrails, cirrus clouds also form from aircraft emissions. These clouds can have a warming effect on the planet, as they trap heat in the Earth's atmosphere.

What are the Key Initiatives taken by the MoCA to Reduce Carbon Emissions?

- **Green Airports:** A green airport is an airport that has implemented sustainable practices to reduce its environmental impact and promote sustainable development. Green airports aim to **minimize their carbon footprint, conserve energy & water resources, and reduce waste and emissions**.
- **National Civil Aviation Policy (NCAP) 2016:** It includes a goal of developing a sustainable aviation framework that **promotes the use of alternative fuels, energy-efficient aircraft, and infrastructure**, among others.
- **Sustainable Aviation Fuel (SAF):** Initiatives to encourage the use of SAF have been taken for sustainable development and the **reduction of carbon emissions at airports**.

Source: [ET](#)

