# 1% Sustainable Aviation Fuel (SAF)

***Prelims:*** *Current events of national and international importance | Science & Technology*

## Why in News?

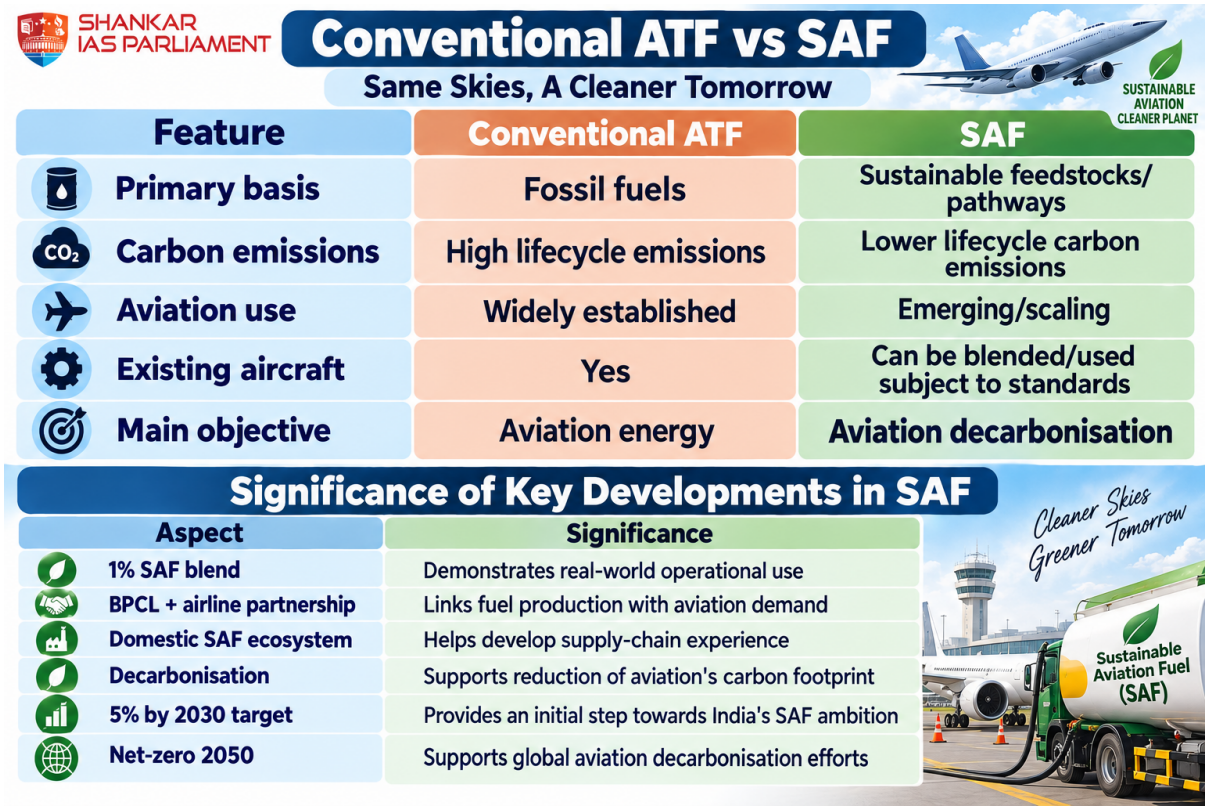
*Recently, Akasa Air and Bharat Petroleum Corporation Limited (BPCL) have successfully operated a commercial flight powered by aviation turbine fuel blended with 1% Sustainable Aviation Fuel (SAF).*

## Sustainable Aviation Fuel (SAF)

- **SAF –** It refers to non-conventional aviation fuels produced from renewable or sustainable sources.
- It is an alternative to conventional fossil-based jet fuel, developed to reduce the lifecycle carbon emissions associated with air travel.
- **Potential feedstocks for SAF production**
  - Used cooking oil
  - Agricultural and forestry residues
  - Municipal waste
  - Other forms of sustainable biomass, and
  - Synthetic fuels produced using renewable energy.

*According to the I**nternational Civil Aviation Organization (ICAO)**, over 360,000 commercial flights have used SAF at 46 different airports largely concentrated in the United States and Europe.*

***India** has set a target to achieve a 5% blend of Sustainable Aviation Fuel (SAF) in the aviation sector by 2030.*




## ICAO Global SAF Framework

• **Global target –** *Achieve a 5% reduction in $CO_2$ emissions from international aviation by 2030, compared to a baseline of* zero cleaner energy use.
• **Adopted at –** *Third ICAO Conference on Aviation and Alternative Fuels.*
• **Building Blocks**
  - **Policy and Planning –** Provide strategic direction for the adoption of SAF and LCAF.
  - **Regulatory Frameworks –** Establish standards, ensure compliance, and implement enforcement mechanisms.
  - **Implementation Support –** Offer technical assistance, build capacity, and provide operational guidance.
  - **Financing –** Facilitate investment, develop funding models, and offer financial incentives.
• All four blocks are *interconnected* and must progress together for effective aviation decarbonisation.

**Reference**

Economic Times | 1% Sustainable Aviation Fuel

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