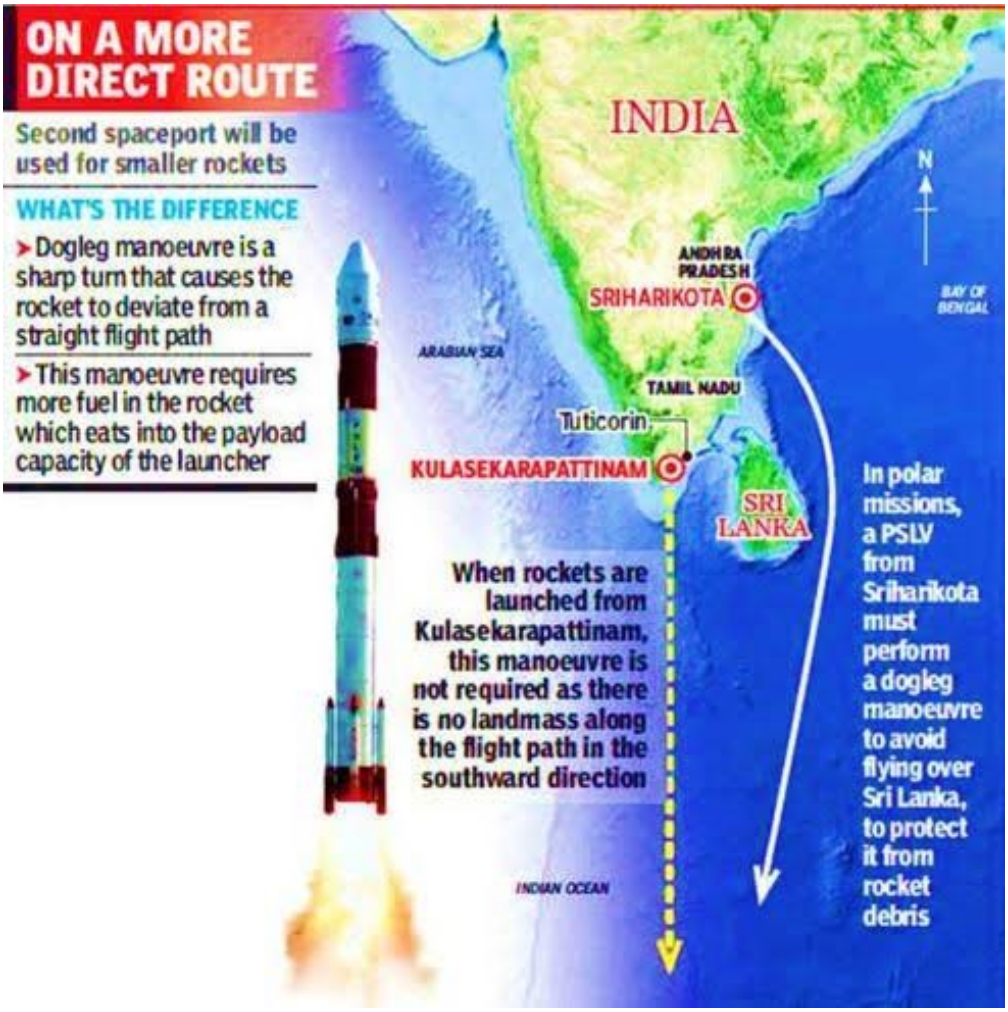
Kulasekarapattinam Spaceport

Prelims – *Current events of National and International Importance| Space Technology.*

Why in News?

Recently, the Union Ministry of Science and Technology shared the current status of infrastructure development at the Kulasekarapattinam spaceport.

- **Geographical Location –** It is a ***new spaceport*** coming up at Kulasekarapattinam, a coastal village near Tiruchendur in Thoothukudi district in Tamil Nadu.
- **Objectives –** To enable efficient launches of *Small Satellite Launch Vehicles (SSLVs) to Sun-Synchronous Polar Orbits (SSPOs)* by providing a direct southward launch path.
- To eliminate the fuel-intensive dogleg manoeuvre required at Sriharikota.
- To enhance payload capacity and reduce launch costs for small satellites, micro and nano class.
- **Financial outlay –** Funds allocated to Kulasekarapattinam spaceport – Rs. 985.96 Crore.
- Fund utilized for the project so far is Rs. 389.58 Crore. (As on 31st July'25).
- **Commission plan –** Targeted in ***Fiscal Year 2026-27.***
- **Advantages in payload capability –** It will enhance the payload capability of ISRO's Small Satellite Launch Vehicle (SSLV), while launching satellites to polar orbits.
- Launches to ***Sun-Synchronous Polar Orbits (SSPO)*** from Sriharikota require complex rocket manoeuvres to avoid spent stages falling over landmasses.
- This will reduce the payload capability.
- The payload capability of the SSLV to SSPO is about 300 kg when launching from Kulasekarapattinam, whereas the capability is inadequate for a useful payload when launching from Sriharikota.



- **Economic advantages –** It encourages non-government entities (NGEs) to conduct commercial launches, supporting India's space economy and generating satellite launch-related services.
- The Kulasekarapattinam launch site is close to ISRO's Propulsion Research Complex in Mahendragiri, Tamil Nadu, making it easier and faster to transport rocket components and reduce costs.

Quick Facts

Polar satellites	• They are placed in polar orbits, moving in a north-south direction across the equator, and are typically launched either southward or northward.
Sun-Synchronous Orbit (SSO)	• It is a type of polar orbit where the satellite passes over the same area at the same local time daily, typically at 700–800 km altitude. • It is ideal for satellites needing consistent sunlight, like those used in remote sensing.
Small Satellite Launch Vehicles (SSLVs)	• They are designed to launch light-weight satellites less than 500 kg into the lower earth orbit at low costs.

Reference

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