Vikram-1 – India's First Private Orbital Rocket

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Why in News?

Recently, Hyderabad-based Skyroot Aerospace successfully launched Vikram-1, India's first privately built orbital rocket, under Mission Aagaman.

- **Launched at –** Satish Dhawan Space Centre in Sriharikota.
- **Design –** Four-stage launch vehicle *(first three stages use solid fuel; fourth stage uses liquid fuel)*.
- **Capacity –** Payload: 290 kg to 500-km sun-synchronous orbit (SSO); 480 kg to low-inclination orbit at similar altitude.
- **Mission Aagaman –** The historic maiden orbital launch of Vikram-1, India's first privately developed launch vehicle.
- **Orbit Insertion –** Hardest part; required high acceleration with precise guidance.
- **Production –** Skyroot aims to streamline manufacturing to produce one Vikram-1 per month.
- **Vikram-2 –** Planned for 2027, capable of carrying up to 1,000 kg to low-earth orbit.

Reference

The Hindu | Vikram