

Aditya L1 Mission

April 10, 2020

Why in news?

ISRO's next ambitious programme prepares to be launched by April 2020.

What is this mission?

- It is India's first solar mission as India has never tried to reach the sun earlier.
- It will study the outermost layer of the sun, the corona and chromosphere, and collect data on coronal mass ejection, which will also provide information for prediction of space weather.
- The data from Aditya mission will be immensely helpful in discriminating between different models for the origin of solar storms and also for constraining how the storms evolve and what path they take through interplanetary space from the Sun to the Earth.



What is L1?

- To get the best science from the sky, continuous observation is favoured without occultation or eclipses and thus, the satellite Aditya L1 will be put in the halo orbit around the sun-earth system's Lagrangian point 1 (L1).
- Lagrangian points are the locations in space where the combined gravitational pull of two large masses roughly balances each other. Any small mass placed at that location will remain at constant distances relative to the large masses. There are five such points in the Sun-Earth system and they are denoted as L1, L2, L3, L4 and L5. A halo orbit is a periodic three-dimensional orbit

near the L1, L2 or L3.