# NISAR



- 'Nisar' is being **jointly developed by NASA and ISRO**. The name NISAR is short for- **'NASA-ISRO Synthetic Aperture Radar'.** The satellite will be **launched in 2022 from** the Satish Dhawan Space Center in **Sriharikota, into a near-polar orbit.**
- Notably, **'Synthetic Aperture Radar'** is a technique **used to obtain high-resolution images** and to **create two-dimensional images or three-dimensional structures** of objects. The radar remains unaffected by low light and darkness of weather, clouds, fog or sun and **can collect data under all circumstances.**
- The satellite will **scan the Earth every 12 days during its three-year mission of imaging.** By imaging earth land, ice sheets and sea ice, it will detect the movement on earth to the microscopic level.
- Its primary goals include warning of volcanic eruptions, help monitoring groundwater availability, and tracking the melting rate of ice sheets. Significantly, Nisar will be equipped with the largest reflector antenna ever launched by NASA.
- The partnership agreement was signed in September 2014, according to which NASA will provide a radar for this satellite, a high-rate communication subsystem for scientific data, GPS receiver and a payload data subsystem; While ISRO will provide spacecraft bus, S-band radar, launch vehicle and associated launch services.