

**17– 02 – 2024**

**News: NISAR**

- The Kerala University of Fisheries and Ocean Studies (KUFOS) will participate in the advanced NASA-ISRO Synthetic Aperture Radar (NISAR) Phase II research project, focusing on forest biomass and carbon monitoring through radar data.

**NISAR**

- NASA and ISRO are jointly developing a satellite called NISAR, which will detect movements of the planet's surface as small as 0.4 inches over areas about half the size of a tennis court.
- The mission is supposed to be launched by January 2024 and is expected to operate for 3 years at a Low Earth Orbit (LEO).
- It will scan the globe every 12 days over the course of its three-year mission of imaging the Earth's land, ice sheets, and sea ice to give an unprecedented view of the planet.
- NISAR will be the first radar of its kind in space to systematically map Earth, using two different radar frequencies (L-band and S-band) to measure changes in our planet's surface less than a centimeter across.

- It will be a 2,800 kilogram satellite consisting of both L-band and S-band Synthetic Aperture Radar (SAR) instruments, which makes it a dual-frequency imaging radar satellite.

## **Aim**

- Tracking subtle changes in the Earth's surface.
- Spotting warning signs of imminent volcanic eruptions.
- Helping to monitor groundwater supplies.
- Tracking the rate at which ice sheets are melting.

## **Expected Benefits**

- NISAR's data can help people worldwide better manage natural resources and hazards, as well as providing information for scientists to better understand the effects and pace of climate change.
- The data will allow for a better understanding of the causes and consequences of land surface changes.