

# Japan To Launch World's First Wooden Satellite To Combat Space Pollution

## Why In The News?

- **Japan And The US** Are Planning To Launch The **World's First Wooden Satellite**, The **LignoSat** Probe, Into Space This Summer. This Unusual Spacecraft Is Made Up Of **Magnolia Wood** Which, During The Experiments, Was Found To Be Particularly Stable And Resistant To Cracking.
- The Wooden Satellite Was Created By Japanese Scientists And Now The US Has Become A Part Of Their Mission As They Finalized The **Satellite To Be Launched On A US Rocket**.



## Why Was There A Need?

- In A Pioneering Effort To Address The **Growing Issue Of Space Debris**, The Researchers At Kyoto University In Collaboration With The Logging Company Sumitomo Forestry Built The **Timber Satellite**. They Came Up With The Idea Of Using An Alternative To Metal, Which Are Biodegradable Material.
- To Tackle The Problem, Kyoto Researchers Set Up A Project To Evaluate Types Of Wood To Determine How Well They Could **Withstand The Rigours Of Space Launches** And **Lengthy Flights** In Orbit Around The Earth.
- The First Tests Were Carried Out In Laboratories That **Recreated Conditions In Space**, And Wood Samples Were Found To Have Suffered No Measurable Changes In Mass Or Signs Of Decomposition Or Damage.



## Why Is It Significant?

- This Will Re-ignite The Hope That **Even After The Extinction Of Non-biodegradable Materials**, The Satellite And Other Things Can Work.
- Recently, Researchers At The University Of British Columbia, Canada, Revealed That **Aluminum** From Re-entering Satellites Could Cause Serious **Depletion Of The Ozone Layer** Which Protects The Earth From The Sun's Ultraviolet Radiation And Could Also Affect The Amount Of Sunlight That Travels Through The Atmosphere And Reaches The Ground.
- However, This Should Not Be A Problem With Satellites Built Of Wood, Like **LignoSat**, Which, When It Burns Up As It Re-enters The Atmosphere After Completing Its Mission, Will Produce Only A Fine Spray Of **Biodegradable Ash**.

