



## Current Affairs of the Day

### Chandrayaan-3 is set for launch in August 2022

1. India plans to execute the Chandrayaan-3 mission this August. The Chandrayaan-3 mission is a follow-up of Chandrayaan-2 of July 2019, which aimed to land a rover on the lunar South Pole.
2. It was sent aboard the country's most powerful geosynchronous launch vehicle, the GSLV-Mk 3. However, lander Vikram, instead of a controlled landing, ended up crash-landing on September 7, 2019, and prevented rover Pragyaan from successfully traveling on the surface of the moon.
3. Had the mission been successful, it would have been the first time a country landed its rover on the moon in its maiden attempt.



### Why this new obsession with the Moon?

1. The renewed efforts towards reaching the Moon consist of a sole purpose to build stations and a permanent presence on Earth's natural satellite.
2. The Moon could offer a significant piece of real estate that acts as a base to be used for further exploration to other planets, the first stop being Mars.



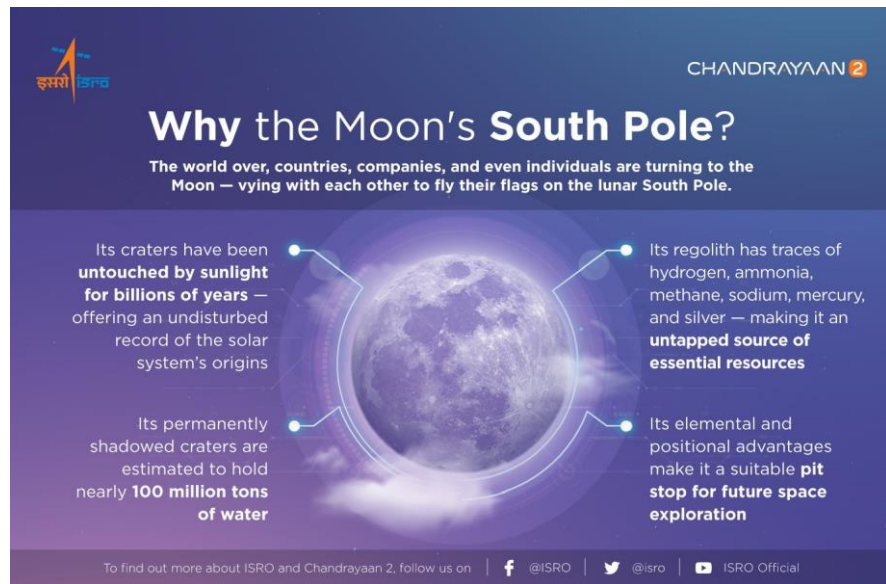
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3. A number of studies suggest that big rare-Earth metals present under the lunar regolith could be mined to boost tech demands back home.
4. There is also the possibility of water on the shadowed south pole.
5. Any country that is the first to set up a lunar base will likely have dominance in the new space race that has seen everything from the creation of a new branch of armed forces to testing anti-satellite missiles.



6. While for some countries it's about dominance, for others it's part of a powerful ideological and expansionist tool to further their national cause.

## No rationale for lowering the 30% tax on crypto profits

1. The government is open to resolving genuine problems and reservations of crypto-trading players arising from the new taxation regime for virtual digital assets but is of the firm view that there is no economic rationale for lowering the proposed 30% tax on profits from crypto assets' trading.
2. While a review of the 1% tax deducted at source (TDS) rate for all virtual assets' trades could perhaps be considered, top Finance Ministry officials pointed out that





even investments in equity and debt instruments which create value for the economy, involve the levy of a Securities Transaction Tax.

3. The govt said there was no reason to tax these assets lower than what anyone else pays on their income. The ultra-rich pay 42% taxes including surcharges.
4. One should not take any message about the regulatory regime from this tax. Till the... regime is in place, from the tax point of view, we are not concerned if you can do derivatives or intraday trading on this.

## Explained: What is Starlink?

### What is the satellite broadband service?

1. The service offers low-latency broadband internet to remote areas across the globe, using a constellation of satellites in low-Earth orbit. In other words, it allows users to connect to the internet beamed from space onto a dish antenna, much like satellite TV.
2. Amazon and OneWeb are also working on their versions of this satellite internet technology.
3. Both Starlink and OneWeb plan to launch their satellite broadband services in India in 2022. And while, in the absence of widespread optic fibre coverage, satellite broadband presents a stopgap solution for government and civic services, the high costs of the technology may not result in wider adoption once Bharatnet coverage reaches.

### Can satellite-based internet services challenge terrestrial networks?

1. Services proposed by companies such as Starlink and OneWeb mainly depend on low-earth orbit (LEO) satellites. And these companies have already launched large fleets of these satellites to enhance connectivity.
2. While in the short term satellite broadband may only be targeted at remote areas where terrestrial networks haven't reached, in the longer term it could end up competing with these networks even in the developed regions given one key benefit, which is that signals travel faster through space than they do through optic fibre cables.



## HOW IS STARLINK DIFFERENT

**Conventional satellites**  
36,000 km

**Starlink Satellites**  
550 km

**Latency**  
Less than **20 milliseconds**

Normal satellite internet latency  
**600 ms or more**

Promised speeds  
**Up to 1 Gbit/second**

## STARLINK IN SPACE

 No. of satellites planned <b>12,000</b>	 In orbit <b>653</b>	 Needed for moderate internet coverage <b>800</b>
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The next launch will take the total to 713



<b>MAINS DAWP</b>	<p>Q1. Discuss the rationale for and limitations of satellite internet in India.</p> <p>Q2. Discuss scientific, economic and geopolitical factors responsible for the renewed race for moon exploration?</p>
<b>MCQs</b>	<p>Q1. Why is the Moon's South Pole significant?</p> <ol style="list-style-type: none"><li>1. Its craters have been untouched by sunlight for billions of years</li><li>2. Its permanently shadowed craters are estimated to have a lot of water</li><li>3. It's having resources like methane, sodium and silver</li><li>4. Pit stop for future space missions</li></ol> <p>Select the correct answer from the codes given below</p> <ol style="list-style-type: none"><li>a. 1 and 4 only</li><li>b. 1, 2 and 3 only</li><li>c. 2, 3 and 4 only</li><li>d. 1, 2, 3 and 4</li></ol>