



Current Affairs of the Day

GS Paper - II

- House panel members want free grain scheme extended
- WHO to probe virus origins in China
- Top U.S. General meets Taliban negotiators in Doha

GS Paper - III

- ISRO launches satellite for communications
- Govt. plans \$60-bn investment to bolster gas infrastructure



House panel members want free grain scheme extended

Highlights:

1. The parliamentary committee demanded the extension of the free foodgrain scheme started by the government as part of the COVID-19 relief package. The scheme ended on November 30.
2. The Pradhan Mantri Garib Kalyan Anna Yojana was announced in March. The scheme covers 80 crore ration cardholders. Each household gets five kg of rice or wheat each month and one kg of pulses.
3. It appears that the stocks are far in excess of the buffer stock norms. Continuing the Garib Kalyan Yojana will provide relief to millions of poor households facing uncertainty and food anxieties, and will help the government reduce storage costs.

WHO to probe virus origins in China

A team of international investigators led by the World Health Organization (WHO) is likely to go to China in early January to study the origins of the COVID-19 outbreak, which first began in Wuhan, in southwestern Hubei province, late last year.

Highlights:

1. China has resisted calls for an independent international inquiry into the origins but has said it would be open to a WHO-led investigation even as the organisation has come under fire, particularly from the U.S., over its handling of the outbreak in the initial stages.
2. The WHO investigation will likely focus on the wet market in an effort to reconstruct the outbreak. Most scientists believe the SARS-CoV-2 virus, similar to the first SARS outbreak, likely came from a bat and was passed to humans via an intermediary host.
3. The WHO investigation, although at an early stage, has already become politicised, with China resisting what it sees as any outside interference, seeking to remain in control over how much access international scientists will have.



Top U.S. General meets Taliban negotiators in Doha

Highlights:

The top U.S. general held unannounced talks with Taliban peace negotiators in Doha to urge a reduction in violence across Afghanistan warning that stepped-up Taliban attacks endanger the militant group's nascent peace negotiations with the Afghan government.

Govt. plans \$60-bn investment to bolster gas infrastructure

Highlights:

1. The government had planned a \$60-billion investment for creating gas infrastructure in the country till 2024, and that gas's share in the energy mix is expected to rise to 15% by 2030. Currently, gas accounts for 6% in the country's total energy mix.
2. Investment will go for pipelines, LNG terminals and CGD (city gas distribution) networks.
3. India's first automated national-level gas trading platform was unveiled in June this year to promote and sustain an efficient and robust gas market and foster gas trading in the country.
4. Coverage of CGD projects is being expanded to 232 geographical areas spread over 400 districts, with potential to cover about 53% of the country's geography and 70% of population.
5. We are adopting clean mobility solutions with greater use of LNG (liquefied natural gas) as a transportation fuel, including long-haul trucking. We plan to have 1,000 LNG fuel stations across the country.

Strategic Petroleum Reserve

1. This year, the country was able to fully fill all petroleum reserves with a capacity of 5.33 million tonnes constructed at Visakhapatnam, Mangalore and Padur.
2. The government has begun the process of establishing another 6.5 MT commercial-cum-strategic petroleum storage facilities at Chandikhol and Padur, under public-private partnership.



ISRO launches satellite for communications

Highlights:

1. The Indian Space Research Organisation (ISRO) successfully placed into a transfer orbit India's 42nd communications satellite, CMS-01, carried onboard the PSLV-C50.
2. CMS-01 is a communications satellite envisaged for providing services in extended C Band of the frequency spectrum and its coverage will include the Indian mainland and the Andaman & Nicobar and Lakshadweep islands, the ISRO said. The satellite is expected to have a life of over seven years.
3. The next launch, the PSLV-C51, would be a special mission for ISRO and the entire country as the vehicle would carry the country's first private-sector satellite under the space reforms programme announced by the Indian government.
4. The ISRO Chairman said the PSLV-C51 launch will mark a new era of space reforms in India.

Mains:

Impact of private sector participation in the space sector

1. Cheaper launch vehicles
2. Cheaper communication services
3. Forex from space launch by Indian private sector in future
4. ISRO will focus on pure space research and strategic missions
5. Youth will be attracted towards research and development in Space
6. A further boost to Indian Space diplomacy

Additional Information:

Types of Orbits

There are several types of Earth orbit, and each offers certain advantages and capabilities.

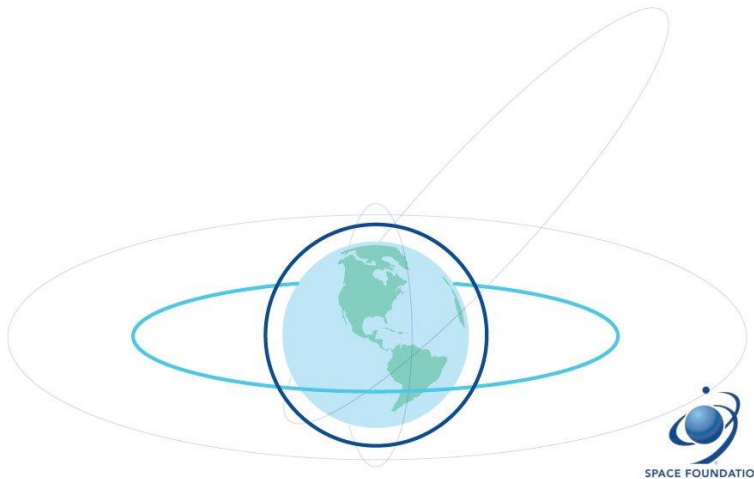
Low Earth Orbit (LEO)

LEO is commonly used for communication and remote sensing satellite systems, as well as the International Space Station (ISS) and Hubble Space Telescope.



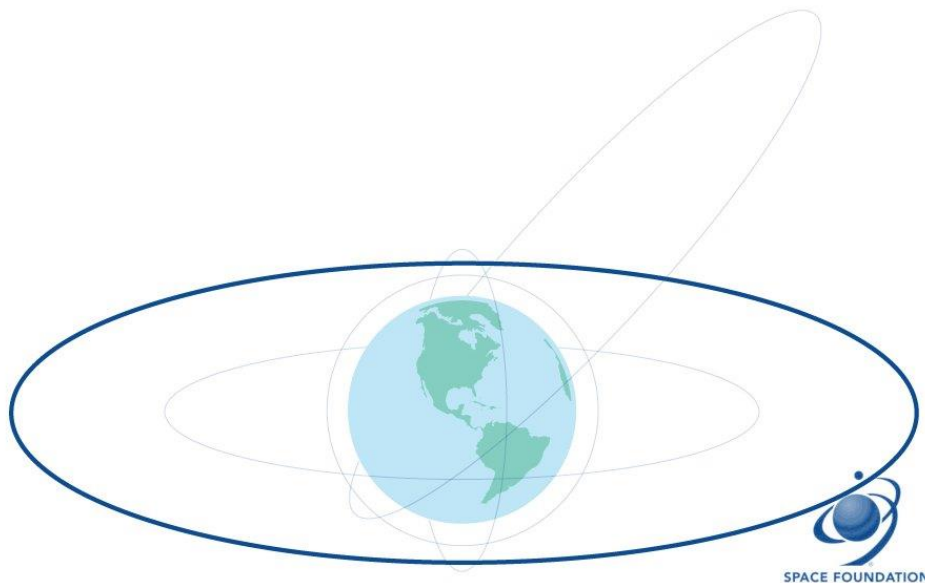
Medium Earth Orbit

MEO is commonly used for navigation systems, including the U.S. Global Positioning System (GPS).



Geosynchronous Orbit (GSO) & Geostationary Orbit (GEO)

Objects in GSO have an orbital speed that matches the Earth's rotation, yielding a consistent position over a single longitude. GEO is a kind of GSO. It matches the planet's rotation, but GEO objects only orbit Earth's equator, and from the ground perspective, they appear in a fixed position in the sky. GSO and GEO are used for telecommunications and Earth observation.





Polar Orbit

Within 30 degrees of the Earth's poles, the polar orbit is used for satellites providing reconnaissance, weather tracking, measuring atmospheric conditions, and long-term Earth observation.

Sun-Synchronous Orbit (SSO)

A type of polar orbit, SSO objects are synchronous with the sun, such that they pass over an Earth region at the same local time every day.

