



**10-04-2024**

## ISRO's 'Zero Orbital Debris' Milestone

### Why in News?

- Recently, the Indian Space Research Organisation (ISRO) has said its PSLV-C58/XPoSat mission has practically left zero debris in earth's orbit.

### More About the News

- The ISRO has explained that the last stage of the Polar Satellite Launch vehicle (PSLV) used in the mission was transformed into a kind of orbital station - called the PSLV Orbital Experimental Module-3 (POEM-3) - before it was left to re-enter the earth's atmosphere instead of floating in orbit once its mission was completed.
- After the completion of the primary mission of injecting all satellites into their target orbits, the fourth stage of the PSLV was transformed into the POEM-3.
- It was subsequently de-orbited from 650 kilometres to 350 kilometres, rendering it more susceptible to being pulled towards the earth and burning up in the atmosphere.
- ISRO also said it "passivated the stage,"

meaning dumped its fuel, to avoid an explosion that could have flung small pieces of debris into orbit.

### Significance of this milestone :

- With the rise in the number of satellites in orbit around the earth, space debris has become a pressing issue.
- Space debris in the low earth orbit (LEO) mainly comprises pieces of spacecraft, rockets, and defunct satellites, and the fragments of objects that have deteriorated explosively as a result of anti-satellite missile tests.
- This debris often flies around at high speeds of up to 27,000 kilometres per hour. Due to their sheer volume and momentum, they pose a risk to several space assets.
- As more communication satellites / constellations are launched and more anti-satellite tests are conducted, more on-orbit breakup and collisions occur, producing smaller and smaller fragments in orbit.
- The number of space objects (debris or functional equipment) greater than 10 cm in size in LEO is expected to be about 60,000 by 2030, per ISRO estimates.
- Space debris also leads to two major risks – it creates unusable regions of the orbit due to excessive debris, and leads to the 'Kessler syndrome' – creation of more debris due to cascading collisions resulting from one collision.

## Peace Clause at World Trade Organization (WTO)

### Why in the News?

- Recently, India has invoked the peace clause at the World Trade Organization (WTO) for the fifth consecutive time for the marketing





year 2022-23 (October-September) due to breaching the prescribed subsidy limit for rice offered to its farmers.

#### More About the News

- The peace clause protects India's food procurement programmes against action from WTO members in case the subsidy ceilings 10% of value of food production in the case of India and other developing countries-are breached.
- While the value of India's production of rice was \$52.8 billion in 2022-23, a subsidy worth \$6.39 billion was given to farmers during the year, India notified to the WTO.
- This means the rice subsidy was 12 per cent of the value of production, thereby breaching the 10 per cent domestic support ceiling, which is in accordance with global trade rules.
- However, there is no immediate repercussion for the breach since India has invoked the "peace clause", agreed upon at the Bali ministerial of WTO in 2013.
- This provides immunity to developing countries from challenges for breaching the ceiling for wheat and rice until a permanent solution is found.
- India defended itself by stating that stocks under the programme were "acquired and released in order to meet the domestic food

security needs of India's poor and vulnerable population, and not to distort trade or adversely affect the food security of other Members".

- India has been complaining the 10 per cent subsidy ceiling is calculated on the basis of the reference price of 1986-88, which became outdated long ago.
- Through its public stockholding programme, the government procures foodgrains at a predetermined price and then provides it free of cost to around 80 million people through the public distribution system.
- A permanent solution is crucial since some developed countries have been raising questions over India's minimum support price programme for food grains, particularly rice, since the subsidy has breached the suggested limit under the WTO trade norms over the last few years.

#### Shakti - Festival of Music and Dance

#### Why in the News?

- Recently, Sangeet Natak Akademi will organize 'Shakti - Festival of Music and Dance' at seven different Shaktipeeths in the country from 9th to 17th April.





### More About the News

- To rejuvenate the Temple Traditions in the country Sangeet Natak Akademi, under the series of Kala Pravah, is organizing the festival under the title 'Shakti a festival of music and dance' during the holy Navaratri, which starts from today i.e., 9th April 2024.
- Since Navaratri symbolizes the power of nine goddesses, the Akademi will organize the festival celebrating temple traditions under the title Shakti at seven different Shaktipeeths from 9th to 17th April 2024, in different parts of the country.
- The inauguration of the Shakti festival began on 9th April from the Kamakhya Temple, Guwahati and this will be continued at Mahalakshmi Temple, Kolhapur, Maharashtra, Jwalamukhi Temple, Kangada, Himachal Pradesh, Tripura Sundari, Udaipur, Tripura, Ambaji Temple, Banaskantha, Gujarat, Jai Durga Shaktipeeth, Deoghar, Jharkhand and it will be concluded on 17th April, 2024 at Shaktipeeth Maa Harsidhi Temple, Jaisinghpur, Ujjain, Madhya Pradesh.

### About Sangeet Natak Akademi

- Sangeet Natak Akademi is an autonomous body of the Ministry of Culture, Government of India.
- Sangeet Natak Akademi is the apex body in the field of performing arts in the country.
- It was set up in 1953 for the preservation and promotion of the vast intangible heritage of India's diverse culture expressed in forms of music, dance and drama.

- The management of the Akademi vests in its General Council. The Chairman of the Akademi is appointed by the President of India for a term of five years.
- The functions of the Akademi are set down in the Akademi's Memorandum of Association, adopted at its registration as a society on 11 September 1961.
- The registered office of the Akademi is at Rabindra Bhavan, 35 Feroze Shah Road, New Delhi.

### National Green Hydrogen Mission

#### Why in the News?

- Recently, the Ministry of New & Renewable Energy, Government of India has issued Guidelines for implementation of R&D Scheme under the National Green Hydrogen Mission.

#### More About the News

- The R&D scheme seeks to make the production, storage, transportation and utilization of green hydrogen more affordable. It also aims to improve the efficiency, safety and reliability of the relevant processes and technologies involved in the green hydrogen value chain.
- The scheme also aims to foster partnerships among industry, academia and government in order to establish an innovation ecosystem for Green Hydrogen technologies.
- The Scheme will also help the scaling up and commercialization of Green Hydrogen technologies by providing the necessary policy and regulatory support.
- The support under the R&D program includes all components of the Green Hydrogen value chain, namely, production, storage, compression, transportation, and utilization.
- The R&D projects supported under the Mission will be goal-oriented, time bound, and suitable to be scaled up.
- In addition to industrial and institutional research, innovative MSMEs and start-ups working on indigenous technology development will also be encouraged under the Scheme.





### About National Green Hydrogen Mission

- India has set its sight on becoming energy independent by 2047 and achieving Net Zero by 2070.
- To achieve this target, increasing renewable energy use across all economic spheres is central to India's Energy Transition.
- Green Hydrogen is considered a promising alternative for enabling this transition.
- Hydrogen can be utilized for long-duration storage of renewable energy, replacement of fossil fuels in industry, clean transportation, and potentially also for decentralized power generation, aviation, and marine transport.
- The National Green Hydrogen Mission was approved by the Union Cabinet on 4 January 2022, with the intended objectives of:
  - (i) Making India a leading producer and supplier of Green Hydrogen in the world
  - (ii) Creation of export opportunities for Green Hydrogen and its derivatives
  - (iii) Reduction in dependence on imported fossil fuels and feedstock
  - (iv) Development of indigenous manufacturing capabilities
  - (v) Attracting investment and business opportunities for the industry
  - (vi) Creating opportunities for employment and economic development
  - (vii) Supporting R&D projects

### World Homoeopathy Day 2024

#### Why in the News?

- The President of India, Smt Droupadi Murmu inaugurated a two-day Homoeopathy Symposium, organized by Central Council for Research in Homoeopathy, in New Delhi on April 10, 2024 on the occasion of the World Homoeopathy Day.

#### More About the News

- The World Homoeopathy Day is observed annually on 10 April in honor of the renowned German physician Dr. Samuel Hahnemann's birth anniversary.
- Dr. Samuel Hahnemann is also considered the founder of homeopathy.
- The theme for World Homeopathy Day 2024 is "Empowering Research, Enhancing Proficiency: A Homeopathy Symposium".
- This theme underscores the significance of continuous research in homeopathy and the need to upgrade capability in its training to give better medical care results.
- The day tributes the challenging work of homoeopathic experts and assists individuals with grasping the purposes of homoeopathic medications.
- It holds massive importance as it plans to increase awareness about homeopathic medicines and promote conversations on advancing this alternative system of medicine.

