Prelim Bits 09-09-2023 | UPSC Daily Current Affairs

Malaviya Mission

Union Minister for Education has recently launched the Malaviya Mission in New Delhi.

- **Malaviya Mission** - It envisages *Capacity-building training* for the faculty and staff across higher educational institutions, in the light of NEP 2020, within 2 years through multiple training centers.
- It aims to provide tailored training programme for teachers and to improve the quality of teachers' training, build leadership skills in teachers and help realize the goals of NEP.
- The Mission ***restructures*** the existing Scheme of capacity building of teachers in Higher Education such as UGC-HRDCs and PMMMNMTT centers.
- **UGC-HRDC** - The University Grants Commission's (UGC) Human Resource Development Centres (HRDCs) cater to the teachers working in India's non-technical Higher Education Institutions (HEIs).
- These centres conduct Continuous Professional Development Programmes (CPDP) mainly in faculty induction, pedagogy, domain knowledge, and leadership.
- Under the Malaviya Mission, the HRDCs will now be known as Madan Mohan Malaviya Teachers' Training Centres.
- **PMMMNMTT** - Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) is a Central Sector Scheme launched in 2014.
- It aims to create and strengthen the institutional mechanisms for training teachers.

References

1. PIB | Malaviya Mission - Teachers Training Programme
2. The Economic Times | Malviya Teachers' Training Centres

Horizon Europe

Britain recently said it would rejoin the European Union's Horizon science research program and its Copernicus earth observation program, but not the Euratom nuclear research initiative.

- UK researchers had been frozen out of the scheme by the EU for 2 years, amid disagreements over Brexit.
- Horizon is the European Union's key funding programme for scientific research and innovation with a budget of 95.5 billion euros ($102.3 billion).
- This programme is a successor to the ***Horizon 2020 program*** (2014-2020).
- **Aim -** It tackles climate change, helps to achieve the UN's Sustainable Development Goals and boosts the EU's competitiveness and growth.
- **Duration -** It is a 7-year programme runs until 2027.

- It creates jobs, fully engages the EU’s talent pool, boosts economic growth, promotes industrial competitiveness and optimises investment impact within a strengthened European Research Area.
- ***Legal entities from the EU and associated countries*** can participate.

Programs	Purpose
Copernicus	• It is previously known as GMES (Global Monitoring for Environment and Security). • It is the Earth observation component of the EU'S Space programme. • It gathers data from satellites and other measurement systems to examine the changing climate, shifts in land use, information on oceans and atmospheric conditions such as air quality.
Euratom	• It is a complementary funding programme to Horizon Europe covering nuclear research and innovation, using the same instruments and participation rules.

References

1. The Hindu | Horizon project
2. European Commission | Horizon Europe

Konark wheel

A replica of Konark Wheel from the Sun temple in Odisha served as the backdrop of Prime Minister Shri. Narendra Modi's welcome handshake with G20 leaders.

- **History -** Konark Wheel was built during the 13th century under the reign of King Narasimhadeva-I.
- The wheel with 24 spokes representing the wheels of Lord Surya's sun chariot.
- **Significance** - The wheel has also been adapted into the Indian National Flag.
- Its rotating motion symbolises time, Kaalchakra, as well as progress and continuous change.
- It also embodies India's ancient wisdom, advanced civilisation and architectural excellence.
- The iconic wheel also works as a sundial.

Konark sun temple

- The Sun Temple at Konârak, located in Odisha, eastern shores of the Indian subcontinent.
- The temple is dedicated to the Hindu Sun God, Surya.
- It was built c. 1250 CE by ***King Narasimhadeva I*** (1238-1264 CE) of the ***Eastern Ganga dynasty***.
- It is a ***UNESCO World Heritage Site*** known for its exquisite architecture and intricate stone carvings.
- The temple is in the shape of a chariot, with 12 exquisitely carved wheels and galloping horses.
- The temple's architecture is an excellent example of the ***Kalinga style of architecture*** *(subset of the nagara style).*
- The temple also features elaborate stone carvings depicting scenes from Hindu mythology.

References

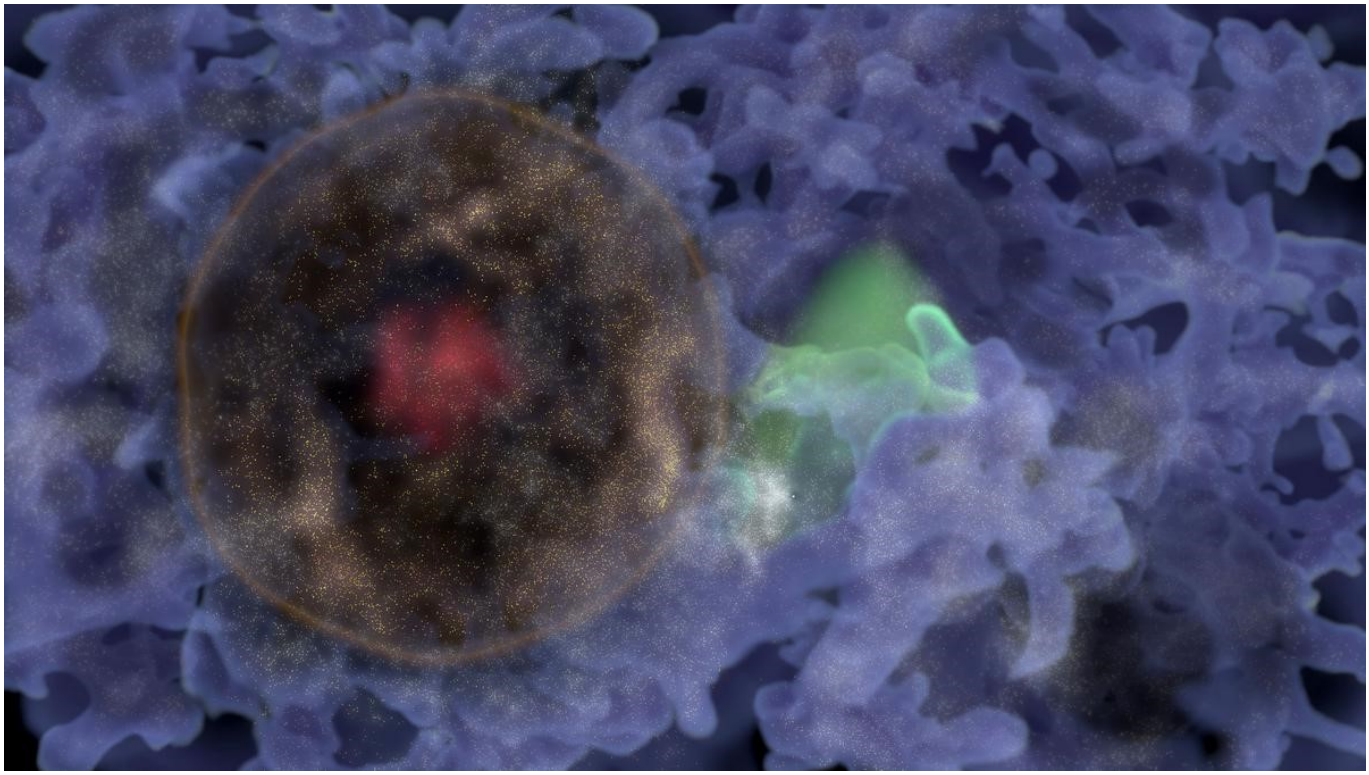
1. The Hindustan Times | India showcases Konark Temple wheel
2. The Konark | Konark Wheel

Bubble of Galaxies

Astronomers have discovered the first "bubble of galaxies," recently.

- Bubble of galaxy is an unimaginably huge cosmic structure measuring one billion light-years across that is thought to be a fossilised remnant from just after the Big Bang.
- The bubble spans 820 million light years away from the milkyway.
- The heart of the bubble is the Bootes supercluster of galaxies, which is surrounded by a vast void sometimes called ***"the Great Nothing".***
- The bubble contains several other galaxy superclusters, including the massive structure known as the ***Sloan Great Wall.***
- **Formation -** The discovery confirms a phenomenon first described in 1970 by US cosmologist ***Jim Peebles***.
- He theorised that in the primordial universe the churning of gravity and radiation created sound waves called ***Baryon Acoustic Oscillations (BAOs).***
- As the sound waves rippled through the plasma, they created bubbles.
- Around 380,000 years after the Big Bang the process stopped as the universe cooled down, freezing the shape of the bubbles.
- The bubbles then grew larger as the universe expanded, similar to other fossilised remnants from the time after the Big Bang.

The newly discovered bubble is the first known single baryon acoustic oscillation, according to the researchers.



References

1. The Hindu | Bubble of galaxies
2. The Times of India | First 'bubble of galaxies' discovered
3. Aljazeera | first 'bubble of galaxies' a billion light-years wide

Minor Irrigation Census (MIC)

A recent study by the Minor Irrigation Census found that Three-fourths of India's irrigation sources run on electricity

- **Minor Irrigation schemes –** Irrigation schemes using either ground water or surface water and having a Culturable Command Area upto 2000 hectare individually are categorized as Minor Irrigation Schemes.
- The schemes have been categorized broadly into 6 major types; (1) Dugwell (2) Shallow tubewell (3) Medium Tubewell (4) Deep tubewell (5) Surface flow schemes and (6) Surface lift schemes.
- The need for conducting the census of Minor Irrigation arose as it was felt that a database of these schemes is needed to build agriculture in a big way.

Out of all MI schemes, 21.93 million (94.8%) were for groundwater (GW) and 1.21 million (5.2%) for surface-water (SW) extraction.

- Uttar Pradesh had the largest number of MI schemes in the country (17.2%) followed by Maharashtra (15.4%), Madhya Pradesh (9.9%) and Tamil Nadu (9.1%).
- Leading States in GW schemes are Uttar Pradesh, Maharashtra, Madhya Pradesh, Tamil Nadu and Telangana.
- Highest share in SW schemes are Maharashtra, Karnataka, Telangana, Odisha and Jharkhand.
- The number of MI schemes increased by about 1.42 million between the 5^{th} and 6^{th} editions.
- Most of the schemes (96.6%) were privately owned and small and marginal farmers, having less than 2 hectares of land, owned the majority of MI schemes.

Minor Irrigation Census (MIC)

- **Released by** – Ministry of JalShakti.
- The recent census finds that electricity is the dominant source of power to extract water, over diesel, windmills, and solar pumps.
- This electrification of groundwater withdrawal corresponds to a rise in the use of tubewells and borewells that are capable of extracting water at greater depths.
- The 6^{th} MI Census has been conducted with reference year 2017-18 in all States and Union Territories except Delhi, Daman & Diu, Dadra and Nagar Haveli and Lakshadweep.

References

1. The Hindu | India’s irrigation sources run on electricity
2. Ministry of Jalshkati | MI Census