

November - 27

TNPSC BITS

- ❖ Public telecom operator BSNL has launched the country's first direct-to-device satellite internet service.
- ❖ The Supreme Court rule is affirming their entitlement to claim credit for duties paid on parts such as tower components and green shelters.
- ❖ Zomato, the app-based food delivery major that was listed in July 2021, will replace JSW Steel in the BSE Sensex on Dec 23, 2024.
- ❖ India is going to host conference of international cooperatives Alliance (ICA) for the first time in 130-year history.
- ❖ The Indian Army has successfully conducted the Multilateral Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise, 'Sanyukt Vimochan 2024' at Ahmedabad, Gujarat.
- ❖ The first edition of 'Sagarmanthan – The Great Oceans Dialogue' was held in New Delhi.
- ❖ The Bharat National Cyber Security Exercise (Bharat NCX 2024) was organized by the National Security Council Secretariat and Rashtriya Raksha University to enhance India's cyber defense capabilities.
- ❖ After Wales and Japan, Peru has been announced as the Partner Country for the 25th edition of the Hornbill Festival, Nagaland.
- ❖ Armenia becomes 104th Full Member of International Solar Alliance.
- ❖ An American NGO, launched by members of Indian minority communities, honoured Prime Minister in absentia with the 'Dr. Martin Luther King Jr. Global Peace Award for Minority Upliftment'.

TAMIL NADU


MMR in Tamil Nadu 2024

- ❖ Tamil Nadu's Maternal Mortality Ratio (MMR) has been dropped to 39.4 from 45.5 per one lakh live births during 2023-24.
- ❖ The Infant Mortality Rate (IMR) has been reduced from 8.2 per 1,000 live births to 7.7.
- ❖ The State's MMR was 73 per one lakh live births during 2020-21; 90.5 during 2021-22; and 52 during 2022-23.

- ❖ The IMR stood at 9.7 per 1,000 live births during 2020-21; 10.4 during 2021-22; and 10.2 during 2022-23.

MORTALITY RATES		
	MMR per 1lakh births	IMR per 1000 live births
2020-21	73	9.7
2021-22	90.5	10.4
2022-23	52	10.2
2023-24	45.5	8.2
2024*	39.4	7.7
TIRUVALLUR 2024*	26	5.7

* Until Oct



NATIONAL

Eastern Maritime Corridor

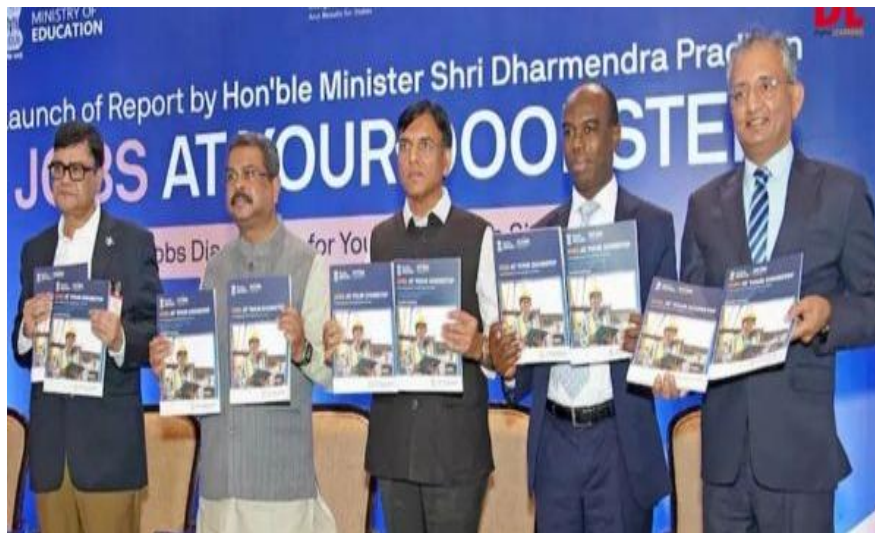


- ❖ The Chennai-Vladivostok eastern maritime corridor has become operational and is carrying oil, food and machines.
- ❖ The time required to transport cargo between India and Far East Russia has been reduced from 40 to 24 days.

- ❖ This is a significant reduction of the distance by up to 40%.
- ❖ This passes through the Sea of Japan, the East China Sea, the South China Sea, the Malacca Straits, the Andaman Sea, and the Bay of Bengal.
- ❖ India and Greece would also work together on the India-Middle East-Europe Economic Corridor (IMEEC) announced last year.

“Jobs At Your Doorstep” Report

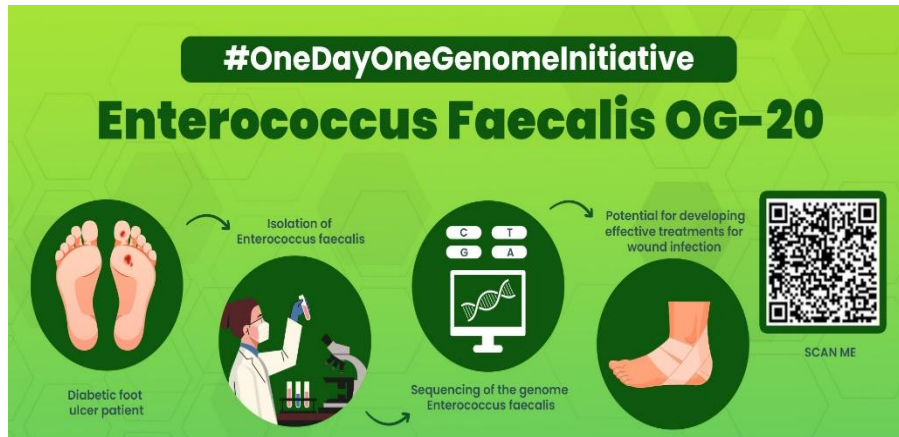
- ❖ The Centre launched a World Bank report titled ‘Jobs at Your Doorstep: A Jobs Diagnostics for Young People’ that covers six states in India.
- ❖ The report is a skills gap analysis that attempts to align trades offered in schools’ industry-specific needs of the districts where the schools are present.
- ❖ It focuses on six STARS states – Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha, and Rajasthan.
- ❖ It promotes a bottom-up approach to skill development, emphasizing local market-driven training.
- ❖ It envisages 50% student access to skill education by 2025 and 100% by 2030 under NEP 2020.



One Day One Genome

- ❖ The Department of Biotechnology (DBT) introduces the 'One Day One Genome' initiative to showcase the enormous microbial potential of India.
- ❖ It aims to publicly release a fully annotated bacterial genome from India, along with a detailed summary, infographics, and genome data.

- ❖ The genome of an organism consists of a unique sequence of DNA or RNA made up of nucleotide bases.



INTERNATIONAL

Declaration on Enhanced Climate Action in Tourism

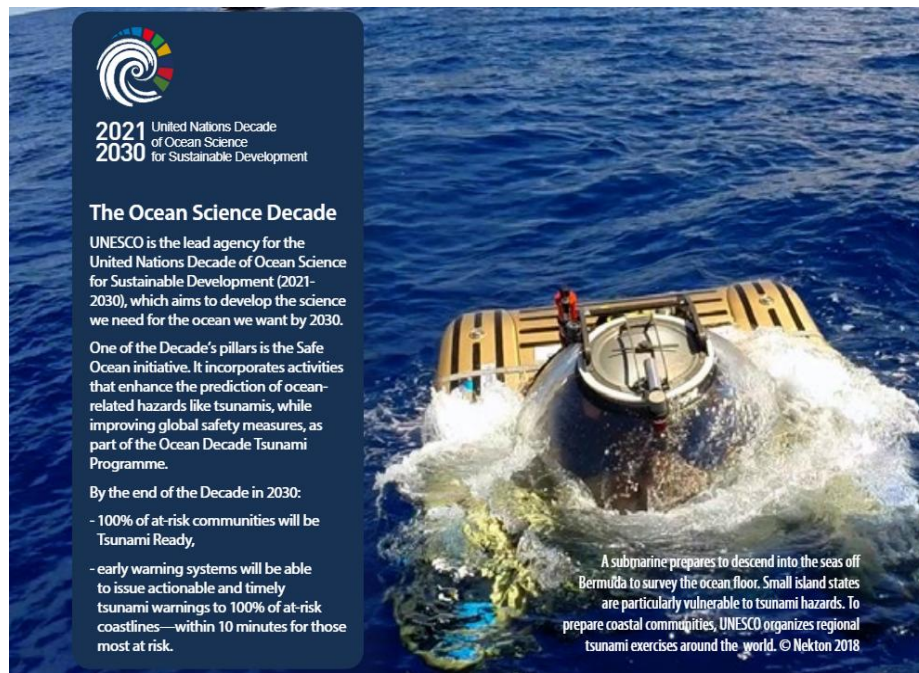
- ❖ This initiative was spearheaded by the COP29 Presidency under Azerbaijan.
- ❖ It aims to transform the global tourism sector into a climate-resilient, low-carbon industry.
- ❖ More than 50 countries endorsed the COP29 Declaration for Enhanced Climate Action in Tourism.
- ❖ Tourism contributes to 8.8% of global emissions (direct and indirect).



Banda Aceh Statement

- ❖ The UNESCO unveiled a roadmap at an international conference in Banda Aceh, Indonesia.

- ❖ It aims to achieve 100% tsunami-ready coastal communities globally by 2030.
- ❖ The initiative calls on states and civil society to accelerate investments to meet the 2030 goal.
- ❖ Over 30 countries have benefited and critical early warning systems have been established.
- ❖ Currently, 700 million people live in tsunami-prone coastal areas — a figure projected to reach 1 billion by 2050.
- ❖ The UNESCO has expanded its Indian Ocean Tsunami Warning and Mitigation System to cover high-risk areas worldwide.



SCIENCE AND TECHNOLOGY

GSAT-20 Satellite

- ❖ GSAT-N2 or GSAT-20 is a 4,700 kg satellite that exceeds the weight capacity of India's indigenous rockets.
- ❖ The launch had utilised Space X's Falcon 9 rocket at cape Canaveral, USA.
- ❖ The satellite has a mission-life of 14 years.
- ❖ It is providing essential internet and communication services across India and even in remote regions.
- ❖ It will enhance broadband as well as in-flight connectivity throughout the Indian region.

- ❖ SpaceX and ISRO have signed another agreement to send an Indian astronaut to the International Space Station (ISS) for \$60 million.



Binar Satellites Burn Up

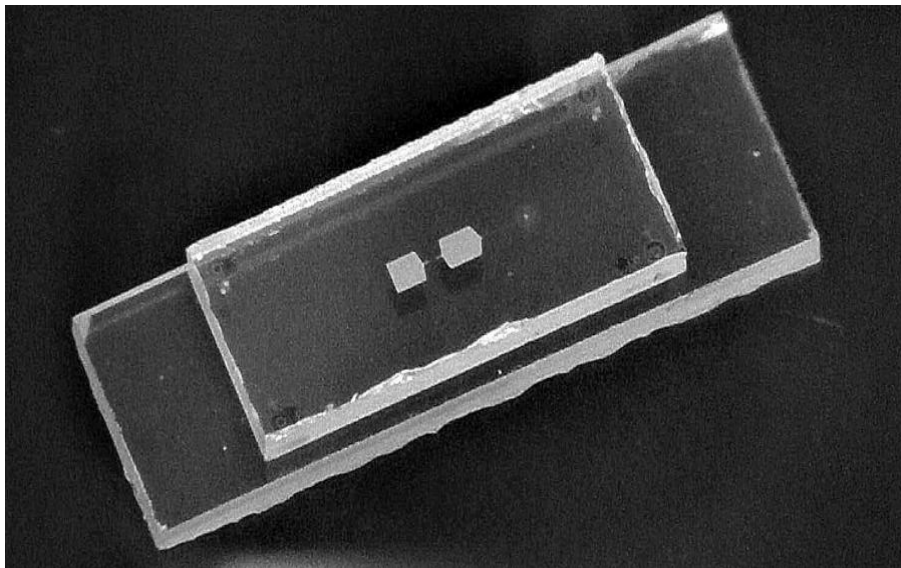


- ❖ Three tiny Australian satellites from the Curtin University's Binar Space Program burned up in Earth's atmosphere.
- ❖ These CubeSats – Binar-2, 3, and 4 – were placed in low Earth orbit (less than 2,000 km above the surface).

- ❖ They only lasted for two months – a third of what was expected.
- ❖ This incident points towards a current trend that is being noticed recently- high solar activity.
- ❖ Solar activity includes phenomena such as sunspots, solar flares and solar wind – the stream of charged particles that flows toward Earth.

First fully mechanical qubits

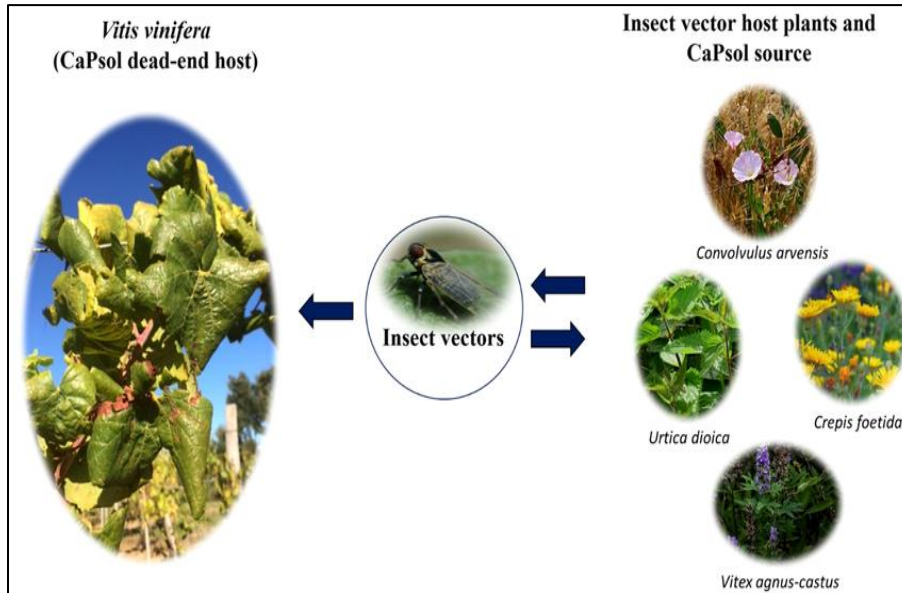
- ❖ Physicists has made an advancement in quantum computing by constructing the first functional mechanical qubit.
- ❖ Mechanical qubits are the tiny systems, that can exist in the multiple states simultaneously.
- ❖ They rely on vibrational states rather than electronic states.
- ❖ This characteristic allows for potentially longer coherence times.
- ❖ Traditional electromagnetic qubits often have short coherence times, limiting their applications.
- ❖ Mechanical qubits may overcome this limitation by offering longer coherence times.



Candidatus Phytoplasma

- ❖ Researchers has identified Candidatus Phytoplasma as the causative agent of a peculiar disease in sesame fields.
- ❖ The disease causes defect and virescence in the plants, impacting their yield.

- ❖ This disease was named “Witches’ Broom”, identified by Indian Scientists in early 2024.



ENVIRONMENT

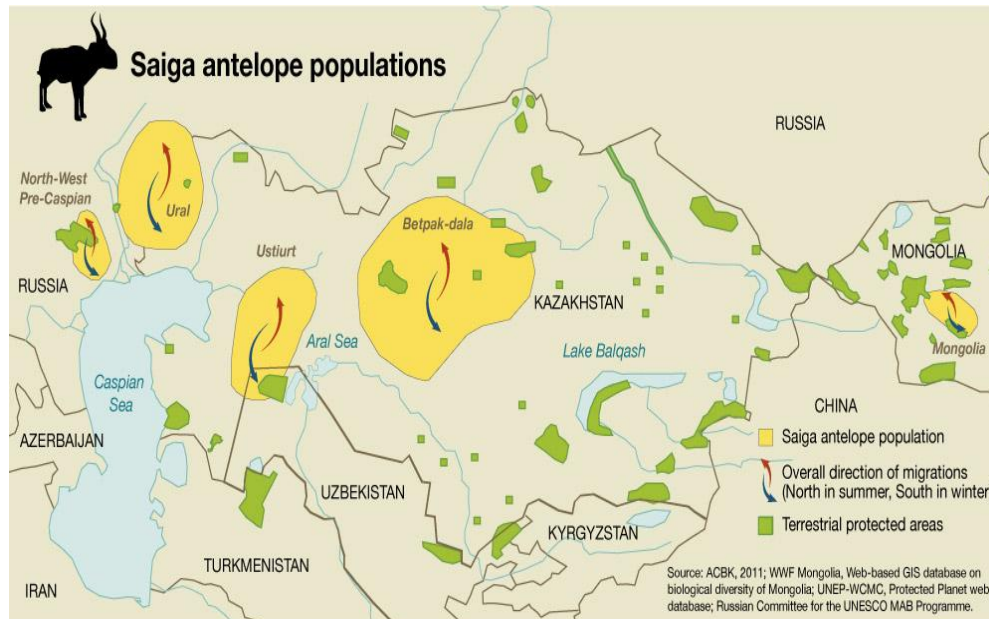
Mystery Mollusk



- ❖ The Researchers have discovered a glowing “mystery mollusk” within the ocean's midnight zone.
- ❖ The species named Bathydevius Caudactylus, is similar to the size of an apple.
- ❖ Although it is classified as a sea slug, the marine animal is unlike any sea slug scientists have seen before.

- ❖ The midnight zone is classified as the deep waters existing between 1,000-4,000 meters below the ocean's surface.
- ❖ It accounts for nearly 70% of seawater.

Saiga Antelope status



- ❖ The IUCN is upgrading the Red List status for the species from the critically endangered to near threatened.
- ❖ They are native to the steppes and semi-arid regions of Central Asia.
- ❖ This ancient species has roamed the Earth since the Ice Age.
- ❖ By 2003, just 6 percent of the floppy-nosed ungulates remained in Kazakhstan, Mongolia, Russia, and Uzbekistan.
- ❖ There are now 1.9 million saiga antelope across Eurasia.

REPORTS AND INDICES

World Energy employment report 2024

- ❖ The World Energy Employment 2024 report was released by the International Energy Agency.
- ❖ In 2023, the energy sector added around 2.5 million jobs, bringing the total to over 67 million.
- ❖ This growth rate of 3.8% outpaced the global average of 2.2%.

- ❖ Fossil fuel investments grew by 9%.
- ❖ China is accounting for 68% of global EV and 84% of solar PV jobs.
- ❖ In India, energy jobs account for over 8.5 million, or 1.5% of the total employment (566 million) in 2023.

