

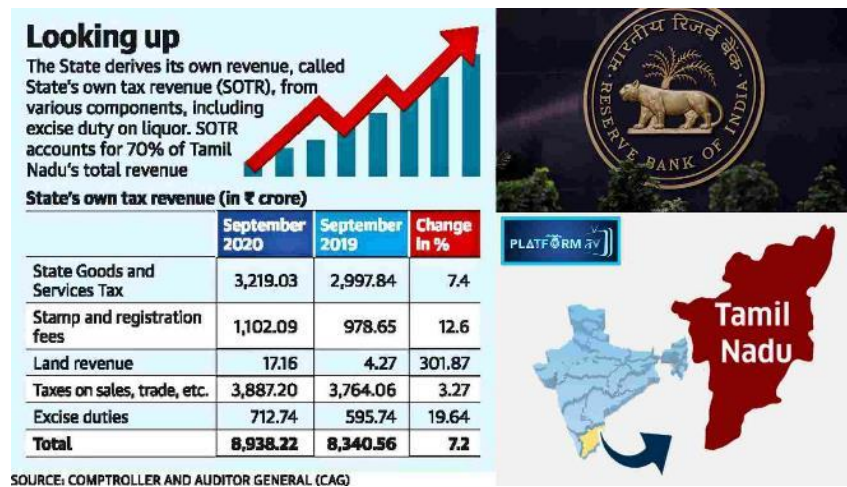
December - 18

TNPSC BITS

- ❖ Telangana launched Maha Lakshmi Scheme, under which girls, women and transgender persons of all ages, who are domicile of Telangana, can travel free of cost in TSRTC buses.
- ❖ A statue of Thiruvalluvar, regarded a cultural icon by Tamils, was inaugurated in the French town of Cergy.
- ❖ Professor Savita Ladage from Mumbai has been named winner of the Royal Society of Chemistry's Nyholm Prize for Education in recognition of contributions to chemistry education.
- ❖ The National Thermal Power Corporation (NTPC) has won two silver awards at the Brandon Hall Group's Excellence in Technology Awards 2023.

TAMIL NADU

Tamil Nadu's own tax revenue 2023



- ❖ The Reserve Bank of India released a report titled 'State Finances: A Study of Budgets of 2023-24'.
- ❖ The contribution of State's own tax revenue (SOTR) to Tamil Nadu's overall tax revenue has been stable at over 70%.
- ❖ As per data, SOTR accounted for 78.8% of Tamil Nadu's total tax revenue during the pre-GST period of 2015-16 to 2016-17.
- ❖ During the post-GST and pre-COVID period of 2018-19-2019-20, the share of SOTR stood at 79.1%.

- ❖ Post-COVID, the SOTR share was 78.9%.
- ❖ The SOTR is more than 70% of total tax revenue in Haryana, Maharashtra, Telangana, Tamil Nadu, Gujarat, Karnataka, Kerala and Punjab.
- ❖ Less than 50% is in Bihar and Jharkhand.
- ❖ Uttar Pradesh share of SOTR is ranged from 45.6%-54%, while that of Madhya Pradesh, it was around 50-51%.

NATIONAL

Mission Antarctica



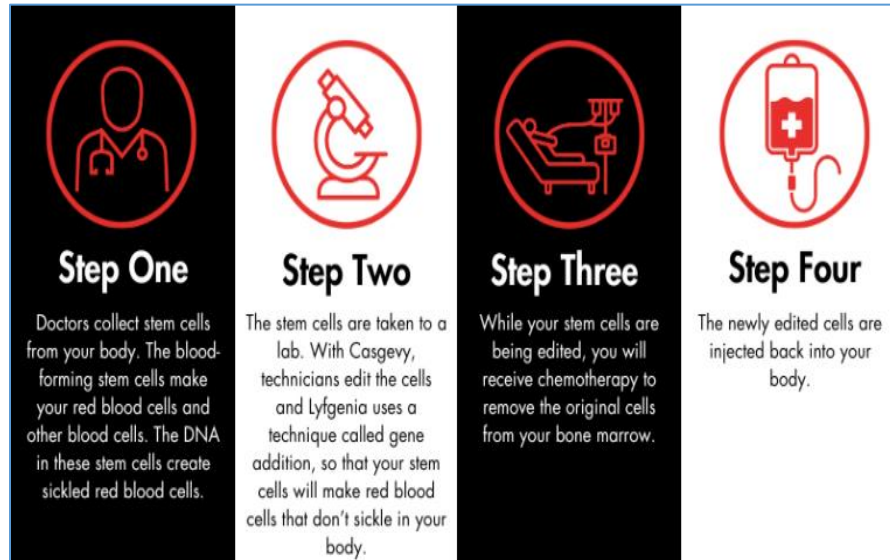
- ❖ A team of Himalayan Mountaineering Institute, Darjeeling carried out 'Mission Antarctica'.
- ❖ The expedition, which commenced in 2021, was undertaken by a team of three trekkers, led by Group Captain Jai Kishan.
- ❖ The team hoisted the National Flag, measuring 7,500 sq ft and weighing 75 kilograms across the length and breadth of the country.
- ❖ They also hosted atop Mt Rhenock in Sikkim Himalayas at an altitude of 16,500 feet.
- ❖ It was recorded as the biggest Indian National Flag hoisted atop a mountain in the Asia Book of Records and India Book of Records.

INTERNATIONAL

Approval of two gene therapies - USA

- ❖ The U.S. FDA has approved two gene therapies - Casgevy and Lyfgenia - to treat sickle cell disease in patients over 12.

- ❖ Its decision on approving Casgevy gene therapy for treating beta thalassemia is expected by March 2024.
- ❖ These decisions mark the beginning of gene therapy using the CRISPR-Cas9 tool to treat diseases.



Russia's new nuclear submarines

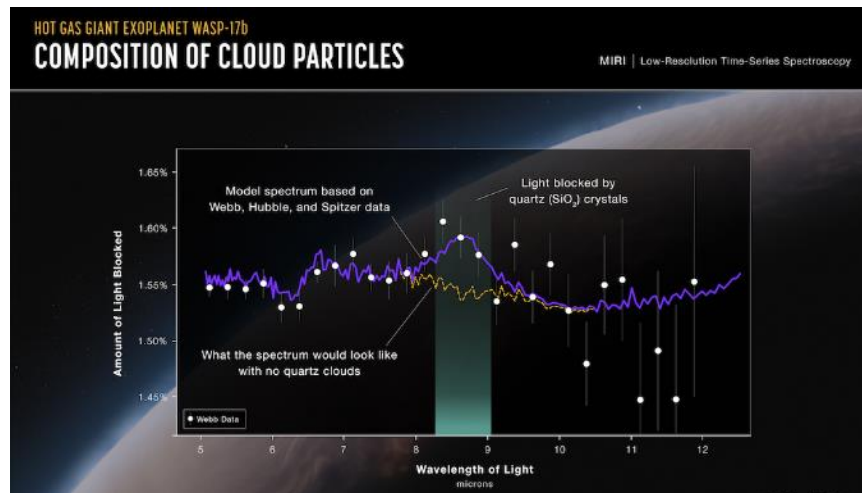


- ❖ Russian President Vladimir Putin has inaugurated two new nuclear-powered submarines.
- ❖ The two submarines have been named Krasnoyarsk and Emperor Alexander III.

- ❖ The emperor Alexander III is part of the new Borei (Arctic Wind) class of nuclear submarines, the first new generation Moscow has launched since the Cold War.

SCIENCE AND TECHNOLOGY

Quartz crystals in distant planet's atmosphere



- ❖ Astronomers detected the evidence of quartz nanocrystals in the high-altitude clouds of the exoplanet WASP-17b.
- ❖ WASP-17b is a “hot Jupiter” exoplanet about 1,300 light-years away from our planet.
- ❖ The detection is the first time that silica particles have been detected in the atmosphere of an exoplanets.
- ❖ Silicates are minerals rich in silicon and oxygen and they make up a bulk of Earth and the Moon’s mass, as well as other rocky objects in the solar system.
- ❖ They are extremely common across the galaxy.
- ❖ But the silicate grains that were detected so far in the atmospheres of exoplanets and brown dwarfs seemed to be made of magnesium-rich silicates like olivine and pyroxene.
- ❖ Quartz is pure silicon dioxide.

ENVIRONMENT

Saiga Antelope

- ❖ The species’ (Saiga tatarica) category was changed from Critically Endangered to Near Threatened by the International Union for Conservation of Nature (IUCN).

- ❖ The Saiga has two sub-species: Saiga tatarica tatarica (found in most of the range) and Saiga tatarica mongolica (found only in Mongolia).
- ❖ The antelope were once found throughout the Eurasian Steppe, the great band of grassland that stretches from Hungary in Europe to Manchuria in Asia.
- ❖ Saiga populations in Kazakhstan have recovered from a perilously low estimate of just 48,000 in 2005 to now over 1.9 million.
- ❖ The Mongolian subspecies numbers 15,540 individuals, according to a November 2023 census.



Lorrainosaurus (pliosaur)

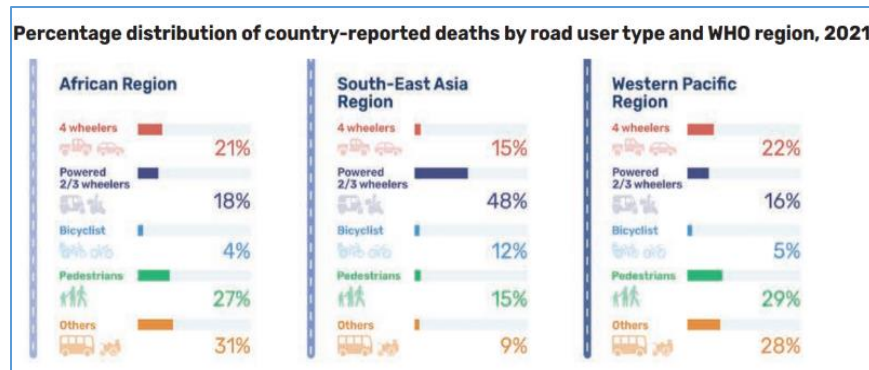


- ❖ A 170-million-year-old ancient marine reptile's fossils have revealed that the animal from the Age of Dinosaurs is the oldest-known mega-predatory pliosaur.

- ❖ Pliosaurus were close relatives of plesiosaurs, and were ancient reptiles that lived in oceans.
- ❖ Plesiosaurs first appeared on Earth 170 million years ago, and were highly skilled swimmers.
- ❖ The organism had jaws more than 1.3 metres long with large conical teeth.

REPORTS AND INDICES

Global Status Report on Road Safety 2023

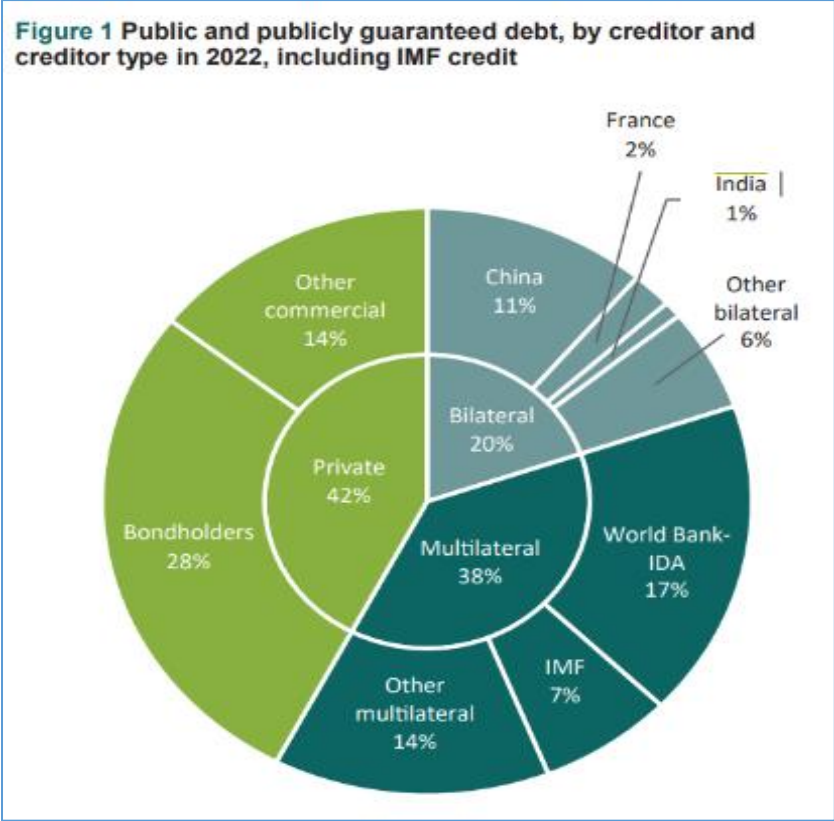


- ❖ Road traffic deaths fell by 5% to 1.19 million fatalities annually worldwide between 2010 and 2021.
- ❖ 108 UN member nations reporting a drop, but India, registered a 15% increase in fatalities.
- ❖ In India, the total number of road traffic fatalities went up from 1.34 lakh in 2010 to 1.54 lakh in 2021.
- ❖ Ten countries succeeded in reducing road traffic deaths by over 50%.
- ❖ Thirty-five more countries made notable progress, reducing road traffic deaths by 30% to 50%.
- ❖ This is the 12th leading cause of death when all ages are considered.
- ❖ The road fatality rate declining from 18 per 1 lakh people in 2010 to 15 per 1 lakh in 2021, which represents a 16% decline in the road traffic death rate since 2010.

International Debt Report

- ❖ The International Debt Report (IDR) is a longstanding annual publication of the World Bank
- ❖ It is featuring external debt statistics and analysis for the 122 countries.

- ❖ The debt-service payments - including principal and interest - rose 5% to a record \$443.5 billion in 2022.
- ❖ The 75 poorest countries' external public debt service payments reached a record \$88.9 billion in 2022 and would surge by 40% over the 2023-2024 period.
- ❖ Their interest payments alone had quadrupled since 2012 to \$23.6 billion.
- ❖ Private creditors received \$185 million more in principal repayments than they disbursed in loans.
- ❖ Overall, there was a net outflow of \$127.1 billion from low- and middle-income countries to bondholders.
- ❖ An average inflow of fund was \$202 billion from 2019-2021.
- ❖ The World Bank and other multilateral creditors, helped fill the gap, providing a record \$115 billion in new financing for developing countries in 2022.



MISCELLANEOUS

Aktocyte tablets for cancer

- ❖ Department of Atomic Energy (DAE) and Bengaluru-based IDRS Labs have joined hands to develop Aktocyte tablets for treating pelvic cancer.

- ❖ The Aktocyte tablets have shown remarkable results, particularly in pelvic cancer patients suffering from radiotherapy-induced Cystitis (blood in urine).
- ❖ It will be eliminating the need for surgical removal of the urinary bladder.



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