

May - 03

TNPSC BITS

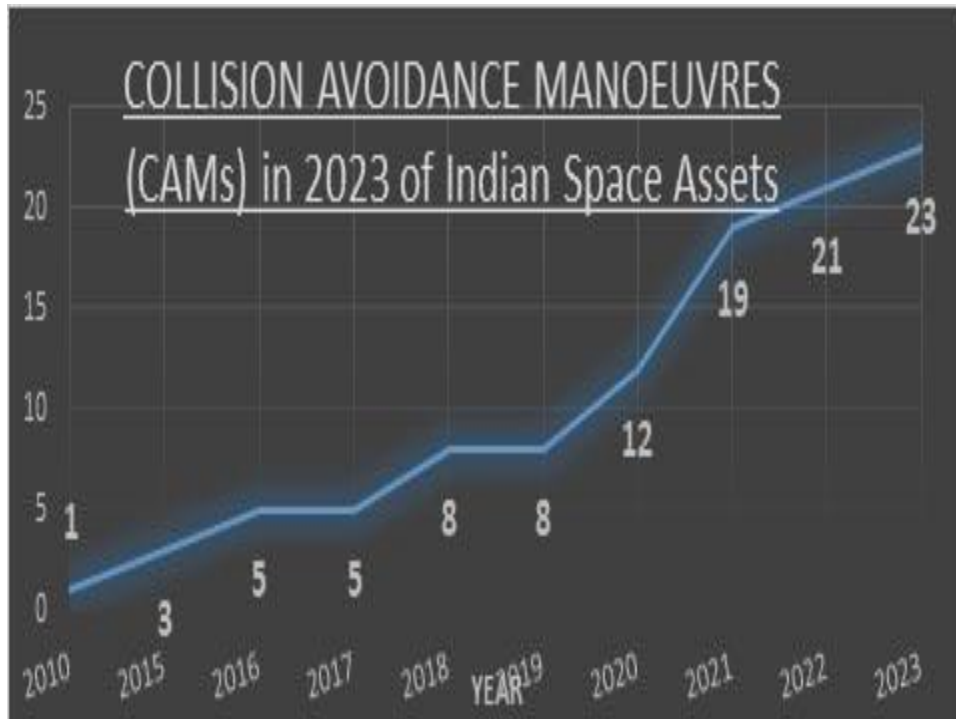
- ❖ The Tata group company signed a memorandum of understanding (MoU) with the Tamil Nadu government to establish the production facility in Ranipet.
 - This is Tata Motor's first investment in Tamilnadu and will be Tata Motors' second plant in southern India, after Dharwad in Karnataka.
- ❖ The Supreme Court has reiterated that the stridhan is an “absolute property” of a woman, and the husband has no control over the same.
- ❖ The 26th edition of the World Energy Congress was held in Rotterdam, Netherlands.
- ❖ Scotland's First Minister, Hamza Yousaf, was resigned from First Minister post and the leadership of the Scottish National Party (SNP).
- ❖ The Indian Vaccine Manufacturers Association (IVMA) announced Dr. Krishna M Ella, Co-Founder and Executive Chairman of Bharat Biotech, as the association's new president for a two-year period from April 2024-2026.

NATIONAL

ISSAR 2023 report

- ❖ ISRO's annual assessment of the prevailing space situation is also compiled in the form of the Indian Space Situational Assessment Report (ISSAR).
- ❖ Space assets operating in outer space are vulnerable to various environmental hazards - natural objects like asteroids, comets, and meteoroids, energy and particle flux, and artificial space objects.
- ❖ According to the report, about 1,37,565 close approach alerts were received from US Space Command.
- ❖ Also, a total of 3,033 alerts for close approaches within the distance of one kilometre were deduced by the ISRO satellites.
- ❖ Since the beginning of the Indian space era, a total of 127 Indian satellites, including those from private operators/academic institutions, have been launched till 31st December 2023.
- ❖ As of 31 Dec 2023, the number of operational satellites owned by Govt. of India is 22 in LEO (Low Earth Orbit) and 29 in GEO (Geo-synchronous Earth Orbit).

- ❖ In addition, three Indian deep space missions were also active by the end of 2023, namely, Chandrayaan-2 Orbiter, Aditya-L1, and the Propulsion Module of Chandrayaan-3.
- ❖ A total of 21 Indian satellites have re-entered the atmosphere till the end of 2023.
- ❖ In the year 2023 alone, 8 Indian satellites have re-entered the atmosphere.
- ❖ A total of 82 rocket bodies from Indian launches were placed in orbit till 2023.



INTERNATIONAL

WHO's New Global Malaria Strategy for 2030

- ❖ WHO Global Malaria Program published a new operational strategy outlining its priorities and key activities up to 2030 to help change the trajectory of malaria trends.
- ❖ The strategy outlines 4 strategic objectives where WHO will focus its efforts,
 - Including developing norms and standards,
 - Introducing new tools and innovation,
 - Promoting strategic information for impact, and
 - Providing technical leadership of the global malaria response.
- ❖ In 2022 there were an estimated 608,000 malaria-related deaths and 249 million new malaria cases globally.

- ❖ Africa bears a disproportionate burden, accounting for 95% of malaria deaths and 94% of cases worldwide.

Goals	Milestones		Targets
	2020	2025	2030
1. Reduce malaria mortality rates globally compared with 2015	At least 40% 18% reduction achieved 22% off track	At least 75%	At least 90%
2. Reduce malaria case incidence globally compared with 2015	At least 40% 3% reduction achieved 37% off track	At least 75%	At least 90%
3. Eliminate malaria from countries in which malaria was transmitted in 2015	At least 10 countries On track	At least 20 countries	At least 35 countries
4. Prevent re-establishment of malaria in all countries that are malaria-free	Re-establishment prevented On track	Re-establishment Prevented	Re-establishment prevented

Anti-LGBT Legislation – Iraq



- ❖ Iraq’s parliament has passed a bill criminalising same-sex relations, which will receive a sentence of up to 15 years in prison.

- ❖ Transgender people will be sentenced to three years' jail under the amendments to a 1988 anti-prostitution law.
- ❖ A previous draft had proposed capital punishment for same-sex relations.
- ❖ The new amendments enable courts to sentence people engaging in same-sex relations to between 10 to 15 years in prison.
- ❖ There is also a Minimum seven-year prison term for “promoting” same-sex relations.

SCIENCE AND TECHNOLOGY

Iran's Kamikaze Drone

- ❖ Iran revealed the development of a new loitering munition—colloquially known as “suicide” or “kamikaze” drones.
- ❖ The drone must have a flight endurance of 30 to 60 minutes.
- ❖ This may carry a payload of 3 to 6 kilograms within a range of 40 kilometres.
- ❖ Recently, the US, the UK and Canada imposed new sanctions against Iran by targeting the country's drone production and export efforts.

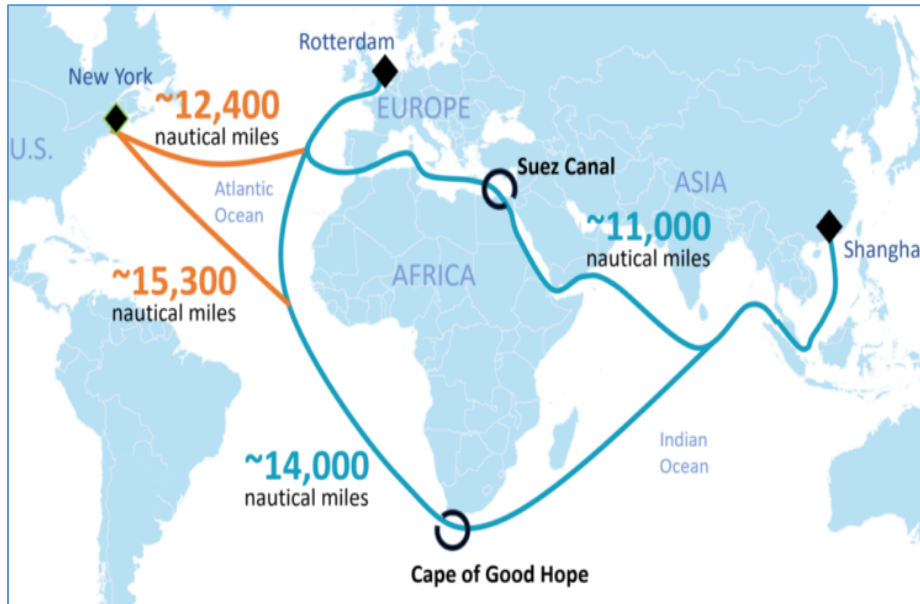


ENVIRONMENT

Red Sea Carbon Emissions

- ❖ Ships navigating around the Red Sea due to ongoing security threats from Houthi rebels are contributing to carbon emission surge.

- ❖ Instead of passing through the Suez Canal, vessels have opted for the longer route around South Africa's Cape of Good Hope since mid-December.
- ❖ This diversion has resulted in approximately 13.6 million additional tons of CO₂ emissions over the past four months.
- ❖ This is equivalent to the pollution generated by about 9 million cars during the same period.



Rapid Warming of Indian Ocean

IN TROUBLED WATERS

➤ Marine heatwaves (periods of abnormally high ocean temperatures) are projected to increase from 20 days per year (during 1970-2000) to 220-250 days per year

➤ They cause habitat destruction due to coral bleaching, seagrass destruction, and loss of kelp forests, affecting fisheries sector adversely and also lead to the rapid intensification of cyclones

➤ Maximum warming will occur in the northwestern Indian Ocean, including the Arabian Sea, while



there will be reduced warming off the Sumatra and Java coasts

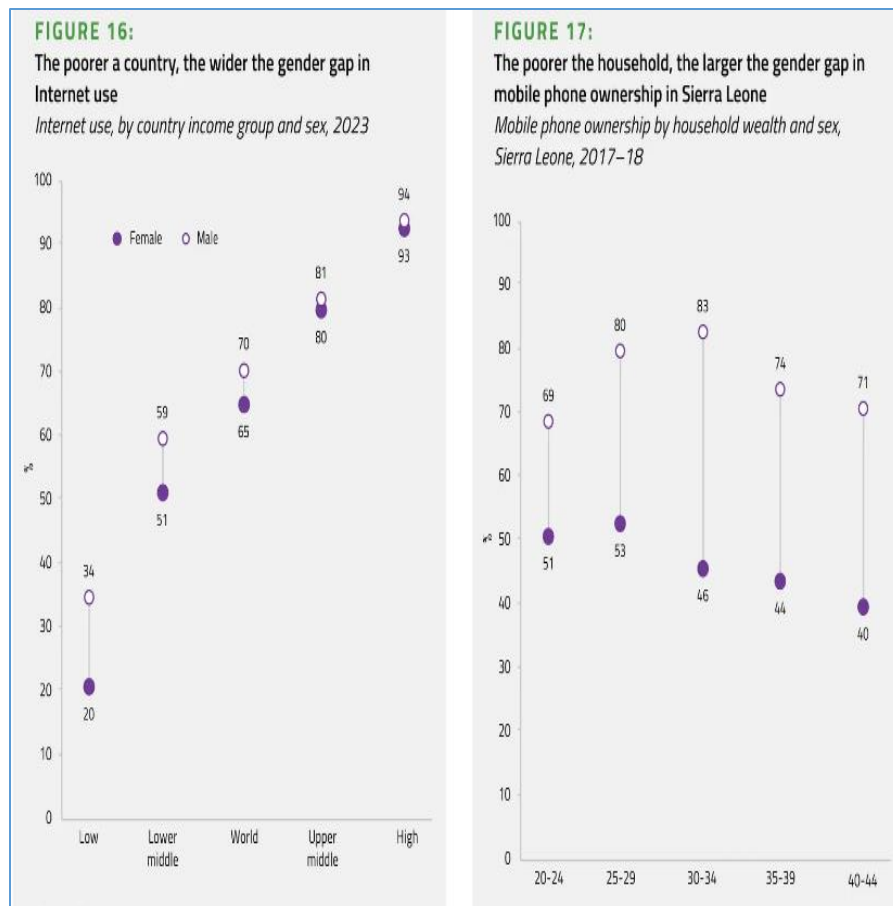
➤ "The future increase in heat content is comparable to adding the energy equivalent of one Hiroshima atomic bomb detonation every second, all day, every day, for a decade," says Roxy Mathew Koll, a climate scientist

- ❖ From 1950-2020, the Indian Ocean had become warmer by 1.2°C and climate models expect it to heat up a further 1.7°C–3.8°C from 2020–2100.

- ❖ The “marine heatwaves” in the sea are linked to the rapid formation of cyclones.
- ❖ They are expected to increase tenfold from the current average of 20 days per year to 220–250 days per year.
- ❖ The heat content of the Indian Ocean is measured from the surface to a depth of 2,000 meters.
- ❖ It is currently increasing at the rate of 4.5 zetta-joules per decade.
- ❖ Further it is predicted to increase at a rate of 16–22 zetta-joules per decade in the future.
- ❖ Joule is a unit of energy and one zetta-joule is equal to one billion-trillion joules (10^{21}).

REPORTS AND INDICES

Technology on her Terms

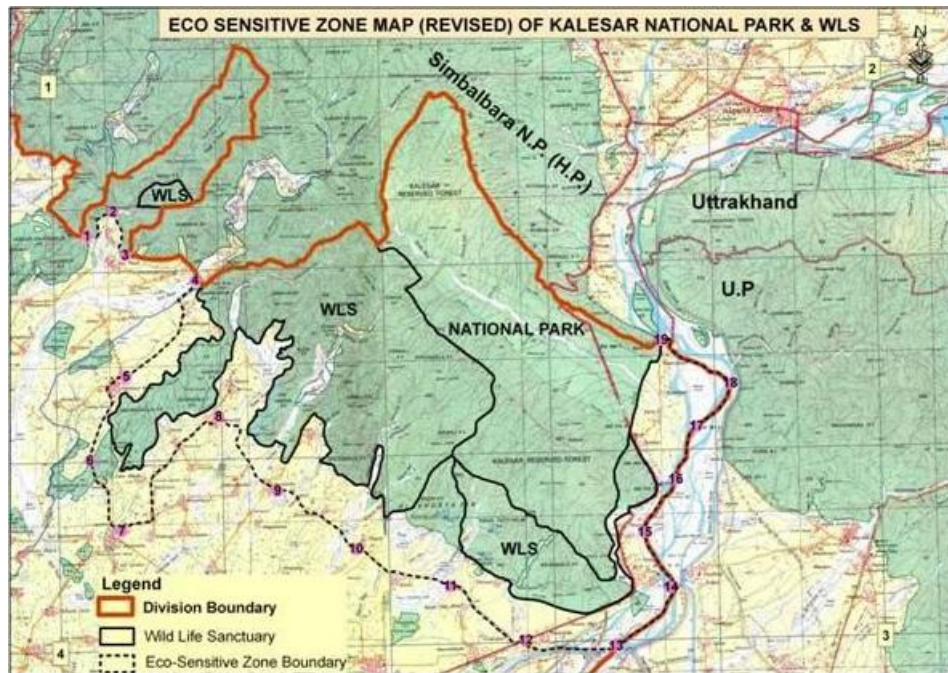


- ❖ The Gender Report of the Global Education Monitoring 2024 has recently been released by UNESCO.

- ❖ The title is named as “Technology on her Terms”.
- ❖ The report examines the impact of technology on girls' education opportunities and future technological development.
- ❖ Social media has a negative impact on girls' Education and negatively affects the overall wellbeing.
- ❖ 15 percent of young female graduates follow STEM and the average share of STEM among male graduates is 35 percent.
- ❖ The share of women holding jobs in science, engineering and ICT sector is less as in the year of 2022, women held less than 25 percent of these jobs.

STATES

Kalesar Wildlife Sanctuary



- ❖ The Supreme Court stayed the construction of four proposed dams inside Kalesar Wildlife Sanctuary in Haryana's Yamunanagar district.
- ❖ The top court was hearing a plea against the construction of four dams Chikan, Kansli, Khillanwala and Ambawali within Kalesar Wildlife Sanctuary.
- ❖ It is argued that, it will have a negative impact on the flora and the fauna in the area.
- ❖ This Wildlife Sanctuary is located on the Siwalik foothills.

- ❖ It is contiguous to Rajaji National Park (Uttarakhand) and Simbalbara National Park (Himachal Pradesh).

MISCELLANEOUS

Meteorite Impact - Luna Crater

- ❖ NASA's Landsat 8 satellite has captured stunning images of a 6,900-year-old impact crater located in the Kutch district of Gujarat, India.
- ❖ Its geochemical analysis found that "it contains the characteristic signatures of a meteorite impact."
- ❖ The crater is named Luna after a nearby village.
- ❖ It is a geological marvel that has piqued the interest of scientists and enthusiasts alike.
- ❖ Spanning approximately 1.8 kilometers in diameter, the Luna crater's outer rim rises about 20 feet above the crater floor.
- ❖ Radiocarbon dating of plant remnants found in the silt within the crater has helped scientists determine that the meteorite impact occurred around 6,900 years ago.
- ❖ The Luna crater is near the remains of an ancient Harappan settlement.

