

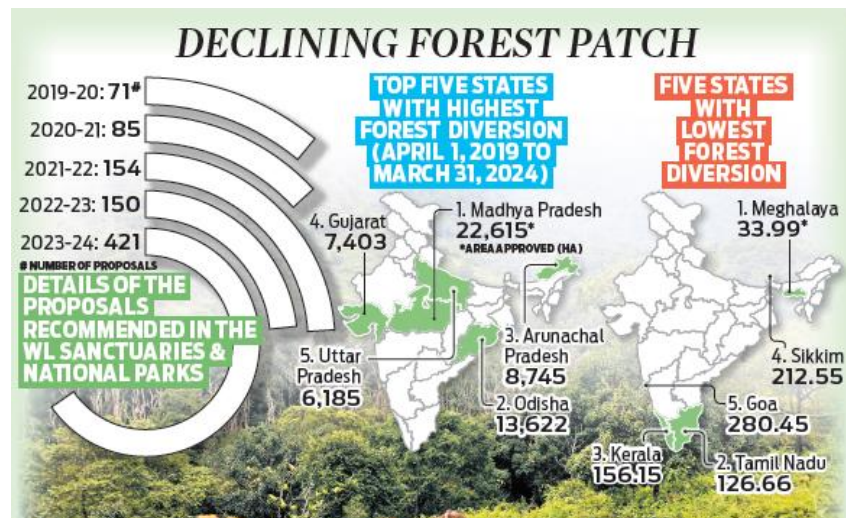
August - 25

## TNPSC BITS

- ❖ The Former Chief of Army Staff (COAS) General S. Padmanabhan passed away recently in Chennai.
- ❖ The 4 Indian student team has bagged three gold and bronze each and two silver medals across three competition categories at the 17th edition of the International Earth Sciences Olympiad held in Beijing, China.
- ❖ The North Eastern Handicrafts and Handlooms Development Corporation recently received the OEKO-TEX certification from Germany for its Eri silk (world's only vegan silk).
  - The certification is a rigorous standard that ensures textiles are tested for harmful substances and produced in environment-friendly conditions.

## TAMIL NADU

### Status of Forests in Tamil Nadu 2024



- ❖ The State Planning Commission has identified policy focus areas to improve the forest cover in Tamil Nadu after analysing 20 years of data.
- ❖ It has been brought out by the Tamil Nadu State Land Use Research Board of the Commission.
- ❖ The Nilgiris now tops the table with a loss of 226 sq. km between 2003 and 2011 of dense forests and 348 sq. km of moderately dense forests between 2011-2021.
- ❖ The five - Chennai, Tiruvarur, Karur, Nagapattinam, and Perambalur districts accounts for only 1.89% of the State's Forest cover.

- ❖ Sivagangai district's forest cover came down by 20.47% in the last two decades, followed by Villupuram (13.85%), and Kancheepuram (13.03%).
- ❖ Dharmapuri has lost 409 sq. km of open forests.
- ❖ The tree cover in the State from 2001 to 2021 to an extent of 1,630 sq. km.
- ❖ The share of Tamil Nadu in the national mangrove cover is only 0.9%.
- ❖ Tamil Nadu has recorded an increase in the mangrove cover from 23 sq. km in 2001 to 49 sq. km in 2017.
- ❖ But the State had lost 4 sq. km of the mangroves between 2017 and 2021.

### **385<sup>th</sup> Madras Day 2024 - August 22**

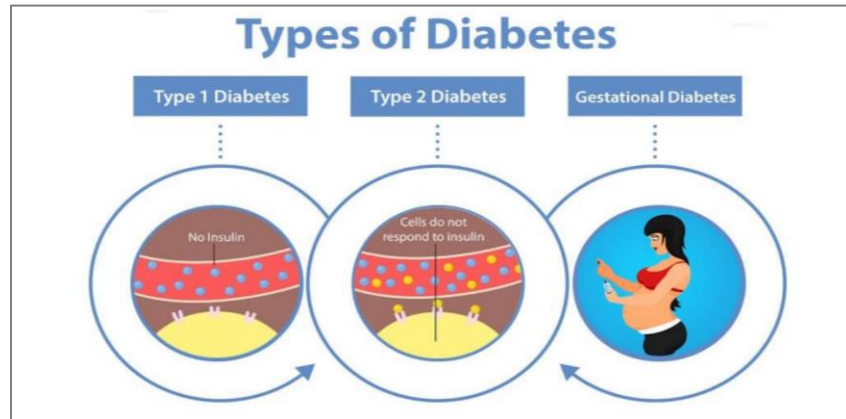


- ❖ Madras Day is a festival organized to commemorate the founding of the city of Madras (now Chennai) in Tamil Nadu on 22<sup>nd</sup> August every year.
- ❖ On 22 August 1639, it is being the widely agreed date for the purchase of the village of Madraspatnam or Chennapatnam by the East India Company from Damarla Venkatadri Nayaka.
- ❖ The first recorded celebration of the founding of Madras was its commemoration in 1939.
- ❖ Recent idea to mark Madras Day celebrations was started by Chennai Heritage Foundation in 2004.

### **Diabetes registry**

- ❖ Tamil Nadu has formed a registry for type 1 diabetes.
- ❖ Patients in the registry would receive treatment, including insulin therapy, at no cost.

- ❖ Type 1 diabetes is an autoimmune disease where the body's immune system mistakenly attacks and destroys insulin-producing cells in the pancreas.
- ❖ This was leading to an increase in sugar levels in the body.
- ❖ India has an estimated 8.60 lakh people with type 1 diabetes – one of the highest in the world.




## NATIONAL

### Krishi Decision Support system

### Introducing Krishi-DSS

An initiative by the Indian Government

- A new geospatial platform.
- Built for smarter farming.
- Real-time data at your fingertips.



### Key Features

- Satellite images and weather updates.
- Soil health and water levels.
- Targeted interventions for farmers.
- Drought monitoring and early alerts.
- Cropping pattern analysis.
- Enhanced decision-making support.

- ❖ The centre launched Krishi-Decision Support System (Krishi-DSS).
- ❖ It is a unique geospatial platform for Indian agriculture.
- ❖ It provides detailed data on fields, soil, weather, water levels, and crop conditions, accessible anytime, anywhere.

- ❖ Krishi-DSS offers real-time information on soil moisture, crop conditions, and drought monitoring.
- ❖ It includes a "One nation-one soil information system" with comprehensive soil data.
- ❖ The platform helps the government analyze cropping patterns and implement targeted interventions.

### Green Tug Transition Program



- ❖ The Union Ministry of Port Shipping and Waterways has officially launched the Standard Operating Procedure (SOP) for Green Tug Transition Program (GTTP).
- ❖ The Green Tug Transition Program (GTTP) as a key initiative under the 'Panch Karma Sankalp'.
- ❖ The GTTP is designed to phase out conventional fuel-based harbour tugs operating in Indian Major Ports and replace them with green tugs powered by cleaner and more sustainable alternate fuels.
- ❖ Phase 1 of the GTTP will begin on October 1, 2024, and continue until December 31, 2027.

- ❖ During this phase, four Major Ports—Jawaharlal Nehru Port Authority, Deendayal Port Authority, Paradip Port Authority, and V.O. Chidambaranar Port Authority—will procure or charter at least two green tugs each.

## INTERNATIONAL

### 11 New Nuclear Reactors - China

- ❖ China approved 11 new nuclear reactors across five sites to support its push to cut emissions.
- ❖ The total investment for all 11 units will be at least 220 billion yuan (\$31 billion) with construction taking about five years.
- ❖ China has more nuclear reactors under construction than any other nation in the world.
- ❖ It also approved 10 new reactors in each of the last two years.
- ❖ The country has 56 reactors currently in operation, with a combined capacity that equates to around 5% of total electricity demand.
- ❖ It is expected to surpass France and the US to be the world's leading atomic power generator by 2030.

Country	Nuclear generation, 2023 (TWh)	Total generation, 2023 (TWh)	Nuclear % of total generation
United States	775	4,249	18.3%
China	435	9,462	4.6%
France	336	514	65.3%
World total	2,678	29,479	9.1%

## SCIENCE AND TECHNOLOGY

### AI watermark – OpenAI

- ❖ OpenAI, the creator of ChatGPT, has developed a text watermarking tool that could help it comply with the Artificial Intelligence (AI) Act.
- ❖ The AI detection methods 99.9% effective and resistant to tampering methods like paraphrasing.

- ❖ OpenAI's anti-cheating tool modifies the way ChatGPT selects words to generate text
- ❖ It creates certain pattern, called watermarks, which is undetected by the human eye.
- ❖ But the company isn't sure about releasing the tool.



## ENVIRONMENT

### Origin of forever chemicals

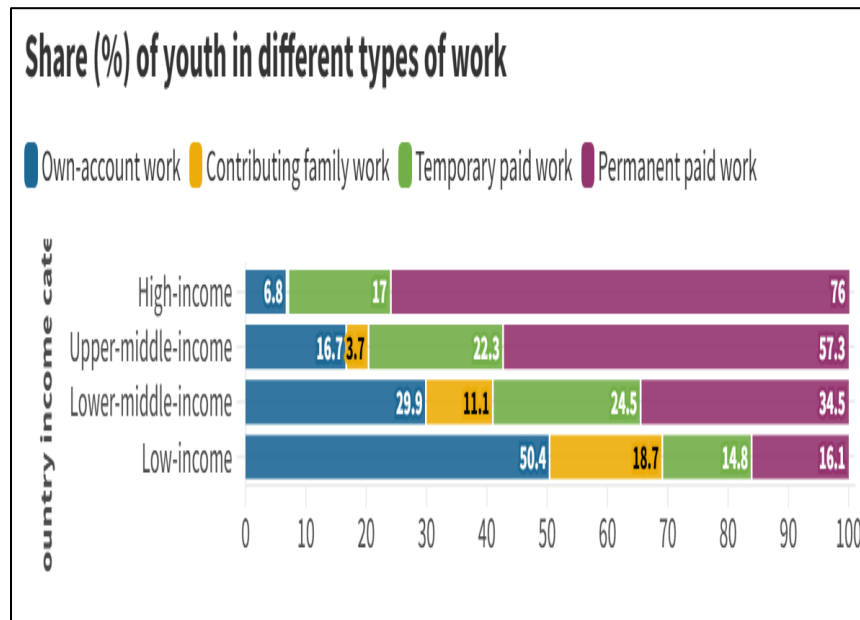


- ❖ American researchers have found a method to be able to trace the origin and the destination of forever chemicals.

- ❖ These chemicals that are scientifically known as per-and polyfluoroalkyl substances (PFAS).
- ❖ They are generally useful in applications such as water-proofing, heat resistance, detergents, food packaging and non-stick technologies.
- ❖ They are known to stay in the environment virtually forever and contribute to environmental degradation which adversely impacts the health of all organisms including human beings.

## REPORTS AND INDICES

### Global Employment Trends for Youth 2024

















- ❖ The global youth unemployment has hit the lowest level for 15 years and is likely to continue to fall.
- ❖ The ILO's report was titled "Global Employment Trends for Youth 2024 (GET for Youth).
- ❖ Around 64.9 million people aged between 15 and 24 worldwide were unemployed last year.
- ❖ The youth unemployment rate of 14.5 per cent in 2023 in East Asia was a historical high.
- ❖ One in five (20.4%) youth in the region was in 'not in employment, education or training' status in 2023 in South Asia.
- ❖ By 2025, the youth unemployment rate in the region is expected to continue its decline to 13.7%.

- ❖ Youth unemployment rates were higher in 2023 than in 2019.
- ❖ The rates of young women and young men in 2023 were nearly equal (at 12.9 per cent for young women and 13 per cent for young men).
- ❖ The share of young adults working in a secure paid job is significantly higher in high-income countries (at 76% in 2023).

### Shanghai ARWU 2024

- ❖ Vellore Institute of Technology (VIT) has been ranked as the second-best institute in India.
- ❖ It had topped among the private institutions in India in the Shanghai Academic Ranking of World Universities (ARWU) 2024.
- ❖ It has been ranked between 501 and 600 among world universities in the 2024.
- ❖ In the list of 1,000 top universities of the world, 15 universities from India have made it.
- ❖ IISc Bangalore has been listed in the 401-500 rank bracket globally while it tops the list of Indian universities.

Academic Ranking of World Universities 15 Institutions					
World Rank	Institution	India	National/Regional Rank	Total Score	Award
401-500	 Indian Institute of Science		1	0.0	
501-600	 Vellore Institute of Technology		2	0.0	
601-700	 Indian Institute of Technology Delhi		3-4	0.0	
601-700	 University of Delhi		3-4	0.0	
701-800	 Homi Bhabha National Institute		5-7	0.0	
701-800	 Indian Institute of Technology Roorkee		5-7	0.0	
701-800	 SRM INSTITUTE OF SCIENCE AND TECHNOLOGY		5-7	0.0	

