

May - 14

TNPSC BITS

- ❖ The Election Commission of India (ECI) has allocated 'farmer' symbol to Naam Tamilar Katchi (NTK), which was designated as a recognised State Party following its performance in the 2024 Lok Sabha polls.
- ❖ An infructescence of about 4.2 metres has been recorded in a species of wild banana from Andaman and Nicobar Islands, making it the longest infructescence recorded in bananas across the world.
- ❖ International Mother's Day is observed annually on the second Sunday in May (May 11).

TAMIL NADU NEWS

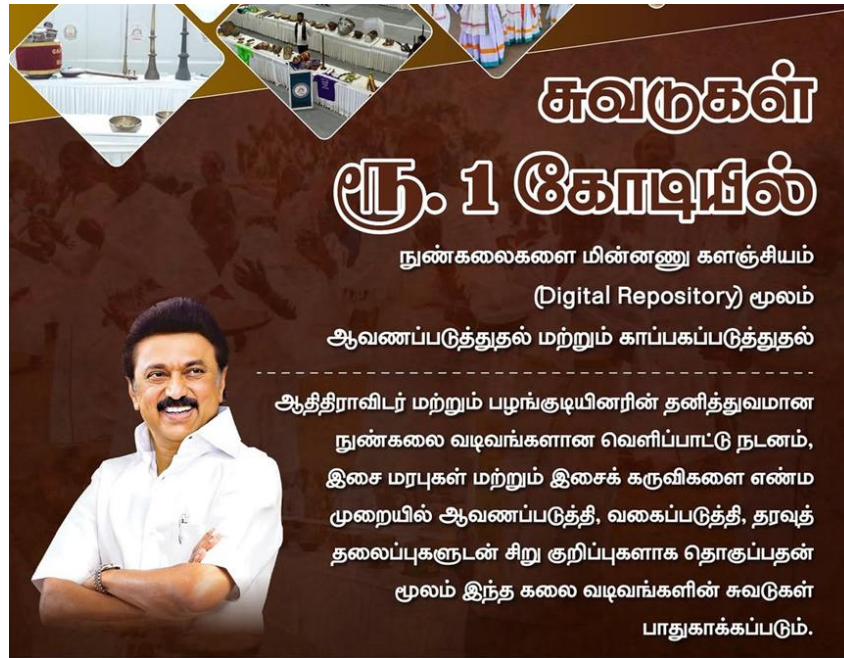
4 years achievements of TN government



- ❖ A total of 897 MOUs is signed over various investment proposals to the tune of ₹10,27,547 crore, creating employment for over 32.23 lakh people.
- ❖ The export from Tamil Nadu which stood at 26.16 billion USD in 2020-21 has since been increased to 52.07 USD in 2024-25.

- ❖ By exporting electronic goods worth 14.65 billion USD, Tamil Nadu stood number one in the country surpassing Maharashtra, Uttar Pradesh, and Karnataka.
- ❖ The number of workers increased from 2.9 crore in 2020-21 to 3.87 crore by 2024-25.
- ❖ Tamil Nadu's higher education enrolment rate has stood at 51.3% in 2023-2024, while the national average was 26%.
- ❖ While the crime rate against women was 66.4 per lakh population nationally, it was 24 in Tamil Nadu.
- ❖ As for global skill centres, Chennai has with a growth rate of 24.5% and 94,121 skill centres.
- ❖ In this, TN has surpassed Mumbai, Pune, Hyderabad, Bengaluru, and other cities in the country.
- ❖ The programmes such as Makkalai Thedi Maruthuvam, Illam Thedi Kalvi, Naan Mudhalvan and Kalaignar Kanavu Illam were implemented by the government.

Digital repository 'Suwadugal'

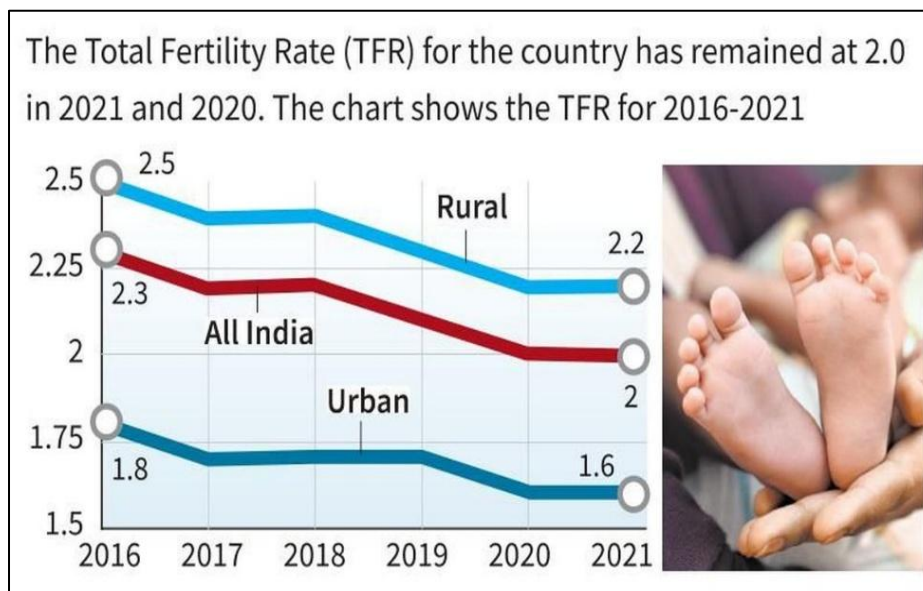


சுவடுகள்
ஆ. 1 கோடிமில்
நுண்கலைகளை மின்னணு களஞ்சியம்
(Digital Repository) மூலம்
ஆவணப்படுத்துதல் மற்றும் காப்பகப்படுத்துதல்
ஆதிதிராவிடர் மற்றும் பழங்குடியினரின் தனித்துவமான
நுண்கலை வடிவங்களான வெளிப்பாட்டு நடனம்,
இசை மரபுகள் மற்றும் இசைக் கருவிகளை எண்ம
முறையில் ஆவணப்படுத்தி, வகைப்படுத்தி, தரவுத்
தலைப்புகளுடன் சிறு குறிப்புகளாக தொகுப்பதன்
மூலம் இந்த கலை வடிவங்களின் சுவடுகள்
பாதுகாக்கப்படும்.

- ❖ The Adi Dravidar and Tribal Welfare Department has initiated some steps for an ambitious project to create a digital repository titled 'Suwadugal'.
- ❖ It will document and preserve the traditional performing arts of Adi Dravidar and tribal communities across Tamil Nadu.
- ❖ The project aims to digitally archive thousands of indigenous art forms and oral traditions that are gradually fading with time.

- ❖ The several art forms practised by Adi Dravidar and tribal communities are now on the verge of extinction.
- ❖ Over 560 art forms are still performed by these communities across the State.
- ❖ Some notable examples include Singari Melam from Dindigul, Radha Kavadi from Nagapattinam, Kaniyan Koothu from Tirunelveli, Periya Melam from Tiruvannamalai, Perum Parai from Anthiyur and Malai Koothu from Dharmapuri.
- ❖ Bootha Kabala Aatam is a unique ritualistic performance seen only at specific temples in Dharmapuri district.

TFR of India in 2021

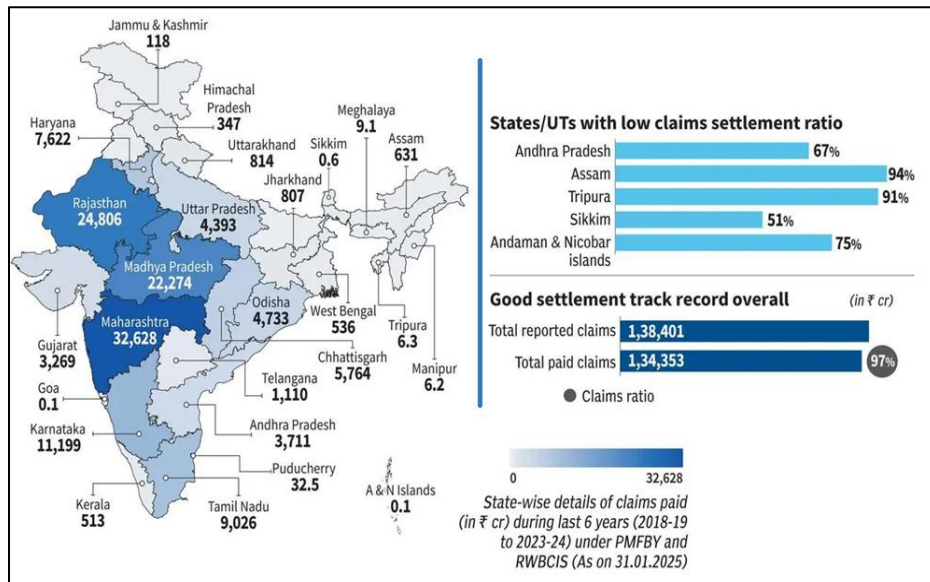


- ❖ The Total Fertility Rate (TFR), the average number of children per woman, in the country, has remained constant at 2.0 in 2021, the same as the year 2020.
- ❖ Bihar has reported the highest TFR at 3.0, while Delhi and West Bengal reported the lowest TFR of 1.4.
- ❖ There had been a gradual decline in the share of population in the age group of 0-14 from 41.2% in 1971 to 24.8% in 2021.
- ❖ The “proportion of the economically active population between 15-59 years has increased from 53.4% to 66.2% during the same period.”
- ❖ The elderly population has gone up from 5.3% to 5.9% for 65+ age group and 6% to 9% for 60+ age group during the same period.
- ❖ Kerala recorded the highest percentage of population in the age group of 60 and above with 14.4% of the total population falling under this category.

- ❖ Tamil Nadu 12.9% and Himachal Pradesh 12.3% are the other two States with the highest percentage of elderly population.
- ❖ Bihar (6.9%), Assam (7%) and Delhi (7.1%) have the lowest percentage of the population in the age group of 60 and above.
- ❖ The mean age at effective marriage for females has increased from 19.3 years in 1990 to 22.5 years in 2021.
- ❖ The replacement level TFR, viz. 2.1, has been attained at the national level.
- ❖ The present TFR level is in Delhi 1.4, West Bengal 1.4, Tamil Nadu 1.5, Andhra Pradesh 1.5, Jammu and Kashmir 1.5, Kerala 1.5, Maharashtra 1.5, Punjab 1.5, Himachal Pradesh 1.6, Telangana 1.6, Karnataka 1.6, Odisha 1.8, Uttarakhand 1.8, Gujarat 2.0, Haryana 2.0 and Assam 2.1.

NATIONAL NEWS

Claim settlement under PMFBY



- ❖ Pradhan Mantri Fasal Bima Yojana (PMFBY), India's flagship crop insurance, scheme was launched on February 18, 2016.
- ❖ The PMFBY and the Restructured Weather-Based Crop Insurance Scheme (RWBCIS) data shows that 97 per cent of all reported claims have been settled across India.
- ❖ Goa, Chhattisgarh, Telangana and Tamil Nadu have achieved the full claim settlement under the schemes.
- ❖ In contrast, Tripura, Andaman and Nicobar Islands, Andhra Pradesh, and Sikkim trail at the bottom.

- ❖ Their settlement rates range from 91 per cent to just 51 per cent.
- ❖ Andhra Pradesh has emerged as the State with the highest shortfall in crop insurance payouts, with farmers still awaiting claims worth ₹1,842 crore.

SCIENCE AND TECHNOLOGY NEWS

Hadean Protocrust

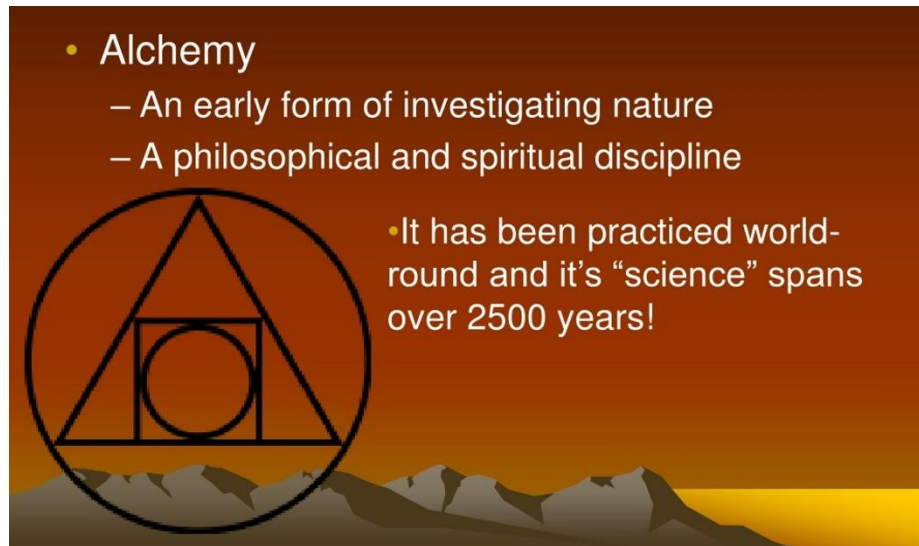
- ❖ New research suggests that Earth's first crust formed over 4.5 billion years ago.
- ❖ The Hadean protocrust is the name for the earth's crust — its outermost layer — when it first formed.
- ❖ The 'Hadean' prefix refers to the planet's first geologic aeon.
- ❖ At this time, within 200 million years of its genesis, the earth's surface was partially molten and almost constantly bombarded by rocks from space.
- ❖ As many volcanoes also raged, the surface was very hot and hellish.
- ❖ As parts of the magma ocean cooled, the first pieces of the crust began to take shape.
- ❖ However, it remained somewhat unstable, with certain sections breaking away while new areas solidified.
- ❖ The thicker parts of the crust slowly formed the first continents, which moved like plates on the asthenospheric mantle.



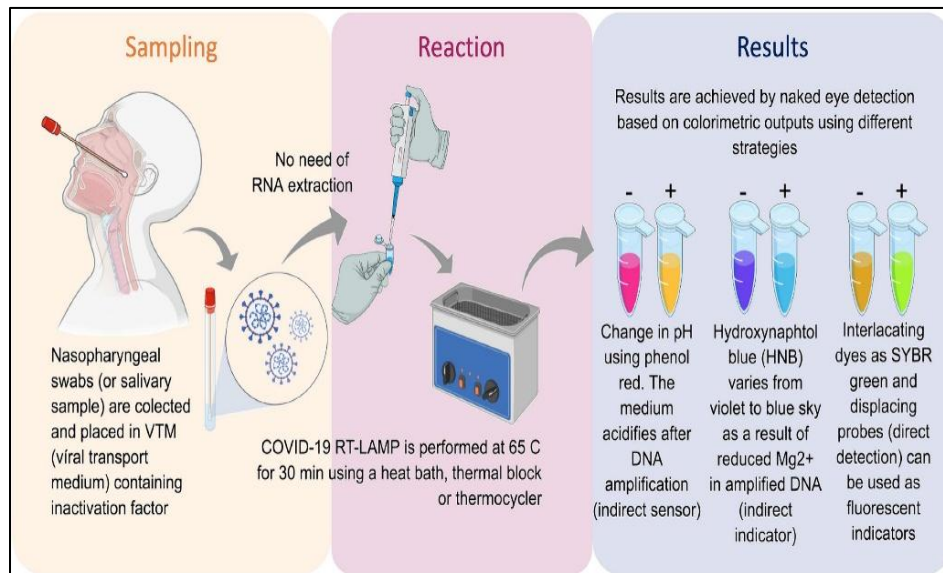
Lead Transmutation into Gold

- ❖ The Physicists from the CERN's Large Hadron Collider (LHC), have successfully transformed lead into gold, albeit momentarily.

- ❖ During high-energy collisions of lead nuclei, researchers observed the formation of gold nuclei.
- ❖ Transforming the base metal lead into the precious metal gold was a dream of mediaeval alchemists.
- ❖ Alchemy was an ancient practice aimed at transforming base metals into precious ones known as chrysopoeia.



rt-LAMP Assay



- ❖ Researchers have developed and tested cost-effective, rt-LAMP assay for early diagnosis of TB.



- ❖ Unlike RT-PCRs that require 3 different temperature settings to complete a test, the rt-LAMP test works at a single temperature.
- ❖ It was able to detect TB DNA even when only 10 copy numbers were present per microlitre in a sample.

S8 Tension

- ❖ Cosmologists use the term Sigma 8, or S8, to quantify the matter around us.
- ❖ This matter is made up of baryonic particles, such as protons and neutrons, that bunch up in different regions of space.
- ❖ The value of S8 is calculated by studying various regions of the universe.
- ❖ Each region is defined by an astronomical length scale of approximately 26 million light-years.
- ❖ A higher value for S8 indicates more clustering with a greater amount of matter clumped together.
- ❖ The lower value indicates a more uniform distribution of matter.
- ❖ The 'S8 tension' arises from different measurement methods producing varying S8 estimates.

- **S8** quantifies how matter (like galaxies and dark matter) is clumped in the universe.
- Higher S8 = more clumping; Lower S8 = smoother distribution.
- Discrepancies in S8 values challenge the **Λ CDM (Lambda Cold Dark Matter)** model.
- Λ CDM assumes dark matter and dark energy make up ~95% of the universe.

Mk-II(A) DEW System

- ❖ The DRDO successfully tested a Mk-II(A) Laser - Directed Energy Weapon (DEW) system.

- ❖ The lightning speed of engagement, the precision and the lethality delivered at the target within few seconds, made it the most potent counter drone system.
- ❖ Once target detected by a radar or by its inbuilt Electro Optic (EO) system, laser-DEW can engage targets at the speed of light and use an intense laser beam to cut through the target.



The Defence Research and Development Organisation (DRDO) announced the successful test of its Mk-II(A) Laser-Directed Energy Weapon (DEW) system on April 13, 2025.

This advanced system is capable of disabling drones, missiles, and smaller projectiles with high precision and speed.


Key Capabilities Demonstrated:

- Engaged fixed-wing drones at long range
- Thwarted multiple drone attacks
- Destroyed enemy surveillance sensors and antennas
- Delivered precision strikes within seconds using laser beams at the speed of light

With this development, India joins a select group of countries that have successfully developed and demonstrated high-power laser-based DEW systems, positioning itself as a global player in cutting-edge defence technology.

IMPORTANT DAYS

International Nurses Day 2025 - May 12



INTERNATIONAL NURSES DAY
MAY 12

International Nurses Day is a global healthcare event that is celebrated on the **12th of May** every year. It recognizes Florence Nightingale's birth anniversary, and aims to give recognition to the profession's influence on the economy, society, and culture while encouraging nurses' acceptance, support, and inclusion on a global scale.

- ❖ The date was chosen to coincide with the birth anniversary of Florence Nightingale, the founder of modern nursing.
- ❖ This day honours their invaluable contributions to healthcare and society.



- ❖ This year's theme is "Our Nurses. Our Future. Caring for nurses strengthens economies".

