

EVERYDAY CURRENT AFFAIRS – MAY 14, 2022

TAMIL NADU

- On May 13, Tamil Nadu Chief Minister M K Stalin - inaugurated Chennai's longest and unidirectional Medavakkam flyover linking Medavakkam with Nanmangalam



- ✓ The 2.06-km flyover along the Tambaram-Velachery High road will reduce traffic congestion at key junctions in Sholinganallur, Mambakkam and Madipakkam
- ✓ The second arm of the three-lane flyover at Medavakkam facilitates hassle-free flow of vehicular traffic, bringing relief for 1.25 lakh motorists
- ✓ The first arm of the flyover, inaugurated in 2021, spanning 1.06 km helps motorists skip the Medavakkam-Sholinganallur road and Medavakkam-Mambakkam road
- ✓ The flyover, under construction since 2015, was built at a cost of Rs 95.21 crore allowing motorists to skip Madipakkam junction
- ✓ The arterial stretch also connects East Coast Road with the Old Mahabalipuram Road.

- ✓ Highways minister E V Velu, MSME minister T M Anbarasan, health and family welfare minister Ma Subramanian; principal secretary, highways and minor ports, Dheeraj Kumar; and Chengalpattu collector A R Rahul Nadh were among those who participated in the inauguration

STATES

- **A prehistoric mesolithic rock art site-has been discovered at Kasipur, Bommalaramaram in Telangana's Yadadri Bhuvanagiri district.**



- ✓ Estimated to be at least 10,000 years old, this rock art has paintings of four bison, two human figures, and an animal resembling a horse
 - ✓ The Mesolithic or middle stone age rock painting site is located on a small hillock on a private land and dates back at least 10,000 to 30,000 years
 - ✓ The rock art was discovered by a group of history enthusiasts along with a prehistoric iron melting point in a nearby cave
 - ✓ The microlithic tools, rock art style, and the items and bison in the paintings indicate that the rock art site belongs to the microlithic age
- **On May 12, the Madhya Pradesh State Cabinet, under Chief Minister Shivraj Singh Chouhan – gave its nod to the Ladli Laxmi Yojana 2.0**



- ✓ The state government's flagship scheme aims to encourage girl children to pursue higher education and make them self-dependent

- ✓ Under the second phase of the scheme, an incentive of Rs 25,000 will be given to girls who get admission into college for graduation of a professional degree or course after completion of Class 12
- ✓ Further, the cabinet approved the celebration of Ladli Laxmi Day on May 2 every year at the state, district and village panchayat levels
- ✓ For girls who qualify for medical or engineering, the state government will pay their tuition fee
- ✓ There are more than 42 lakh girls registered under the scheme, of which nearly 1500 girls are set to join college for the next academic year
- ✓ Ladli Laxmi Scheme is being implemented by the government of Madhya Pradesh since 2007
- ✓ The scheme offers financial assistance for a girl from birth until her marriage in instalments
- ✓ Under the scheme, an app by name Ladli e-Samvad was launched by the Madhya Pradesh Chief Minister to establish a continuous dialogue with Ladlis.
- ✓ In this app, all Ladli Laxmis will be linked to the education portal through Samagra ID, enabling continuous tracking of their educational status.
- ✓ The Gram Panchayats which take the best care of the girl child will be declared 'Ladli Friendly' gram panchayat.


NATIONAL

- **The Centre for Cellular and Molecular Biology (CCMB) - has developed India's first indigenous mRNA vaccine technology for Covid-19.**

Fight against Covid

SAME mRNA TECHNOLOGY CAN BE USED TO DEVELOP VACCINES FOR DENGUE, TB AND MALARIA

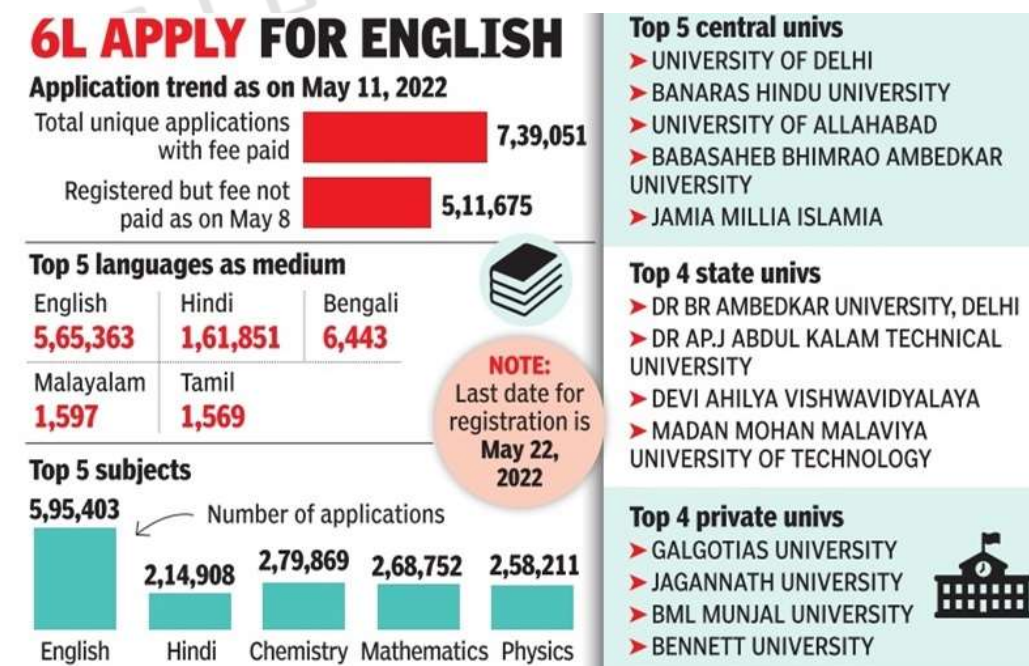
- mRNA vaccine tech of CCMB is different from that of Genovio Bio
- Two doses of mRNA vaccine in mice elicited robust immune response against SARS-CoV-2
- CCMB researchers developed mRNA platform in less than a year
- mRNA vaccines do not use live virus that causes Covid



We observed robust immune response against SARS-CoV-2 Spike protein in mice, upon administration of two doses of the mRNA. The anti-Spike antibodies generated were found to be more than 90 per cent efficient in preventing the human ACE2 receptor binding to the coronavirus
— DR RAJESH IYER, a senior scientist

- ✓ The vaccine technology, which is 90% effective against Covid-19 in the mouse model, can also be used to fight other infectious diseases such as malaria, dengue and tuberculosis.
- ✓ The new mRNA (messenger RNA) vaccine candidate is at a pre-clinical study stage where the efficacy of the technology will be tested against the live novel coronavirus infection.
- ✓ There are mRNA vaccines developed by Pfizer and Moderna to prevent Covid-19
- ✓ However, the CCMB's mRNA vaccine technology is fully indigenous and was developed without any external scientific assistance.

- ✓ The team at the Atal Incubation Centre attached to the CCMB led the development of the vaccine candidate within a year of the project inception
- **The onset of southwest (summer) monsoon over Kerala - is likely to be on May 27, four days earlier than its normal date of onset on June 1.**
- ✓ The arrival of the monsoon marks the beginning of the rainy season in the country, as showers gradually cover entire India in the next one-and-a-half months.
- ✓ According to the India Meteorological Department (IMD), the monsoon onset over Kerala is likely to be on May 27 with a model error of ± 4 days.
- ✓ It said that its operational forecasts of the date of monsoon onset over Kerala during the past 17 years (2005-2021) were proved to be correct except in 2015.
- ✓ The last time the monsoon set in over Kerala earlier than May 27 was in 2009 when it advanced over the coastal state on May 23.
- ✓ The IMD has been issuing operational forecasts for the date of monsoon onset over Kerala from 2005.
- ✓ In Mid April, IMD had predicted 'normal' and fairly well-distributed monsoon rainfall for most parts of the country during the four month rainy season this year.
- **The Common University Entrance Test-Undergraduate 2022 (CUET-UG) - is set to become one of the biggest entrance tests of the country**
- ✓ A total of 7.4 lakh students have already submitted completed registrations and another 5.1 lakh candidates are yet to make the online payment to complete the process
- ✓ NEET-UG's average registration for the past three years has been around 16 lakh, while the average registration for JEE (Main) is around 9.1 lakh



- ✓ This year, CUET-UG offers a common window to apply to 84 universities and their multiple courses.
 - ✓ The cumulative university-wise application count is closing towards 35 lakh and NTA expects this to cross 50 lakh in the next 10 days.
 - ✓ Delhi University (DU) as on date has received close to 5 lakh applications for its undergraduate programmes as part of the CUET-UG registration process.
 - ✓ The Banaras Hindu University attracted 3.1 lakh applications, while University of Allahabad has so far received nearly 1.9 lakh applications.
 - ✓ There are 11 state and eight deemed universities who are going to enrol students on the basis of CUET-UG 2022 score this year.
 - ✓ Regarding the domain-specific papers, 5.95 lakh candidates have registered for the English paper, followed by 2.1 lakh for Hindi.
 - ✓ Among the non-language papers Chemistry has highest takers (2,79,869), followed by Mathematics (2,68,752), and Physics (2,58,211).
- **NITI Aayog – has released the AIM-PRIME (Program for Researchers in Innovation, Market Readiness, and Entrepreneurship) Playbook recently on May 10 in New Delhi**



- ✓ Union Minister of State, Ministry of Health and Family Welfare, Dr. Bharati Pravin Pawar was present during the launch along with Amitabh Kant CEO, NITI Aayog and Suman Bery Vice-Chair, NITI Aayog
- ✓ AIM-PRIME program is an initiative of Atal Innovation Mission, NITI Aayog
- ✓ It is being implemented by Venture Center, Pune and is supported by the Bill & Melinda Gates Foundation and Office of Principal Scientific Advisor, Government of India
- ✓ The AIM PRIME program is designed to promote early-stage science-based, deep technology ideas to market through training and guidance over a period of 12 months using a blended learning curriculum
- ✓ It includes the PRIME Playbook, a guide for science-based entrepreneurs and ventures, the PRIME Library, a curated resource shared by the faculty and expert

mentors associated with the program, and the PRIME Videos, an open-access video collection of the lectures delivered as part of the PRIME Classroom

- ✓ Over 17 national and international faculty members were on-boarded as part of the program, who have collectively spent more than 640 hours on mentoring.
- ✓ The first batch of trainees included 40 organizations and 64 participants, representing 23 different cities across 7 states
- ✓ Deep technology is related to start-up companies that are looking to provide technology solutions based on various important engineering and scientific challenges, discoveries and advances

- **Three social security schemes Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Atal Pension Yojana (APY) - have completed seven years of their launch**



- ✓ The schemes were launched by Prime Minister Narendra Modi on May 9, 2015 from Kolkata, West Bengal.
- ✓ PMJJBY and PMSBY are low-cost insurance schemes, while APY is a scheme to cover the old age requirements by providing regular pension
- ✓ PMJJBY is a one-year life insurance scheme renewable from year to year offering life coverage of Rs 2 lakh for death due to any reason against a premium of Rs 330 per annum.
- ✓ PMSBY is a one-year accidental insurance scheme renewable from year to year offering coverage of Rs.2 lakh (Rs.1 lakh in case of partial disability) for death or disability due to accident.
- ✓ The Atal Pension Yojana (APY) was launched to create a universal social security system for all Indians, especially the poor, the under-privileged and the workers in the unorganised sector.

- ✓ It is administered by Pension Fund Regulatory and Development Authority (PFRDA) under the overall administrative and institutional architecture of the National Pension System (NPS).

INTERNATIONAL

- **On May 13, Elon Musk - said that his plan to buy Twitter is “temporarily on hold” citing pending details of the exact number of spam and fake accounts on the social media platform**



- ✓ According to Musk, his proposed \$44 billion acquisition of Twitter is dependent on calculation that spam and fake accounts indeed represented less than 5% of users.
 - ✓ Musk has been vocal about his desire to clean up Twitter's problem with “spam bots” that imitate real people and appeared to question whether the company was underreporting them
 - ✓ Musk later tweeted that he's “still committed to acquisition” of Twitter
 - ✓ Earlier this week, Musk said he would reverse Twitter's ban on former US President Donald Trump when he buys the social media platform, signaling his intention to cut moderation
 - ✓ The social media company had 229 million users who were served advertising in the first quarter.
 - ✓ Tesla CEO Musk proposed that Ads will make up about 45% of Twitter's total revenue by 2028, down from nearly 100% of its revenue today
 - ✓ Bots are currently allowed on Twitter, though under the company's policy, such accounts are supposed to indicate that they're automated
 - ✓ The platform has even launched a label for “good” bots, such as @tinycarebot, an account that tweets self-care reminders.
 - ✓ Spam bots, however, are not permitted, and the company has policies meant to combat them.
- **Katalin Novak – assumed office as Hungary's first female president for a five-year term on May 10**
 - ✓ Novak won the election by a vote margin of 137 to 51 against economist Peter Rona in a vote split along party lines



- ✓ She was nominated by the ruling Fidesz Party, which along with its ally, the Christian Democratic People's Party, holds 133 seats in the 199-member parliament
- ✓ Novak, a former member of the government as minister without portfolio for family affairs, is also the country's youngest President at 44 years of age.
- ✓ Novak, a close ally of Prime Minister Viktor Orban, has been the face of government policies including generous tax breaks and handouts designed to encourage young families to have more children
- ✓ The Hungarian president, whose duties are largely ceremonial, is elected by the parliament
- ✓ Novak is taking over from incumbent President Janos Ader, who is ending his second term.

INDIA AND NEIGHBOURS

- **Prime Minister Narendra Modi – is scheduled to visit to Lumbini in Nepal on May 16**
- ✓ The visit is expected to carry forward India's 'Neighbourhood First' policy with focus on further boosting connectivity and energy cooperation between the two countries.
- ✓ PM Modi is visiting Lumbini on the occasion of Buddha Purnima at the invitation of his counterpart Sher Bahadur Deuba, who last visited India in April
- ✓ This will be PM Modi's fifth visit to Nepal since 2014 and first since his re-election in 2019.
- ✓ At Lumbini, the Prime Minister will visit the sacred Mayadevi temple to offer prayers and also deliver an address at a Buddha Jayanti event organised by the Lumbini Development Trust under the aegis of the Nepal government.
- ✓ PM Modi and PM Deuba will also hold a bilateral meeting at Lumbini.
- ✓ Separately, the Prime Minister will participate in the 'Shilanyas' ceremony for the construction of a centre for Buddhist culture, in a plot belonging to the International Buddhist Confederation, New Delhi within the Lumbini Monastic Zone

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **Isro - successfully completed the static test of human-rated solid rocket booster (HS200) for the Gaganyaan programme at the Satish Dhawan Space Centre (SDSC), Sriharikota, on May 13**



- ✓ All 700 parameters that were monitored were found to be normal during the test.
 - ✓ The HS200 rocket booster is the human-rated version of the well-proven S200 rocket booster of GSLV-Mk3 satellite launch vehicle, or the LVM3.
 - ✓ The human-rated GSLV-Mk3 will be called HRLV.
 - ✓ This is the first stage of the launch vehicle being tested for its performance for the full duration
 - ✓ The S200 motor, which is the first stage of GSLV-Mk3 intended for launching 4,000kg class of satellites to Geosynchronous transfer orbit, was configured as strap on rocket booster.
 - ✓ Based on the successful launch pedigree of this launch vehicle, including Chandrayaan-2, the GSLV-Mk3 has been identified as the launcher for Gaganyaan mission
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- **Nuclear scientists - have developed a low cost technology that can treat and convert domestic and industrial wastewater into potable water**
 - ✓ The scientists of Bhabha Atomic Research Centre (BARC) Facilities at Kalpakkam have developed bio beads or granules consisting of certain bacteria that can remove contaminants when mixed with waste water
 - ✓ The patented technology will bring down the size of the treatment plant by 70% and cost by 40%.
 - ✓ While the treated water can be used for gardening, the beads rich in nutrients can be used as manure.
 - ✓ The scientists call the technology 'Hybrid Granular Sequencing Batch Reactor'.
 - ✓ The conventional biobeads are made of plastic and end up as microplastics in the sea.
 - ✓ However, in the new technology, the scientists have utilised the bacteria's ability to secrete polymeric substances to make the bio-beads.

- ✓ Hence, the beads rich in carbon, nitrogen and phosphorus can be used as manure.

ECONOMY

- **Life insurance major LIC - fixed the IPO price at Rs 949-per-share, ahead of its listing on May 17**
- ✓ The Rs 21,000-crore issue, the largest in India, closed on May 9 with an overall subscription at nearly three times.
- ✓ Most investors in the IPO also got their allotments by May 13.
- ✓ The policyholders who had applied for at least 30 shares, got 15 of them, and thereafter, for every 15 shares bid in the IPO, they got three shares.
- ✓ In case of retail investors the allotment was in the proportion of about five to six shares for every 15 shares bid
- ✓ With the final price fixed at Rs 949, policyholders will get the shares at Rs 889 each, a Rs 60-per-share discount, while retail investors will get the shares at Rs 904 each, a Rs 45 discount.
- ✓ Through the IPO, the government raised a little over Rs 21,000 crore of which about Rs 5,600 crore was raised from a clutch of investors, called anchor investors, just a day before the IPO opened.
- ✓ The portion reserved for LIC's policyholders was subscribed 6.1 times, for eligible employees it was subscribed 4.4 times, for retail investors it was subscribed nearly 2 times, for HNIs it was subscribed 2.9 times and for the institutional buyers it was subscribed 2.8 times.
- ✓ The IPO received bids for nearly 48 crore shares against 16.2 crore shares which were on offer.

APPOINTMENTS

- **Senior IAS officer Nidhi Chibber - has been appointed as the chairperson of the Central Board of Secondary Education (CBSE) in a top-level bureaucratic reshuffle effected by the Centre on May 13.**



- ✓ Chibber, a 1994 batch Indian Administrative Service officer of Chhattisgarh cadre, is now additional secretary, ministry of heavy industries.

- ✓ She has been appointed as chairperson, CBSE in the rank and pay of additional secretary to the government of India, as per an order issued by the personnel ministry.
- ✓ Vivek Kumar Dewangen, a 1993 batch IAS officer of Manipur cadre, has been named chairman and managing director, REC Ltd, ministry of power.
- ✓ He is at present additional secretary in the ministry of power.
- ✓ Rakesh Sarwal, additional secretary, NITI Aayog will be managing director, National Waqf Development Corporation Ltd, ministry of minority affairs

AWARDS

- **Ahmedabad-based acclaimed architect Balkrishna Vithaldas Doshi - was conferred the Royal Gold Medal 2022, one of the world's highest honours for architecture.**



- ✓ BV Doshi is among the rare people to have been awarded both the Royal Gold Medal and the Pritzker Architecture Prize, often referred to as the Nobel Prize of architecture, in their lifetime.
- ✓ The Royal Gold Medal is approved personally by Queen Elizabeth.
- ✓ It is given in recognition of a lifetime's work and conferred to the person who have had a significant influence on the advancement of architecture.
- ✓ Over his momentous career spanning over 70 years, Doshi has been a part of over 100 projects
- ✓ His projects include administrative and cultural facilities, housing developments, and residential buildings
- ✓ He has been credited with designing some of the most iconic structures in Ahmedabad.
- ✓ Balkrishna Doshi studied at the JJ School of Architecture, Bombay, before working for four years with Le Corbusier as a Senior Designer (1951-54) in Paris
- ✓ He worked with Louis Kahn as an associate to build the Indian Institute of Management, Ahmedabad and founded his own practice, Vastushilpa in 1956 with two architects.

- ✓ Besides, he has also designed the Indian Institute of Management in Bangalore, the Institute of Indology to house rare documents, the Ahmedabad School of Architecture – renamed CEPT University in 2002 – which focused on creating spaces that promoted collaborative learning among various other projects
- ✓ In the year 2018, BV Doshi became the first Indian to be conferred with the Pritzker Architecture Prize
- ✓ In 2020, he was awarded the Padma Bhushan, the third-highest civilian award in India, for his contribution to the field of architecture.
- ✓ BV Doshi holds three Honorary Doctorate from prestigious international universities including latest from the Boston Architectural College, the USA in 2021.
- ✓ He is also the recipient of the French 'Global Award for Lifetime Achievement for Sustainable Architecture' by the Institut Francais d'architecture, Paris.

OBITUARY

- **The UAE's long-ailing ruler and president, Sheikh Khalifa bin Zayed Al Nahyan (73 years) - died on May 13**



- ✓ Sheikh Khalifa oversaw much of the country's blistering economic growth after bailing out debt-crippled Dubai during its financial crisis over a decade ago
- ✓ His name was immortalised on the world's tallest building, the Burj Khalifa
- ✓ However, after suffering a stroke and undergoing emergency surgery in 2014, a decade after becoming president, he ceased having any involvement in the day-to-day affairs of ruling the country
- ✓ The last several years of his life saw his half-brother Abu Dhabi Crown Prince Mohammed bin Zayed become the de-factor ruler and decision-maker of major foreign policy decisions
- ✓ The UAE announced a 40-day period of mourning

SPORTS

- **On May 13, Indian men's badminton team - scripted history by entering the finals of the prestigious Thomas Cup for the first time ever, since the tournament began 73 years back.**



- ✓ India are now assured of at least a silver medal and will play 14-time winners and defending champion Indonesia in the final.
- ✓ Indonesia defeated China and Japan in the knockout stage, while India went past five-time former champions Malaysia in the quarters and 2016 winner Denmark in the semi finals.
- ✓ Indonesia possess some of the best doubles shuttlers with three players of the world's top two pairs — Kevin Sanjaya Sukamuljo, Mohammad Ahsan and Hendra Setiawan — in their ranks in this competition.
- ✓ In the first match, World number 9 Lakshya Sen lost in straight sets to famous Denmark player Viktor Axelsen
- ✓ In the doubles encounter, Satwiksairaj Rankireddy and Chirag Shetty defeated Denmark's Kim Astrup and Mathias Christiansen.
- ✓ Former World No. 1 Srikanth Kidambi defeated Anders Antonsen in the third match to put India ahead 2-1 in the gripping tie.
- ✓ In the fourth match, the Indian duo of Krishna Prasad and Vishnuvardhan lost out against Anders Skaarup Rasmussen and Frederik Sogaard
- ✓ In the all-important fifth match, HS Prannoy, currently ranked 23rd in the world, delivered by winning against Rasmus Gemke to give a memorable 3-2 win to India
- ✓ India have lost just one match — against Chinese Taipei in the group stage — so far in the competition

TAMILNADU'S IRON AGE – A REPORT

- **The recent findings from archaeological excavations in Mayiladumparai near Krishnagiri district - have established the iron age of Tamil Nadu to be 4,200 years old**
- ✓ Before this, the earliest evidence of iron use was from 1900-2000 BCE for the country, and from 1500 BCE for Tamil Nadu
- ✓ The report has established the iron age of Tamil Nadu to be 2172 BCE (before current era), potentially making it the oldest in India

- ✓ The excavations were conducted by the Tamil Nadu state archaeological department and analysed by Beta Analytic Laboratory in the USA
- ✓ Excavations started in this region in 2021 with the aim of establishing the iron age.
- ✓ The site in the hillock, called Sanorappanmalai, consists of habitation material with petroglyphs.
- ✓ Mayiladumparai is an important site with cultural material dating back between the Microlithic (30,000 BCE) and Early Historic (600 BCE) ages.
- ✓ Thanjavur-based Tamil University's Archaeologist Prof Rajan had discovered the site in the 1990s, and the first excavations from there were made in the year 2003.
- ✓ Rock art paintings with red and white pigments and grooves for polishing Neolithic Celts were noticed in the rock shelter called 'Nilalsunai'
- ✓ The habitation-cum-burial site was excavated in the year 2003 by Prof K Rajan of Tamil University and based on the promising results, the excavation was resumed in 2021.
- ✓ According to the Tamil state archaeology department, the Tamil civilization mastered the art of making iron tools, which helped them grow economically, as larger areas could be cultivated, using these tools when compared to stone tools.
- ✓ The Accelerator Mass Spectrometry (AMS) dating by Beta Analytic Laboratory in the US of the piece of iron found in Mayiladumparai in Krishnagiri district has established that the iron age started in Tamil Nadu as early as in 2172BCE (before current era)
- ✓ After the discovery of iron, it took 700 years for the members of this civilization to master the art of adding carbon in it to make steel or reducing it to make iron tools
- ✓ The trenches laid in locality-4 in the present excavation yielded two important AMS dates.
- ✓ The two dates were obtained at the depth of 104cm and 130cm which yielded the mid- range calibrated dates for the said two dates — 1615BCE and 2172BCE respectively.
- ✓ As per the above discoveries, it becomes clear that the Indus Valley Civilization did not have any iron usage and they used items those belonging to the copper age, which preceded the iron age by about 1,000 years.
- ✓ Introduction of iron is considered as one of the most important technological innovations in human history leading to agricultural production and formation of societies
- ✓ Therefore, the introduction of iron in a particular region is considered as one of the important factors in human development.
- ✓ The date of the introduction of iron in other parts of India is considered as the 2nd millennium BCE.
- ✓ But this date could not be ascertained for Tamil Nadu in the past several years irrespective of the availability of a large quantity of iron ore in Tamil Nadu, particularly in the Salem region.

IRON AGE MAYILADUMPARAI EXCAVATION HIGHLIGHTS:

➤ Findings help establish that Tamil Nadu's iron age is 4,200 years old



➤ Iron tools enabled to undertake a lot more work than **before and to move quickly up the economic scale**

➤ The tools helped **increase food production by cultivating crops**

➤ This gave the option of storing and distributing the surplus agricultural products **produced in excess of the demand**

➤ Carts, chariots fitted with iron axles and ferrules, **made transportation of goods easier**

➤ A stable life **led to a transformation from rural to urban life**

➤ Closeness and cohesiveness between the people **also led to the spread of language and written script**



- ✓ Before the latest discovery, the earliest evidence of iron use in Tamil Nadu was reported from Thelunganur and Mangadu near Mettur in the iron ore bearing zone of the Salem region, dating back to 1510 BCE.
- ✓ Previously, the Iron Age burial site of Adichanallur in southern Tamil Nadu had revealed an impressive collection of iron implements dated between 1000 BCE and 600 BCE