



## EVERYDAY CURRENT AFFAIRS – DECEMBER 15, 2020

### TAMIL NADU

- On December 14, Tamil Nadu government – signed 18 MoUs with investors to attract ₹19,995 crore in industrial investments to the state



- ✓ The new investments ranges across varied sectors, including electric vehicles, solar and wind energy, pharmaceuticals, city gas distribution, E-education and textiles.
- ✓ The MoUs were signed in the presence of CM Edappadi K Palaniswami
- ✓ The deals are expected to provide employment to more than 26,500 people.
- ✓ In addition, the CM laid the foundation stone for five projects, with an investment commitment of ₹4,456 crore.
- ✓ The new deals include the Ola Electric Mobility's proposal to establish an electric 2-wheeler manufacturing facility at Hosur in Krishnagiri district
- ✓ The facility, expected to provide employment to nearly 2,200 people, will be set up at an investment of ₹2,354 crore
- ✓ The proposed facility will make two million electric scooters annually at a greenfield facility in Hosur in Tamil Nadu
- ✓ This includes Ola's upcoming range of two-wheeler products, starting with Ola's electric scooter.
- ✓ Eventually, the company is planning to overtake Honda Motorcycle and Scooters' Vitalpur facility in Gujarat which makes 1.2 million units of petrol-powered scooters in a year.

## 26,500 JOBS

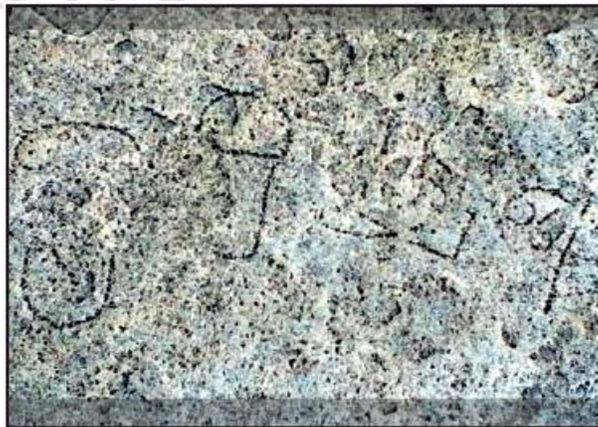
Firm	Investment (in ₹ cr)
Ola Electric Mobility	2,354
Torrent Gas	5,000
First Solar	4,185
SSEM	2,500
Voltas	1,001

- ✓ Torrent Gas Chennai is to establish a city gas distribution network in Chennai and Tiruvallur with an investment of ₹5,000 crore, employing 5,000 people.
  - ✓ Arizona-based First Solar, which is the world's largest manufacturer of thin film photovoltaic (PV) solar modules, has proposed to invest ₹4,185 crore in a solar module manufacturing facility.
  - ✓ Society for Smart Electric Mobility (SSEM) proposes to set up an electric vehicle and future mobility park at Thathanur in Tirupur district.
  - ✓ The company is investing ₹2,500 crore and will employ around 1,000 people.
  - ✓ Voltas, a leading player in air conditioners and refrigeration products, will establish a manufacturing facility at Vedal village in Kancheepuram district
  - ✓ The facility will be set up by investing ₹1,000 crore to make air conditioners and commercial refrigeration products.
  - ✓ The MoUs signed include plans by three pharmaceutical companies to establish new units in Tamil Nadu.
  - ✓ The key among them is Mylan Laboratories, a US-based speciality pharmaceuticals manufacturer, investing ₹350 crore in its unit to come up in Krishnagiri district.
- **On December 14, Chief minister Edappadi K Palaniswami - inaugurated 2,000 Amma miniclinics across the state**



- ✓ Initially 47 of 200 clinics in Chennai began their operations on the day, while those in other districts will start functioning in a phased manner until January 15

- ✓ The mini clinics will ensure early diagnosis of diseases, prevent self-medication and to cut down exorbitant health expenditures
  - ✓ The mini clinics will function between 9am and 11am and between 4pm and 7pm
  - ✓ They will have one doctor, a nurse and health worker.
  - ✓ These clinics check temperature, oxygen levels, blood pressure, haemoglobin levels and blood sugar levels and test urine samples.
  - ✓ These clinics will offer treatment for minor ailments such as seasonal fever and do blood tests for early diagnosis of communicable and non-communicable disease
  - ✓ They can also refer patients to higher centres – primary health centre, taluk/ district hospital or medical college hospital in case they need specialised care.
  - ✓ These clinics will serve a smaller population in urban and rural areas.
  - ✓ Consultation and treatment will be offered free of cost
  - ✓ The State has 1,851 primary health centres, and the mini clinics will be opened in places where there are no primary health centres and where a large number of poor people live.
- **The ancient city of Madurai – was referred as ‘Sri Seethurai’, based on a 5th-6th century CE stone inscription found near Kudumiyamalai in Pudukottai district**
- ✓ The name was deciphered from a four-letter word in a Tamil inscription recently found on a rocky slope by Trichy-based archaeo-symbolist T L Subash Chandira Bose.
  - ✓ There were over 120 inscriptions found in Kudumiyamalai
  - ✓ As per the new inscription, ‘Sri Seethurai’ refers to ‘Sri Madurai’ or ‘Thiru Mathurai’.

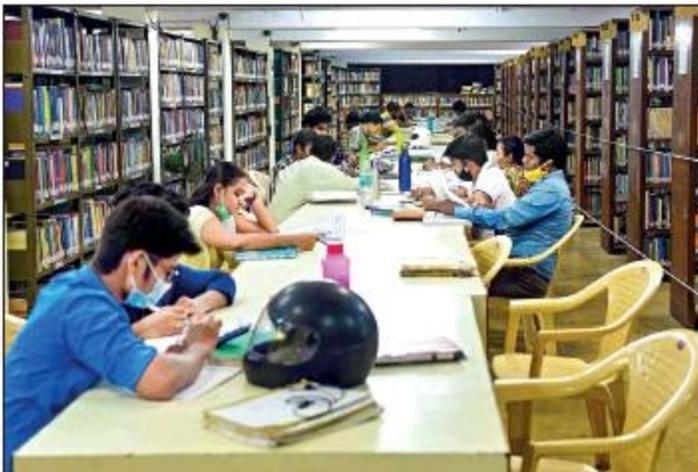


- ✓ The ancient Tamil inscriptions refer Mathurai (Madurai) as ‘Mathirai’, which was the capital of Pandya dynasty.
- ✓ Tamil sangam literatures describe this ancient city as ‘Tamil Sangam valarththa Madurai’.
- ✓ The four-letter word in the inscription can be read as Sri Seethurai (Sri + See+ thu + rai).

- ✓ As per Thamizh dictionary, 'Sri' means Thirumagal (Lakshmi) and the word 'Thiru' is used as honorific.
- ✓ Further, another ancient inscription found at Alundur in Pudukottai district refers Mathurai Meenaakshi as Mathupathi.
- **Connemara Public Library in Egmore, one of the country's oldest and biggest libraries – entered into its 125th year on December 5**
- ✓ The library was started with about 100 books imported from a college in London
- ✓ At present, the library contains nine lakh books, including two lakh titles published during the last 400 years
- ✓ Some rare collections in the library include Latin literature on medicine published in 1553, the Bible of 1608 vintage, a collection of voyage written in 1732, a 2.75-ft-long atlas printed during mid-1850s and works of Rabindranath Tagore published a century ago.

**Stepping stones from storied history**

- The foundation stone for the Connemara Public Library was laid on **March 22, 1890**. It was formally opened on **Dec 5, 1896**
- The library was named after Lord Connemara, who was the Governor of Madras between **1886 and 1890**
- It was the **first free public library** in Madras Presidency
- First membership and lending facility for members was introduced in **1930**
- First home delivery of books was launched in **1931**, but discontinued in **1932** and revived post-independence in **1962**
- Connemara is the first library in the country to allow free open access system for visitors, who can choose their titles from the book racks since **1930-31**



**WORLD OF LETTERS:** Research scholars and civil services aspirants at the library on Pantheon Road, Egmore

**Some of the rare collections available at the library**

- **Bible (1608)** - Geneva Bible, which is also known as Breeches Bible, was first published in **1560**. Its first English edition was printed by Robert Barker at London in **1608**
- **D Hieronymi Strido's Omnes Quae Extant**, a Latin book on medicine, published in **1553**
- **Hortus Indicus Malabaricus** | 12 volumes (**1678-1703**)
- Handwritten copy of the first edition of Indian Constitution bearing the signatures of the constitution makers

- ✓ Connemara was the first free public library in the Madras Presidency and was formally opened on December 5, 1896.
- ✓ It was named after the then governor of Madras presidency Lord Connemara.

- ✓ The library is one of the four depositories for Indian publications under the Delivery of Books and Newspapers (Public Libraries) Act of 1954.
- ✓ Currently, the library receives 20,000 books published in different languages every year.
- ✓ The University of Madras library used to operate from the premises of Connemara before it was shifted to university campus at Chepauk in 1928.
- ✓ S R Ranganathan, the doyen of Indian library movement, was in-charge of University of Madras library when it was functioning at Connemara.

## STATES

- **Telangana government – to roll out Covid-19 vaccine from Mid-January 2021**
- ✓ Around 2.7 lakh health workers, including doctors, nurses, ward boys and technicians, have been identified and enrolled in the 'CoWin' software for the initial phase of vaccination.
- ✓ Most of the vaccination sites will be in the government health facilities, starting from primary health centres (PHC) to teaching hospitals, while a few private facilities will also be selected for the purpose.
- ✓ Three levels of training at the state, district and primary health centre (PHC) level will be completed by December 22.
- ✓ The Centre will be allocating, 1.6 crore doses (two doses for 80 lakh people) to the state.
- ✓ The doses will arrive in the next 20 to 25 days.
- ✓ After healthcare workers, the other three categories on the priority list are frontline workers of different government departments, people above 50 years of age and people below 50 years of age having comorbidities.
- ✓ The fourth category will be the age group between 15 and 50 with comorbidities
- ✓ Citizens who are more than over 50 years or below 50 years having co-morbidities would soon be able to self-register for the vaccine on an online platform.
- ✓ The Covid Vaccine Intelligence Network (Co-WIN) system, a digitised platform, will be used to track the enlisted beneficiaries and the Covid-19 vaccines on a real-time basis

## NATIONAL

- **On December 15, Prime Minister Narendra Modi - will lay the foundation stone for the world's largest hybrid renewable energy park in Gujarat's Kutch district.**
- ✓ The park will generate 30,000 MW power through solar panels and windmills on 72,600 hectares along the India-Pakistan border.
- ✓ It is being set up by the Gujarat government with the participation of private players such as the Adani Group, which is the country's largest renewable power generator, and Suzlon, a dominant player in wind energy.

- ✓ The park will have dedicated zones for wind and solar energy storage as well as an exclusive zone for wind park activities.
- **The National Testing Agency – to conduct the next Joint Entrance Examination (Main) for selection of students at IITs in 12 languages across four cycles starting February 2021**
- ✓ The students will be selected for admission to engineering courses based on the examination, which will have 384 question papers and 4.14 lakh questions, spanning 16 days of tests.

## **JEE (MAIN) 2021**

**EXAMS:** February, March, April & May

**LANGUAGES:** English, Hindi, Assamese, Bengali, Gujarati, Kannada, Marathi, Odia, Tamil, Telugu, Punjabi & Urdu

➤ Each paper to have 90 question of which 75 is to be attempted

➤ Total 4,14,720 questions

➤ 4,14,720 backup questions



➤ Results to be declared within 5 days of each exam

➤ Registration for February 2021 cycle likely to commence from this week

- ✓ Registration of candidates for the February cycle is likely to start later this week.
- ✓ The JEE (Main) 2021 will be conducted once each month, from February to May.
- ✓ The results too would be announced in four to five days so that candidates can prepare to apply for the subsequent month's test.

## **INTERNATIONAL**

- **Sandra Lindsay, a critical care nurse in New York - received the first Pfizer-BioNTech vaccine shot in US on December 14**



- ✓ The first shot was given in the American mass vaccination campaign in Long Island Jewish Medical Centre in Queens.

- ✓ The shot was the first to be given outside of a vaccine trial in the US.
  - ✓ The vaccinations started after the FDA's emergency authorisation of the Pfizer-BioNTech vaccine on December 11 amidst the US virus death toll approaching 300,000.
  - ✓ A majority of the first injections are expected to be given to high-risk health workers.
  - ✓ **Canada kicked off its inoculation campaign against Covid-19 by injecting health workers on December 14**
  - ✓ With this, it becomes the third nation in the world to administer the Pfizer vaccine after the US and the UK.
  - ✓ The first dose went to Anita Quidangen, a personal support worker at a non-profit nursing home for the elderly in Toronto.
  - ✓ **Meanwhile, Singapore became the first Asian country to approve a coronavirus vaccine made by the American drug maker Pfizer**
  - ✓ It had announced that the first shipment would arrive this month and be given free to Singaporeans and long-term residents.
  - ✓ Singapore has also agreed to buy vaccines from the United States' Moderna and China's Sinovac.
- **On December 14, The United States - removed Sudan from its state sponsors of terrorism blacklist**
  - ✓ The move comes less than two months after the Arab nation pledged to normalise ties with Israel.
  - ✓ President Donald Trump had announced in October that he was delisting Sudan
  - ✓ The United States had put Sudan on its blacklist for harbouring Islamist militants 27 years before.

## APPOINTMENTS

- **On December 14, Kotak Mahindra Bank's promoter and CEO, Uday Kotak - has been cleared for reappointment by the RBI along with his deputy MD and chairman for three years.**



- ✓ The second-most valuable private bank informed stock exchanges that the regulator had approved the re-appointment of Kotak as managing director and chief executive officer
- ✓ Further, Prakash Apte was appointed as part-time chairman and Dipak Gupta as joint MD for three years
- ✓ All the appointments will be effective from January 1, 2021.
- ✓ The bank's board had approved the reappointment on May 13 and the decision was ratified by shareholders in the bank's annual general meeting on August 18.
- ✓ The RBI had earlier this year proposed capping a bank's CEO tenure at 10 years for promoters and 15 years for non-promoters.
- ✓ Kotak Mahindra Bank was granted its license in 2003 and Kotak has been the CEO of the lender ever since.
- ✓ The RBI's clearance for a three-year term would mean that he would lead the bank into its 20th year.
- ✓ Kotak (61) is the second-longest serving CEO of a commercial bank after Aditya Puri, who led HDFC Bank for over 25 years.
- ✓ Kotak is also the president of the Confederation of India Industry (CII)
- ✓ In 2018, the government had amended a law to enable him to chair a government-appointed board for overseeing the resolution of the failed infrastructure and finance giant IL&FS Group.

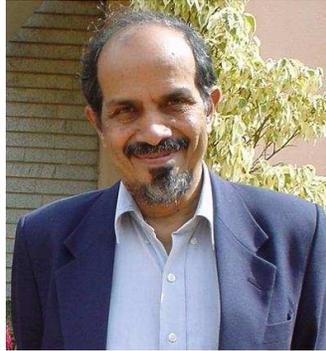
## OBITUARY

- **Veteran art-costume director P Krishnamoorthy (77 years) – passed away on December 13 due to age-related illness**
- ✓ Krishnamoorthy worked in more than 50 films in many south Indian languages as art director and production-costume designer
- ✓ He was the recipient of state government's prestigious Kalaimamani award.
- ✓ Born in Poompuhar in 1943, Krishnamoorthy studied arts at the Government College of Fine Arts, Chennai.

<b>DECORATED LIFE</b>		Awards won by art-costume director P Krishnamoorthy
<ul style="list-style-type: none"> <li>➤ In 1987, he won his first National Film Award for best production design for "Madhvacharya", a Kannada film directed by G V Iyer</li> <li>➤ In 1990, he won two National Film Awards as best art director and costume designer for a Malayalam film titled "Oru Vadakkan Veeragatha" directed by Hariharan</li> <li>➤ In 2001, he won two National Film Awards for Best Art Direction and Best Costume Design "Bharati", a</li> </ul>		<ul style="list-style-type: none"> <li>biographical film in Tamil based on the life of Tamil poet Subramania Bharati, directed by Gnana Rajasekaran</li> <li>➤ Won five Kerala State Film Awards for best art director (1980-90)</li> <li>➤ In 2007, Vadivelu-starrer "Imsai Arasan 23rd Pulikecei" fetched him the Tamil Nadu state film award for best art director</li> </ul>

- ✓ In Kannada, he was associated with three remarkable movies - Adi Shankaracharya (1983), Madhavacharya (1986) and Ramanujacharya (1989).

- ✓ Krishnamoorthy's association with Malayalam filmmakers produced great movies in the late 1980s, starting from Lenin Rajendran's Swathi Thirunal (1987).
- ✓ The result was powerful movies like like Vaisali (1988), Oru Vakakkan Veeragatha (1989) and Perumthachan (1991).
- **Renowned aerospace scientist Roddam Narasimha (87 years) - passed away in Bengaluru on December 14.**



- ✓ He has contributed to some of India's major scientific programmes including Isro and the Light Combat Aircraft
- ✓ Roddam was professor Satish Dhawan's first student.
- ✓ He remained active till the end, working from the Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) and IISc.
- ✓ He was awarded the Padma Vibhushan in 2013.
- ✓ He got his ME-equivalent degree in 1955 and MSc in 1957 from the Indian Institute of Science, and PhD from Caltech in 1961.
- ✓ After returning from the US in 1962, he built an active research group at IISc in aerospace and atmospheric fluid dynamics.
- ✓ His major research interest areas are in transitional and turbulent flows, the design of aerodynamically efficient wings for turboprop aircraft, the flow within a shockwave, the atmospheric boundary layer in the Indian tropics, and the fluid dynamics of cumulus clouds
- ✓ From 1978 to 1983, Roddam led early conceptual studies of the LCA.
- ✓ Roddam also served as the Director at the National Aerospace Center from 1984 to 1993
- ✓ During this time, he played a major role in designing carbon composite wings and flight control systems for the LCA, designing and using the first parallel computer in the country, and defining an Indian standard atmosphere.
- ✓ In the space sector, he led early studies of Indo-French satellite Megha-Tropiques.
- ✓ As Director of National institute of Advanced Studies (1997-2004), he led annual dialogues with the US National Academy of Science following the Pokhran II tests.
- ✓ He served on many policymaking bodies of the government of India, including the Space Commission, the Prime Minister's Science Advisory Council, and the National Security Advisory Board.

# MEASURING A MOUNTAIN – A REPORT

## HEIGHT OF GEOGRAPHY: HOW TO GET THE MEASURE OF A MOUNTAIN

So, the Everest is about 3 feet higher than the most commonly accepted figure for its height, states the latest survey of its elevation by Nepal and China. But the way the physical Earth is, it may be valid to say, philosophically speaking, that you cannot measure the same mountain twice. The tools and methods have undergone great advances, but pinning the true height of a mountain can still pose a virtually insurmountable challenge

### A CENTURY BACK IT WAS MAINLY TRIGONOMETRY

The first recorded attempt at measuring the Everest using modern calculations had come in 1856, when surveyors commissioned by the then-Surveyor General of India George Everest estimated its height at 29,002 feet.

Without going into the sines and cosines of the craft, suffice it to say that using accurate measures of distance and multiple readings of angles from different positions, it is possible to use trigonometry to determine the elevation of any feature. A key instrument in this exercise is the theodolite, which helps in measuring angles. It is much like an instrument you may have observed engineers use in road building.

As it turned out, the height determined by officials of the British Raj was quite close to the one Indian officials would compute in the 1950s using more modern instruments: 29,028 feet, or 8,848 metres. It is still the most cited figure for Everest's height.



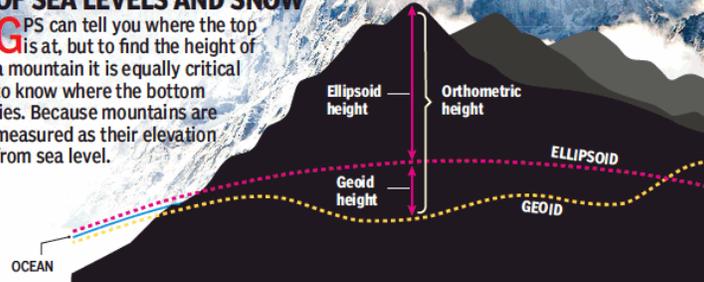
« An 1851 theodolite and (right) a modern avatar

### NOW, EXPERTS ARRIVE AT HEIGHTS USING GPS

The key tool employed by Chinese and Nepalese surveyors was a GPS receiver, which was carried to the top of Everest. The factor of time taken for signals to travel from the receiver to multiple satellites and the distance of these satellites from fixed objects provides a highly accurate approximation of the location and elevation of the peak. But while GPS and similar systems may have enabled great leaps in pinning heights, measuring a mountain depends significantly on several moving parts.

### OF SEA LEVELS AND SNOW

GPS can tell you where the top is at, but to find the height of a mountain it is equally critical to know where the bottom lies. Because mountains are measured as their elevation from sea level.



170 years ago, Everest's crew, led by mathematician Radhanath Sikdar, solved the problem of sea level by actually working their way up from the Bay of Bengal by employing a network of line-of-sight stations until Everest itself was visible and could be measured using trigonometric formulae.

Another factor that proves contentious is whether to calculate the depth of the snow on a mountain peak as part of its height. The Nepalese surveyors used a ground-penetrating radar to actually measure the height of the snow standing on top of Everest's rocky crest but in the past it has been debated whether the snow should be part of the calculation.

### HOW SEA LEVEL IS MEASURED

To accurately determine sea level while interpreting GPS data, scientists now rely on two models that conceptualise the shape of the Earth: **ellipsoid**, which presents the Earth's surface as smooth and uniform and is used to measure geographical coordinates; and **geoid**: a model that takes into account gravity and how it impacts sea levels and how the rotating Earth bulges at the Equator and flattens at the poles. The geoid model is a close proxy for mean sea level. Calculations involving the ellipsoid and geoid heights finally give the **orthometric height**, or the height above sea level.

### HEIGHTS OF EVEREST

- 1856, British India  
29,002 ft
- 1954, India  
29,028 ft
- 1992, Italy  
29,022 ft
- 1999, US  
29,035 ft
- 2005, China  
29,017 ft
- 2020, Nepal-China  
29,032 ft

### BY THE WAY, EVEREST IS STILL GROWING

Everest, much like the rest of the Himalayan range, is growing by about half a centimetre every year as a result of plate tectonic collisions. The Indian plate pushing into the Eurasian plate for the last 40 to 50

million years is causing the peak to rise, though almost negligibly.

But earthquakes have the opposite effect – they can reduce a peak's height. The 7.8-magnitude

earthquake that struck Nepal in 2015 possibly reduced Everest's snow cap. Scientists found that some other peaks near the epicentre saw their heights shrink by about a metre after the

quake. A 1934 earthquake was estimated to have cut the mountain by about two feet. Nepal's Survey Department said the 2015 disaster was a key reason behind measuring Everest's height again.

Source: National Geographic, NOAA, Slate, media reports