



EVERYDAY CURRENT AFFAIRS—JANUARY 19, 2021

TAMIL NADU

- On January 18, 10,256 healthcare workers - were inoculated against Covid-19 in the State.
- ✓ It was more than half of the targeted 17,700 beneficiaries for the day.
- ✓ Of the total beneficiaries, 10,051 healthcare providers received Covishield vaccine in 160 centres, while 205 others received Covaxin from six state-run medical college hospitals.
- ✓ Nagapattinam was one of the low performing districts with achieving only 6.7% of the day's target, followed by Tuticorin at 10%.
- ✓ The Nilgiris vaccinated 460 against targeted 300 healthcare workers, and Coimbatore vaccinated 481 against target of 400.



DAY 3: DOSES UP IN TN

- Tamil Nadu has so far administered vaccine doses to **16,462 people over three days**
- The number of people vaccinated jumped from about **3,000** each on the first two days of the drive to **10,000** on Monday

MONDAY VAX COUNT	
No. of Covishield doses administered	10,051
No. of Covaxin doses administered	205
Total vaccinated	10,256

COVID TRACKER

No. of new Covid infections	551
No. of deaths reported	8





- ✓ The public health directorate made changes in vaccination protocol by allowing all willing healthcare providers – registered and unregistered – to get vaccinated when they noticed issues in the CoWin portal.
 - ✓ In the past three days 15,975 healthcare providers against targeted 48,900 were given the Covishield vaccine, while 487 of the targeted 1,800 were administered Covaxin.
 - ✓ This takes the vaccine recipients tally in the state to 16,462, as on January 18
 - ✓ Tirupur's K Vijayakarthisayan was first collector to get vaccinated on the day.
- **Around 20 lakh students of Classes X and XII across the state - are set to return to schools on January 19, after a gap of nearly 10 months.**
- ✓ The government has decided to reopen the schools with strict enforcement of the standard operating procedures
 - ✓ The new norms include entering in specified time slots, getting temperature checks, sanitizing hands and wearing masks, occupying designated seats and not gathering during breaks

INSIDE CLASSROOM

- Each classroom to seat maximum 25 students
- Each student will be allotted a seat for the academic year
- Six feet distance in between seats
- Students must bring their own food and water bottle. There will not be any water dispensers for students
- Teachers to supervise lunch hours to avoid sharing of food
- Access to toilet will be regulated to follow SOPs

AT ENTRANCE

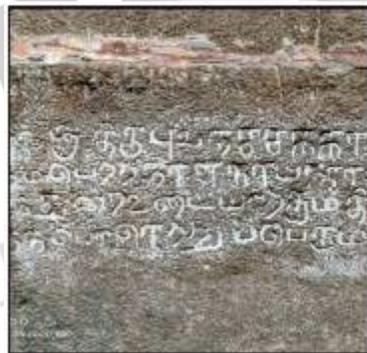
- Staggered entry for Class X and XII students
- Students must carry consent letter from parents
- Wearing masks, thermal screening and sanitizing/washing of hands mandatory
- Any student with body temperature above 99°F or other symptoms will be isolated or referred to nearby hospital

LESSON PLAN

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| <ul style="list-style-type: none"> ➤ No academic activity or classes on day one ➤ Teachers will create awareness on Covid-19 protocols, reduced portions for board exams ➤ Many schools to counsel students to adapt | <ul style="list-style-type: none"> to academic environment ➤ Covid-19 tests for students ➤ Distribution of vitamin and zinc tablets ➤ Health camps to | <ul style="list-style-type: none"> check students ➤ Mobile medical teams at block levels for quick response ➤ District-level coordination committees to inspect schools for hygiene |
|---|---|--|

- ✓ The school education department has deputed directors and joint directors to districts to monitor schools.
- ✓ The schools were advised to give counselling to students in the first few days instead of taking classes
- ✓ The public health department has prepared a to-do list for schools in Tamil Nadu.
- ✓ It includes the screening of students in a week by teams of doctors working in the Rashtriya Bal Swasthya Karyakram teams and the distribution of doses of Vitamin C and other multivitamins to boost their immunity levels.

- ✓ The directorate of public health has issued a circular on standard operating procedures (SOPs) to be followed relating to opening of schools.
- ✓ Students should be provided with hand sanitizers in each class and campuses should have facilities for washing hands.
- **A 13th century AD Pandya-era Tamil inscription recording the donation given to the Manikkavasagar temple – was found at a temple in Tiruvannamalai**
- ✓ The inscription begins with the name “Swasthasri Tribhuvana Chakravarti” and is said to be written during the reign of Sundara Pandian
- ✓ The inscription mentions about making cultivable lands in Nelvai region (probably a small village near Peranamallur) as tax free and donating them to the deities.
- ✓ One half of the donation will be given to deity, Thiruperunthurai Udaiya Nayanar and another half to deity, Thiruvathavoor Nayanar by Sree Vikrama Chozha Thevar and Saethi Mandalathu Naatar Sabai, as per the inscription
- ✓ Raj Panneer Selvam, president of the Tiruvannamalai Heritage Foundation, discovered the inscriptions while exploring ancient temples in Tiruvannamalai.
- ✓ The Avudaiyar temple deity is called Thiruperunthurai Udaiya Nayanar.
- ✓ Senior archaeologist Rajagopal Subbiah deciphered the inscriptions



- ✓ According to Rajagopal, the donation might have been made by Maravarman Sundara Pandian II, the brother of the Sadaiyavarman Kulasekara Pandian II with whom he co-ruled the region between 1238 AD and 1240 AD.
- ✓ In this temple, 9th century poet Manickavasagar first recited his poetry ‘Tiruvembavai’

STATES

- **Telangana’s WE Hub – has entered into partnership with Gujarat’s I-Hub recently**
- ✓ WE Hub refers to Women Entrepreneurs Hub, while i-Hub refers to Student Startup and Innovation Hub
- ✓ WE Hub is a startup incubator, which provides an environment for the women entrepreneurs to grow their business in the state of Telangana.



- ✓ It aims to support women entrepreneurs with solutions, innovative ideas and supports to focus on emerging areas.
- ✓ i-Hub aims to develop end-to-end innovation and entrepreneurial ecosystem in the state of Gujarat.
- ✓ Also, it provides amenities such as futuristic and advanced technology labs, techno-commercial mentoring, networking and regulatory and advisory services.
- ✓ It was created under the Student Startup and Innovation Policy of Gujarat.
- ✓ The National Startup India action plan aims to support student startups and university innovation-based enterprises such as Startups at post-incubation stages
- ✓ Startup India was launched in 2015 to develop seventy-five startup support hubs in the country.
- ✓ According to Startup India State Rankings 2019, Gujarat was the best performer, while Karnataka and Kerala were ranked as the top performers.

NATIONAL

- **Bharat Biotech – issues advisory regarding people who can take anti-Covid vaccine Covaxin in a detailed factsheet**
- ✓ The latest factsheet released by the manufacturer of Covaxin advises people who are immuno-compromised or are on medicines that affect the immune system not to take the vaccine
- ✓ Earlier, the government had said patients on immunosuppressants or suffering from immune deficiency could take the vaccine, though the response was expected to be less effective in such individuals.
- ✓ Usually, cancer patients on chemotherapy, HIV-positive people and those on steroids are considered ‘immune-suppressed’.
- ✓ While the risk of infection is higher in such patients, the efficiency of vaccines is often very low in such groups.
- ✓ Bharat Biotech has advised people with bleeding disorders or who are on blood thinners to avoid the jab.

- ✓ Also, those who are acutely ill, have fever or have any history of allergy, besides pregnant or lactating mothers were also advised not to take the vaccine.
 - ✓ All flu-like symptoms, including fever, headache, body ache, tiredness and chills, are adverse reactions of a vaccine if they appear within 48 hours and resolved on their own
 - ✓ The clinical efficacy of Covaxin is yet to be established and it is still being studied in Phase 3 trials.
 - ✓ The government has procured 55 lakh doses of Covaxin, which have been distributed among 12 states and UTs.
 - ✓ The Union health ministry has said that both the Covid-19 vaccines — Covishield and Covaxin — being administered now in India have a shelf life of six months from the date of production
 - ✓ However, each vial must be used or discarded within four hours of being opened.
 - ✓ The Centre had already procured more than 16 million doses of the two vaccines.
 - ✓ Both vaccines are 'freeze sensitive' and vials found frozen or frozen and thawed must be discarded immediately.
 - ✓ For Covishield — whose physical appearance is slightly opaque (colourless to slightly brown), the vials must be discarded if the solution is discoloured or visible particles are observed
 - ✓ Similarly, for Covaxin, whose appearance is whitish translucent, presence of particulate matter or other coloration will lead to discarding.
 - ✓ Both the vaccines are to be stored at prescribed temperatures (2°Celsius to 8°Celsius)
 - ✓ A vial of Covishield contains 10 doses and Covaxin 20 doses
 - ✓ The National Centre for Disease Informatics and Research (NCDIR), a Bengaluru-based branch of ICMR, has been identified as the nodal centre to monitor Covaxin's Phase 3 clinical trials.
 - ✓ Meanwhile, the government decided to export limited doses of Covid-19 vaccines to friendly countries as a "goodwill gesture" to meet some of their immediate requirements
 - ✓ Covaxin will be sent to Mongolia, Oman, Myanmar, Philippines, Bahrain, Maldives and Mauritius
 - ✓ Covishield will be sent to Bhutan, Seychelles, Afghanistan, Bangladesh and Nepal.
 - ✓ While both vaccines will be supplied on a government-to-government basis, the procurement will be done by the ministry of external affairs (MEA)
- **Mahananda wildlife Sanctuary in West Bengal – to host the first ever bird festival soon from February 20 to 23**
- ✓ The festival is to be organised by Darjeeling Wildlife Division.
 - ✓ The participants will be taken to the popular birding spots such as Rongdong and Latpanchor, besides other birding trails within the forests

- ✓ The Mahananda Wildlife Sanctuary has been identified as an Important Bird and Biodiversity Area.
 - ✓ The Important Bird Area concept was proposed by Birdlife International.
 - ✓ An Important Bird and Biodiversity Area is categorised using internationally agreed set of criteria that are globally important for conservation of bird population.
 - ✓ Currently there are 12,000 Important Bird Area spread all over the world.
 - ✓ In order to be listed under Important Bird Area, the site must satisfy at least one of the following criteria - A1: Globally threatened species, A2: Restricted range species, A3: Biome-restricted range species and A4: Congregations
 - ✓ Mahananda Wildlife Sanctuary is located in the foothills of Himalayas between Teesta and Mahananda rivers.
 - ✓ It was provided the status of sanctuary mainly to protect Indian bison and Royal Bengal Tiger.
- **On January 18, Prime Minister Narendra Modi - was elected Chairman of the Somnath Temple Trust**
- ✓ The PM was elected at a meeting of trustees held virtually.
 - ✓ He will take over as the chairman after the demise of former Gujarat Chief Minister Keshubhai Patel, who previously headed the trust.

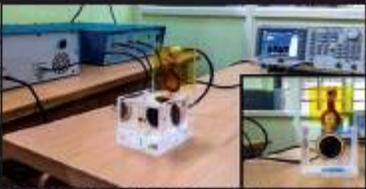
INDIA AND OTHER COUNTRIES

- **On January 18, India and Japan - signed an agreement which will enable skilled Indian professionals to live and work in Japan.**
- ✓ An Memorandum of Cooperation (MoC) was signed by foreign secretary Harsh Shringla and Japanese ambassador to India Suzuki Satoshi in New Delhi.
 - ✓ The MoC covers 14 categories of specified skills under which skilled workers from India who meet the requirements and Japanese language tests would be eligible for employment in Japan on a contractual basis.
 - ✓ The 14 specified industry fields include nursing care, building cleaning, material processing, industrial machinery manufacturing, electric and electronic information, construction, ship-building and ship-related industry, automobile maintenance, aviation, lodging, agriculture, fisheries, food and beverages manufacturing and food services industry
 - ✓ These workers would work in Japan under the status of a specified skilled worker.
 - ✓ The agreement is significant because Japan has been very reluctant to admit foreign workers.

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **IIT-M researchers - have developed an ultrasound-based technology to track temperature in real time during treatment like thermal therapy used for treating tumours, for pain relief and rehabilitation.**

- ✓ The technology is non-invasive, portable compared to existing alternatives, and is safe as there is no exposure to ionising radiation.
- ✓ It generates a heat map in real time and shows the temperature at different locations and at varying depths within the targeted tissue region where the heat is applied

HOW IT WORKS	
<ul style="list-style-type: none"> ➤ The ultrasound-based technology tracks temperatures during thermal therapy like treating tumors and tissue rehabilitation 	
<ul style="list-style-type: none"> ➤ It obtains ultrasound signals from the tissue region where heat is applied non-invasively either through microwave applicator or high-intensity focused ultrasound (HIFU) 	
<ul style="list-style-type: none"> ➤ It then processes the signals using wave interaction with the tissue 	
<ul style="list-style-type: none"> ➤ The technology creates heat map in real time with data on 	
<p>MAPPING HEAT: The high-intensity focused ultrasound experiment unit at biomedical ultrasound lab, IIT-M</p>	
<p>amount of heat applied or absorbed by tissues at different levels in the targeted region</p>	
<ul style="list-style-type: none"> ➤ Researchers say the technology is non-invasive and safe as there is no exposure to ionising radiation 	

- ✓ The technology involves obtaining ultrasound signals from the tissue region of interest in the body, where heat is applied non-invasively from outside through a microwave applicator or high-intensity focused ultrasound (HIFU)
 - ✓ At present, there is an MRI (MR guided HIFU), which is the only alternative, to monitor treatment like treating uterine fibroids.
- **National Institute of Ocean Technology (NIOT) – has decided to upgrade buoys to study mid-sea air quality**
- ✓ The network of buoys, developed, maintained and operated by NIOT will soon undergo replacement in a phased manner
 - ✓ They will also be integrated with additional sensors to study air pollution at mid-sea and biogeochemical cycles.
 - ✓ These buoys help in accurate weather forecasting, tracking of cyclones and climate studies
 - ✓ Chennai-based NIOT has a network of 17 buoys including nine in Bay of Bengal and the rest in Arabian Sea, at present, measuring nearly 100 parameters and are capable of transmitting them in real time.
 - ✓ The network of buoys deployed both closer and away from the coast measures a number of ocean and atmospheric parameters
 - ✓ It includes sea surface temperature, which is a key data used in weather forecast models, and also helps in studying rapid intensification of cyclones, where a moving weather system picks up strength from the warm oceans.
 - ✓ While some data is transmitted in a specific period like every 10minutes to every three hours, some are stored in the hard disk and are later retrieved.

WHAT DO THEY DO?

➤ Weather buoys that help in weather forecasting, tracking cyclones and help study short-term and long-term climate change will be replaced in a phased manner

➤ National Institute of Ocean Technology has developed and maintains 17 data buoys in Bay of Bengal and Arabian Sea. It also has two tsunami buoys

➤ The buoys fitted with ocean and atmospheric sensors generate data on nearly 150 parameters such as sea



surface temperature, humidity, salinity, air pressure, CTD -conductivity, temperature, depth, wind speed and

direction, current direction, wave height and precipitation

➤ More sensors are likely to be added to study air pollution, ocean acidification and biogeochemical cycles

- ✓ Data on biogeochemical cycles helps study ocean acidification, which refers to the decrease in pH.
- ✓ Only a few countries such as the US, Canada, UK, Japan and Germany have weather buoys like what India have

DEFENCE

- India - is going to deploy its new Rafale fighters against French Rafales for a joint exercise called “Desert Knight” at Jodhpur this week



- ✓ This will be the first such high-voltage combat manoeuvres for the omni-role jets since they were inducted by the IAF last year.
- ✓ The Rafales will also make their debut at the Republic Day parade this year.
- ✓ The Rafael Jets will be a part of the Ekalavya formation, which will include one Rafale jet, two MiG 29s and two Jaguars.
- ✓ Two of the 4.5-generation fighters will be among the 15 fighters, five transport aircraft, 21 helicopters and a vintage Dakota that will take part in the flypast on January 26.

- ✓ The key event this year will involve a Rafale that will undertake the “Vertical Charlie” formation by entering into the sky directly over the Rajpath.
- ✓ The vertical Charlie formation is when an aircraft flies at lower altitude and conducts rolls before stabilizing at higher altitude.
- ✓ IAF till now has inducted eight of the 36 Rafales, which are also capable of delivering nuclear weapons, under the ₹59,000 crore deal signed with France in September 2016.
- ✓ Another three are expected to touch down in India by the end of this month.
- ✓ All 36 will be delivered by end of 2022.
- ✓ **The Desert Knight exercise will involve India and France**
- ✓ Both the countries will deploy fighters, transport planes and mid-air refuelling aircraft for the exercise, which is scheduled to be held from January 20 to 24
- ✓ The Desert Knight exercise is in addition to the regular ‘Garuda’ wargames held between the two air forces.
- ✓ The French forces are currently deployed in Asia as part of their ‘Skyrosdeployment’, and will be transiting through India.
- ✓ The twin-engine Rafales have a combat range of 780 km to 1,650 km, without mid-air refuelling, depending on the nature of their mission.
- ✓ The IAF fighters are armed with long stand-off weapons like the over 300km range ‘Scalp’ air-to-ground cruise missiles.
- ✓ The fighters are also being equipped with the top-notch Meteor air-to-air missiles, which have a strike range of 120km to 150km
- ✓ IAF has also ordered the “Hammer” air-to-ground precision-guided munitions for the Rafales
- ✓ With a strike range of 20km to 70km, the Hammer munitions are designed to destroy bunkers, hardened shelters and other targets in all terrains, including the mountainous one in Ladakh.
- ✓ **Flight Lieutenant Bhawana Kanth, one of the first three women commissioned into the fighter stream in June 2016, will be part of the IAF contingent in the Republic Day parade this year.**



- ✓ She will be the first woman fighter pilot to take part in the Republic Day parade.
- ✓ The other fighter pilots inducted into the Indian Air Force were Avani Chaturvedi and Mohana Singh.

- ✓ IAF currently has 10 women fighter pilots, who have undergone the arduous training to fly supersonic jets
- ✓ In 2019, Bhawana Kanth became the first female fighter pilot of India to qualify to undertake combat missions.
- ✓ She received the Nari Shakti Puraskar from President of India Ramnath Kovind in March 2020.

ECONOMY

- **French oil and gas major Total SE - is to acquire a 20% stake in Adani Green Energy (AGEL), the renewable arm of the Ahmedabad-based diversified Adani group**
- ✓ Total will also get 50% ownership of Adani's operating solar projects with aggregate capacity of 2.35 GW (gigawatts) for a total investment of \$2.5 billion.
- ✓ Total will acquire the 20% stake from Adani's 74.9% holding in AGEL
- ✓ This is Total's third deal with the Adani group
- ✓ In February 2020, Total had struck a deal with AGEL to acquire a 50% stake for \$510 million in a new joint venture company they formed.

RENEWABLES PUSH

- Adani Green Energy debuted in 2015 with a 648MW solar project, the world's largest single-location unit, at Kamuthi in Tamil Nadu
- It has over 14.6GW of contracted renewable capacity, with 3GW in operation, another 3GW under construction and 8.6GW under development
- The company aims to achieve 25GW of renewable power generation by 2025

- India has set its sight on attaining 450GW renewable energy capacity by 2030 and is racing to meet the target of 175GW by 2022
- It also aims at raising the share of natural gas in the energy basket from 6.2% to 15% by 2030
- Both are key elements of the government's blueprint for reducing the economy's carbon footprint in line with the country's climate commitment

- ✓ The deal entailed AGEL transferring its operating solar assets with a total capacity of 2,148 MW to the joint venture.
- ✓ AGEL was to retain the remaining 50% ownership in the joint venture.
- ✓ Total began its relationship with the Adani group in 2018 by investing in Adani Gas, the group's subsidiary for city gas distribution, LNG (liquefied natural gas) and gas marketing businesses.
- ✓ Indian government is aiming for 450 GW renewable energy capacity target by 2030

SPORTS

- On January 17, the world chess body Fide - conferred Kerala Grandmaster Nihal Sarin with its Gazprom Brilliancy Prize for playing the best game at the World Youth and Cadets Rapid Championships



- ✓ The event was held online last December
- ✓ Sarin's impressive victory against Italian IM Francesco Sonis received five out of the nine judges' votes.
- ✓ In the Semi-finals, Sarin had beaten Francesco Sonis 1.5-0.5 in the Open Under-18 section before going on to win the gold medal at the event.
- ✓ Fellow Indians Rakshitta Ravi and D Gukesh had also won gold medals in their respective categories.
- ✓ Last year, Sarin made history when he bagged the gold medal at the Chess Olympiad in July-August.

