

EVERYDAY CURRENT AFFAIRS – AUGUST 17, 2020

TAMIL NADU

- On August 16, Tamil Nadu - added 5,950 fresh Covid-19 cases and 125 deaths, taking the total caseload and death toll in the state to 3,38,055 and 5,766 respectively.
- ✓ Chennai recorded 1,196 new cases, taking the cumulative tally to 1,16,650.

Keeping count | A tracker, across parameters, on how the pandemic has affected the State so far

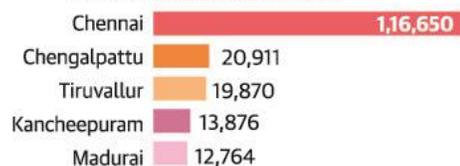
	Until Aug. 09	Aug. 10	Aug. 11	Aug. 12	Aug. 13	Aug. 14	Aug. 15	Aug. 16	Total
Cases reported	2,96,901	5,914	5,834	5,871	5,835	5,890	5,860	5,950	3,38,055
Recovered / discharged	2,38,638	6,037	6,005	5,633	5,146	5,556	5,236	6,019	2,78,270
Deceased	4,927	114	118	119	119	117	127	125	5,766

Persons tested



*CHANGES IN 24 HOURS

Districts with maximum cases



Active cases



Recoveries



Deaths



- ✓ As many as 6,019 persons were discharged after treatment, taking the total recovered to 2,78,270.
- ✓ With this, the number of active cases in the State stands at 54,019.
- ✓ Apart from the Capital city, Tiruvallur, Chengalpet and Kancheepuram recorded 488, 436 and 307 new infections respectively.
- ✓ Further, Coimbatore reported 395 fresh infections, while Theni accounted for 205 and Vellore 264 cases.
- ✓ Also for the second day, the State reported 'incidental' Covid-19 deaths in its health bulletin.

- ✓ These are people with chronic illness, organ failure or end stage disease who were diagnosed with Covid-19.
- ✓ The state has so far reported six 'incidental' deaths.
- **Retail Tasmac outlets that fall under the Greater Chennai Police limits - will reopen on August 18.**
 - ✓ More than 750 Tasmac outlets in and around Chennai will be open from 10am to 7pm and tokens will be issued to a maximum of 500 customers a day
 - ✓ Wearing a face mask is mandatory for buying liquor
 - ✓ However, bars attached to Tasmac outlets will not function
 - ✓ Elite shops selling premium and imported liquor, operating in shopping complexes will also be allowed to open for the public.
 - ✓ Shops that are within the malls and in Covid-19 containment zones will not be opened.
 - ✓ Chennai has 31 elite Tasmac outlets, including one in each mall.
 - ✓ The Tasmac outlets remained closed since March, when the lockdown first came into effect to contain the spread of Covid-19 pandemic.
 - ✓ Later, Tasmac outlets across the state (except Chennai and suburbs) were reopened in May.
 - ✓ Tasmac outlets in and around the city record an average daily sales of ₹12 crore
 - ✓ There are around 900 Tasmac outlets in the Chennai region, comprising the city, Chengalpet, Kancheepuram and Tiruvallur districts
 - ✓ Already, 230 shops located in the three neighbouring districts have started operating since May.
- **Anna University - declared results of all semesters except the final semester on August 15**
 - ✓ As per the announcement, all 2.3 lakh students registered for April/ May 2020 semester exams from affiliated engineering colleges have cleared the exams.
 - ✓ The grades were given based on the internal assessment (70% weightage) and previous semester exams (30% weightage) following the cancellation of exams.
 - ✓ The internal assessment marks of the students were obtained from the respective colleges
 - ✓ The university verified the previous semester exams from its own database and awarded grades to the students.
- **Vellore Institute of Technology (VIT) - has been ranked 801-900 in academic ranking of world universities (ARWU) 2020**
 - ✓ The ARWU 2020 rankings are released by Shanghai Ranking Consultancy on August 15.
 - ✓ According to the list, VIT is the only private institution ranked in the top 1000
 - ✓ It is also ranked one among the top nine out of 15 institutions from India.
 - ✓ Last year, VIT has been ranked in the slot of 901-1000.

STATES

- **On August 16, the Jammu & Kashmir administration - decided to restore high-speed mobile Internet, 4G, in central Kashmir's Ganderbal district and Udhampur in Jammu on "a trial basis".**
 - ✓ However, in rest of the districts, the Internet speed shall continue to be restricted to 2G
 - ✓ The trial basis 4G services will remain in place till September 8
 - ✓ Internet services were cut in J&K on August 5, 2019, the day its special status was cancelled after the nullification of Article 370
 - ✓ It was later restored in a phase-wise manner.
 - ✓ However, the speed on mobile phones was restricted to 2G.
 - ✓ For now, 4G services will be limited to postpaid mobile subscribers.
 - ✓ Users of prepaid connections would be able to access 4G on completion of a mandatory verification process
 - ✓ The restoration of 4G services comes within days of the Centre informing the Supreme Court that a special committee was looking into the feasibility of lifting the ban on high-speed internet services on mobile devices.

- **Kolkata public buses – to allocate designated seats for transsexual commuters**
 - ✓ The drive to reserve at least one bus seat for the third gender was officially launched on August 16.
 - ✓ The person behind the idea is 23-year-old Sobhan Mukherjee, who was nicknamed "Kolkata's padman" for setting up sanitary napkin vending boxes in public toilets two years ago.
 - ✓ He has also been instrumental in installing transgender toilets in the city.
 - ✓ Recently, Sobhan has undertaken the project of demanding seats for transsexuals in public transport
 - ✓ The Joint Council of Bus Syndicates (JCBS), the umbrella organisation for 42,000-odd privately-owned public buses in Kolkata, announced its support to Sobhan in his new endeavour
 - ✓ The process to reserve the seats in 36 buses, which ply between Bansdronei in south Kolkata to Babughat in the central business district, started on August 14.
 - ✓ The seats are being called "tridhara", and will have stickers indicating that they were meant for transsexuals.

NATIONAL

- **The monsoon session of Parliament - will have Lok Sabha and Rajya Sabha meeting on alternate days in order to accommodate members in the chambers and galleries of both House.**

- ✓ The session is likely to be convened in September 2020 by adopting new normal of physical distancing
 - ✓ Accordingly, the Lok Sabha and Rajya Sabha will also see staggered sitting arrangements and audio-visual connectivity across both the chambers to allow members to participate in the proceedings from either of the two chambers or galleries.
 - ✓ The final seating plans will accommodate 60 members in the Rajya Sabha chamber, 51 in the galleries and the remaining 132 in the Lok Sabha chambers
 - ✓ To ensure ease of participation, the chambers and galleries will also be fitted with additional large display screens and consoles for participation from galleries, ultraviolet germicidal irradiation, and polycarbonate separators between the officers' box and the rest of the House
 - ✓ Use of ultraviolet germicidal irradiation in the air conditioning system of the Rajya Sabha for killing bacteria and viruses in the air supply is also being considered.
 - ✓ Use of the chambers and galleries of both the Houses for holding the session will be the first in the history of Parliament since 1952.
 - ✓ The Parliament last met on March 23 and must be convened before September 22, within six months of the last session.
 - ✓ The Rajya Sabha and the Lok Sabha TV channels will telecast the proceedings of the two Houses live, apart from displaying the proceedings of each of House on the screens in the other.
- **The cave shrine of Shri Mata Vaishno Devi at Katra in Jammu & Kashmir's Reasi district - reopened for devotees on August 16 after a gap of almost five months in the wake of the coronavirus pandemic.**



- ✓ Other religious places that reopened in Jammu include Mahakali temple at Bahu Fort, historic Shiv temple near Jammu civil secretariat, and the city's famous Raghunath temple.
- ✓ The Kol Kandoli temple in Nagrota, also known as 'first darshan' of goddess Vaishno Devi, will be reopened from August 17.
- ✓ During the first week of resumption of the pilgrimage, there will be a cap of 2,000 pilgrims per day (1,900 from within J&K and the remaining from outside J&K).

- ✓ People will be allowed to undertake the yatra only after online registration through the official website of Shri Mata Vaishno Devi Shrine Board.
 - ✓ The board has also made it mandatory for pilgrims to wear masks and pass through thermal scanners at entry points.
 - ✓ Further, Children below 10 years, pregnant women, people with comorbidities and those aged above 60 have been advised to avoid the yatra
- **On August 12, the number of applications received by the Centre under PM-SVANidhi Scheme - crossed 5 lakhs within 41 days of its launch**



- ✓ PM SVANidhi refers to 'PM Street Vendor's AtmaNirbhar Nidhi'
- ✓ The scheme was launched by Ministry of Housing and Urban Affairs to benefit the street vendors.
- ✓ Under the scheme, the government will provide loans up to Rs 10,000 to the street vendors.
- ✓ It was launched under the Centre's ambitious 'AtmaNirbhar Bharat Abhiyan' initiative.
- ✓ The scheme aims to extend loans to 50 lakh street vendors in urban, peri-urban and rural areas.
- ✓ Under the scheme, the number of loans already sanctioned has crossed 1 lakh persons.
- ✓ The scheme provides incentives in the form of interest subsidy at 7% per annum.
- ✓ It also provides cash back up to Rs 1,200 per annum.
- ✓ The micro finance institutions and non-banking financial companies will act as lending institutions under the scheme.
- ✓ These banking institutions are to operate in addition to private and public sector banks, scheduled commercial banks, cooperative banks, regional rural banks and Self-Help Group Banks.
- ✓ The scheme was launched in June 2020 and will run till March 2022
- ✓ The Small Industries Development Bank of India (SIDBI) is the technical partner to implement the scheme.

- **On August 13, NITI Aayog - announced that it has selected Oracle Corporation to modernise vital IT infrastructure in 112 most backward districts under its Aspirational Districts Programme.**
 - ✓ The selected 112 districts constitute 28% of Indian population.
 - ✓ NITI Aayog will receive help from Oracle cloud Services to fast track the transformation of Aspirational Districts.
 - ✓ This is to be achieved through simplified data access, real-time data governance, and increased process automation.
 - ✓ The Oracle Corporation will provide new cloud solution and will assist the District Magistrates to transform the lives of people and to improve their overall performance.
 - ✓ The data driven decisions are essential to identify strengths and weaknesses of the Aspirational Districts to ensure their progress.
 - ✓ The Aspirational Districts Programme is implemented by NITI Aayog.
 - ✓ It monitors the 'real time' progress of aspirational districts based on 49 indicators from 5 thematic areas.
 - ✓ These include education, health and nutrition, agriculture and water resources, basic infrastructure, financial inclusion and skill development.
 - ✓ The broad contours of the programme are Convergence, Collaboration and Competition.
 - ✓ The programme aims at decentralisation of development, improved implementation of governmental schemes and inclusive approaches.
 - ✓ It strives to support India's vision of becoming a 5 trillion USD economy by 2024-25.

- **On August 12, the Ministry of Road Transport and Highways - announced that the electric vehicles shall be sold and registered without pre-fitted batteries.**
 - ✓ The announcement is expected to reduce cost of Electric Vehicles by 50%
 - ✓ The step is being introduced by the government as the batteries make the electric vehicles highly expensive than the combustion engines.
 - ✓ If the cost of batteries is taken out from the cost of vehicles, the EV cost would be far less than that of the normal 'petrol or diesel powered' vehicles.
 - ✓ The batteries can be sold separately by the manufacturer or energy service provider separately.
 - ✓ The announcement raises concern among the manufacturers as to how will the subsidies under the Electric Vehicle Adoption Policies be determined, if the vehicles are sold without batteries.
 - ✓ The government offers incentives under Electric Vehicles FAME Policy to the manufacturers.
 - ✓ The other major concern is that under Rule 126 of the Central Motor Vehicles Rules, 1989, both electrical vehicle and the battery are required to be type-approved by the test agencies.

- ✓ India has been promoting the EVs in a big way, as the country has committed to cut Green House Gas Emission intensity by 33% to 35% by 2030 as compared to 2005.
- ✓ Further, the EVs would reduce the import of transport fuel, which is around 80% as on date.
- ✓ Promotion of EVs will also help generate employment in the country and reduce pollution in cities.
- ✓ According to WHO, India consists of 14 out of 20 most polluted cities in the world.

- **On August 12, the National Expert Group on Vaccine Administration - met for the first time.**
 - ✓ The meeting was chaired by the Niti Aayog member Dr V K Paul along with Secretary of Ministry of Health and Family Welfare.
 - ✓ The group discussed on the implementation and conceptualisation of delivery mechanism of Covid-19 vaccines.
 - ✓ It also included inputs from the Standing Technical Sub Committee of National Technical Advisory Group on Immunization (NTAGI).
 - ✓ The group also discussed the procurement procedures of COVID-19 vaccines.

- **The Lok Sabha - has launched a new French Course at beginner level for the staff and officials.**
 - ✓ The course is being launched as French is one of the important languages in the interconnected world.
 - ✓ The initiative is to be implemented by the Parliamentary Research and Training Institute for Democracy (PRIDE).
 - ✓ In future, Lok Sabha has plans to launch similar courses in German, Russian, Spanish and other important world languages
 - ✓ PRIDE was set up in 1976 to provide training to parliamentary staff, parliamentarians and others in various disciplines of parliamentary institutions.
 - ✓ The activities of PRIDE include orientation programmes, round table discussions and lecture sessions for Members of Parliament.
 - ✓ In 2013, there were around 9,950 French nationals residing in India, with majority of them living in the Union Territory of Puducherry.
 - ✓ They form a minority community in the UT accounting to less than 3% of its population

- **The Ministry of Housing and Urban Affairs - recently released ranking of states under AMRUT scheme.**
 - ✓ Odisha has secured first position by scoring 85.67%.
 - ✓ AMRUT refers to Atal Mission for Rejuvenation and Urban Transformation Scheme.
 - ✓ So far, under the scheme, 148 projects have been completed out of 191 projects.

- ✓ The remaining projects are to be completed within the mission period of March 2021.
- ✓ This year, Odisha has topped the ranking followed by Chandigarh, Telangana, Gujarat and Karnataka in the implementation of the scheme.
- ✓ Nine cities of Odisha namely Bhubaneshwar, Sambalpur, Cuttack, Rourkela, Bhadrak, Balasore, Baripada, Berhampur and Puri were covered under the scheme.
- ✓ Around 2,400 kilo metres of pipeline laying has been completed in the state till date.
- ✓ The AMRUT mission was launched in 2015 by Prime Minister Narendra Modi.
 - ✓ It was extended by 2 years in December 2019.
 - ✓ The mission mainly focuses on the following important parameters – piped water supply, storm water drainage to reduce flooding, sewerage and septage management, green spaces in the cities and non-motorised urban transport
 - ✓ Around 500 cities were selected under the scheme.
 - ✓ All the cities and towns that have population more than 1 lakh according to the census 2011 are included in the scheme.
 - ✓ The capital cities of states and Union Territories are not covered.
 - ✓ The cities that are classified as Heritage cities by Ministry of Housing and Urban Affairs under HRIDAY scheme are also included in the scheme
 - ✓ HRIDAY is National Heritage City Development and Augmentation Yojana and was launched under Ministry of Housing and Urban Affairs.
 - ✓ It was launched to preserve and revitalize rich cultural heritage of India.
- **The Central Water Commission - has launched a new flood forecasting initiative along with Google.**
 - ✓ Under the initiative, alerts can be sent to the public regarding flood situation in a particular region.
 - ✓ People are also informed about current water level in the flood affected regions.
 - ✓ Google is already sending public alerts to people affected by floods in the country.
 - ✓ With the new initiative, people can now use Google Search to enter a query and seek key information about the current situation of water level in the flood affected area.
 - ✓ The flood alerts in India are issued by the Central Water Commission.
 - ✓ Now, with the initiative, any user with an Android phone can receive alerts.
 - ✓ Google is currently issuing flood alerts in Hindi, English and Bengali.
 - ✓ It is offering colour-coded maps indicating flooded areas.
 - ✓ Zooming the map will give better understanding about the current water level in these regions.
 - ✓ In order to avail the initiative, the user has to search for “flooding” followed by the name of the affected region on Google maps.

INTERNATIONAL

- **The US health watchdog, U.S. Food and Drug Administration (FDA) - has granted emergency use authorisation to 'SalivaDirect', a new saliva test to detect Covid-19**
- ✓ The new rapid detection test 'SalivaDirect' has been developed by Yale School of Public Health and has already undergone a trial on National Basketball Association players and staff.

New test on the block

SalivaDirect, a new rapid detection test for COVID-19 is touted to be simple, cheap and accurate

WHY IS IT DIFFERENT?	WHO DEVELOPED IT?
SalivaDirect uses saliva samples, as opposed to the more invasive nasopharyngeal swabs	It was developed by researchers from Yale School of Public Health in partnership with the National Basketball Association (NBA)
IS IT AFFORDABLE?	HOW ARE SAMPLES COLLECTED?
Compared to other tests approved by the Food and Drug Administration, SalivaDirect is affordable – each test could cost as little as \$10, or less – and has the highest sensitivity (88-94%)	The test could allow for 'at-home, self-administered sample collection', according to a researcher involved in developing the test



INDIA'S COUNT

With 57,361 new cases and 925 deaths recorded on Sunday, India's COVID-19 tally rose to 26,46,975 infections and 51,021 fatalities

- ✓ SalivaDirect was the fifth saliva test approved by the US Food and Drugs Administration for the disease
- ✓ It requires no swab or collection device and uses spit from people suspected of having the coronavirus
- ✓ The testing method was hailed as “groundbreaking” in its efficiency and is unaffected by crucial component shortages.
- ✓ SalivaDirect is seen as a cheap, simpler, faster and less invasive sample testing method that requires no extraction of nucleic acid and can use several readily available reagents.
- ✓ The test has high sensitivity (about 93%) and can detect the virus even when the number of virus copies in the saliva sample is as low as 6-12 copies per microlitre.

- ✓ The new test reduces the need for trained healthcare workers to collect the samples, reducing the risk of infection during collection.
- ✓ Collecting nasopharyngeal samples can also be uncomfortable, discouraging people from getting tested
- ✓ The collection of a nasopharyngeal sample requires a swab to be inserted into the back of the nostrils, very often causing irritation, leading to sneezing and coughing, thus exposing healthcare workers to the virus.
- ✓ Meanwhile, the World Health Organization has reported that the number of confirmed global coronavirus cases has increased by more than 2,94,000 in 24 hours — the highest figure so far.
- ✓ Globally, more than 21 million people were infected with the virus and more than 7,71,000 people have succumbed to the infection, according to the Johns Hopkins University.
- ✓ The highest death toll has been reported by US at almost 1,70,000, out of more than 5 million cases.

INDIA AND NEIGHBOURS

- **On August 12, the Ministry of Commerce - announced that China is extending anti-dumping tariff on fibre optic products made in India.**
- ✓ It means, according to China, India is dumping its fibre optic products and hence it has levied an anti-dumping duty.
- ✓ This will affect the Indian fibre optic products being exported to China.
- ✓ The tariff is to take effect on August 14, 2020 and is to last for five years.
- ✓ The tariffs are to range between 7.4% and 30.6%.
- ✓ Earlier china had slapped anti-dumping tariff on Indian products five years till August 2019 and had then reviewed.
- ✓ The anti-dumping tariff is a protectionist tariff that is imposed by domestic government on foreign imports.
- ✓ It is especially levied on those products which has the potential to affect the local businesses
- ✓ Dumping is the process of unloading goods into a foreign market at lower market value
- ✓ On August 10, India imposed anti dumping duties on imports of black toner powder originating from China and Malaysia.
- ✓ India traded \$129.78 million worth optical fibres, bundles and cables from China in the year 2019, as per UN COMTRADE database in international trade
- ✓ In India, anti-dumping duty is imposed only after thorough investigation by a Quasi-Judicial body, Directorate General of Trade Remedies (DGTR)
- ✓ The WTO allows imposition of anti-dumping duties.
- ✓ It is aimed at ensuring fair trading practices and creates a level-playing field for the domestic manufacturers.
- ✓ The UN COMTRADE is the largest repository of international trade data.

- ✓ There are more than 3 billion data projects since 1962, while more than 170 countries provide their annual trade statistics to UN COMTRADE
- **On August 12, India - extended \$1 million to Antigua and Barbuda to combat Covid-19 outbreak.**
- ✓ The grant will be utilized in improving health infrastructure in the country.
- ✓ India has also offered same level of financial assistance, that is, \$1 million to each of Caribbean Community under CARICOM.
- ✓ CARICOM is a group of 20 developing countries in the Caribbean region
- ✓ These countries would be using the grant to buy disposable gowns, full cover goggles, ventilators, face shields, examination gloves, disposable masks, etc.
- ✓ Further, Antigua and Barbuda are to receive 10,000 Hydroxychloroquine tablets.
- ✓ The assistance proposals of Antigua and Barbuda were processed under the India-UNDP Funds.
- ✓ The funds are managed by the United Nations Office for South-South Cooperation (UNOSSC).
- ✓ CARICOM was formed in 1973.
 - ✓ It has 15 full-time members namely Antigua and Barbuda, Barbados, Bahamas, Dominica, Belize, Grenada, Haiti, Guyana, Montserrat, Jamaica, St Kitts, St Vincent, Suriname, Grenadines, Trinidad and Tobago.
 - ✓ The associate members are Anguilla, Bermuda, British Virgin Islands, Cayman Islands, and Turks and Caicos
- ✓ The Indian government funded \$1.66 million to the CARICOM for their information technology development, computer software and communication infrastructure development
- ✓ In 2019, PM Modi held the first India-CARICOM Summit in New York.
 - ✓ The meeting focused on climate change and India's participation in CARICOM grouping.
 - ✓ Initially, India announced to provide \$14 million grant for the development projects in the region.
 - ✓ Further, India extended another \$150 million 'line of credit' for solar energy, renewable energy and climate change related projects.
- ✓ The first India-CARICOM Conclave was held in 2009.
 - ✓ During the conclave, investment in industries such as water pumps for irrigation, small scale industries, medicines were identified.

PERSONALITIES

- **A Spanish mountaineer, Juan Antonio – names a Spanish peak after an Indian diplomat**
- ✓ Juan, who recently climbed a virgin peak near Avila city of Spain, has decided to name the peak and its route after the former district magistrate of Uttarkashi and

present additional secretary (civil aviation) in the state government, Ashish Chauhan.



- ✓ The mountaineer said he was overwhelmed by Chauhan's help during his 2018 expedition in the Gangotri Himalayas.
- ✓ The 2,590 metre high peak climbed by Juan is one of the toughest peaks of Spain.
- ✓ He has announced his decision to name the peak 'Magistrate's Point' and its route 'Via Ashish', in the honour of 'Ashish Chauhan'.
- ✓ Antonio had come to Uttarkashi in 2018 to climb Mount Satopanth situated in Gangotri region at an altitude of nearly 7,075 metres above sea level.
 - ✓ However, he fell sick during the expedition.
 - ✓ Chauhan who was then the DM of Uttarkashi, came to know of his situation and helped him out

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **On August 13, Israel - successfully tested the advanced missile defence system Arrow-2.**



- ✓ The missile was developed to defend against the short- and mid- range rockets that are fired from Lebanon and Gaza and also long-range missiles fired from Iran.
- ✓ In 2019, USA and Israel jointly test fired Arrow-3 successfully in Alaska.

- ✓ This system was developed by Israel Aerospace Industries and US Aviation giant Boeing.
- ✓ On the other hand, Arrow-2 was recently deployed to counter Syrian missiles.
- ✓ The Arrow Missiles were developed under complete support of USA.
- ✓ Apart from Israel, no country has purchased the complete Arrow system from the US.
- ✓ The Indian Government had sought to purchase Arrow missiles from Israel in 1999.
- ✓ However, the United States vetoed the request citing MTCR (Missile Technology Control Regime).
 - ✓ MTCR is a multilateral Export Control Regime, which was formed by G7 industrialised countries in 1987
 - ✓ India is also a part of the regime, which focuses mainly on rockets and Unmanned Aerial Vehicles
 - ✓ It limits the risks of proliferation of weapons of mass destruction.
- **The Aerospace Start up 'Skyroot Aerospace' - has test fired an upper stage rocket engine**
- ✓ With this, Skyroot has become the first Indian private company to demonstrate the capability of homegrown rocket engine.



- ✓ The 3D printed rocket engine was named after the Nobel Laureate Sir C V Raman.
- ✓ The rocket had fewer moving parts, capable of multiple restarts and weighed half of conventional rocket engines
- ✓ Also, it is capable of inserting various satellites into multiple orbits in a single mission
- ✓ The rocket was developed by the Skyroot firm that is headquartered at Hyderabad.
- ✓ The firm is backed by Curefit founders Mukesh Bansal and Ankit Nagori.
- ✓ The Skyroot Aerospace was founded by former scientists of ISRO (Indian Space Research Organization).

- ✓ With the recent discovery, the firm demonstrated the first 100% 3D printed bi-propellant liquid rocket engine injector.
 - ✓ This rocket had its overall mass reduced by 50% and total number of components and lead time reduced by 80%.
 - ✓ In June 2020, India had opened its space sector to its private players such as Skyroot, Bellatrix and Agnikul.
 - ✓ They are building small launchers with 3-D printed engines, which eventually bring down the cost of satellite launching.
 - ✓ The research firm Frost and Sullivan is planning to launch more than 10,000 small satellites globally in the next decade.
 - ✓ A new Indian National Space Promotion and Authorisation Centre (IN-SPACe) was created to provide opportunities for the private companies to use Indian space infrastructure.
 - ✓ This will allow Isro to focus more on development activities, exploration, new technologies, exploration mission and also human space flight programmes.
- **The planet hunter of NASA called the TESS (Transiting Exoplanet Survey Satellite) - has found 66 new Exo planets.**
- ✓ TESS is Transitioning Exoplanet Survey Satellite.
 - ✓ The planet hunter TESS monitors the sky for about a month using four cameras.
 - ✓ TESS is a space telescope for NASA explorer programme designed to search Exoplanets.
 - ✓ It searches for Exoplanets covering 400 times larger area as covered by Kepler Mission.
 - ✓ TESS was launched by Falcon Rocket in 2018.
 - ✓ TESS has so far identified 1, 835 Exoplanets.
 - ✓ The TESS mission has been extended till September 2022 to further explore along the ecliptic orbit plane of the earth around the sun
 - ✓ The main objective of TESS Mission is to survey the brightest stars near the earth.
 - ✓ It uses an array of wide-field cameras that covers 85% of the sky.
 - ✓ The earlier mission such as KEPLER focused on planets around distant stars, while TESS focuses on planets around nearby stars
 - ✓ The Kepler Mission was launched by NASA to survey Milky Way Galaxy.
 - ✓ It was mainly focused on discovering hundreds of Earth-like small planets along with their properties like their shape, size, density, and mass
 - ✓ PARAS is India's Exoplanet search mission.
 - ✓ PARAS refers to PRL Advanced Radial-velocity Abu-sky Search.
 - ✓ It is a ground-based exoplanet search device, which is located at Mt Abu.
 - ✓ It works at a resolution of 67,000 and has achieved RV accuracy of 1.3 m/sec.
 - ✓ PARAS uses Thorium-Argon lamp for calibration.

- ✓ It is capable of detecting planets around M-type stars, which have low luminosities
- ✓ Around 76% of stars in the solar system are M-type stars

➤ **The Indian Institute of Tropical Meteorology (IITM) - has recently stated that the Corals in the North Indian Ocean have vital answers about the onset and withdrawal of Indian Monsoons.**



- ✓ The Indian Monsoon has been arriving with variabilities in the recent years due to several factors apart from Climate Change.
- ✓ The Lakshadweep and Maldives Corals have answers to these variabilities, according to the IITM Study.
- ✓ The study states that the bands growing on the coral surface is capable of revealing about paleoclimatic conditions, ambient water temperature, rainfall and other aspects in the past.
- ✓ This is similar to that of the tree rings, which are used to provide the information about the past climate.
- ✓ In general, Sea Surface Temperature (SST) is the vital factor that governs Indian Monsoon.
 - ✓ It regulates moisture production in the sea and also affects wind circulation patterns causing rainfall in the monsoon season.
 - ✓ The salinity of the sea water increases with increase in Sea Surface Temperature.
 - ✓ This means that increased temperature leads to higher rate of evaporation leaving behind larger concentrations of salt in the sea, which is common in summers.
- ✓ However, the study has found that there has been departure in this trend in the Northern Indian Ocean especially in the seas of Lakshadweep.
 - ✓ The Lakshadweep seas began to cool after the onset of monsoon in June.
 - ✓ This was because of supply of low saline water flowing from Bay of Bengal into the southern regions of Arabian Sea.
 - ✓ Because of the above reasons, the corals in the Lakshadweep Islands enjoy favourable conditions.

- ✓ The bands in the corals suggest their lifespan, which indicate that corals live anywhere between 300 and 400 years
- **The International Animal Welfare Organization, ‘World Animal Protection’ - released its report, “Elephants. Not Commodities” on the eve of World Elephant Day on August 12**



- ✓ According to the report, over 200 elephants in India are kept in severe inadequate conditions
- ✓ The report researches on Elephant Tourism in the countries such as India, Thailand, Laos, Nepal, Cambodia, Sri Lanka and Malaysia.
- ✓ According to the report, India consists of the second-highest number of elephants used in tourism in Asia.
- ✓ There are 21 venues in India that houses 509 elephants, which are used in Tourism.
- ✓ Out of these 509 elephants, 45% (225) are in inadequate conditions, as per the report.
- ✓ The World Animal Protection is working to phase out Elephant rides in Amer fort in Jaipur, where over 100 elephants provide daily rides to thousands of tourists.
- ✓ As per the report, over 3,800 elephants are in captive in over 357 Asian Elephant Tourism sites.
- ✓ Thailand is home to three-quarters of these elephants.
- ✓ During the Conference on Conservation of Migratory Species of Wild Animals (COP 13) that was held in India in February 2020, Asian Elephant, Great Indian Bustard and Bengal florican were named among the top 10 endangered species of migratory animals that were included in UN list of protection
- ✓ The COP 13 was held in Gandhinagar, Gujarat.
- ✓ The Asiatic Elephants are found in the Indian sub-continent and South East Asia.

