

EVERYDAY CURRENT AFFAIRS—OCTOBER 14, 2020

TAMIL NADU

- **National Aeronautics and Space Administration – to launch an experimental satellite developed by three students of Karur in sub-orbital space next year**
- ✓ The three students, M. Adnaan of Thanthonrimalai, M. Kesavan of Nagampalli village near Malaikovilur and V. Arun of Thennilai have designed the satellite after two years of research and development



- ✓ The satellite, called 'Indian Sat', will be launched into the sub orbit in June next on NASA's sounding rocket 7.
- ✓ It would be launched in sub-orbital space flight for a few minutes before landing in the ocean.
- ✓ Their design has been chosen for launch among the designs of other aspiring space scientists from more than 50 countries
- ✓ The global competition was conducted by the Cubes in Space, a programme of I doodle du Inc in association with the U.S. space agency
- ✓ The three students, pursuing undergraduate courses now, have designed the world's smallest and lightest technology demonstrator satellite
- ✓ They were mentored and guided by the Chennai-based Space Kids India, which encourages aspiring space scientists.

- ✓ The satellite, made of reinforced graphene polymer, is 3 cm in size and weighs 64 g.
- ✓ It has its own radio frequency communication to transmit and receive signals from earth.
- ✓ The solar cells attached to the satellite generate the power for its operation
- ✓ The photographic film will absorb and measure the cosmic radiation inside the rocket.
- ✓ The launch would study the effect of reinforced graphene polymers in microgravity.
- ✓ The project cost of ₹1.35 lakh has been funded by the faculty members of the Department of Physics of the Government Arts College in Karur and the Karur-based Shiva Educational Trust

➤ **Tamil Nadu – reported 4,666 fresh Covid-19 infections and 57 deaths on October 13**

- ✓ This takes the cumulative caseload to 6,65,930 and death toll to 10,371
- ✓ The number of active cases under treatment stands at 43,239 as on date.
- ✓ With the discharge of 5,117 more persons after treatment, the number of persons discharged went up to 6,12,320.
- ✓ Chennai, the worst affected district, reported 1,164 cases, the highest in the state, followed by Coimbatore (398) and Salem (277).
- ✓ Two other districts that reported cases above 200 were Chengalpet (252) and Tiruvallur (236).

IN NUMBERS (Data as on Tuesday)

ZONES	CASES	DEATH	ACTIVE CASES	CASE TALLY	TOLL TOTAL	CURED
Chennai region	1,781	21	18,100	2,83,277	4,992	2,60,185
North	530	12	4,137	97,715	1,266	92,312
Central	475	2	3,778	59,850	789	55,283
South	492	4	4,421	1,18,496	1,936	1,12,139
West	1,388	18	12,786	1,04,257	1,386	90,085
Other	0	0	17	2,335	2	2,316
GRAND TOTAL	4,666	57	43,239	6,65,930	10,371	6,12,320

- ✓ The average case fatality rate was 1.6% in the state, but four districts had death rate above 2% -- Tiruppur (2%), Ramanathapuram (2.1%), Sivaganga (2.2%) and Madurai (2.3%).
- ✓ The lowest rates were in Nilgiris (.6%), Villupuram (.8%), Tuticorin (.9%) and Dharmapuri (.9%).
- ✓ In the last 24 hours, 85,509 samples were tested in the State, taking the total number of samples so far to 84,88,503.

NATIONAL

- **Chip maker, Intel India – has announced that it will launch a research centre in India to focus on leveraging artificial intelligence (AI) to solve India’s population-scale challenges in sectors such as healthcare and smart mobility**
 - ✓ The centre will be established in association with IIT Hyderabad, Public Health Foundation of India and the Telangana government
 - ✓ The applied AI research centre will be set up in Hyderabad
 - ✓ This was announced at the all.ai 2020 Virtual Summit being held from October 12 to 16, 2020 in Hyderabad
 - ✓ The proposed centre will act as a catalyst to accelerate India’s leadership in AI and aims to attract global talent for high-impact research towards social sector development
 - ✓ Further, the centre will also work on creating national assets such as curated data sets and computing infrastructure

- **India - has been ranked number 3 among countries which have recorded the highest number of natural disasters over the last 20 years (2000-2019)**
 - ✓ The first two countries that have recorded the highest number of natural disasters in the last two decades were China and USA
 - ✓ This was revealed by a report released by the UN office for Disaster Risk Reduction (UNDRR) on October 13, also celebrated as the International Day for Disaster Risk Reduction or the World Calamity Control Day.
 - ✓ The report was titled ‘Human cost of disasters, an overview of the last 20 years’
 - ✓ The global economic losses due to these natural disasters have been estimated at \$3 trillion in the last two decades.
 - ✓ However, the study hasn’t provided any country specific data for the losses.
 - ✓ Extreme weather events — floods, storm, landslide, heatwaves, drought and wildfire — accounted for almost 91% of all 7,348 natural disasters in the last 20 years
 - ✓ However, only 4,212 such natural disasters have been recorded between 1980 and 1999.
 - ✓ As per the study, disasters have claimed approximately 1.23 million lives, an average of 60,000 per annum, and affected over 4 billion people with \$2.97 trillion in economic losses over the last two decades.
 - ✓ In comparison, 1.19 million lives were lost and \$1.63 trillion in economic losses were incurred between 1980 and 1999.
 - ✓ China (577 events) and the US (467) reported the highest number of disasters, followed by India (321), Philippines (304) and Indonesia (278), as per the study

- ✓ Further, the UNDRR has warned how global warming is causing more climate related disasters, the frequency of which has increased by more than 83% in the last two decades compared to the previous two.
- ✓ The last 20 years have witnessed 6,681 climate-related disasters compared to 3,656 during 1980-1999.

DISASTER IMPACT 1980-1999 VS 2000-2019		
	1980-1999	2000-2019
Reported disasters	4,212	7,348
Total deaths	1.19 million	1.23 million
Total affected	3.25 billion	4.03 billion
Economic losses	\$1.6 trillion	\$3 trillion

Source: UNDRR study report 'Human Cost of Disasters' released on October 13, 2020

- ✓ Floods accounted for 44% of all disasters recorded worldwide in the last two decades
 - ✓ India again ranked No. 2 after China with most floods, an average 17 floods per year and more than 345 million of its population affected in 20 years.
 - ✓ In China, an average of 20 floods affected it every year and impacted about 900 million of its citizens.
 - ✓ The study has traced the most 'impactful years' as 2002 when 658 million people were affected and 2015 when 430 million were affected.
 - ✓ The International Day for Disaster Reduction is being observed under the theme - Disaster Risk Governance - this year
 - ✓ The United Nations had started observing the day in 1989.
 - ✓ In the year 2015, United Nations adopted the Sendai Framework for Disaster Risk Reduction.
 - ✓ Under the framework, seven strategic targets and 38 indicators had been set in order to audit the progress of reducing disaster losses.
 - ✓ India had framed National Disaster Management Plan on the basis of Sendai Framework.
 - ✓ It had also constituted the Disaster Management Act, 2005
- **India - is among seven countries to back a UK-led campaign against end-to-end encryption of messages by social media giants such as Facebook**
- ✓ The UK and India are joined by other countries including the US, Canada, Australia, New Zealand and Japan
 - ✓ The seven countries issued a joint international statement addressed to all tech companies to ensure no 'illegal activity' takes place on their platform, including child abuse images
 - ✓ The initiative marks an expansion of the so-called "Five Eyes" group of nations, a global alliance on intelligence issues, to include India and Japan.

- ✓ The 'Five Eyes' or FVEY comprises of Australia, New Zealand, Canada, the United Kingdom and the United States.
 - ✓ The Five Eyes uses the 'ECHELON' surveillance system to monitor private communications worldwide
 - ✓ The statement calls on tech companies to ensure there is no reduction in user safety when designing their encrypted services, to enable law enforcement access to content where it is necessary and proportionate and work with governments to facilitate this.
 - ✓ In response, Facebook said that the end-to-end encryption is necessary to protect people's most private information and to keep their messages safe from hackers, criminals, and foreign interference
- **Biopharma company Epygen Biotech, with operations in Mumbai and Dubai - has tied up with US-based biotech firm Dyadic to work on a potential Covid-19 vaccine.**
- ✓ The firm joins a list of domestic companies which includes Bharat Biotech, Serum Institute and Zydus Cadila, who are also engaged on developing a Covid-19 vaccine.
 - ✓ Epygen along with Dyadic plans to offer 500 million doses of an "affordable" vaccine within six months of completing human clinical trials
 - ✓ At present Epygen has a capacity of around 20-40 million doses a month and plans to scale it up to 100 million doses a month with an investment of \$20 million in two tranches
 - ✓ Epygen had earlier tied up with Council of Scientific and Industrial Research to develop an affordable clot-buster drug
 - ✓ The company is also the licence holder of "first recombinant protein drug" for cerebral stroke.
 - ✓ However, it is yet to commercialise these drugs.
 - ✓ The company's partner, Dyadic has developed a Covid-19 vaccine antigen from its patented C1 cell line based on the fungus, *Thermothelomyces heterothallic* or C1.
 - ✓ Dyadic has already worked efficiently in neutralising the SARS CoV-2 virus in mice.
- **The results of phase three trials of the Oxford-AstraZeneca vaccine being conducted in India - could be available by "end-November-early December"**
- ✓ The vaccine will be manufactured in India by the Serum Institute
 - ✓ Apart from the Oxford candidate, two local candidates — developed by Bharat Biotech and Cadila Healthcare — are in advanced phase 2 trials
 - ✓ The results of these vaccines too are expected by early November, after which strategy for the next phase will be formulated.
 - ✓ The government also ensured that there are adequate resources to fund procurement of required doses of the vaccine.

- **India – reported 63,655 fresh infections and 740 deaths on October 13, taking the country’s caseload to 72,32,981 and death toll to 1,10,568**
- ✓ Both Kerala and Bengal crossed the mark of three lakh Covid-19 cases on the day, becoming the seventh and eighth states to do so
- ✓ The other states which crossed that grim milestone earlier are Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu, Uttar Pradesh and Delhi.
- ✓ Kerala recorded the highest number of infections on the day, after adding 8,764 cases.
- ✓ Maharashtra followed Kerala with 8,522 fresh infections, while Karnataka reported 8,191 new cases
- ✓ While 62,93,524 patients have recovered from the virus, active cases in the country pegged at 8,28,889 patients.
- ✓ Meanwhile, the Indian Council of Medical Research said at least three cases of Covid-19 re-infection have been reported from across the country so far, whereas 24 such cases have been found globally.
- ✓ The three cases of re-infection brought to the notice of ICMR include two in Mumbai and one in Ahmedabad
- ✓ Re-infection cases are those where people contract the virus for the second time after being cured.
- ✓ The first instance of coronavirus re-infection was recorded in Hong Kong when a 33-year-old man who was initially infected in March and had recovered got re-infected more than four months later after a trip abroad.

INTERNATIONAL

- **Johnson & Johnson - has stopped the large late-stage clinical trial of its coronavirus vaccine because of an “unexplained illness” in one of the volunteers.**
- ✓ It did not say whether the sick participant had received the experimental vaccine or a placebo.
- ✓ J&J had begun the Phase 3 trial (ENSEMBLE) of its potential vaccine on September 23, 2020
- ✓ Its vaccine had some advantages over the other vaccine candidates.
- ✓ It does not need to be frozen, and it could need just one dose instead of two.
- ✓ It would also be the largest trial, with a goal of enrolling 60,000 volunteers across 200 sites in US and other countries
- ✓ Apart From US, countries like Argentina, Brazil, Chile, Mexico, Peru, Colombia and South Africa are involved in the trial
- ✓ ENSEMBLE has been initiated in collaboration with the Biomedical Advanced Research and Development Authority (BARDA) and Response at the U.S. Department of Health and Human Services (HHS).
- ✓ J&J’s is not the first trial to be paused because of safety concerns.

- ✓ AstraZeneca last month paused late-stage trials of its vaccine due to a serious unexplained illness in a British study participant.
- ✓ While AstraZeneca's trials in Britain, Brazil, South Africa and India have since resumed, its US trial remains on hold.
- ✓ The J&J and AstraZeneca vaccines are both based on a so-called adenovirus, a harmless modified virus that instructs cells to produce vaccine proteins.
- ✓ They are both also part of the U.S. government's Operation Warp Speed programme to support vaccine development.
- ✓ Meanwhile, an 89-year-old Dutch woman died after testing positive a second time for Covid-19, in what may be the first case of a death from a reinfection.
- ✓ The woman, who was also under chemotherapy treatment for a rare white blood cell cancer, became sick again two months after the first test

INDIA AND OTHER COUNTRIES

- **On October 12, the Exim Bank of India and the Maldives's Ministry of Finance - signed an agreement for \$400 million in Male**

Ministry of Finance @MoFmv · Oct 12
 Minister of Finance @jameeru and Mr. Nimit Ved, General Manager of @Indiaeximbank has today signed a Dollar Credit Line (LoC) Agreement of USD 400 million for the purpose of financing the Greater Male' Connectivity-Male' to Thilafushi Link Project #GMCP

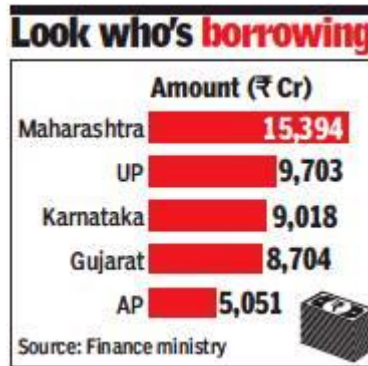


- ✓ The agreement was signed following the announcement of a \$500 million package to the Maldives by the Indian government
- ✓ The line of credit (LoC) will fund the Greater Male Connectivity Project (GMCP)
- ✓ India has also pledged a grant of \$ 100 million for the initiative.
- ✓ The initial announcement of the grant was made at a virtual meeting between External Affairs Minister S. Jaishankar and Maldives Foreign Minister Abdulla Shahid in August.
- ✓ The grant and LoC come in addition to the previous LoC of \$800 million, among India's largest loans extended in the region.

ECONOMY

- **On October 13, the Centre – announced its approval to allow 20 states to borrow close to ₹69,000 crore from the bond market to overcome the GST compensation shortfall**

- ✓ Earlier, a day before, Finance minister Nirmala Sitharaman announced that the Centre and states ended the GST (Goods and Services Tax) Council meeting without conclusion
- ✓ The Council was chaired by Union Finance Minister Nirmala Sitharaman and comprising of state finance ministers
- ✓ This was the third meeting in a row that discussed compensation shortfall without a decision.



- ✓ In a statement, the finance ministry said that eight states are yet to give their preference and released the list of the states agreed to the proposal
 - ✓ The plan floated by the Centre involves borrowing of ₹1.1 lakh crore by the states to cover the estimated compensation cess shortfall of over ₹2.3 lakh crore during the current fiscal year.
 - ✓ Opposition-ruled states missing from the borrowing plan included Telangana, Tamil Nadu, West Bengal, Left-ruled Kerala, Punjab, Chattisgarh and Rajasthan, apart from the two union territories of Delhi and Puducherry.
 - ✓ Kerala has already declared that it will approach the Supreme Court if there are any issues.
- **India's economy - is expected to contract 10.3% in the current fiscal year, according to the International Monetary Fund (IMF).**

Sliding further

India's economy is projected to contract by 10.3% in 2020, the slowest among BRICS countries. The table lists projections by the IMF for 2020 and 2021

Region	2020	2021
India*	-10.3	8.8
Brazil	-5.8	2.8
Russia	-4.1	2.8
China	1.9	8.2
South Africa	-8	3
World	-4.4	5.2

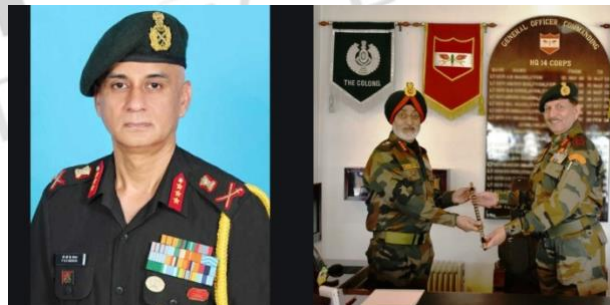
*India's figures are for fiscal years. All figures in %

- ✓ Global output is projected to shrink 4.4% in 2020 due to the effects of Covid-19, the IMF said in its World Economic Outlook October 2020 report titled, "A Long and Difficult Ascent".

- ✓ The projection for India is a downgrade of 5.8 percentage points from its June forecast.
- ✓ India is expected to rebound in the fiscal year beginning in April 2021 with 8.8% growth — an upgrade of 2.8 percentage points relative to the June update.
- ✓ Consumer prices in India are expected to grow at 4.9% this year and by 3.7% in the next fiscal.
- ✓ The current account balance is projected to grow by 0.3% this year and -0.9% next year.
- ✓ Except for China, where output this year was expected to exceed 2019 levels, the advanced, developing and emerging market economies were expected to see lower output even next year
- ✓ The U.S. economy is expected to shrink 4.3% this year and grow by 3.1% next year.
- ✓ The corresponding numbers for the Europe are -8.3% and 5.2%, while for China, they are 1.9% and 8.2% respectively.
- ✓ For the world as a whole, the 2020 growth projection has been revised upwards by 0.8 percentage points relative to June
- ✓ The recovery in 2021 is projected to be at 5.2%, lower than the June 2020 projections.

APPOINTMENTS

- **On October 13, Lt-General P G K Menon – takes over as the new Commander of the crucial ‘14 Corps’ in Ladakh**



- ✓ He replaces Lt-General Harinder Singh, who in turn will be the new commandant of the Indian Military Academy at Dehradun.
- ✓ The 14 or the “Fire and Fury Corps” handles eastern Ladakh with China as well as the Kargil and Siachen sectors with Pakistan
- ✓ Lt-Gen Menon served as the “Colonel” of the Sikh Regiment earlier.
- ✓ He has dealt with the PLA during his earlier postings in the 14 Corps as a colonel and brigadier
- ✓ Menon also served as the commander of the Assam-headquartered 71 Infantry Division.