



on Sunday

APRIL 25, 2021

DELHI
CITY EDITION
22 pages • ₹15.00

PRINTED AT : CHENNAI • COIMBATORE • BENGALURU • HYDERABAD • MADURAI • NOIDA • VISAKHAPATNAM • THIRUVANANTHAPURAM • KOCHI • VIJAYAWADA • MANGALURU • TIRUCHIRAPPALLI • KOLKATA • HUBBALLI • MOHALI • MALAPPURAM • MUMBAI • TIRUPATI • LUCKNOW • CUTTACK • PATNA

BYJU'S IAS

Crack the IAS Interview with the BYJU'S Comprehensive 3-Stage Mock Interview Program
The Most Intensive Preparation Program for the UPSC Personality Test

STAGE 1

4-Panelist
Mock Interview
& Feedback
with video
recording

STAGE 2

1:1 Session
with
Prof.
D.P. Agrawal

STAGE 3

Interaction
with Selected
Students for
extra inputs

Open Session at 4 PM, 28th April, 2021



Dr. S.Y. Quraishi,
IAS Retd. Former
Chief Election Commissioner



Prof. (Dr.) D.P. Agrawal,
Former Chairperson, UPSC

To register call: +91 98736 43487

NEARBY



Justice N.V. Ramana
sworn in as 48th CJI

NEW DELHI
Justice N.V. Ramana was on Saturday sworn in as the 48th Chief Justice of India (CJI) by President Ram Nath Kovind at Rashtrapati Bhavan. Justice Ramana will have a tenure of one year and four months.

NEWS ▶ PAGE 6



MAGAZINE ▶ 8 PAGES

CLASSIFIEDS ▶ PAGE 4

Customs duty on vaccines, oxygen waived for 3 months

Equipment for providing oxygen also exempted from cess

SPECIAL CORRESPONDENT

NEW DELHI

The government has decided to exempt basics customs duty on import of COVID-19 vaccines and the basic customs duty and health cess on import of medical grade oxygen and other equipment related to providing oxygen to patients for a period of three months.

The decisions were taken at a meeting chaired by the Prime Minister to review steps to boost oxygen availability in the country, the Finance Ministry said on Saturday. Finance Minister Nirmala Sitharaman, Commerce and Industry Minister



Saving the day: An IAF plane lifting empty cryogenic containers to transport oxygen across the country. ■ PTI

Piyush Goyal, Health Minister Harsha Vardhan and AIIMS director Randeep Guleria were present. "The government has taken mea-

sures to improve supply of oxygen and medical supplies," the Ministry said.

CONTINUED ON ▶ PAGE 6

384 rescued, 10 bodies recovered after avalanche in Uttarakhand



Rescue operations under way in Uttarakhand on Saturday. ■ PTI

SPECIAL CORRESPONDENT

NEW DELHI

Ten bodies were recovered and 384 people rescued in the ongoing search and rescue operations after an avalanche hit a Border Roads Organisation (BRO) detachment and labour camps north of Joshimath in Uttarakhand on Friday evening, an Army official said on Saturday.

CONTINUED ON ▶ PAGE 6

Positivity rate exceeds 50% in Odisha district

Door-to-door survey begins in Kalahandi

SATYASUNDAR BARIK

BHUBANESWAR

The Kalahandi district administration in Odisha began a door-to-door survey from Saturday after the test positivity rate (TPR) soared past 50% on Thursday. The western Odisha district had conducted 1,269 tests that day, including 361 RT-PCR tests, in which as many as 682 persons tested positive, yielding a TPR of 53.74%.

On Friday, as many as 950 tests were conducted and 361 persons found infected with the virus. The TPR worked out to 38%, which was much higher than the State's average.

Through the positivity rate dropped significantly on Saturday, the administration decided to take no chances and began a door-

to-door survey to find out the extent of prevalence of COVID-19 symptoms in the community.

In Odisha, 43,538 tests were carried out in 30 districts and Bhubaneswar on Thursday. The TPR was estimated at 14.35%.

On Friday, out of 41,017 tests conducted across the State, 6,647 were detected as positive, yielding a positivity rate of 16.20%.

During the door-to-door survey in Kalahandi, people were asked if they or any of their family members had fever-like symptoms or symptoms associated with COVID-19. The Kalahandi district administration said mobile testing vans will carry out on-spot tests in order to help decide on creation of micro-containment zones.

Shot shrift



People waiting to get immunised at the BKC Jumbo vaccination centre in Mumbai on Saturday. ■ EMMANUEL YOGINI

'Many of the contact numbers of hospitals on the site are useless'

HEMANI BHANDARI

NEW DELHI

At 1 p.m. on Saturday, the Delhi government website Coronabeds.jantasamvad.org showed there were 1,798 COVID-19 beds available in 46 hospitals across the Capital. However, when *The Hindu* contacted these hospitals, only one said it had vacancy, and that too for pregnant women.

Contact numbers for the hospitals, both government and private, are available on the website. Reflecting the immense pressure on hospi-

tals as new infections and deaths continue to surge in the city, many of the phone calls by this reporter went unanswered, or were met with either a busy signal or an 'out of order' message.

Tough to get hold of

Of the 46 hospitals, phone numbers of 21 were busy, including that of Satyawati Hospital, AIIMS Trauma Centre, and Venkateshwar Hospital. Nine did not attend the call, including Lok Nayak Hospital, which the website showed had 93 vacant beds, and Sri Balaji Action Medical Institute. Four were out of service, including that of Max East/West Block, Lady Hardinge Medical College and Guru Nanak Eye Centre; and four

were switched off, including Tirath Ram Shah Charitable Hospital, Sehgal Neo Hospital, and Bensups Hospital.

Only St. Stephen's Hospital informed it had empty beds.

"We have a few vacant beds in the labour room but they are for pregnant women only," the operator said.

At Base Hospital in Delhi Cantonment, the operator said they do not have any vacant beds. When told that the website showed the hospital had four beds available, he said: "We do not know why it is showing that."

Of the five contact numbers available on the website for B.L. Kapoor Hospital, one was out of service and the other four remained busy.

The operator at Ram Ma-

Beds available |

(As of April 24 at 9.15 p.m.)

COVID-19 beds

Vacant: 1,634

Occupied: 18,177

Total: 19,811

COVID-19 ICU beds

Vacant: 12

Occupied: 4,595

Total: 4,607

SOURCE: CORONABEDS.JANTASAMVAD.ORG

Beds available |

(As of April 24 at 9.15 p.m.)

COVID-19 beds

Vacant: 1,634

Occupied: 18,177

Total: 19,811

COVID-19 ICU beds

Vacant: 12

Occupied: 4,595

Total: 4,607

SOURCE: CORONABEDS.JANTASAMVAD.ORG

Phone calls to the hospitals were met with a busy signal.

Sharing his ordeal of trying to contact hospitals, 29-year-old Ankit Prakash, a resident of east Delhi, said he tried to call at least 10 hospitals to get his mother admitted on April 19 and could not get through to any of them.

"All these numbers are useless. I must have tried 10-12 hospitals from this website and other sources, and most of them were busy. One or two that picked up said they don't have beds. What is the point of this website if the information is incorrect? Why fool the public?" he said, adding that he finally managed to get his brother admitted in a hospital in Outer Delhi after a lot of effort.

People also complained that they were unable to get any information on COVID Care Centres in the city.

Arjun Matta, a resident of west Delhi's Rajouri Garden, said his brother had tested positive for COVID-19 and they were looking for isolation facilities as they live in a two-room house.

Anil Maini, 61, said he tried

over 25 hospitals in an attempt to get his elder brother admitted, but to no avail.

"The information on websites is eyewash. The only way one is getting admission into hospitals is through contacts, if at all," Mr. Maini said, adding that he finally managed to get his brother admitted in a hospital in Outer Delhi after a lot of effort.

People also complained that they were unable to get any information on COVID Care Centres in the city.

According to the Delhi government's Friday health bulletin, a total of 2,096 COVID-19 beds were available in hospitals, 5,006 in COVID Care Centres, and 65 in the COVID Health Centre.

Repeated phone calls and messages to several Delhi government officials to seek their response on the matter went unanswered.

tion on COVID Care Centres on the website but there is no information available there. I

had to call people up asking for a nearby centre. When I found two-three, their numbers were either busy or switched off. What should one do?" he said.

His brother eventually had to isolate himself at home and has now recovered.

According to the Delhi government's Friday health bulletin, a total of 2,096 COVID-19 beds were available in hospitals, 5,006 in COVID Care Centres, and 65 in the COVID Health Centre.

Repeated phone calls and messages to several Delhi government officials to seek their response on the matter went unanswered.

Anxious kin accost doctors in Bihar

State facing acute shortage of oxygen

AMARNATH TEWARY

PATNA

Anxious relatives of COVID-19 patients had heated arguments with doctors and medical workers at several places in Bihar.

Like other States, Bihar too is facing an acute shortage of oxygen cylinders, antiviral drugs and beds in hospitals, causing great hardships and anxiety to relatives of COVID-19 patients, who have been left running from one hospital to another. Long queues were seen outside medical shops in Patna for antiviral and antibacterial drugs commonly used in treating COVID-19.

"In such an emergency-like situation, relatives of patients sometimes get into heated arguments with doc-

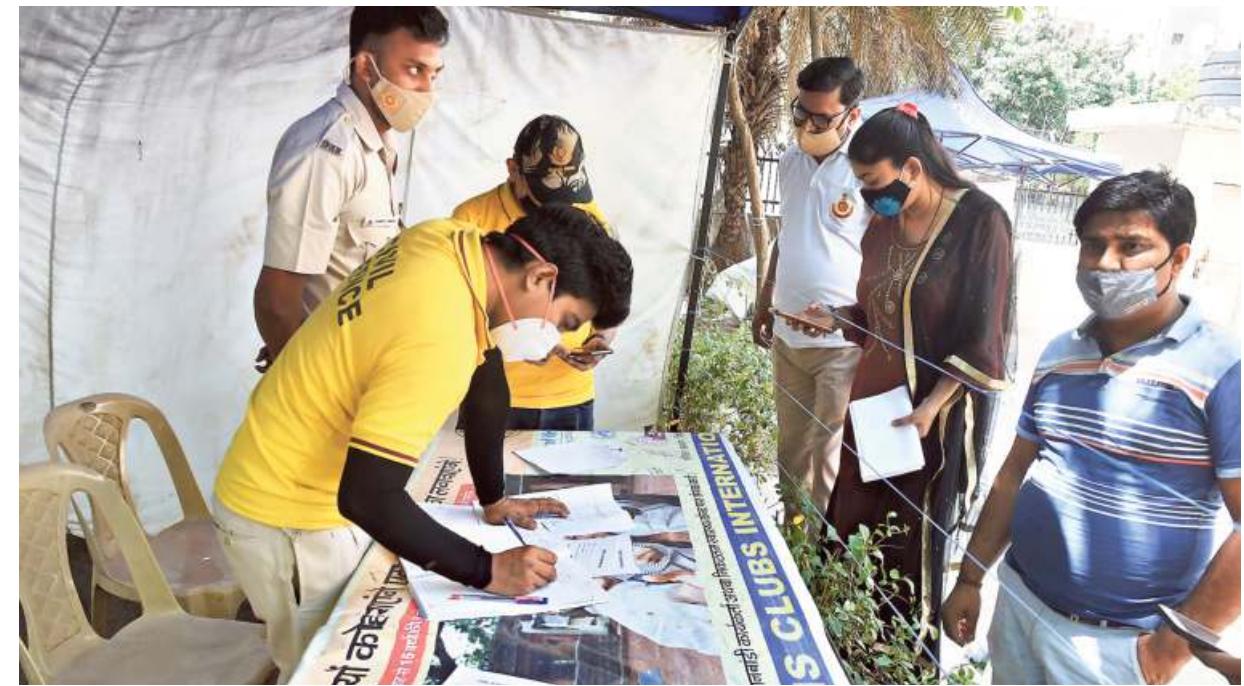
tors and paramedic staff but they have to understand that medical professionals have also been working round-the-clock," Dr. Sanjay Suman, who works in a government hospital, told *The Hindu* over phone.

Ara assault

Union Minister of State for Power, New and Renewable Energy R.K. Singh on Saturday visited the government hospital at Ara, district headquarters of Bhojpur, from where he is a BJP MP, and said anyone who "assaulted" doctors would be "sent to jail and beaten up".

Earlier, manhandling of doctors at the Ara hospital had been reported.

CONTINUED ON ▶ PAGE 6



A patient outside the emergency ward at Jaipur Golden Hospital; (right) COVID-19 vaccination in progress at a centre during the week-long lockdown in New Delhi on Saturday. ■ SHIV KUMAR PUSHPAKAR, SUSHIL KUMAR VERMA

City hangs between hope and despair

Helpless, desperate family members of COVID-19 patients wait outside emergency wings of hospitals

SHINJINI GHOSH

NEW DELHI

"Everything was fine until a week ago, but today my younger brother is no more. We could not save him. He was only in his 40s. How could this happen to him? Everything is over now," said Varun, a city resident, while breaking down outside the emergency wing of Max Hospital, Saket.

Since the last four days, Mr. Varun, like many others, had been hoping for a miracle, he said. "What do I tell my parents now? How do I break the news to them," he asked.

Frantic calls

From frantic calls to visiting multiple hospitals in search of ICU beds to being inconsolable when informed about a death, the day was spent between hope and despair for those waiting outside the emergency wings of some of the city hospitals.

At Moolchand Hospital, while some were seen des-



Outside the emergency ward at Sir Ganga Ram Hospital in New Delhi. ■ SHIV KUMAR PUSHPAKAR

perately waiting for ICU beds even after being refused by the hospital administration, several others waited patiently amid reports of oxygen shortage even as their relatives fought for their lives inside.

Waiting outside the hospital at 4 p.m., a Mangolpuri resident, Vinod Kumar said that he had lost count of the number of hospitals he had visited since morning.

"We need an ICU bed for

my aunt who is 54 years old. She has been admitted to ESI Hospital in Okhla but we were told in the morning to shift her out as the hospital did not have a vacant ICU bed. We literally begged them not to discharge her till we found an alternative," said Mr. Kumar.

No vacant beds
Stating that he had visited hospitals in Paschim Vihar to Rohini, Mr. Kumar said,

"We have been on the road since morning. At Rohini, Saroj Hospital is in a bad shape themselves so they could not help us. We have been waiting at Moolchand for half an hour even though they have told us that there is no vacancy. We were given a phone number but nobody is taking the call. We are at a loss."

With his 41-year-old wife in the ICU, Mohan Singh, a resident of a nearby colony,

has spent days waiting outside the emergency wing of the hospital.

"At the time of admission, her oxygen saturation had dropped to 50. She was kept in the emergency on the first day as there were no vacancies and was later shifted to the ICU. It is not possible for me to make multiple trips to the hospital, so I simply wait here the whole day and check up from time to time," said Mr. Singh.

Emotion beyond words'
At a time when acute oxygen shortage was being reported across the Capital, Mr. Singh said that for relatives of the patients it was an emotion "beyond words".

"I can't even begin to explain the level of tension that there is. It is painful. But thankfully, this hospital has been managing somehow and so far my wife did not have face any issues regarding to oxygen supply. We can only hope that they have enough supply for their patients," said Mr. Singh.

Hospitals continue to gasp for oxygen, many reduce beds

Nodal officers not responding to calls, they complain

STAFF REPORTER

NEW DELHI

City hospitals on Saturday continued to raise alarms about low levels of oxygen and some even stopped admissions of new patients.

Hospitals have been facing an oxygen shortage for at least the past seven days. Many hospitals also complained that contact numbers of nodal officers given by the Delhi government for oxygen supply was not responding to their calls.

Sir Ganga Ram Hospital raised an alarm at 11 p.m. on Saturday that the hospital had oxygen for only 45 minutes and sought help from the government. It said that they were in touch with nodal officers but no help has come yet. Finally, an oxygen tanker reached the hospital around 12.20 a.m. There were 130 people in ICU of the hospital and a total of over 500 COVID-19 patients.

Earlier in the day, Batra



The oxygen stock of Batra Hospital was almost zero at 8.30 a.m. on Saturday. ■

Hospital, a private hospital, said their oxygen stock was almost zero around 8.30 a.m., the hospital said.

"The oxygen was almost zero and we diverted oxygen from everywhere else to the ICU. We have 265 COVID patients," said Sudhanshu Banakata, executive director of the hospital. At 9.30 a.m., the hospital received oxygen through the Delhi government.

Around 12.30 p.m., Fortis Healthcare also raised an alarm. "Fortis Shalimar Bagh is running out of oxygen. Patients' lives are at risk. We are running on backup, waiting for supplies since morning. We are currently suspending admissions," the hospital said.

"No oxygen! No help! Govt helpline numbers r of no use. Senior admin not responding to calls. In case of any untoward incident, this admin will make us scapegoat?" Dharamveer Solanki Hospital, which has around 15 COVID-19 patients, said in a tweet at 1 p.m.

Several other hospitals sought urgent help from the government. Many hospitals have stopped taking new patients due to the shortage and some bigger hospitals have reduced the number of beds. GTB Hospital has reduced its number of beds for COVID-19 patients to 700 on Saturday from 1,500.

Kejriwal writes to other State CMs requesting oxygen supply

'Intensity is so severe that Centre's help becoming inadequate'

SPECIAL CORRESPONDENT

NEW DELHI

Chief Minister Arvind Kejriwal on Saturday wrote to his counterparts in all other States requesting supplies of oxygen if they had any to spare.

The Chief Minister asked that this request be treated as an SOS and stated that many Delhi hospitals had run out of oxygen due to the severe rise in COVID cases in the last few days.

While the Central government was helping Delhi in this regard, he wrote, the intensity of the spread was so severe that the quantity was proving inadequate.

"Delhi does not produce any oxygen. Due to the severe rise in corona cases in the last few days, many Delhi hospitals have run out of oxygen," he wrote.

Kindly treat this as an SOS. I would be personally grateful for your support

ARVIND KEJRIWAL
Chief Minister

"I would be grateful if you could provide us with any oxygen from your State. Kindly treat this as an SOS. I would be personally grateful for your support," he also wrote.

BJP slams govt.
Meanwhile, Leader of the Opposition in the Delhi Assembly Ramvir Singh Bidhuri accused the Delhi government of "misleading" residents on the issue of oxygen to hide its failure to set up the PSA oxygen plants across the city sanctioned by the Centre months ago.

"Instead of putting in

place infrastructure for PSA plants, the Kejriwal government sat on the paperwork and clearances required for installation of these plants. The funds sanctioned under PM CARES have been lying idle with the Delhi government which is sheer negligence and a criminal act," Mr. Bidhuri alleged.

The Delhi government responded: "These are being made from PM CARES Fund. A total eight were to be made. The Delhi government was to provide land, such we did. It was supposed to be constructed by Centre. However, Centre's contractor made only one and ran away. We have written several letters in last few months to expedite this. This status was informed to HC also today," a Delhi government source said.

Cross from the CNG crematorium and funeral pyres created on the ground since

Burning pyres refuse to die at Noida ground

Cremations happening over the last week have left workers with no option but to stay put on premises

JATIN ANAND

NOIDA

Every ambulance siren fell silent as it entered the vicinity of 'Antim Niwas', the sole facility in the district set aside for the cremation of COVID patients, as a hearse here on Saturday.

Family members prohibited from touching COVID-infected bodies wailed inconsolably when allowed a final view of the mortal remains of their loved ones tucked away behind locked vehicular doors and tightly shut windows.

One member allowed

Only one PPE kit-clad member from such groups would be allowed to observe the CNG cremation of a relative when their turn came, by which time, more ambulances would line up.

Across from the CNG crematorium and funeral pyres created on the ground since



Cremation of COVID victims in progress at Antim Niwas ground at Noida Sector-94. ■ SUSHIL KUMAR VERMA

the adjacent elevated platforms were occupied in between, kin of the non-COVID dead desperately sought help from strangers to get bodies down onto biers assuring bystanders that they were safe to touch.

"She had got a bed in a government hospital just last evening and was okay at night before suddenly passing away this morning. We allowed the women from our

family a last look, no matter how painful it was for them, before the CNG cremation for the sake of closure," said Vinod Kumar from Hisar whose 45-year-old COVID-positive cousin's body underwent CNG cremation.

"A last look was both the least and most that we as family members could have done since such a body cannot be touched," Mr. Kumar added.

According to a staff member who requested that he not be named, cremations were being carried out starting as early as 4 a.m. till dusk every day over the last week leaving those employed at the cremation ground no option except staying back on the premises at night.

"We have been sleeping here since the beginning of this week due to the sheer flood of cremations – both COVID and non-COVID – that is happening here," a staffer said.

Jump recorded
"Even those who live nearby stay back because they don't want to infect their family members just in case something happens to them while handling a COVID patient's body," he said.

Official data released by the district administration recorded a jump in the total number of COVID deaths added.

since the pandemic began from 106 on Monday to 143 till now.

Three deaths were recorded on Monday, eight on Tuesday, four on Wednesday, 11 on Thursday, nine on Friday and six till three pm on Saturday.

Meanwhile, at the Muslim burial ground down the road from the cremation ground, relatives of both COVID and non-COVID patients, according to its staffers, had been avoiding touching the bodies before and during their last rites.

"We have seen around 10 burials here since the beginning of the pandemic," said Mohammad Ishtiaq, the caretaker of the facility.

Mahesh Saxena of the Noida Lok Manch, an NGO which manages the Antim Niwas cremation facility, issued an appeal that only bodies of COVID patients be brought to it for last rites.

Capital records highest number of COVID deaths

Cases cross 1 million: govt. bulletin

STAFF REPORTER

NEW DELHI

The Capital reported 357 COVID-19-related deaths in the past 24 hours – the highest since the beginning of the pandemic – taking the total number of deaths to 13,898, according to a health bulletin released by the Delhi government on Saturday.

Also, 24,103 new cases were reported, taking the total cases to 10,04,782.

A total of 74,702 tests were done in a day, the bulletin said.

Positivity at 32.27%

The positivity of new cases was 32.27%. This means more than 32 out of 100 people taking the test are now

COVID-19 positive.

Of the total cases, 8,97,804 people have recovered and there are 93,080 active cases.

Out of the total 19,818 beds for COVID-19 treatment, only 7.9% of beds were vacant at 11 p.m. Also, only 13 ICU beds were vacant.

The number of beds came decreased compared to 20,431 on Friday as hospitals are reducing beds due to oxygen shortage.

Many hospitals, including Lok Nayak Hospital, GTB Hospital, Rajiv Gandhi Hospital and Baba Saheb Ambedkar Hospital did not have a single vacant COVID-19 bed.

The police rushed to the spot and found that tenant Snehantha Biswas (52), hailing from West Bengal and a lawyer by profession, died in

Policeman performs last rites of victim who was away from kin

Family expressed inability to come to Delhi to receive body

STAFF REPORTER

NEW DELHI

his room, which was bolted from inside.

"The door was broken and the body was shifted to the mortuary of AIIMS hospital. On enquiry, family members of the deceased were found to be in West Bengal and they were contacted over phone but due to the prevailing situation of COVID-19, they expressed their inability to come to Delhi to receive the body," Mr. Meena said.

For heart treatment
It was revealed that he had come to Delhi for his cardiovascular treatment from AIIMS Hospital and his wife was here too but she left a

few days ago to vote for Bengal elections. The deceased's COVID report also came positive and because the family couldn't come, they authorised the neighbour to receive the body.

"However, the last rites of the deceased was performed by ASI Faizay Ahmad himself with the permission of the family members on Friday at Green Park cremation centre in this tough time of pandemic. The last rite of ash immersion was performed at Yamuna Ghat by the ASI," the officer said.

On Saturday, the police continued to facilitate for oxygen at various hospitals across the city.

Teachers' union slams JNU over care centres

Response team set up, says university

STAFF REPORTER

NEW DELHI

The Jawaharlal Nehru University Teachers' Association (JNTUA) on Saturday condemned the "non-cooperative attitude" of the JNU administration in responding to suggestions made for opening of a COVID management facilities within the campus.

Stating that there was a spike in cases over the last two weeks, the JNTUA said, "The rigid and the almost negligent attitude of the university administration, we fear could end up having grave consequences for JNU as a whole."

"It would indeed be criminal to keep physical facil-

Chattarpur COVID facility resumes

STAFF REPORTER

NEW DELHI

Amid an acute shortage of oxygen beds in the national capital, the Sardar Patel COVID Care Centre at Chattarpur was restarted on Saturday with 500 oxygen-supported beds being made available.

Union Health Minister Harsh Vardhan who reviewed the COVID-19 management at the centre, was informed that a total of 1,000 such beds will be made available over the next one week. The centre which is being reopened due to the surge in cases, will eventually have a capacity of 2,000 beds in the facility, a statement by the government said.

AN-NDE

Grade 11 Students (Batch 2021-2022)

NEET ONLINE CLASSES

start from
10 May 2021

Register NOW @ <http://ssvmprepversity.com>



Study at
Your Own School and Join
SSVM Prepversity
ONLY for ONLINE NEET!
After School Hours!

EXPERIENCED
FACULTY !

BEST
RESULT !

MAKE
SMART
CHOICE
& Book
Batch 1 / Batch 2

NEET ONLINE Annual Course Fee

Days	Batch	Study Hours	Class Time	Annual Course Fee
Monday to Saturday	I	12 Hours/Week	5.00 P.M. TO 7.00 P.M.	₹ 45,000/- +GST (Inclusive of E-Books) ₹ 55,000/- +GST (Inclusive of Printed Materials)
	II	24 Hours/Week	5.00 P.M. TO 9.00 P.M.	₹ 65,000/- +GST (Inclusive of E-Books) ₹ 75,000/- +GST (Inclusive of Printed Materials)

P SSVM. prepversity®

A Distinct Institute for NEET/IIT-JEE

Alangombu Post, Mettupalayam, Coimbatore - 641 302

[www.ssvmprepversity.com](http://ssvmprepversity.com) call: +91 965 591 4141



The Day cum Residential School
SHREE SARASSWATHI®
VIDHYAAH MANDHEER
Affiliated to CBSE, Delhi.
Mettupalayam,
Coimbatore.

M. +91 936 445 4884



SSVM®
WORLD SCHOOL
Affiliated to CBSE, Delhi.
Singanallur,
Coimbatore.

M. +91 934 445 1888



SSVM®
WORLD SCHOOL
Cambridge Assessment
International Education
Cambridge International School
EARLY YEARS (KG) & PRIMARY (1-5)
Singanallur,
Coimbatore.

M. +91 904 703 1313



SSVM®
SCHOOL OF EXCELLENCE
Affiliated to CBSE, Delhi.
Fun Mall Road,
Coimbatore.
M. +91 936 451 1111

IN BRIEF



Jagan presents National Panchayat Awards

VIAJAWADA
Andhra Pradesh Chief Minister Y.S. Jagan Mohan Reddy presented the National Panchayat Awards-2021 conferred by the Union Ministry of Panchayat Raj on the occasion of the National Panchayat Raj Day on Saturday. A.P. won 15 awards in 2020 and 17 in 2021.

All shops, hotels in A.P. to close by 10 p.m.

VIAJAWADA
The Andhra Pradesh government has issued guidelines and instructions for the implementation of night curfew announced in the wake of the second wave of COVID-19 infections. Chief Secretary Aditya Nath Dash issued a government order specifying the details of the restrictions, which started on Saturday.

Telangana to offer vaccine free to all

Karnataka to consider free universal vaccine access on Monday; Kerala will enable better home care

SPECIAL CORRESPONDENT

HYDERABAD
Telangana Chief Minister K. Chandrasekhar Rao ordered free vaccination of the entire population in the State, including migrants, regardless of their age.

He expected the native population and migrant workers to total around four crore. Of these, about 35 lakh had been vaccinated and the rest, irrespective of their age, would be vaccinated free, a press release from the Chief Minister's Office said.

The programme would cost over ₹ 2,500 crore but the government did not consider money more important than human life, the release said. No vaccine shortage was foreseen as Bharat Biotech, based in Hyderabad, was supplying the vaccines and Remdesivir. Mr. Rao asked the public not to gather in groups or participate in rallies. They should not leave home unless necessary.



A citizen is helped by the police to go for a medical check during Saturday's lockdown in Bengaluru. ■ SUDHAKARA JAIN

District officials would ensure strict implementation and success of the vaccination plan. Steps would be taken to ensure there was no shortage of medical oxygen and Remdesivir. Mr. Rao asked the public not to gather in groups or participate in rallies. They should not leave home unless necessary.

Karnataka was considering various options, including free vaccination for all, as inoculation against COVID-19 is being thrown open to all adults from May 1.

Chief Minister B.S. Yediyurappa discussed with Finance and Health officials the outlay required for free vaccination. Speaking to the

media on Saturday, Home and Parliamentary Affairs Minister Basavaraj Bommai and Health and Family Welfare Minister K. Sudhakar said the Cabinet would take a call on this on Monday. At present, vaccination is free at government primary health centres and government hospitals for citizens above 45.

The State, on Thursday, approved purchase of one crore doses of Covishield vaccine in the first phase at a cost of ₹ 400 crore. The Chief Minister urged all those aged above 18 to register for the vaccine from April 28. The Opposition has been demanding free vaccine for all.

"It is not just the quantity needed for the 18 to 44 group from May 1, but also the backlog of people 45 and above. A large number have not received their first jab," a source said.

On the oxygen shortage, Mr. Bommai said steel, pow-

er and cement industries were asked to manufacture oxygen and divert it for medical purposes. State-owned power plants were expected to supply oxygen shortly.

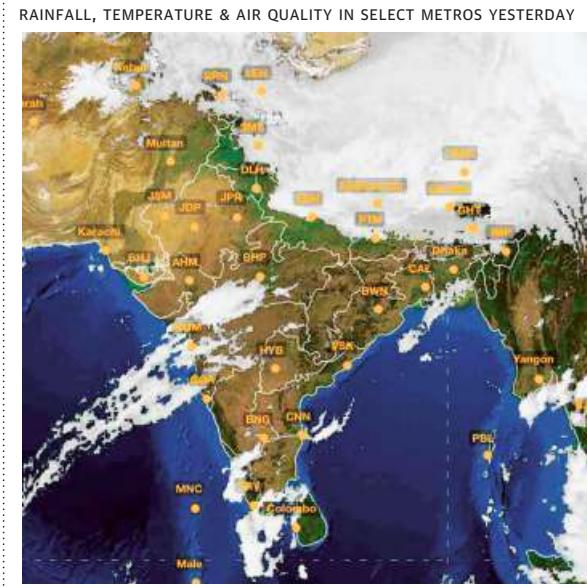
As Kerala prepared for a steep rise in cases and a scramble for hospital beds, health experts called for steps to prevent needless hospital admissions.

They asked the government to improve the home care manual for patients, with better monitoring facilities, for patients with mild/asymptomatic disease to avoid admission.

Doctors said nearly 95% of patients could be managed at home with oral medicines, fluids, rest and regular monitoring of oxygen saturation levels. The State would review its discharge policy requiring patients to test COVID negative.

(With inputs from Bengaluru and Thiruvananthapuram bureaus)

WEATHER WATCH



TEMPERATURE DATA: IMD; POLLUTION DATA: CPCB; MAP: INSAT/IMD (TAKEN AT 18.00 HRS)
Forecast for Sunday: Thunderstorm with lightning likely at isolated places over Chhattisgarh, central Maharashtra, Marathawada, Telangana, coastal Andhra Pradesh, Yanam, south interior Karnataka, Tamil Nadu, Puducherry, Karaikal, Kerala, Mahe and Andaman & Nicobar Islands

CITY	RAIN	MAX	MIN	CITY	RAIN	MAX	MIN
Agartala	—	37.2	21.2	Kozhikode	—	34.3	26.5
Ahmedabad	38.3	—	26.7	Kurnool	18.1	38.1	24.3
Aizawl	—	31.2	15.5	Lucknow	—	38.0	22.4
Allahabad	—	42.0	22.5	Madurai	—	38.4	26.6
Bengaluru	31.9	—	20.0	Mangalore	—	35.0	25.2
Bhopal	39.2	—	22.1	Mumbai	—	33.2	23.4
Bhubaneswar	42.1	—	25.1	Mysuru	—	35.2	21.5
Chandigarh	0.4	34.4	15.5	New Delhi	0.6	34.1	16.4
Chennai	—	36.8	23.9	Patna	—	30.8	20.6
Coimbatore	—	36.2	24.6	Port Blair	—	32.4	24.6
Dehradun	8.2	—	22.7	Puducherry	—	35.2	26.8
Gangtok	—	21.7	12.0	Pune	—	39.0	19.8
Goa	—	34.8	25.5	Raipur	—	39.6	24.8
Guwahati	—	35.2	20.8	Ranchi	—	37.0	21.5
Hubballi	—	36.0	23.0	Shillong	—	38.2	13.9
Hyderabad	4.1	37.4	23.9	Shimla	6	24.6	9.8
Imphal	—	32.3	14.3	Srinagar	—	21.2	5.4
Jaipur	—	35.4	22.4	Thiruvananthapuram	—	34.5	26.1
Kochi	—	33.0	26.6	Tiruchi	6.8	37.3	25.4
Kohima	—	26.6	18.4	Tirupati	—	35.6	22.2
Kolkata	—	39.5	25.5	Visakhapatnam	0.4	34.4	26.4

(Rainfall data in mm; temperature in Celsius)

Yesterday

In observation made at 4.00 p.m. Singrauli, Madhya Pradesh recorded an overall air quality index (AQI) score of 265 indicating an unhealthy level of pollution. In contrast, Panchkula, Haryana recorded a healthy AQI score of 37

CITIES SO: NO: CO PM2.5 PM10 CODE
Ahmedabad... 61 .52 58 .110 .117 ...
Bengaluru... 4 .25 74 ...65 ...52 ...
Chennai... 48 .8 35 ...47 ...— ...
Delhi... 26 22 17 157 164 ...
Hyderabad... 12 19 26 ...66 ...207 ...156 ...
Kolkata... 19 21 57 ...66 ...207 ...156 ...
Lucknow... 9 .51 58 ...123 ...115 ...
Mumbai... 18 27 18 ...120 ...128 ...
Pune... — ...58 19 ...82 ...80 ...
Visakhapatnam 12 63 13 ...88 ...123 ...

Air Quality Code: ■ Poor ■ Moderate ■ Good (Readings indicate average AQI)

SO: Sulphur Dioxide. Short-term exposure can harm the respiratory system, making breathing difficult. It can affect visibility by reacting with other air particles to form haze and stain culturally important objects such as statues and monuments.

NO: Nitrogen Dioxide. Aggravates respiratory illness, causes haze to form by reacting with other air particles, causes acid rain, pollutes coastal waters.

CO: Carbon monoxide. High concentration in air reduces oxygen supply to critical organs like the heart and brain. At very high levels, it can cause dizziness, confusion, unconsciousness and even death.

PM2.5 & PM10: Particulate matter pollution can cause irritation of the eyes, nose and throat, coughing, chest tightness and shortness of breath, reduced lung function, irregular heartbeat, asthma attacks, heart attacks and premature death in people with heart or lung disease

Going by rules | In spite of rising COVID-19 cases, some States, such as Kerala, are continuing with school examinations. The graph shows the spread of the pandemic in the southern States.



Tough times: Officials checking the temperature of a student appearing for the Plus Two examinations in Ernakulam on Saturday. ■ THULASI KAKKAT

Rajasthan's biggest COVID care centre operational from today

The 5,000-bed facility has been established at Beelwa

MOHAMMED IQBAL
JAIPUR

Amid the surge in COVID-19 cases, Rajasthan's biggest COVID care centre with a capacity of 5,000 beds has been established at Radha Soami Satsang Bhawan at Beelwa - 24 km from Jaipur. It will start functioning from Sunday with 500 medical-surgical unit beds.



The facility at Radha Soami Satsang Bhawan. ■ SPECIAL ARRANGEMENT

The Jaipur Development Authority (JDA), which will

manage the centre, has made arrangements for scaling up the number of beds. The number of beds can be increased up to 8,000, as per the need. The Jaipur Greater Municipal Corporation and the police will help the JDA manage the centre.

The State has 1.27 lakh active cases now, including 15,355 reported on Saturday.

Timings
DELHI

SUNDAY, APR. 25
RISE 05:46 SET 18:53
RISE 16:59 SET 04:37
MONDAY, APR. 26
RISE 05:46 SET 18:54
RISE 18:07 SET 05:14
TUESDAY, APR. 27
RISE 05:45 SET 18:54
RISE 19:17 SET 05:53

Delhi Weather max min
Delhi City 34 16
Safdarjung 34 16
Palam 35 18

Delhi Palam Today 36°C Rise in day temperature likely. Day would turn very warm with few clouds and light winds likely.

© Copyright Skymet Weather 2019
All rights reserved.

THE HINDU

DISCLAIMER: Readers are requested to satisfy themselves about the veracity of any advertisement before responding to it. THE HINDU LTD., its editors & owners & publishers of this newspaper does not vouch for the authenticity of any advertisement or advertiser or for the services availed by the same. The Owner, Publisher, Printer, Editor, Director/s, Employees of this newspaper/company may be held responsible/liable in any manner whatsoever for any claims and/or damages for advertisements in this newspaper.



Yogi Adityanath

atmosphere.

In his interaction with the journalists, Mr. Adityanath referred to a private hospital which had reported a shortage of oxygen two days ago. Upon checking, it was found that the hospital had sufficient oxygen, he claimed.

"Due to such people, fear is increasing among the public. Even those who don't need it, are worried about oxygen cylinders," Mr. Adityanath said.

The State police have taken cue from the government and launched a campaign against people accused of hoarding and blackmarketing medicine, spreading rumours and trying to spoil the

atmosphere.

Mr. Adityanath asserted that there was no shortage of oxygen supply in any COVID-19 hospital - private or government-run - but that the actual problem was blackmarketing and hoarding.

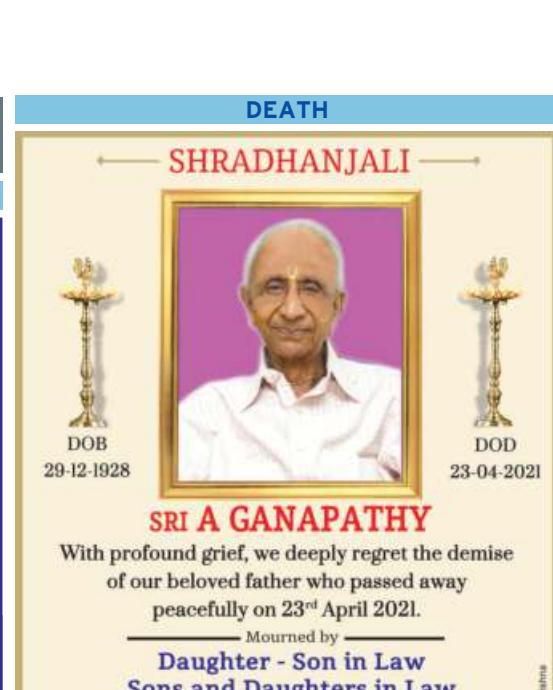
He made the statement in a video conferencing with select journalists on Saturday evening, as per a government spokesperson.

Earlier, Mr. Adityanath, in a high-level meeting with officials, directed them to take action under the NSA and the Gangsters Act against "anti-social elements" involved in "blackmarketing" of medicine, spreading rumours and trying to spoil the

OBITUARY & REMEMBRANCE

DEATH

Kodiyalam Rangaswamy Krishnaswamy (TWA)
1919 – 2021
KRK as he was known, passed away peacefully on April 17, 2021. He was a karmayogi – a man of faith, character and duty. He was husband to Vedavalli, and leaves behind a rich legacy of children, grandchildren and six great-grandchildren.
Viji and Vasudevan Devan
Vasantha and (late) AS Raghavan Sampathkumar (late) and Regine
Ct: +91 9884047112 vignahara@hotmail.com



SHRADHANJALI
With profound grief, we deeply regret the demise of our beloved father who passed away peacefully on April 23, 2021.
Mourned by
Daughter - Son in Law
Sons and Daughters in Law
cell: 9848 777 999
In memory of your loved ones
To dedicate a space in this section, Please contact:
011-43579797
from 10 a.m. to 8 p.m., &
For Placing Advertisements Online log on to
www.thehinduads.com
DONATE EYES-GIFT SIGHT

WESTERN RAILWAY

FROM PAGE ONE

20 die overnight due to 'oxygen crisis'

Several large and small hospitals, including Sir Ganga Ram, Batra, Fortis and Dharamveer Solanki Hospital, continued to raise concerns about low oxygen stock and sought urgent help from the government. "There is total emergency. We are telling relatives to take their patients wherever there is oxygen," Dr. S.C.L. Gupta of Batra Hospital in south Delhi, was quoted as saying.

"Hospital in crisis mode 4th time in 24 hrs. Alarms begin to ring in Ventilators and Bipap machines. Lives of more than 100 patients in risk. Oxygen left which will last for 45 minutes to an hour. Manual ventilation starts. Need urgent refill ASAP," Sir Ganga Ram Hospital said in a statement at 11 p.m.

In a tweet, Delhi Chief Minister Arvind Kejriwal said he had written to Chief Ministers across the country requesting them to provide oxygen. Though the Centre

was helping, "the severity of corona is such that all available resources are proving inadequate", he tweeted.

Dr. Baluja said the Jaipur Golden Hospital had over 210 patients and oxygen stock to last for 45 minutes at 10.15 a.m. on Saturday.

"We were supposed to get a supply of 3,600 litres of oxygen at 5 p.m. on Friday, but we got 1,500 litres at 12 noon. There was a seven-hour delay and by that time the pressure of oxygen supply was low," he said.

"Most hospitals are operating with oxygen stock which will last only for two hours," a Delhi government spokesperson said.

Relatives of the deceased broke down and blamed the Jaipur Golden Hospital for not alerting them about the oxygen shortage. "We would have arranged oxygen had they told us once about the shortage," the wife of a 54-year-old lawyer who died told *The Hindu*.

6 die due to oxygen shortage in Amritsar

The State also ordered the immediate establishment of Oxygen Control Rooms at the State and district levels amid the escalating oxygen crisis. Chief Minister Amarinder Singh directed the Deputy Commissioner (Amritsar) to initiate an investigation into the tragic incident at the Amritsar hospital, which *prima facie* appeared to have flouted orders given to all private hospitals with oxygen shortage to shift their patients to Government Medical Colleges.

"Six people died at a priv-

ate hospital, Neelkanth. The investigation so far has revealed that of the six patients, four were suffering from COVID-19. All the deaths took place between 1.30 p.m. and 3 p.m. (on Friday)," said Gurpreet Singh Khaira, Deputy Commissioner, Amritsar. Mr. Khaira said the hospital had 30 cylinders in stock, but was operating with only five cylinders. "A major negligence on part of the hospital was that it did not even share with us a serious issue like lack of oxygen," he said.

Customs duty on oxygen waived for 3 months

"IAF planes are bringing in cryogenic oxygen tanks from Singapore. IAF is also transporting oxygen tanks in the country to reduce travel times," the Ministry said.

While basic customs duty on Remdesivir and its active pharmaceutical ingredients has been waived, it was suggested that import of equipment related to providing oxygen to patients needs to be expedited. "To augment their production and availa-

bility, it was decided to grant full exemption from Basic Customs Duty and health cess on import of the following items related to oxygen and oxygen related equipment for a period of three months with immediate effect," the Ministry said. "It was also decided that Basic Customs Duty on import of Covid vaccines be also exempted with immediate effect for a period of 3 months," it said.

Anxious relatives accost doctors in Bihar

On April 22, over 200 junior doctors at the Nalanda Medical College & Hospital (NMCH) in Patna, a dedicated COVID-19 government facility, went on strike demanding protection after attendants of a patient allegedly manhandled some doctors over the issuance of a death certificate for a COVID-19 patient. They resumed work late on Friday night only after the Patna District Magistrate and Superintendent of Police visited them and provided adequate security personnel at the hospital. During the 24-hour strike, over 50 ambulances and private vehicles with critically ill COVID-19 patients were turned away by the hospital.

A Division Bench of the

Patna High Court, comprising Justice Chakradhar Shanmugam and Justice Mohit Kumar Shah, ordered that the shortage of oxygen in Bihar be met with proper coordination between the State and the Centre "at the earliest". The court, while hearing several public interest litigations clubbed together, had earlier sought to know the State's action plan for supply of oxygen to COVID-19 treatment facilities.

Media reports said ventilators in the government hospitals of some districts were not working. Chief Minister Nitish Kumar on Friday called for the immediate and proper maintenance of all ventilators.

384 rescued, 10 bodies found after avalanche

A BRO detachment and two labour camps are located nearby for road construction work along this axis and an Army camp is located 3 km from Sumna and about 1 km short of the BRO Sumna detachment.

The area has experienced heavy rain and snow since the last five days, which is still continuing.

Rescue operations were launched by the Army immediately," the official said.

The road access has been cut off at 4 or 5 locations due to multiple landslips.

Border Roads Task Force (BRTF) teams from Josphmath are working to clear them en route from Bhapukund to Sumna since Friday evening. The official added.

Polling in four Bengal districts tomorrow

280 candidates are contesting 34 Assembly seats, including four in Kolkata, in the seventh phase

SHIV SAHAY SINGH
KOLKATA

Polling for the seventh and penultimate phase of the West Bengal Assembly election will be held in 34 constituencies in four districts, including Kolkata, on Monday.

The Election Commission had scheduled polling in 36 seats, but polling in two seats – Shamsherganj and Jangipur in Murshidabad district – has been postponed because of the deaths of candidates of the Samyukt Morcha, an alliance of the Left parties, the Congress and the Indian Secular Front.

Six constituencies each are going to the polls in Dakshin Dinajpur and Malda districts, four in Kolkata and nine each in Paschim Bardhaman and Murshidabad districts.

A total of 280 candidates are in the fray and the number of polling booths is nearly 9,000.

The nine seats of Paschim Bardhaman are located across the Asansol-Durgapur industrial belt and some of the constituencies border Jharkhand. Among the candidates in this region are former Asansol Mayor Jiten-

Penultimate round

Thirty-four constituencies will go to the polls in the seventh phase of the West Bengal election on April 26. A demographic and socio-economic profile of the constituencies:

■ 2016 PERFORMANCE		
Party	Seats Won	Vote share (%)
AITC	12	40.68
INC	12	23.3
CPI(M)	8	16.24
RSP	2	5.74
BJP	-	8.47

■ ST/SC POPULATION SHARE		
Seats	SC (%)	ST (%)
Phase VII	20.99%	7.81%
All	23.5%	5.8%

■ PER CAPITA ANNUAL CONSUMPTION		
Seats	Rural	Urban
Phase VII	₹14,181	₹24,351
All	₹14,995	₹23,570

■ RURAL/URBAN POPULATION SHARE		
Seats	Rural (%)	Urban (%)
Phase VII	75.11%	24.89%
All	68.1%	31.9%

■ SHARE OF LITERATES		
Seats	%	
Phase VII	57.1%	
All	76.3%	

■ SHARE OF HOUSEHOLDS WITH MAIN INCOME FROM CULTIVATION		
Seats	%	
Phase VII	20.47%	
All	19.9%	

SOURCE: LOKDHABA, DEVDATA LAB

dra Tewari, who is contesting from the Pandabeshwar seat. Mr. Tewari switched sides from the Trinamool to the Bharatiya Janata Party at the eleventh hour.

Senior Trinamool Congress Minister Moloy Ghatak is contesting from Asansol Uttar and actor Sayoni Ghosh from Asansol Dakshin on the ticket of the State's ruling party.

Student leader in fray
One of the youngest candidates in the election is 26-



New role: President Ram Nath Kovind administering the oath of office to Justice N.V. Ramana at Rashtrapati Bhavan in New Delhi on Saturday. ■ PTI

Justice N.V. Ramana is CJI

He will have a tenure of a little over one year

SPECIAL CORRESPONDENT
NEW DELHI

Justice N.V. Ramana was on Saturday sworn in as the 48th Chief Justice of India (CJI) by President Ram Nath Kovind at the Rashtrapati Bhavan.

The ceremony to administer the oath of office, held as per COVID-19 protocol, was attended by Vice-President M. Venkaiah Naidu, Prime Minister Narendra Modi, Lok Sabha Speaker Om Birla and Law Minister Ravi Shankar Prasad, among others.

Justice Ramana will have a

tenure of one year and four months as CJI and will demit office on August 26, 2022.

After Justice K. Subba Rao, Justice Ramana is the second CJI from Andhra Pradesh.

Activist role
Born to agriculturist parents in 1957, Justice Ramana was known for his activism regarding issues involving farmers and industrial workers. Before turning to legal practice, he was a journalist with a prominent Telugu newspaper.

He practised at the Andhra Pradesh High Court, Central and A.P. Administrative Tribunals and the Supreme Court before being appointed a permanent Judge of the Andhra Pradesh High Court on June 27, 2000.

He functioned as acting Chief Justice of Andhra Pradesh High Court between March 10 and May 20, 2013, and was elevated as the Chief Justice of Delhi High Court on September 2, 2013. He was appointed a judge of the Supreme Court on February 17, 2014.

He will have a tenure of a little over one year

We released all three hostages, claims ULFA-I

SPECIAL CORRESPONDENT
GUWAHATI

Security forces rescued two of the three employees of the Oil and Natural Gas Corporation (ONGC), abducted by members of the banned United Liberation Front of Assam-Independent (ULFA-I), after a gunfight in Nagaland's Mon district early on Saturday.

Five armed men had abducted the three employees – junior technicians Mohini Mohan Gogoi and Ritu Saikia and junior engineering assistant Alakesh Saikia – from ONGC's Lakwa oilrig in eastern Assam's Charaideo district on Wednesday.

A team of the Army, Assam Rifles and Nagaland police rescued two of the hostages from a jungle near Totokchingny village in Mon district near the border with Myanmar. Police of-

icials in Mon district said the duo was rescued after a gunfight around 2 a.m.

The officials could not specify the number of extremists but said they were a mixed group of members of the ULFA-I and the Yung Aung faction of the National Socialist Council of Nagaland. This faction took over the NSCN (Khaplang) that operates from across the border in Myanmar and shelters other outfits of the northeast.

"Operations are still in progress to rescue the third abductee. Our team recon-

vered an AK-47 assault rifle from the area where the two were rescued," a Defence spokesman said.

In a statement on Saturday evening, the ULFA-I claimed they had released all three hostages following the gunfight with the security forces. "We suspect the armed forces may have killed Ritu Saikia during the exchange of fire," itsaid.

The BSF said the successful operation "was indicative of the alertness and swift retaliatory action by the BSF".

COVID-19 norms not enforced: EC

SPECIAL CORRESPONDENT
NEW DELHI

The Election Commission on Saturday reviewed the implementation of COVID-19 protocols during the West Bengal Assembly election and found that enforcement of the Disaster Management Act, 2005 during campaigning was not up to the mark.

Chief Election Commissioner Sushil Chandra and Election Commissioner Rajiv Kumar held a meeting with West Bengal officers, including the Chief Secretary and the DGP, an EC statement said. "The Commission noted with concern that during campaigns for electioneering, the enforcement under the Disaster Management Act, 2005 has been less than adequate," the EC said.

The EC said the executive committee of the State Disaster Management Authority, chaired by the Chief Secretary and is meant to enforce COVID-19-appropriate behaviour needed to "step up its assigned statutory duty". "District machinery, tasked with poll work, continue to remain responsible for enforcement of other laws simultaneously."

CBI files FIR against Anil Deshmukh

Searches conducted in Mumbai, Nagpur

DEVEESH K. PANDEY
NEW DELHI

The Central Bureau of Investigation (CBI) conducted searches at various places after registering a case in connection with the corruption allegations against former Maharashtra Home Minister Anil Deshmukh and unknown others.

"The searches were carried out on the premises of Mr. Deshmukh in Mumbai and Nagpur. The premises of his personal secretary in Mumbai was also searched," said a CBI official.

The First Information Report (FIR), which was registered on April 21, was based on the findings of a preliminary enquiry initiated on the directions of the Bombay High Court on April 5.

"The preliminary enquiry *prima facie* revealed that a cognisable offence is made out in the matter, wherein the then Home Minister of Maharashtra, Anil Deshmukh, and unknown others have attempted to obtain undue advantage for improper and dishonest performance of their public duty," said the FIR.

A petition filed by former Mumbai Police chief Param



States asked to set up more vaccine centres

Engage private hospitals & industry associations, says Centre

SPECIAL CORRESPONDENT
NEW DELHI

Ahead of expanding the vaccination drive to include everyone above 18 from May 1, Union Health Secretary Rajesh Bhushan and Chairman of the Empowered Group on Technology and Data Management R.S. Sharma told the States on Saturday to register extra private COVID-19 vaccination centres (CVCs) in "mission mode".

This could be done by engaging with private hospitals, hospitals of industrial establishments, and other industry associations. The States were also asked to monitor the number of hospitals that have procured vaccines and have declared stocks and prices on Co-WIN, and publicise the fact that only online registration would be available for those in the age group of 18-45. The States were advised to review their existing hospi-



A vaccine shot being given in New Delhi. ■ SUSHIL KUMAR VERMA

tal and other COVID-19 treatment infrastructure in light of the rapid surge in the number of daily cases and fatalities.

Upload correct data'

Mr. Sharma, according to a press statement, noted that the Co-WIN platform had now stabilised and "is working at scale flawlessly". It had been equipped to handle the complexities of the new phase of vaccination, he said. He emphasised that

the States and the Union Territories should upload correct and timely data as any incorrect data would compromise the integrity of the system.

The States were asked to maintain a real-time record of available beds, create guidelines, direct private health facilities to provide COVID-19 care, and expand designated COVID-19 care facilities for the isolation of asymptomatic and mildly symptomatic patients.

Online registration for the expanded age group is expected to begin on April 28. At least 600 million new beneficiaries are expected to begin seeking appointments for a vaccine shot.

On Saturday, Union Health Minister Harsh Vardhan visited the Sardar Patel COVID Care Centre at Chhatarpur in New Delhi and oversaw its reopening with the addition of 500 oxygenated beds.

Maharashtra also recorded the most number of casualties (676) on Saturday. Delhi followed with 357 new deaths, while Uttar Pradesh registered 223 new casualties.

The figures do not include cases and deaths from Ladakh.

The data are sourced from covid19india.org, an independent aggregator of daily COVID-19 figures.

The country has so far reported a total of 1,69,51,731 cases and 1,92,346 deaths.

There were more than 25 lakh active cases.

As many as 17,53,569 samples were tested in the country on Friday (results of which were made available on Saturday), the highest number of tests conducted in a single day.

This is only the second instance when the daily tests crossed the 17-lakh mark. On April 22, 17,40,550 samples were tested.

India reports 2,797 new fatalities

Country adds 3.48 lakh COVID-19 infections; Maharashtra sees 67,160 cases

SPECIAL CORRESPONDENT
CHENNAI

India reported 3,48,941 new COVID-19 cases and 2,797 deaths as of 11.15 p.m. on Saturday.

This is the fourth day in a row that the country has recorded more than 3 lakh cases.

Maharashtra reported 67,160 infections, accounting for 20% of the new cases, followed by Uttar Pradesh (38,055) and Karnataka (29,438).

Delhi reported 24, 103 fresh infections.

Maharashtra also recorded the most number of casualties (676) on Saturday. Delhi followed with 357 new deaths, while Uttar Pradesh registered 223 new casualties.

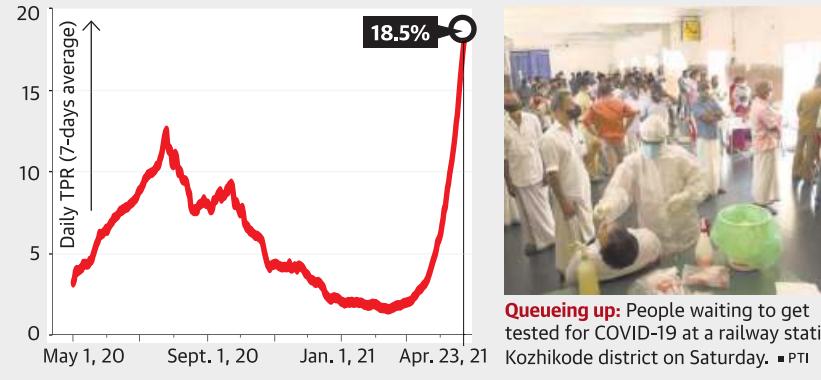
The figures do not include cases and deaths from Ladakh.

The data are sourced from covid19india.org, an independent aggregator of daily COVID-19 figures.

The country has so far reported a total of 1,69,51,731 cases and 1,92,346 deaths.

Exponential rise

As on April 23, India's average daily COVID-19 test positivity rate (TPR) (positive cases identified for every 100 tests) stood at 18.5%. The average daily TPR during the peak of the first wave in mid-September was around 9%



Queuing up: People waiting to get tested for COVID-19 at a railway station in Kozhikode district on Saturday. ■ PTI

tered as of 7 a.m. on Saturday.

The pace of COVID-19 vaccinations in India has reduced significantly in the past week. Between April 17 and 23, around 26.34 lakh doses were administered in the country daily on an average.

Chairman and managing director Krishna M. Ella said recovering costs is essential in the journey of innovation towards other vaccines, such as the intranasal vaccine for COVID-19.

Covaxin to cost ₹600 per dose for States

SPECIAL CORRESPONDENT
HYDERABAD

Following the Centre's announcement that State governments and private hospitals can purchase COVID-19 vaccines directly from the manufacturers, Bharat Biotech, maker of the indigenously developed Covaxin, has set the price at ₹600 per dose for the State governments. For private hospitals, the price will be ₹1,200 per dose.

The company intends to export the vaccine, which it developed in association with the Indian Council of Medical Research, for \$15-\$20 per dose.

The company on Saturday said more than 50% of Covaxin capacities have been reserved for Central government supplies. It is supplying the vaccine at ₹150 per dose.

Chairman and managing director Krishna M. Ella said recovering costs is essential in the journey of innovation towards other vaccines, such as the intranasal vaccine for COVID-19.

Ensure free vaccines for all: Yechury to PM

Centre must be held accountable: Congress

Party leaders target government for shortage of oxygen, drugs, say House panel had flagged issue in Nov.

SPECIAL CORRESPONDENT
NEW DELHI

Communist Party of India (Marxist) general secretary Sitaram Yechury on Saturday wrote to Prime Minister Narendra Modi, urging him to ensure uninterrupted supply of oxygen to all hospitals and provide vaccines to State governments for free, failing which the government will lose its moral authority to continue to be in power.

"I am writing to you in great pain, distress and anguish. This unprecedented health and humanitarian crisis created by the second wave of COVID-19 is turning into a tsunami. The situation has been aggravated by the approach and attitude of the Union government," Mr. Yechury said, calling the rising death toll "preventable".

He said the Centre should bring production of Indian vaccines under emergency provisions and import other vaccines from "all available sources". In order to meet the expenses for a nationwide vaccination programme, Mr. Yechury proposed that the government spend the budgetary allocation of ₹35,000 crores and "cancel the project for the construction of the new Central Vista, put on hold all extravagant expenditures and transparently release all the money collected under PM-CARES and transfer the same for the funding of oxygen and vaccines".

He laid the blame for the tragedy unfolding in the country squarely on the government.

SPECIAL CORRESPONDENT
NEW DELHI

Deputy leader of the Congress in the Rajya Sabha Anand Sharma on Saturday said the Narendra Modi government must be held "morally and politically accountable" for the deaths of COVID-19 patients due to a shortage of oxygen and life-saving medicines.

While former Congress chief Rahul Gandhi asked the Centre to focus on oxygen shortage, vaccines and other health infrastructure instead of undertaking public relations activities and unnecessary projects (a reference to the Central Vista

project), Congress general secretary Ajay Maken pointed out that the Parliamentary Standing Committee on Health had flagged the issue of supply of oxygen in their November 2020 report.

Mr. Maken also accused the Arvind Kejriwal-led Delhi government of spending crores on publicity but doing

nothing to augment oxygen storage capacity in the national capital.

Former Union Finance Minister P. Chidambaram cautioned the government that it could face protests if it did not prepare for the roll-out of the vaccine for all adults from May 1.

"Accountability of govern-

ment is integral to democracy. This government must be held morally and politically accountable," Mr. Sharma, who is recovering from COVID-19 at a Gurugram hospital, said on Twitter.

'No plan'

"Reminding the Prime Minister and his colleagues that India cannot be micromanaged in a pandemic. The responsibility for the deaths of Indian citizens for shortage of oxygen and medicines lies squarely at the doorstep of the government," he added.

Mr. Sharma said the unfolding tragedy of citizens dying for want of medicines

and oxygen had shocked the collective conscience of the nation, but the government was living in "brazen denial". "Why was no exigency plan put in place? Why was oxygen emergency reserve not created? Who is responsible for rampant black marketing of life-saving medicines," he asked.

At a virtual press conference to launch Congress's digital television INC TV, Mr. Maken said if the media had asked questions to the government about the panel report earlier, the government may have been better placed to handle the "man-made oxygen crisis".

China imposes restrictions on nationals returning from India

Embassy says it will no longer issue 'health codes'

ANANTH KRISHNAN

China's Embassy in India has since Friday put in place curbs that have made it harder for its nationals to return to China, amid the surge in COVID-19 cases.

The Embassy told Chinese travellers it will no longer issue "health codes" they need to return if they transit either through Nepal or Sri Lanka. Indian citizens and foreigners based in India have been barred from travelling to China since November last year.

Nepal has been the most popular route for Chinese nationals to return in the ab-

though there has been no such formal announcement. By closing off the Nepal route, the Embassy is now limiting how even its own nationals may be able to return.

Last month, the Embassy said it will begin "facilitating" travellers provided they have taken "Chinese-made COVID-19 vaccines" which are not available in India.

The travel ban has been a particular concern for many Indian students enrolled in Chinese universities, many of whom have been unable to return to China. There are at least 23,000 Indians studying in China.

Travellers require a green health code from the Embassy in New Delhi to apply for a health code in Nepal, the country of transit.

While the Embassy's website says travellers can apply for health codes if they have negative test results for COVID-19, the Embassy had, starting Friday, unofficially begun denying travellers green health codes even if they fulfil the criteria,

though there has been no such formal announcement. By closing off the Nepal route, the Embassy is now limiting how even its own nationals may be able to return.

Last month, the Embassy said it will begin "facilitating" travellers provided they have taken "Chinese-made COVID-19 vaccines" which are not available in India.

The travel ban has been a particular concern for many Indian students enrolled in Chinese universities, many of whom have been unable to return to China. There are at least 23,000 Indians studying in China.

Travellers require a green health code from the Embassy in New Delhi to apply for a health code in Nepal, the country of transit.

While the Embassy's website says travellers can apply for health codes if they have negative test results for COVID-19, the Embassy had, starting Friday, unofficially begun denying travellers green health codes even if they fulfil the criteria,

though there has been no such formal announcement. By closing off the Nepal route, the Embassy is now limiting how even its own nationals may be able to return.

Last month, the Embassy said it will begin "facilitating" travellers provided they have taken "Chinese-made COVID-19 vaccines" which are not available in India.

The travel ban has been a particular concern for many Indian students enrolled in Chinese universities, many of whom have been unable to return to China. There are at least 23,000 Indians studying in China.

Travellers require a green health code from the Embassy in New Delhi to apply for a health code in Nepal, the country of transit.

While the Embassy's website says travellers can apply for health codes if they have negative test results for COVID-19, the Embassy had, starting Friday, unofficially begun denying travellers green health codes even if they fulfil the criteria,

NATIONAL INSTITUTE OF RURAL DEVELOPMENT & PANCHAYAT RAJ

(Ministry of Rural Development, Govt. of India)

Rajendranagar, Hyderabad - 500 030

ADMISSION OPEN – EXTENSION OF LAST DATE

Post Graduate Diploma in Management (Rural Management)

2021-23 (TWO YEARS - APPROVED BY AICTE) and Post Graduate Diploma in Rural Development Management 2021-22 (ONE YEAR)

Last date for receipt of applications through online is extended to 20.05.2021 with revised admission process for selection. Candidates who are yet to clear final year of degree examination in 2020-21 may also apply.

For further details please visit www.nirdpr.org.in

E-mail: cgps.nird@gov.in

Advt. No.: IISER-K/Admin./NT-Rec./2021/01 Dated 25.04.2021

Applications are invited from eligible Indian Nationals for One (1) post of Deputy Registrar (on Deputation) for a period of 3 (Three) years in Pay Level-12.

For further details, please visit the Institute website

<http://apply.iiserkol.ac.in/jobs>

The last date for submission of hard copy of application is 24th May, 2021 upto 17:30 hrs.

Registrar

CSIR MADRAS COMPLEX

सी.एस.आई.आर. मद्रास कॉम्प्लेक्स

(Council of Scientific and Industrial Research)

सी.एस.आई.आर. रोड CSIR Road, तरमणि, चेन्ऩई - 600 113.

विज्ञान सं अधिकारी पद के लिए भारतीय नागरिकों के लिए आवेदन दिए गए हैं।

Applications are invited from Indian Nationals for the following post:-

पद Post Technical Officer (Civil) /A/E (Civil)

वेतन मैट्रिक्स से वेतन रस्ता Pay Level Level-7 (Rs.44900-142400)

पद की सं अ. No. of post 01

आवश्यक Reservation Unreserved

अनिवार्य आवेदन जारी करने की अंतिम तिथि (अनिवार्य आवेदन दिए गए 2021-2022 के बारे में) Last date for submission of online applications (Online application will be open from 28.04.2021) 31.05.2021 (Up to 5.30 PM)

जारी करने की अंतिम तिथि (अनिवार्य आवेदन के लिए फॉर्म दिए गए 2021-2022 के बारे में) Last date for receipt of hard copies of online applications submitted. 11.06.2021 (Up to 5.00 PM)

विज्ञान सं अधिकारी पद के लिए कामी सीरीज़ कामाइकलस कॉम्प्लेक

Global response to India's call for help

Cryogenic oxygen tanks airlifted from Singapore; UAE, EU, Russia and Saudi Arabia sending supplies

SUHASINI HAIDAR
ANANTH KRISHNAN
NEW DELHI

Four cryogenic oxygen tanks were airlifted by the Indian Air Force from Singapore, in the first such import a day after External Affairs Minister S. Jaishankar put out an appeal for international assistance for India's ongoing coronavirus crisis.

The tanks, used for the transportation of oxygen, were brought from Singapore's Changi Airport on an Indian Air Force (IAF) C-17 which landed on Saturday at Panagarh air base in West Bengal. "We stand with India in its fight against Covid-19," Singapore's Embassy in New Delhi said in a statement, calling it a "bilateral and multi-agency effort."

About 80MT of liquid oxygen are also expected to be flown to India from a company in Saudi Arabia, the Indian Embassy in Riyadh announced.

The effort comes more than two weeks after oxygen shortages were reported



Wings to the rescue: C17 aircraft with cryogenic containers from Singapore landed at the Panagarh air base in West Bengal on Saturday. ■ SPECIAL ARRANGEMENT

across the country, and led to criticism of the government's handling of the crisis. The government is now coordinating a multi-pronged approach to ramp up oxygen availability from abroad, including tapping embassies in countries where they can be sourced, speaking to governments to waive regulatory delays, and ensuring no dis-

ruptions in supply chains, diplomats and officials said. However, the government is only seeking foreign government facilitation, not foreign aid for India's needs, they said.

While shipping in liquid oxygen is not seen as feasible at present, embassy officials are coordinating with suppliers for oxygen generators,

industrial and individual concentrators as well as cryogenic tankers. Apart from Singapore, the United Arab Emirates government is also coordinating with Indian Embassy officials for the transfer of oxygen tankers, and the European Union and Russia are expected to send both oxygen-related and pharmaceutical supplies.

Among those offering support, Pakistan's Abdul Sattar Edhi Foundation, a charity group, also wrote a letter to Prime Minister Narendra Modi offering 50 ambulances and emergency staff.

On Saturday, Pakistan's Prime Minister Imran Khan expressed "solidarity with the people of India as they battle a dangerous wave of COVID-19."

"We must fight this global challenge confronting humanity together," Mr. Khan added.

On Friday evening, Mr. Jaishankar held a virtual meeting along with Shipping Minister Mansukh Mandaviya, Indian Ambassadors to Germany, European Union and United States and several executives from multinational pharmaceutical and vaccine companies to discuss bottlenecks with supply chains for India. "The world must support India, as India helps the world," Mr. Jaishankar tweeted.

(With inputs from
Dinakar Peri)

U.S. trade body presses Biden govt. to assist India

'No one is safe from the pandemic until we are all safe'

SIRRAM LAKSHMAN

The U.S. Chamber of Commerce, a powerful trade body, added its name to the growing list of voices asking the U.S. to help countries — such as India — address their vaccine shortages.

"As the pandemic inflicts a heavy toll on countries around the globe, the U.S. Chamber strongly encourages the administration to release the millions of AstraZeneca vaccine doses in storage — as well as other life-saving support — for shipment to India, Brazil, and other nations hard-hit by the pandemic," Myron Brilliant, Chamber's Executive VP said in a statement released on Friday.

"These vaccine doses will not be needed in the U.S., where it's estimated that vaccine manufacturers will be able to produce enough doses by early June to vaccinate every American. This move would affirm U.S. leadership, including in initiatives such as COVAX, and as we work with partners around the globe because no one is safe from the pandemic until we are all safe from it," Mr. Brilliant said.

Get remdesivir on planes. Get oxygen on planes. People are dying. People are watching

CHRIS CLARY
Political science professor

would facilitate the production of COVID-19 therapeutics and vaccines around the world.

Social media push

Twitter timelines were ripe with speculation on why the U.S. had not yet acted.

"I find it hard to believe the United States does not have some ventilators to spare. Get them on planes @StateDeptSpox, @USAnilIndia. Get remdesivir on planes. Get oxygen on planes. If vaccines are off limits get creative. People are dying. People are watching. Live our values," Chris Clary, a political science professor at the University of Alberta, tweeted.

On Friday, White House Press Secretary Jen Psaki said discussions were on-going at various levels between the Indian and U.S. sides. Mr. Biden has said the U.S. was looking at helping other countries.

Biological E gets nod for Phase 3 vaccine trial

Study across 15 sites in country

SPECIAL CORRESPONDENT
HYDERABAD

Pharmaceuticals and biologics firm Biological E has received approval to start Phase 3 clinical trial of its COVID-19 subunit vaccine candidate from a Subject Expert Committee of the Central Drugs Standard Control Organization (CDSCO).

The Phase III clinical study to be conducted in 15 sites across the country will evaluate the immunogenicity and safety of Biological E's SARS-CoV-2 vaccine for protection against COVID-19 in about 1,268 healthy subjects aged 18-80 years. It is intended to be part of a larger global Phase III study.

The SEC approval follows successful completion of the Phase I/II clinical trial that began in November second week.

Two doses

According to Biological E, the Phase I/II clinical trial evaluated safety and immunogenicity of the vaccine candidate in about 360 healthy subjects aged 18-65 years. The schedule consisted of two doses for each participant, administered via intramuscular injection, 28 days apart. BE's novel COVID-19 vaccine was found to be safe, well tolerated and immunogenic, a release from the company said.

"The results of these [Phase I/II] clinical trials are very positive and promising.

Centre contradicts SII on vaccine pricing

Poonawalla silent on Health Minister's tweet that govt. of India's procurement cost remains ₹150/dose

R. PRASAD
CHENNAI

Adar Poonawalla, CEO of Serum Institute, issued a statement on Saturday to address the "ongoing public scepticism and confusion towards the pricing of Covishield". The statement tried to address the controversy over whether the price of the vaccine at ₹600 (nearly \$8) per dose for private hospitals was more than its cost when it was exported. But it did not refer to the issue of whether the vaccine would be priced differently for procurement by the Centre and the State governments.

Only a few hours before the statement, Union Health Minister Dr. Harsh Vardhan tweeted saying that the Central government's procurement price for both COVID-19 vaccines — Covishield and Covaxin — remains at ₹150 per dose; the Health Ministry, too, tweeted a similar clarification.

These tweets contradicted what Mr. Poonawalla had claimed in an interview to



Rate debate: Opposition parties have criticised the differential pricing of Covishield for the Centre and the States. ■ AFP

CNBC-TV18 on April 21, that the price of ₹150 per dose was not applicable for any future procurement by the Central government, and that the vaccine would be sold at ₹400 both to the Central and State governments.

He said: "It is not a different price [for State and Central government supplies]. All government prices will henceforth be ₹400 for new contract. The ₹150 per dose for the Central government was for prior commitment

The April 24 statement, by remaining silent on the Health Minister's clarification, has kept the question over "differential pricing" alive.

As regards the higher pricing for private hospitals, the statement said, "The initial prices were kept very low globally as it was based on advance funding given by those countries for at-risk vaccine manufacturing."

However, while SII charged South Africa \$5.25 per dose, AstraZeneca was supplying to European countries at \$2.18 per dose.

Volumes matter
In the April 24 statement, Mr. Poonawalla also made the point that vaccines used in the universal immunisation programme were sold at a far lower price as the volumes were large. He cited the example of pneumococcal vaccines that are sold at a higher price in the private market, while the government is charged only one-third the cost.

93,000 railway staff infected

SPECIAL CORRESPONDENT
NEW DELHI

Amid a record surge in COVID-19 cases in the country, around 93,000 employees of Indian Railways have tested positive for the virus, Railway Board Chairman and CEO Sunetra Sharma said on Friday.

"Railways is no different [from what is happening in the country]. Roughly around 93,000 Railways beneficiaries were infected with COVID-19. More than 5,000 beds are earmarked for these people in the 72 hospitals of the Indian Railways," Mr. Sharma said during a press conference. Most of those affected are in quarantine as they did not need hospitalisation.

U.K. variant more prevalent in north India

Super spreader events in Punjab amplified the infectious mutant strain, say experts

JACOB KOSHY
NEW DELHI

The U.K. variant of the coronavirus, marked by increased infectivity, is distinctly more prevalent in several northern and central Indian States when compared with the southern ones, a perusal of genome sequencing data from the National Centre for Disease Control (NCDC) shows. Two scientists from Central government labs that analyse national genome sample data told *The Hindu* that large gatherings in Punjab have significantly amplified transmission of the variant in Delhi, Uttar Pradesh, Haryana.

"Punjab has a very unique trajectory in the rise of the B.1.1.7. There were at least

four major clusters (super spreader events) marriages, farmer protests from February 1 to February 28, that are responsible for large spikes. By March, Delhi was warned about a potential 15,000 critical cases," Dr. Sujet Singh, Director, NCDC said.

Though only a fraction — about 15,000 samples — of India's caseload has been sequenced, data from 1,757 samples showed that in the northern States the proportion of the U.K. variant in the community was significantly higher than those isolated

from international travellers and their contacts. The U.K. variant, according to the data available with *The Hindu*, comprises 1,666 of the 1,757 samples.

In Punjab, for instance, there were eight instances of the U.K. strain among international travellers and their contacts but 543 in the wider community; in Delhi this ratio was 91: 324. In Himachal Pradesh and Jammu and Kashmir, there were no reported variants in those with an international travel history but 26 and 23 cases respectively in wider community. In Haryana the ratio is 6:13. In Madhya Pradesh, the ratio was 4:51 and in Chhattisgarh 1:14. However, such a pattern doesn't hold, in fact

from international travellers and their contacts. The U.K. variant, according to the data available with *The Hindu*, comprises 1,666 of the 1,757 samples.

In Punjab, for instance, there were eight instances of the U.K. strain among international travellers and their contacts but 543 in the wider community; in Delhi this ratio was 91: 324. In Himachal Pradesh and Jammu and Kashmir, there were no reported variants in those with an international travel history but 26 and 23 cases respectively in wider community. In Haryana the ratio is 6:13. In Madhya Pradesh, the ratio was 4:51 and in Chhattisgarh 1:14. However, such a pattern doesn't hold, in fact

from international travellers and their contacts. The U.K. variant, according to the data available with *The Hindu*, comprises 1,666 of the 1,757 samples.

In Punjab, for instance, there were eight instances of the U.K. strain among international travellers and their contacts but 543 in the wider community; in Delhi this ratio was 91: 324. In Himachal Pradesh and Jammu and Kashmir, there were no reported variants in those with an international travel history but 26 and 23 cases respectively in wider community. In Haryana the ratio is 6:13. In Madhya Pradesh, the ratio was 4:51 and in Chhattisgarh 1:14. However, such a pattern doesn't hold, in fact

from international travellers and their contacts. The U.K. variant, according to the data available with *The Hindu*, comprises 1,666 of the 1,757 samples.

In Punjab, for instance, there were eight instances of the U.K. strain among international travellers and their contacts but 543 in the wider community; in Delhi this ratio was 91: 324. In Himachal Pradesh and Jammu and Kashmir, there were no reported variants in those with an international travel history but 26 and 23 cases respectively in wider community. In Haryana the ratio is 6:13. In Madhya Pradesh, the ratio was 4:51 and in Chhattisgarh 1:14. However, such a pattern doesn't hold, in fact

AFMS may deploy retired personnel

SPECIAL CORRESPONDENT
NEW DELHI

With resources of the Armed Forces Medical Services (AFMS) stretched to its limit, Defence Minister Rajnath Singh on Saturday approved a suggestion to deploy those who have recently retired from it.

"All health facilities of the Defence Public Sector Undertakings (DPSU) and the Ordnance Factory Board (OFB) have been allowed to provide health services to local COVID-19 affected civilian population," Mr. Singh said on Twitter.

The Defence Ministry has also decided to give extension to Short Service Commissioned Doctors in the AFMS till December 31 and the move will augment its strength by 238 doctors.

The services of local health professionals might be enlisted for the 750-bed hospital in Varanasi being set up by the Defence Research and Development Organisation.

SUDOKU



DIFFICULTY RATING: ★★★★★



CM
YK

People without ration cards left out of COVID-19 food safety net

Activists warn that a humanitarian crisis will erupt

PRISCILLA JEBARAJ
NEW DELHI

People without ration cards have again been left out of the safety net provided by the second round of the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY), announced by the Centre on Friday to provide free food grains for 81 crore ration card holders in May and June.

Last year, the Aatmanirbhar scheme was announced to bridge that gap, and provided free food grain to more than 2.7 crore people without ration cards, out of an initial target of 8 crore people.

Asked whether a similar scheme would be implemented this year, Food Secretary Sudanshu Pandey said that the ration card portability scheme and new enrolments under the National Food Security Act (NFSAs) would help to mitigate the situation instead. However, Right to Food activists warn

that a humanitarian crisis will erupt unless free food grain is also provided for the most vulnerable population who still do not have ration cards.

"Lots of State governments, ever since the One Nation One Ration Card scheme came, they included a lot of people who were not having ration card, using Aadhaar enablement and biometric authentication," Mr. Pandey told journalists on Saturday, in response to a query from *The Hindu*. "What it led to, for example

have been added. Same thing has happened in U.P. and a similar thing in Bihar." The Food Department said a total of ₹60.7 lakh additional people had got covered under the NFSAs since last year.

Population growth
"If there are 60 lakh new beneficiaries, that means less than 20 lakh additional ration cards, which is nothing in comparison to the large numbers still without ration cards," said Dipa Sinha, a Right to Food activist and economist teaching at Am-

bedkar University, Delhi. She pointed out that simple population growth since the last census means nine to ten crore additional people ought to be added, to meet NFSAs norms.

In Delhi, for example, 71 lakh ration cards have been issued. However, during last year's lockdown, an additional 60 lakh e-coupons had to be issued for those without ration cards to access free food grain given by the Delhi government, said Anjali Bhardwaj of the Delhi Rozi Roti Adhikar Abhiyan.

A ND-NDE

ASEAN leaders urge junta to end killings

They call for a dialogue between contending parties in Myanmar, with the aid of the bloc's envoys

ASSOCIATED PRESS

JAKARTA

Southeast Asian leaders demanded an immediate end to killings and the release of political detainees in Myanmar in an emergency summit with its top general and coup leader in the Indonesian capital on Saturday, Indonesia's President Joko Widodo said.

The leaders of the Association of Southeast Asian Nations (ASEAN) also told Senior General Min Aung Hlaing during the two-hour talks in Jakarta that a dialogue between contending parties in Myanmar should immediately start, with the help of ASEAN envoys, Mr. Joko said.

Unusually blunt

"The situation in Myanmar is unacceptable and should not continue. Violence must be stopped, democracy, stability and peace in Myanmar must be returned immediately," Mr. Joko said. "The interests of the people of Myanmar must always be the priority."



Crisis talks: General Min Aung Hlaing, far right, with ASEAN leaders in Jakarta, Indonesia, on Saturday. ■ AP

The messages conveyed to the top General was unusually blunt and could be seen as a breach of the conservative 10-nation bloc's bedrock principle forbidding member states from interfering in each other's domestic affairs.

"There is a tremendous expectation on the part of the international community on how ASEAN is addressing the Myanmar issue. The pressure is increasing," Mr. Muhyiddin said.

Access to Myanmar

Mr. Muhyiddin said that policy should not lead to inaction if a domestic situation "jeopardizes the peace, security, and stability of ASEAN and the region" and there is international clamor

for resolute action.

"There is a tremendous expectation on the part of the international community on how ASEAN is addressing the Myanmar issue. The pressure is increasing," Mr. Muhyiddin said.

ASEAN's diversity, including the divergent ties of many of its members to either China or the U.S., along with a bedrock policy of non-interference in each other's domestic affairs and deciding by consensus, has hobbed the bloc's ability to rapidly deal with crises.

Indonesian Foreign Minister Retno Marsudi expressed hopes on the eve of the sum-

mit that "we can reach an agreement on the next steps that can help the people of Myanmar get out of this delicate situation."

Daily shootings by police and soldiers since the February 1 coup have killed more than 700 mostly peaceful protesters and bystanders, according to several independent tallies.

It was not immediately clear if and how Gen. Min Aung Hlaing responded to the blunt messages.

It was the first time he travelled out of Myanmar since the coup, which was followed by the arrests of Aung San Suu Kyi and many other political leaders.

Critics have said ASEAN's decision to meet him was unacceptable and amounted to legitimising the overthrow and the deadly crackdown that followed.

Amnesty International urged Indonesia and other ASEAN states to investigate Min Aung Hlaing over "credible allegations of responsibility for crimes against humanity in Myanmar."

Defying Turkey, U.S. recognises Armenian genocide of 1915

AGENCE FRANCE-PRESSE

YEREVAN

U.S. President Joe Biden on Saturday recognised the 1915 killings of Armenians by Ottoman forces as genocide, a watershed moment for descendants of the hundreds of thousands of dead as he defied decades of pressure by Turkey.

Mr. Biden became the first U.S. President to use the word genocide in a customary statement on the anniversary, a day after informing Turkish President Recep

Tayip Erdogan that he would go ahead with this step. "We remember the lives of all those who died in the Ottoman-era Armenian genocide and recommit ourselves to preventing such an atrocity from ever again occurring," Mr. Biden said.

"And we remember so that we remain ever-vigilant against the corrosive influence of hate in all its forms," he added.

Turkey on Saturday accused the U.S. of "trying to rewrite history". "We will

not take lessons from anyone on our history," Turkish Foreign Minister Mevlut Cavusoglu said in a tweet.

Armenian PM Nikol Pashinyan thanked Mr. Biden for "the powerful step towards justice and historical truth".

As many as 1.5 million Armenians are estimated to have been killed from 1915 to 1917 during the waning days of the Ottoman Empire.

Starting with Uruguay in 1955, France, Germany, Russia and many others have recognised the genocide.

Donald Lu picked for top South, Central Asia job

SIRIRAM LAKSHMAN
WASHINGTON

U.S. President Joe Biden has nominated Donald Lu, a career foreign service officer as the next Assistant Secretary for South and Central Asia – a remit that includes the India portfolio. The position was earlier held (in an acting capacity) by Alice Wells who retired last year.

Mr. Lu has been the U.S. Ambassador to the Kyrgyz Republic since 2018 and was, at one point, the Deputy Chief of Mission at the U.S. Embassy in New Delhi.



Donald Lu

He has also held positions in Georgia and Pakistan, according to a bio released by the White House. Mr. Lu will need to be confirmed to his role by the U.S. Senate.

dence" – was arrested again.

"They were arrested under the PTA based on circumstantial and scientific evidence that they had connections with the suicide bombers who carried out the attacks," police spokesman Ajith Rohana said in a statement.

On April 21, Sri Lanka marked the second anniversary of the ghastly Easter Sunday terror bombings, carried out by a network of suicide bombers from an IS-inspired local radical Islamist group. A total of 279 people died, and several hundreds were seriously injured in the serial blasts carried



Rishad Bathiudeen

out at luxury hotels and churches in Colombo, and in the eastern city of Batticalao.

The arrest of the Bathiudeen brothers comes amid growing calls, from the Catholic church and political op-

position, for the government to expedite and complete the probe into the incident, a poll pledge of President Gotabaya Rajapaksa.

Politically motivated' In a Facebook video just ahead of his arrest, Mr. Bathiudeen said he was innocent, and his arrest was 'politically motivated'. "It is part of the repression of the Muslim community of this country, this arrest is a big conspiracy to silence our community...they did not even inform the Speaker about the arrest of a parliamentarian, of the leader of a democratic political party," he said.

Israeli jets strike Gaza in response to rocket salvos

Clashes in Jerusalem enter second night

AGENCE FRANCE-PRESSE
JERUSALEM

Israeli warplanes struck the Gaza Strip early on Saturday after repeated salvos of rocket fire into Israel followed a second night of clashes between Palestinians and police in Israeli-annexed east Jerusalem.

Thirty-six rockets were launched, the Israeli Army said, the most in a single night this year, after Gaza's Islamist rulers Hamas voiced support for the east Jerusalem protests, which were fuelled by a Thursday march by far-right Jews.

Washington said it was "deeply concerned" by the escalating violence, while the European Union appealed for restraint.

The U.S., which has taken a more even-handed approach to the Israeli-Palestinian conflict since President Joe Biden took office in January urged "calm and unity".

"The rhetoric of extreme protesters chanting hateful and violent slogans

must be firmly rejected," State Department spokesman Ned Price tweeted.

Tensions have been running high in east Jerusalem over a ban on gatherings, and a series of videos posted online showing young Arabs attacking ultra-Orthodox Jews, and Jewish extremists taking to the streets to bully Arabs.

On Thursday, at least 125 people were injured when Palestinian protesters, angered by chants of "death to Arabs" from far-right Jewish demonstrators, clashed repeatedly with police.

Skirmishes broke out again on Friday when tens of thousands of Muslim worshippers left the city's revered Al-Aqsa mosque compound after night prayers and found themselves confronted by dozens of armed police, some on horseback.

Hundreds of Palestinians also gathered at the Qalandiya checkpoint between Jerusalem and the occupied West Bank, police said.

China eyes asteroid defence

REUTERS
BEIJING

China will hold discussion on building a defence system against near-earth asteroids, a senior space agency official said on Saturday, as the country steps up efforts towards realising its longer term space ambitions.

Zhang Kejian, head of the China National Space Administration, didn't provide any further detail.

China aims to establish a programme operating thousands of space flights a year and carrying tens of thousands of tonnes of cargo and passengers by 2045.

It signed a memorandum of understanding last month with Russia to set up an international lunar research station.

The European space agency last year signed a deal worth \$156.08 million to make a spacecraft for a joint project with NASA looking at how to deflect an asteroid heading for earth.

Missing submarine sank, killing 53 aboard: Indonesia

Debris indicate it cracked gradually as it went down: Navy

ASSOCIATED PRESS
BANYUWANGI

Indonesia's Navy on Saturday declared its missing submarine had sunk and cracked open after finding items from the vessel over the past two days, apparently ending hope of finding any of the 53 crew members alive.

Military chief Hadi Tjahjanto said the presence of an oil slick as well as debris near the site where the submarine last dove Wednesday off the island of Bali were clear proof the KRI Nanggala 402 had sunk. Indonesian officials earlier considered the vessel to be only missing, but said the submarine's oxygen supply would have run out early Saturday.

Navy Chief Yudo Margono told a press conference in Bali, "If it's an explosion, it will be in pieces. The cracks happened gradually in some parts when it went down from 300 m to 400 m to 500 m... If there was an explosion, it would be heard by the sonar."

The Navy previously said it believes the submarine sank to a depth of 600-700 m, much deeper than its collapse depth of 200 m, at which point water pressure would be greater than the hull could withstand.

Findings to be evaluated
The cause of the disappearance was still uncertain.

Adm. Margono said searchers found parts of a torpedo straightener, a grease bottle believed to be used to oil the periscope, debris from prayer rugs and a broken piece from a coolant pipe that was refitted on the submarine in 2012.

"With the authentic evidence we found believed to



Navy personnel seen on the submarine KRI Nanggala 402, in this file photo. ■ REUTERS

India recalls second rescue vessel, first one still enroute

DINAKAR PERI
NEW DELHI

India has recalled the second Deep Submergence Rescue Vessel (DSRV) that was airlifted on Saturday morning to Indonesia after the Indonesian Navy declared that it had located debris of the missing submarine, KRI Nanggala,

locate the submarine and enable timely rescue. With debris now being sighted and the Indonesian Navy saying that the submarine had likely sunk, the intervention system was not required as the nature of search had changed, the official stated.

However, the first DSRV which was dispatched on Thursday by sea along with its mother ship is still enroute and a call would be taken in the next few days as clarity emerges on the missing submarine, the official said.

be from the submarine, we have now moved from the 'sub miss' phase to 'sub sunk,' Adm. Margono said.

He said rescue teams from Indonesia and other countries will evaluate the findings. He said no bodies have been found so far.

An American reconnaissance plane, a P-8 Poseidon, landed on Saturday and had been set to join the search, along with 20 Indonesian ships, a sonar-equipped Aus-

tralian warship and four Indonesian aircraft. Singaporean rescue ships were also expected on Saturday, while Malaysian rescue vessels were due to arrive on Sunday, bolstering the underwater hunt, officials said earlier Saturday.

The German-built KRI Nanggala 402 has been in service in Indonesia since 1981 and was carrying 49 crew members, three gunners and its commander.

WORLD BOOK Day

FLAT 50% OFF

Limited Period offer - From April 23rd To April 30th, 2021
Grab it now while stocks last!

SHRINE Series

HISTORY Series

PREMIUM Series

Visit: publications.thehindugroup.com/bookstore/
For bulk booking, e-mail: bookstore@thehindu.co.in | For enquiries call: 1800 102 1878

*Offer only for Select books | Shipping charges extra | Terms and conditions apply

ELSEWHERE



Labour for panel probe over PM ex-aide's claim

LONDON

Britain's opposition Labour Party on Saturday called for an independent commission on ethics and standards in government after Prime Minister Boris Johnson's former top adviser criticised the U.K. leader's integrity. Dominic Cummings launched a tirade on Friday after a series of incriminating leaks, claiming the Prime Minister lacks "competence and integrity". REUTERS

Malaysian artist arrested for 'insulting' Queen

KUALA LUMPUR

A Malaysian artist has been arrested for allegedly insulting the Queen by posting a satirical playlist online, police said, fueling concerns about a widening crackdown on freedom of expression. Fahmi Reza is being investigated for breaking sedition laws, and faces up to three years in jail, if convicted, police said. AFP

CM YK

SNAPSHOTS



Making oxygen

NASA has extracted oxygen from the carbon dioxide in the thin Martian atmosphere. The unprecedented extraction of oxygen on Mars was achieved by a device called MOXIE aboard Perseverance, a six-wheeled science rover. MOXIE is short for Mars Oxygen In-Situ Resource Utilization Experiment. It produced about 5 grams of oxygen, equivalent to roughly 10 minutes' worth of breathing for an astronaut. This is the first extraction of a natural resource from the environment of another planet.



Mini black hole

Scientists have discovered what may be the smallest-known black hole in the Milky Way galaxy and the closest to our solar system. Nicknamed 'Unicorn,' the researchers said the black hole is roughly three times the mass of our Sun, testing the lower limits of size for these extraordinarily dense objects. A luminous red giant star orbits with the black hole in a so-called binary star system named V723 Mon. The study is published in the *Monthly Notices of the Royal Astronomical Society*.

India may have 8–10 lakh cases a day in mid-May'

R. PRASAD

With the daily infections accelerating at a blazing speed to reach 3,45,103 on April 23, and the daily deaths stubbornly remaining above 2,000 and rising since April 20, the second wave is growing at an alarming rate resulting in health-care facilities bursting at the seams. The second wave is expected to peak in May. Bhramar Mukherjee, Professor of Epidemiology at University of Michigan in an email says there will be 8-10 lakhs cases a day in mid-May when it peaks, and 4,500 deaths around May 23. Edited excerpts:

Since April 1, the number of daily cases has been accelerating at a rapid speed. Can it be due to any reason other than more infectious variants?

We have to be cautious here. Causality can sometimes be established by elimination of alternative explanations. Let us try that argument here:

We all agree that it is not a single factor but a confluence of different factors all coinciding to create the perfect transmission inferno in India. There was lack of COVID-appropriate behaviour at a time when the country was fully re-opening.

We were complacent with a false sense of security, thinking we have conquered COVID-19. Instead of anticipating the silent footsteps of this insidious virus, we let it run wild without any surveillance. Even when we saw the uptick in mid-February, we were dismissive and continued with data denial. The nonchalance, negligence, complacency and hubris cannot be ignored.

Colossal mistakes were made by not accelerating vaccination when

the virus curve was at its nadir.

Even with all of those features factored in, and allowing for a certain rate of re-infection consistent with existing literature (84% protection from past infections at seven months), the growth rate that we are seeing with cases growing by 8-fold, deaths increasing by 9-fold, and eight States having a reproduction number (RO) around 2 cannot be adequately explained without entertaining the possibility of an intrinsically more transmissible variant.

We have data now from different Indian States showing that the double mutant or the U.K. variant have quickly become dominant strains in Maharashtra or Punjab for example.

The increasing number of reports of cluster/family level infections also point to this hypothesis. However, without proper sequencing data over geography and time, and proper epidemiological investigations, this evidence is still circumstantial.

Even if the rise is due to new highly transmissible variants, why are we seeing a sudden acceleration since April 1?

This is the nature of exponential growth, the virus creeps in silently and explodes astronomically. The rate parameter of the growth is startling, but the pattern is explainable. This is a feature of the last surges for example in the U.S. and U.K. During the 1918 influenza pandemic, India saw a similar pattern.

We started imposing lockdowns only recently to slow down transmission. Before then we were having not one or two isolated superspreader events but a continuous flow of numerous superspreader events.



Bhramar Mukherjee ■

The reproduction number is over 2.5 in Uttar Pradesh and Bihar, and above 2 in Delhi, Rajasthan and West Bengal for a few days now. At this high reproduction number, are these States reporting the expected daily cases?

Our papers have consistently estimated underreporting factors for reporting cases nationally around 10-20. The IHME [Institute for Health Metrics and Evaluation] model is projecting 45 lakhs daily new infections today in India, pointing to a daily underreporting factor of about 15. This factor widely varies across States. Even with inaccurate numbers the relative trends are clear. From all I know, the reality on the ground is much starker than what the numbers show.

I would like to reiterate that suppressing the truth or having artificially deflated numbers does not help anyone. It hinders prudent policymaking, prevents estimating true healthcare needs or need for oxygen supply/ICU beds

accurately. This pandemic has turned into this confusing policy pandemonium partially because the data and science have not been presented transparently to the public.

Based on the high reproduction number in Uttar Pradesh, Bihar, West Bengal, Rajasthan, Madhya Pradesh, and Gujarat for days, are we seeing the expected number of deaths now?

We have estimated death under-reporting by a factor of 2-5 in the first wave. Now with the surge, the reporting infrastructure has probably eclipsed dramatically. So I expect the underreporting of deaths to be massive right now. All reports from burial grounds and crematoriums strongly suggest this possibility.

The fact is, we have a relative idea of the growth but we have no idea about the absolute numbers. I tell my students that this India modelling exercise is to teach them to adopt best statistical practices with the worst possible data. Fi-

nally, even if we believe the reported death numbers, the IHME is projecting 6,64,000 reported deaths by August 1 for India.

Misclassification of COVID-19 deaths and attributing the cause of death to other comorbidities has happened to some extent in every country. But in India, medical reporting of deaths and cause of deaths is already a very porous system. So it is challenging to do such calculation reliably to quantify COVID-related fatalities in an indirect way. The data deficient infrastructure in India is really hurting us right now.

The seven-day average test positivity rate (TPR) nationally on April 23 was 18.5%. Delhi (30.5%), Chhattisgarh (30.1%), Maharashtra (24.6%), Madhya Pradesh (23.8%), Andhra Pradesh (22%) and West Bengal (20.4%) are reporting higher TPR than the national average. Are the daily fresh cases reported from these States in concordance with the test positivity rate?

These high levels of TPR can capture both increasing prevalence or limited testing. I think in this case it is a combination of both and impossible to unconfound one from the other. Again, I think all arrows point that cases are severely underreported.

Why are we seeing low TPR in Uttar Pradesh (12.5%), despite the number of tests done being less than Maharashtra? What are the reasons for this?

You are asking me about a ratio where I neither believe the reported numerator nor the denominator. It could be that patients with obvious COVID-19 symptoms are not even being tested. Selection

bias in testing can distort the numbers you get. We have worked on this issue of selective testing. I would like to add that some RT-PCR tests have a high false negative and they may not have the same accuracy to detect new variants if they are optimised for the original strain.

You had tweeted saying "Uttar Pradesh's growth in spread is alarming. Our models are failing at this high rate of growth to come up with sensible predictions". Is the growth in spread alarming only in Uttar Pradesh?

No, not just Uttar Pradesh. Uttar Pradesh, West Bengal, Bihar and Delhi are on top of my "high alert" list. Then comes Andhra Pradesh, Rajasthan, Madhya Pradesh, Kerala, Gujarat, and Karnataka. Kerala is again starting to look worrisome. I feel West Bengal, Uttar Pradesh, Bihar and Kerala will need lockdown at some point. Odisha and Assam also have a high RO [reproduction number] value but the projected number of total cases is lower.

When do you think the second wave in India will peak and what will be the daily fresh cases reported at the time it peaks nationally?

All models are projecting a peak for infections in May right now. Deaths will be a lagged indicator by 7-10 days. The IHME is projecting early-May and we are projecting mid-May for infections to peak. We are projecting reported cases at 8-10 lakhs a day with 4,500 deaths around May 23 when deaths peak. IHME predicts about 50 lakh infections (reported plus unreported) and 5,500 deaths at the peak of the two curves.

Old SpaceX capsule delivers new crew to space station

PRESS TRUST OF INDIA



Floating base: For the next few days, the space station will be home to 11 astronauts, just shy of the record of 13 set during NASA's space shuttle era. ■ GETTY IMAGES

A recycled SpaceX capsule carrying four astronauts arrived at the International Space Station on Saturday.

The Dragon capsule docked autonomously with the orbiting outpost 420 kilometres above the Indian Ocean, a day after launching from NASA's Kennedy Space Center.

The new arrivals - representing the U.S., France and Japan - will spend six months at the space station. They'll replace four astronauts who will return to Earth in their own Dragon capsule Wednesday.

It was the first time two SpaceX crew Dragons were parked there at the same time - practically side by side.

Third crew flight

Although this was SpaceX's third crew flight for NASA, it was the first to use a vehicle that's flown before. The Dragon capsule was used for

Space's first crew launch last May, while the Falcon rocket soaring Friday hoisted crew two in November.

Fully automated

NASA astronauts Shane Kimbrough and Megan McArthur - the commander and pilot of the arriving Dragon - monitored their capsule's flat screen computers as the space station loomed ever larger. They could have taken control if necessary, but the autonomous system

did its job, much like a self-driving car.

Also checking into the space station: France's Thomas Pesquet and Japan's Akihiko Hoshide. Both have lived there before, as has Kimbrough. It was the first station visit for Megan McArthur.

For the next four days, the space station will be home to 11 astronauts, just shy of the record of 13 set during NASA's space shuttle era.

When asked what new or additional adaptation strate-

Groundwater depletion may reduce winter cropping intensity by 20% in India

Policy-supported intensive agriculture led to unsustainable groundwater use, water scarcity

ASWATHI PACHA

India is the second-largest producer of wheat in the world, with over 30 million hectares in the country dedicated to producing this crop. But with severe groundwater depletion, the cropping intensity or the amount of land planted in the winter season may decrease by up to 20% by 2025, notes a new paper. Some of the important winter crops are wheat, barley, mustard and peas.

The international team studied India's three main irrigation types on winter cropped areas: dug wells, tube wells, canals, and also analysed the groundwater data from the Central Ground Water Board. They found that 13% of the villages in which farmers plant a winter crop are located in critically water-depleted regions. The team writes that

these villages may lose 68% of their cropped area in future if access to all groundwater irrigation is lost. The results suggest that these losses will largely occur in northwest and central India.

Alternative sources

The team then looked at canals to understand if they can be promoted as an alternative irrigation source and as an adaptation strategy to falling groundwater tables.

But the results showed that "switching to canal irrigation has limited adaptation potential at the national scale. We find that even if all regions that are currently using depleted groundwater for irrigation will switch to using canal irrigation, cropping intensity may decline by 7% nationally," notes the paper published in *Science Advances*.

When asked what new or additional adaptation strate-

gies can be implemented, corresponding author Meha Jain explains: "We can conjecture based on other literature and say that adoption of water-saving technologies like a sprinkler, drip irrigation and maybe switching to less water-intensive crops may help use the limited groundwater resources more effectively." She is from the School for Environment and Sustainability at the University of Michigan.

Her team is now trying to understand how groundwater depletion has already reduced yields and cropped areas in India over the last 20 years, and also how climate change may affect the future availability of groundwater resources.

Scarcity

A good 13% of villages with winter crops are in critically water-depleted regions. ■ GETTY IMAGES

gies can be implemented, corresponding author Meha Jain explains: "We can conjecture based on other literature and say that adoption of water-saving technologies like a sprinkler, drip irrigation and maybe switching to less water-intensive crops may help use the limited groundwater resources more effectively." She is from the School for Environment and Sustainability at the University of Michigan.

He explains that this poli-

cy-supported intensive agriculture led to unsustainable groundwater use for irrigation and in turn groundwater scarcity. There was also post-harvest residue burning to make way for the timely sowing of wheat. He is one of the authors of the paper.

Poor infrastructure

He adds that there are enough groundwater resources supported with higher monsoon rainfall in eastern Indian states like Bihar. But due to lack of enough irrigation infrastructure, farmers are not able to make use of natural resources there.

"So we need better policies in eastern India to expand the irrigation and thus increase agriculture productivity. This will also release some pressure from northwestern Indian states," he concludes.

IISc teams develop oxygen concentrators, ventilators

The groups also developed oxygen supply manifolds

SHUBASHREE DESIKAN

With the setting in of the second wave of covid-19, there is round the corner, a growth in the need for ventilators and related interventions. While hospital ICU beds do come with ventilators, makeshift ones will not be so, hence the need. Indian Institute of Science researchers have come up with several non-pharmaceutical interventions such as ICU ventilators, oxygen supply manifolds and oxygen concentrators which will each satisfy different sets of needs.

Low-cost solutions

In 2020, when the pandemic set in within India, Sushobhan Avasthi, Associate Professor with Centre for Nanoscience and Engineering and his team wanted to build low-cost ventilators. But as the project evolved, they realised that what was needed was a more sophisticated



Smart device: The design evolved into more sophisticated device that could sense when the patients were able to breathe on their own. ■ SUSHOBHAN AVASTHI

device that could sense when the patients were able to breathe on their own, and then wean them off gently so that they could become independent again. "In September we were ready with the D3 edition of smart ventilators that were good enough to be used in the ICU," says Dr Avasthi. They teamed up with the company Vasmed with an aim to produce these ventilators for the market. "These would have cost about 1.5 lakh rupees," says Anoop Varghese, COO of Vasmed, pegging the cost at approximately a third of the price of commercially available ones.

The group worked with Dr Justin Aryabhatia Gopaladas, of the Manipal Hospital, Bangalore, to get inputs and feedback as they developed the devices. "There were many doctors involved initially, perhaps it was my familiarity with physics that helped. We discussed many things, for

example, when a breath was taken what kinds of waves were formed," says Dr Gopaladas. However, the effort did not see fruition during the first wave. Vasmed needed the pull of the market to be able to finance a complete testing and certification of the module.

No prior experience

The group then also started looking out for other interventions that would be useful in this juncture. They

came up with the idea of the oxygen supply manifold, which is a system using which oxygen may be supplied to several patients from a central source and the amount of oxygen supplied may be adjusted.

"We started this project with zero experience in medical devices, let alone a critical one like a ventilator... Prof. Prosenjit Sen developed the touchscreen user interface. Prof. Saurabh Chandorkar designed the

concentrator ready. It worked to concentrate more than 90% in five litres and 80% in ten litres. Not just this, it could run non-stop for months together without getting heated up," says Praveen Ramamurthy, who led the effort. By September they had the system ready, but interest had died down.

"In the last couple of weeks, again I have been getting many mails and calls enquiring about this," says Dr Ramamurthy. "The enthusiasm of our students, specifically Harshvardhan Gupta and Ankit Rao," says Dr Avasthi in recollection.

Sturdy concentrator

Meanwhile, in the Materials Engineering lab, efforts were on to produce an oxygen concentrator. Ambient air contains about 70% nitrogen and about 28% oxygen and other gases; the work of a concentrator is to separate the oxygen and collect air enriched with oxygen to the patient. "By August 2020 we had the third generation of

the concentrator ready. It worked to concentrate more than 90% in five litres and 80% in ten litres. Not just this, it could run non-stop for months together without getting heated up," says Praveen Ramamurthy, who led the effort. By September they had the system ready, but interest had died down.

Both the oxygen supply manifold and the oxygen concentrator are very much the need of the hour, the group feels, and can be manufactured easily.

Question Corner

Fake images

Can there be fake satellite images?

Every year a stunning and colourful image of India does the rounds on Diwali, with claims that it was taken from space. In reality, the image is a composite of several satellite photos, created in 2003 by the National Oceanic and Atmospheric Administration (NOAA) to highlight population growth in the country.

So how do we know if a satellite image is fake or even if it has been used for misinformation? A new study says that there is a lot of this 'deepfake geography' happening in recent times and with new and

more sophisticated artificial intelligence technologies available today, the problem could grow.

To the untrained eye it may be difficult to detect the differences between real and fake images, the researchers point out. To try to identify a "fake," researchers employed many technical aspects of image processing, such as colour histograms and spatial domains.

Bo Zhao, assistant professor of geography at the University of Washington and lead author of the study said in a release that the study's goal was not to show that geospatial data can be falsified, rather it was to learn how to detect fake images so that geographers can begin to develop the data literacy tools, similar to today's fact-checking services, for public benefit.

Readers may send their questions / answers to questioncorner@thehindu.co.in



Arsenal fans protesting in London on Friday. • AFP

Crash and burn

Why did plans for a European Super League collapse in just 48 hours and what lies ahead?

N. SUDARSHAN

The story so far: Last Sunday, 12 of Europe's biggest clubs resolved to form The Super League, a multi-billion-dollar tournament to be largely played among a closed group of 20 teams. The move was championed by Manchester United, Manchester City, Liverpool, Arsenal, Chelsea and Tottenham Hotspur from England, Real Madrid, Barcelona and Atlético Madrid from Spain, and Juventus, Internazionale and AC Milan from Italy. But in under 48 hours, the project, which would have severely disrupted the Champions League, the crown jewel among all competitions run by European football's governing body UEFA, became unviable after all six English teams backed out, followed by Internazionale and Atlético Madrid. Real Madrid president Florentino Pérez, the chairman of the Super League, is still holding out hope and believes the initiative is just "on standby". But UEFA president Aleksander Ceferin told the *Associated Press* on Friday that the Spanish and Italian teams still clinging on to the Super League risk being banned from the Champions League.

What was the idea behind the Super League? According to its founding members, there was a persistent desire to "improve the quality and intensity of existing European competitions throughout each season, and of creating a format for top clubs and players to compete on a regular basis". The Super League would ensure more matches between high-quality teams, which would generate more revenue and "put the game on a sustainable footing". The clubs believed that there was "instability" in the existing football economic model, which was accelerated by the COVID-19 pandemic. Pérez declared that the Super League would take football to its "rightful place in the world".

All eyes are now on the reformed Champions League, which is being expanded to 36 teams from the current 32. It will have one consolidated 36-team table, from where 16 teams will qualify for the knock-outs

supporters felt that this was yet another attempt by owners to use clubs for private profit.

The closed nature of the competition, but for five places offered on a rotational basis, did not please the likes of Pep Guardiola, the celebrated Manchester City coach. That the 12 founding clubs and three future permanent members would be under no risk of missing out meant there was no meritocracy. In contrast, qualification for the Champions League depends on where a club finishes in its domestic league. "It is not sports if the relationship between effort and reward doesn't exist... if success is guaranteed and it doesn't matter if you lose," said Guardiola.

England's Premier League, Spain's La Liga and Italy's Serie A moved to expel the teams, sensing that their championships would become largely uncompetitive. UEFA, eager to protect the Champions League, said it would ban Super League players from playing for their respective nations in flagship events like the Euros. FIFA president Gianni Infantino bluntly stated that the 12 clubs will have to "live with the consequences". British Prime Minister Boris Johnson went to the extent of terming the Super League a "cartel" and warned that he would drop a "legislative bomb" to scupper the project.

What lies ahead for European club football? The Super League announcement came a day before UEFA was to announce the ratification of a revamped Champions League, starting from 2024. With the Super League all but shelved, the reformed Champions League will take centre stage. The competition will be expanded to 36 teams from its current 32, and will dispense with the group-stage format of eight groups with four teams each in favour of one consolidated 36-team table, from where 16 teams will qualify for the knock-outs. Each team will play a minimum of 10 matches, up from six in the current format.

One objective is to generate more revenue from ticket sales, broadcast rights and sponsorships. The second is to give more teams a chance to make the knock-outs and ensure that the competition is alive till the very end. But there are fears that the increase in revenue will just make the already rich clubs richer and further skew the respective domestic leagues in their favour. Juventus, for example, has won the Serie A nine times in a row, while Bayern Munich in Germany and Paris Saint-Germain in France have been equally dominant. Liverpool coach Jürgen Klopp recently frowned at the increase in matches, fearing player burnout, while Manchester City midfielder Ilkay Gündogan called the new format "the lesser of two evils" in comparison to the Super League.

Chances of infection after COVID-19 vaccination

Can people test positive even after inoculation and how common are such 'breakthrough cases'?

JACOB KOSHY

The story so far: The Indian Council of Medical Research (ICMR) has reported that around two to four of 10,000 people given two doses of the COVID-19 vaccine have tested positive for the disease. Contracting COVID-19 after vaccination is known as breakthrough infection. It has occurred in "a very small number" of people and does not undermine the effectiveness of vaccination, said Dr. Balram Bhargava, Director-General of the ICMR.

What is a breakthrough infection?

These are infections that occur in people who have been vaccinated. Such cases are not out of the ordinary as the vaccines that have been approved so far the world over are made to protect against disease and not the transmission of the virus. Phase 3 clinical trials conducted before vaccines were approved showed a fairly constant proportion of infections among those vaccinated. In the AstraZeneca trial, for instance, 30 out of 5,807 vaccinated – about 0.5% – were symptomatic and tested positive 14 days after the second shot.

Results from the Pfizer phase 3 trial showed that of the 21,720 who got the second dose of the vaccine, eight tested positive for COVID-19, or about 0.03%. Figures as of April 20, from the United States' Centers for Disease Control and Prevention (CDC), show that there have been 7,157 breakthrough infections reported to the agency so far. Compared to the 87 million Americans who were fully inoculated, this works out to an infection rate of 0.008%, or 8 in 100,000. Further, in those reported infections, there were 88 deaths and 498 hospitalisations.

How does India compare with others?

According to data presented by Dr. Bhargava, of the 1.7 million people who got a second dose of Covaxin (and thus fully inoculated), 695 tested positive – a rate of 0.04%. Of the 15.7 million who got a second dose of Covishield, 5,014 tested positive, a rate of 0.03%.

Covishield has not been tested in an India-specific efficacy trial, and Bharat Biotech, the maker of Covaxin, has not yet published results from its ongoing efficacy trial. So, we do not know – unlike in the case of Pfizer and AstraZeneca's international trials – how many vaccinated trial participants went on to get COVID-19 after their second dose. That 5,709 people who got a second dose of either vaccine tested positive of the 17 million inoculated persons suggests that 3 people per



People waiting to get tested for COVID-19 in New Delhi on April 17. • SUSHIL KUMAR VERMA

Healthcare and frontline workers are getting infected even after vaccination, according to the Indian Council of Medical Research, because of their constant high exposure to COVID-19 patients. Also, there are several "highly transmissible new variants"

10,000 tested positive, which is higher than the rate the CDC is reporting, of 8 in 100,000.

Is it rare to get infected even after vaccination?

The CDC guidelines on breakthrough infections state that all such reported rates are an undercount. "It is important to note that reported vaccine breakthrough cases will represent an

undercount. This surveillance system is passive and relies on voluntary reporting from state health departments which may not be complete. Also, not all real-world breakthrough cases will be identified because of lack of testing. This is particularly true in instances of asymptomatic or mild illness. These surveillance data are a snapshot and help identify patterns and look for signals among vaccine breakthrough cases," the advisory notes.

For nearly three months after vaccination began in India, the government's COVID-19 test form, used by state and private laboratories, did not check if those who tested positive had been vaccinated. Dr. Samiran Panda, who heads the Epidemiology Division at the ICMR, told

The Hindu that reports on breakthrough infections were collated from the Co-WIN database and were based on self-reporting. "There will no doubt be many more who may have got infected after the second dose but that is expected. It is also likely that only those with significant symptoms might report and those with mild symptoms or who are asymptomatic will not follow up. The message of vaccination is that it protects against disease," he said.

What are the reasons for such infections?

Dr. Bhargava said healthcare and frontline workers were getting infected because of their constant high exposure to COVID-19 patients. The other reason he said was due to "highly transmissible new variants".

According to the latest data, over 12.1 million healthcare and frontline workers have got a second dose, as opposed to over 9 million of those above 45 years of age. Laboratory studies for Covaxin on the 'U.K. variant' and the Indian variant (B.1.617) suggest that it "effectively neutralises" the virus. However, studies on the AstraZeneca vaccine show that its efficacy is reduced when faced with the U.K. and the South African variant.

The CDC data show that there were 88 deaths for 87 million people who were fully inoculated with the Pfizer, Moderna and Johnson & Johnson vaccines – this means that one in a million will die from COVID-19 despite being fully vaccinated. If those figures are applied to India, it would mean around 800 deaths given our adult population of 800-900 million. Thus, while vaccines indubitably protect against death and disease, they may not be 100% protective.

Jabs for all adults amid the second wave

Which States are the worst hit and is the supply chain in place to provide the required doses?

R. PRASAD

The story so far: Since April 1, the number of COVID-19 cases reported daily has been accelerating rapidly in India. On April 21, the country, for the first time, crossed the 3-lakh mark in infections reported in a day, when it saw 3,15,735 cases. On April 20, as many as 2,021 deaths were reported, which further rose to 2,620 on April 23. While Maharashtra is still reporting the most number of cases daily, there has been a slight dip in the last few days. It is early to say if the second wave has peaked in the State. But Mumbai and Pune, the two cities that reported the most cases in the second wave, have been consistently reporting fewer numbers for the last few days. On the other hand, States such as Uttar Pradesh, Gujarat, Chhattisgarh, West Bengal and Madhya Pradesh, which did not experience high daily cases last year, are now witnessing a surge.

Are there any signs of daily cases slowing down nationally?

As of April 23, there is no indication that the cases will start dropping in the next few days. Despite the number of cases reported on April 23 reaching an all-time peak of 3,45,283, the national seven-day average test positivity rate on that day was 18.5%. This indicates that there are more cases that remain undetected. Though the daily number of tests across the country increased from over 11 lakh on April 1 to 17.53 lakhs on April 23, the high test positivity rate indicates that the number of tests being carried out in States witnessing a sharp surge should increase manifold.



Testing has to be increased, particularly in a few States whose seven-day average test positivity rate as of April 23 was way above the national average of 18.5%. These States are Delhi (30.1%), Chhattisgarh (30.1%), Maharashtra (24.6%), Madhya Pradesh (23.8%), Andhra Pradesh (22.2%), and West Bengal (20.5%).

How will higher vaccination coverage help?

It is possible to slow down the spread of the virus by vaccinating all above the age of 18 years, say doctors. However, with several States facing vaccine shortages, the number of daily vaccinations in the last week dipped.

The Serum Institute of India (SII) currently has the capacity to produce 2.4 million doses of Covishield a day. The company has been manufacturing 60-65 million doses

a month, and it says production will be ramped up only around June-July, when about 100 million doses can be produced in a month.

Bharat Biotech, the maker of Covaxin, is also increasing capacity at its facilities in Hyderabad and Bengaluru. According to a government release, Covaxin production will be increased from the current 10 million doses a month to 100 million doses by September. A six- to seven-fold increase is expected around July-August. According to Bharat Biotech, the technology to manufacture the vaccine has been transferred to Indian Immunologicals Ltd., which will also produce the vaccine.

With restricted-use approval granted for Russia's Sputnik V vaccine, about 100 million doses are expected to be imported soon by Dr. Reddy's Lab. Fast-track approvals for Pfizer, Moderna and Johnson & Johnson shots are likely to be given when companies apply to the drug regulator.

Will vaccines be free for the 18-44 age group?

According to the recent policy of the Centre, which allows vaccination of those above 18 years from May 1, States are required to procure vaccines directly from the two vaccine manufacturers. The SII has priced the vaccine at ₹400 per dose for State governments and ₹600 per dose for private hospitals. Those above 45 years of age can still avail of the shots for free at government vaccination sites, and for ₹250 per dose at private health facilities. A few States like Uttar Pradesh, Bihar, Chhattisgarh, Kerala, West Bengal, Tamil Nadu and Goa have announced free vaccination for all aged 18-44 years at government health facilities.

Reforms in the National Pension System

What are the major changes being proposed to the NPS and why is the government tweaking the rules?

VIKAS DHOOT

The story so far: Started as the New Pension Scheme for government employees in 2004 under a new regulator called the Pension Fund Regulatory and Development Authority (PFRDA), the National Pension System (NPS) has been open for individuals from all walks of life to participate and build a retirement nest-egg. Given the dominance of informal employment in India, the Employees' Provident Fund Organisation, which is contingent on a formal employer-employee relationship, only covers a fraction of the workforce. The NPS has been gradually growing in size and now manages ₹5.78 lakh crore of savings and 4.24 crore accounts in multiple savings schemes. Of these, over 3.02 crore accounts are part of the Atal Pension Yojana (APY), a government-backed scheme for workers in the unorganised sector that assures a fixed pension payout after retirement. The rest constitute voluntary savings from private sector employees and self-employed individuals, for whom some significant changes are on the anvil.

What overhaul is the PFRDA planning?

The law regulating the NPS allows members to withdraw just 60% of their accumulated savings at the time of retirement. With the remaining 40%, it is mandatory to buy an annuity product that provides a fixed monthly income to retirees till their demise. Members who accumulate up to ₹2 lakh in their NPS account at the time of retirement are exempted from the mandatory annuitisation, and can withdraw the full amount.

Last week, PFRDA chairman Supratim Bandyopadhyay said this limit will soon be revised to ₹5 lakh. Separately, the regulator has decided that the annuity purchase stipulation for 40% of members' retirement corpus



should be dropped altogether. Legislative amendments to this effect are being worked out for Parliament's approval.

What prompted this rethink?

Falling interest rates and poor returns offered by annuity products had triggered complaints from some members and experts about the compulsory annuitisation clause. "If someone opts for a lifetime annuity at retirement with a return of purchase price to the nominee once the person dies, the rates are varying between 5% and 5.5%. Since annuities are taxable, deducting the tax and factoring in the inflation means annuities are yielding negative returns," Mr. Bandyopadhyay pointed out.

With retail inflation running at about 5%-6% over the past year, the returns on annuities are, in fact, negative, even if one does not factor in the tax. To avoid forcing people into such an unattractive investment, the regulator has now proposed to give members a choice to retain 40% of their corpus with the NPS fund managers even after retirement. This, the PFRDA chief believes, will allow them to get better returns, and these savings can be paid out to members over 15 years through something like

The regulator said the limit on funds at the time of retirement will be revised to ₹5 lakh. It is also dropping the annuity purchase stipulation for 40% of members' retirement corpus

the systematic withdrawal plan offered by mutual funds. While this change shall need Parliament's nod, the expansion of the annuity-free withdrawal limit from ₹2 lakh to ₹5 lakh is being done immediately. "Suppose somebody reached ₹2.1 lakh at retirement, he will get an annuity component of ₹84,000, which, today, will give an income of ₹400 or ₹450 a month – a pittance. So, now, we will allow those with savings up to ₹5 lakh to take the entire corpus out if they choose," the PFRDA chief said.

Are there any other tweaks in the works?

While different schemes under the NPS have given reasonable returns at a low fund-management cost so far, there has been a clamour for a guaranteed return product for large sections of potential investors with a high aversion to risk. An actuary is being appointed to suggest the design for such a product and the PFRDA hopes to launch its first guaranteed product soon.

At least three more fund managers are expected to be appointed soon, which will take the total managers to ten. Age restrictions to join the NPS are also being eased to allow people to join the scheme up to the age of 70 years, from 65 years earlier. The reason is that over 15,000 recent NPS members joined after the age of 60 since the age limit was raised to 65 years from 60 years in 2017. So, as Indians' overall longevity improves, the population of "retired, but not so tired" will also have access to the NPS.

INTERNATIONAL SPACE STATION

A space for science, experiments and unity

Global cooperation in space research faces challenges with Russia considering leaving the ISS and launching its own station

SHUBASHREE DESIKAN

The International Space Station (ISS) is a landmark of international cooperation. For over 20 years, it has seen intense collaboration between the U.S., Russia, the EU, Japan and Canada, and has played host to people from 19 countries since its launch in 1998. This scenario appears to be coming to an end, as Russian space agency Roscosmos's chief has declared that Russia is ready to build its own space station and launch it by 2030 if President Vladimir Putin would give the go ahead. Further, in an interview to Russian TV, Deputy Prime minister Yuri Borisov said Russia would give notice and leave the ISS by 2025.

The idea of the ISS was born in 1984 when Ronald Reagan, then the US President, announced it in a State of the Union address. "Our progress in space, taking giant steps for all mankind, is a tribute to American teamwork and excellence. Our finest minds in government, industry and academia have all pulled together. And we can be proud to say: We are first; we are the best; and we are so because we're free," he said.

In his speech, he outlined the idea of international cooperation in this venture, as he announced: "A space station will permit quantum leaps in our research in science, communications, and in metals and life-saving medicines which could be manufactured only in space. We want our friends to help us meet these challenges and share in their benefits. NASA will invite other countries to participate so we can strengthen peace, build prosperity, and expand freedom for all who share our goals."

Since then, the ISS project saw a collaboration grow bet-

ween several countries, mainly the following space agencies: NASA (U.S.), Roscosmos (Russia), ESA (Europe), JAXA (Japan) and CSA (Canada). Though the programme began in 1993, the construction of the station started only in 1998.

The ISS has been assembled section by section over several years. The first segment was launched on November 20, 1998 in a Russian proton rocket named Zarya (which means 'sunrise'). The first human expedition to the station was launched in a Soyuz TM 31 rocket from Baikonur Cosmodrome in Kazakhstan. This crew became the very first to inhabit the ISS – these were NASA astronaut Bill Shepard and Yuri Gidzenko and Sergei Krikalev from Roscosmos, who reached the station on November 2, 2000 and stayed for several months.

The assembling of the ISS has been a complex undertaking in itself. It took over 10 years and over 30 missions to bring it to its present form. Though the basic unit was launched in 1998, a photograph of the station taken in September 2000 from spaceship Atlantis looked markedly different from a picture taken in October 2018 by Expedition 56 members after undocking in a Soyuz spacecraft. Installation of different parts took place on close to 40 different occasions from 1998 to 2020.

Human presence

One of the most spectacular achievements of the International Space Station is that ever since November 2, 2000, it has seen the steady presence of human beings

on. In the realm of science fiction, the sight of the ISS hurtling through space at a speed of 28,000 km per hour is something that can be watched from the Earth and wondered at. According to Niraj Mohan Ramanujan, a radio-astronomer who is with Indian Institute of Astrophysics, "If the ISS flies over your location a bit before sunrise or a bit after sunset, for those few minutes, it is usually the brightest object in the sky." There are apps that indicate where exactly it is in the sky at any time.

The length of the ISS is just about a metre short of the length of an American football field at 109 m. It has a habitable volume of 388 cu. m. and includes six sleeping quarters, two toilets and a gym. It weighs 419,725 kg, which to give a perspective, is the weight of 1,090 cows.

The ISS, at a height of about 402 km above the Earth, orbits it 16 times every day, once every 90 minutes. Over a period of 24 hours, the people inhabiting the ISS see 16 sunrises and sunsets.

The ISS's recent tweet celebrated the conclusion of the 64th expedition that began in October 2020 and ended on Friday April 23, after approximately six months. It said: "There was a change of guard this week onboard the station. Expedition 64 concluded their mission and returned to Earth, and the Crew-2 astronauts docked with the station on Saturday." With the ending of Expedition 64, NASA astronaut Kate Rubins and Roscosmos cosmonauts Sergei Ryazikov and Sergey Kud-Sverchokov returned to Earth on a Soyuz MS-17 spacecraft. Crew-2 members, NASA's Shane Kimbrough, Megan McArthur, JAXA's Akihiko Hoshide and ESA's Thomas Pesquet joined the others in the ISS and until the Crew-1 astronauts, NASA's Shannon Walker, Michael Hopkins, Victor Glover and JAXA's Soichi Noguchi return, there will be 11 crew members onboard the ISS.

The first experiments were those that studied the dynamics of cells under microgravity. Some of the experiments being conducted by the latest expeditions include a study of how muscles work under long-term stay under low-gravity conditions. This is an experiment by ESA and observes biochemical properties of muscles under long-term exposure to spaceflight. This can help in developing rehabilitation both on Earth and in Space. Another experiment

mimics the way geckos attach themselves to surfaces, using an adhesive that has been shown to work in space. This can help devise methods for robots to attach themselves to surfaces and then to detach just the way geckos do.

Physics experiments

Some of the early physical sciences experiments related to crystal growth. The newer ones study the behaviour of free-flying soccer balls in microgravity. More exotic sounding subjects include Janus particles, or particles that have two 'faces' with distinct properties – one side is hydrophobic and avoids water, while the other is hydrophilic and loves water. Studying these in microgravity reveals the fundamental physics behind microparticle self-assembly and the kinds of colloidal structures that can be fabricated.

Do these experiments justify the amount of money that is spent on the ISS?

There is a debate. It costs NASA about \$3 billion to \$4 billion a year just to maintain the station, and the total spending had gone up to \$100 billion in 2018 itself. Would it be more fruitful to invest in space-based telescopes or missions other than the ISS? Under the Donald Trump administration, the U.S. reached out to private firms to participate in the space expeditions. American space research had been a governmental activity until this development. This showed NASA the way to cut the huge payments it had been making to Russia to ferry astronauts back and forth. The commercial equation was disrupted once again.

For over 20 years, the ISS has remained an ideal of global unity and peace, at least in the realms of space. Will there be another such expensive investment in the areas of science and technology? There is no answer now, but, so far, the ISS is unique in being one such ideal.



In Focus

■ The ISS has been assembled section by section over several years. The first segment was launched on November 20, 1998, in a Russian proton rocket named Zarya (which means 'sunrise')

■ The first human expedition to the station was launched in a Soyuz TM 31 rocket from Baikonur Cosmodrome in Kazakhstan

■ So far, 240 individuals from 19 countries have visited the ISS, including from Malaysia and the UAE

+

N.V. RAMANA

Justice for all

The new CJI comes with a record of defending civil liberties and human rights

KRISHNADAS RAJAGOPAL



Justice N. V. Ramana was sworn in as the 48th Chief Justice of India by the President in the Ashoka Hall of the Rashtrapati Bhavan in a short ceremony on Saturday. He took his oath, signed his name, and then rose and held his folded hands high in one sweeping motion at the people assembled, including his predecessor Justice S.A. Bobde, Prime Minister Narendra Modi, and other Supreme Court judges, before retiring to his seat.

Born to agriculturists Ganapathi Rao and Sarojini Devi in Ponnavaram village of Krishna district of Andhra Pradesh, the 63-year-old new Chief Justice's life has, in a way, been a quiet revolution. He turned to books at an early age. His other passion was Carnatic music. But what moved the young Ramana most was the lack of civil liberties in the pre-Emergency era. The incidents of his youth, especially during the Emergency period, spurred Chief Justice Ramana, who was already working as a journalist with a Telugu newspaper, to become a lawyer. "I became a lawyer by coincidence," he had said once. He was called to the Bar on February 10, 1983 – a first-generation lawyer.

He was a counsel for various government organisations and the Additional Standing Counsel for Railways in the Central Adminis-

trative Tribunal in Hyderabad before his appointment as the Additional Advocate General of Andhra Pradesh. He was appointed to the Andhra High Court in June 2000 as a permanent judge.

He would go on to function as Andhra HC's Acting Chief Justice 13 years later, before he was elevated as the Delhi High Court Chief Justice. He was appointed as a Supreme Court judge in February 2014. He is scheduled to retire as the CJI on August 26, 2022.

Equal access
Chief Justice Ramana, in his recent speeches, has focused on three aspects: ensuring equal access to justice, upholding of civil liberties against human rights violations by the State and the setting up of a National Judicial Infrastructure Corporation to bring the much-needed "uniformity and standardisation" into the court infrastructure. His judgments in the Su-

preme Court has questioned, and often challenged, the status quo brought about by the government as far as civil liberties are concerned. "The most vulnerable are often the victims of human rights atrocities, by either the State or by anti-social elements," he said recently.

In January last year, Justice (as he was then) Ramana made it mandatory for the Karnataka MLAs' disqualification case had said it was time to "reconsider strengthening certain aspects of the Tenth Schedule".

Chief Justice Ramana had remained stoic in the face of a recent storm whipped up by a complaint filed by Andhra Chief Minister Y.S. Jaganmohan Reddy naming him. It was timed shortly after a Bench led by Justice Ramana started hearing hundreds of criminal cases against Ministers, legislators and politicians, pending in trial courts across the country. Mr. Reddy himself is involved in several such cases. An in-house Procedure of the Supreme Court dismissed the complaint.

"It is an important quality for a judge to withstand all pressures and odds and to stand up bravely against all obstacles," Chief Justice Ramana had said in an address to the Madras Bar Association in October last year.

MIGUEL DIAZ-CANEL

The successor of the Castros

Cuba's new leader faces reform pressure from the economy and young citizens

SRINIVASAN RAMANI



When Miguel Diaz-Canel, the newly designated first secretary of the Communist Party of Cuba and who has been the President of the country since October 10, 2019, was born on April 20, 1960, it was barely a year since the revolutionary movement led by Fidel Castro had won power by overthrowing Fulgencio Batista's regime. Fidel's brother Raul Castro, who gave way to Mr. Diaz-Canel as the first secretary after a 10-year tenure, was then Defence Minister, a post he held till February 2008.

When Mr. Diaz-Canel became a member of the Central Committee of the CPC in 1994, after having taught engineering at Villa Clara University and having worked his way up the party's ranks in Villa Clara province, Cuba was three years into the "special period" – an economic crisis that began after the collapse of the Soviet Union.

Fidel had then allowed the functioning of a limited private sector and opened up Cuba to tourism and Mr. Diaz-Canel was in charge of the works in the province. His work during his period propelled his rise further in the party to first secretary in Holguin province in 2003 and the appointment to the Politburo in the same year. In 2009, he became the Minister of Higher Education.

Within four years, when

Raul Castro took over as President and later as First Secretary from his brother, Mr. Diaz-Canel was elevated to the post of first vice president and signalled to be the heir-apparent to the two powerful posts in the country as it transitioned from its revolutionary-era leadership.

Steady reforms
In some ways, Mr. Diaz-Canel offers continuity to the Raul Castro regime, which undertook a series of cautious but steady reforms. The revolutionary-era Cuban communists transformed Cuba, which was run by a corrupt military dictatorship into a socialist economy with heavy emphasis on education and universal health care, resulting in a highly literate society with a high human development index. But the collapse of the planned economy after the fall of the Soviet Union and the continued embargo imposed by the U.S. since 1960 resulted in recurring economic crises due to

ba, which was necessitated during the special period to prevent Cubans from dumping pesos and for state-owned enterprises to import cheaply using dollars. The dual system had created inequalities in payments for workers in the mixed economy with some working in sectors such as tourism and other private enterprises earning much more than those in public institutions.

The six-decade-long rule by the participants and leaders of the revolution had enjoyed significant support among older Cubans, who have benefited from its achievements over time, but younger ones, well-educated and informed, seek more freedoms. The generational change in the leadership of the CPC and the state could help stem the discontent with the regime but it will be a tough task for Mr. Diaz-Canel to live up to younger people's aspirations as the economy struggles.

The older generation communists were also adamant that the one-party state was the only way-out for the socialist policies to remain, even as they embarked upon economic reforms that gradually allowed for the presence of a market economy. It remains to be seen if Mr. Diaz-Canel and the post-revolutionary leadership could further democratise Cuba at the grassroots and allow for more political freedoms, even as it continues its gradual economic reform.

Mr. Diaz-Canel finally managed, early this year, to implement the long-standing plan to abolish the system of dual currency in Cu-

ICICI Q4 net rises threefold to ₹4,403 cr.

Lender posts an almost 20% jump in retail loans and robust growth in CASA deposits in March quarter

SPECIAL CORRESPONDENT
MUMBAI

ICICI Bank on Saturday reported fourth-quarter standalone net profit surged more than threefold to ₹4,403 crore, from ₹1,221 crore a year earlier, helped by an almost 20% jump in retail loans and robust growth in CASA deposits.

For the full year, standalone profit more than doubled to ₹16,193 crore.

In the three months ended March 31, provisions (excluding provision for tax) stood at ₹2,883 crore, compared with ₹5,967 crore in the year-earlier quarter. The bank said it had utilised contingency provision amounting to ₹3,509 crore towards proforma NPAs as of December 31, 2020, in the fourth quarter since these loans had now been classified as



Bolstering capital: The board has authorised the bank to raise up to ₹20,000 crore in the current financial year. ■REUTERS

per the RBI guidelines.

Further, it made additional COVID-19 related provisions of ₹1,000 crore during the fourth quarter. As of March 31, the bank held COVID-19 related provision of

₹7,475 crore which it said could be used to mitigate risk during the current fiscal.

The lender said average savings account deposits increased by 21.2% in the fourth quarter, while current

account deposits climbed 33.9% from a year earlier. For the full year, total deposits grew by 21% to ₹9,32,522 crore. In Q4, retail loans expanded 19.9%, while domestic loans grew by 17.7%.

During the quarter, the gross NPA additions, excluding borrowers in the proforma NPAs as of December 31, 2020, were ₹5,523 crore. Recoveries and upgrades, excluding recoveries from proforma NPAs, write-offs and sale, from non-performing loans were ₹2,560 crore.

NPA ratio falls

The net NPA ratio declined to 1.14%, from 1.41% as at March 31, 2020. Excluding NPAs, the total fund based outstanding to all borrowers under resolution as per the various extant regulations/guidelines was ₹3,927 crore,

or about 0.5% of the total loan portfolio on March 31.

The fund-based and non-fund based outstanding to borrowers rated BB and below (excluding fund and non-fund based outstanding to NPAs) was ₹13,098 crore at March 31, 2021, compared with ₹13,654 crore as on December 31, 2020, it said.

The board has recommended a dividend of ₹2 per share. It also authorised the bank to raise up to ₹20,000 crore during the current financial year.

"We see more opportunities to grow," Executive Director Sandeep Batra said on a post earnings conference call. "These are uncertain times. We have strengthened our balance sheet and our portfolio is best in class. We are calibrating our risk standards," he added.

RBI to issue cybersecurity norms for payment services

Firms must surpass minimum standards to ensure safety'

SPECIAL CORRESPONDENT
NEW DELHI

The Reserve Bank of India (RBI) will soon issue cybersecurity norms for payment service providers (PSPs), following a series of data breaches faced by operators including MobiKwik and payment aggregator JusPay, a top RBI official said.

While the standards for fintech-driven payment services providers will be similar to cyber hygiene norms issued recently for banks and non-banking finance companies, the RBI is quite clear that firms will have to do more than observe the minimum standards to ensure safety as digital transactions gain further traction.

"On cyber frauds, Reserve Bank of India has issued very recently basic guidelines on cyber hygiene and cybersecurity for banks and certain NBFCs," said RBI executive director T. Rabi Sankar. "We would follow that up with respect to other entities such as payments systems operators in the payments space. Those are getting finalised and will be issued soon," he added.

"Having said that, the minimum standards set by the regulator for the regulated entities are needed, but they would never be enough. As digitisation increases in any sphere, payments or otherwise, as people do more and more digital transactions, institutions themselves will have to do more than the minimum standards that regulators set, to deal with any cybersecurity threats," he said, adding that individual users would also need to be alert as there is no alternative to being aware of the risks in undertaking digital transactions.



Eyes wide open: Individual users have to be aware of the risks in undertaking digital transactions, says Rabi Sankar. ■REUTERS

C Look at the popularity of UPI because of the client base of a couple of Big Tech companies

tems in India and the number of players is limited, Mr. Sankar observed that two apps provide about 70% of third-party services in the UPI system.

"Strictly speaking, they are not providers as such, as they are just the front-end and just onboard customers. They have no control on the entire UPI itself. In that sense, there is not so much a concern on antitrust or monopolistic tendencies because there is hardly any pricing that happens there," the central bank official said.

'No antitrust norms'

The National Payments Corporation of India (NPCI) had laid down a framework for a more even distribution of share of third-party app providers in the UPI system, the senior RBI official noted, adding that the regulator was, however, not looking at any antitrust provisions against dominant players at this juncture.

"If UPI is gaining popularity, you will have to think twice about stepping in and controlling the market share of two or three popular apps because that could actually hurt absorption of this tech in the population," he said.

SPORT

Mahindra unit to acquire ₹500-cr. land every year

Realty arm eyes mid-premium homes

LALATENDU MISHRA

MUMBAI

Mahindra Lifespace Developers Ltd., the realty arm of the Mahindra Group, will invest ₹500 crore in land acquisition every year to expand the firm's affordable and mid-premium housing projects, said MD & CEO Arvind Subramanian.

"Most of the investment over the next three to five years will go into the residential business," he said.

"Roughly, every year, we will be spending about ₹500 crore on land acquisitions... if I stick to three to five land parcels being bought," he added.

The company, which operates its affordable-housing



Arvind Subramanian

business under the brand name Happiest (prices range from ₹10 to ₹50 lakh) and mid-premium or premium residential business (₹50 lakh-₹4 crore) under the Lifespaces umbrella, said demand for homes in these segments would rise as end users desired to move to better homes.

Karnataka Bank eyes 12% growth in FY22

PRESS TRUST OF INDIA

NEW DELHI

Karnataka Bank on Saturday said it is targeting to grow its business at 12% to more than ₹1.42 lakh crore in the current fiscal year and will gradually increase the share of retail loans in its portfolio.

In a communication to shareholders, the bank said it strives to see 2021-22 as a year of excellence on the back of its healthy business growth, 'Cost-Lite' liability portfolio and strengthened fundamentals.

"For the new financial year, the bank is planning to grow its business at 12% to take the total business turnover to about ₹1,42,500 crore," it said.

VW managers charged in emissions scandal

Executives accused of abetting fraud

REUTERS

BERLIN

German prosecutors have charged 15 executives from Volkswagen AG and a car supplier in connection with the diesel emissions scandal that emerged in 2015, a spokesman for the prosecutor's office said on Saturday.

The suspects are accused of aiding and abetting fraud in combination with tax evasion, indirect false certification and criminal advertising, said Klaus Ziehe from the prosecutor's office in the northern city of Braunschweig.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The prosecutor's office did not name any of the charged executives, who are accused of bringing cars onto the market in a condition that was not officially approved, meaning they were illegal and advertised misleadingly, Mr. Ziehe said.

ers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The prosecutor's office did not name any of the charged executives, who are accused of bringing cars onto the market in a condition that was not officially approved, meaning they were illegal and advertised misleadingly, Mr. Ziehe said.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The prosecutor's office did not name any of the charged executives, who are accused of bringing cars onto the market in a condition that was not officially approved, meaning they were illegal and advertised misleadingly, Mr. Ziehe said.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to circumvent environmental tests of diesel engines.

The scandal saw more than nine million vehicles of the VW, Audi, Seat and Skoda brands sold to consumers with a so-called defeat device which helped to

Morris' spell and Samson's knock help Royals sink Knight Riders

South African's four-for restricts Kolkata side to 133/9 before the Rajasthan skipper (42 n.o.) pilots team to second win; Morgan's men suffer fourth straight loss

IPL 2021

WRIDDHAAN BHATTACHARYYA

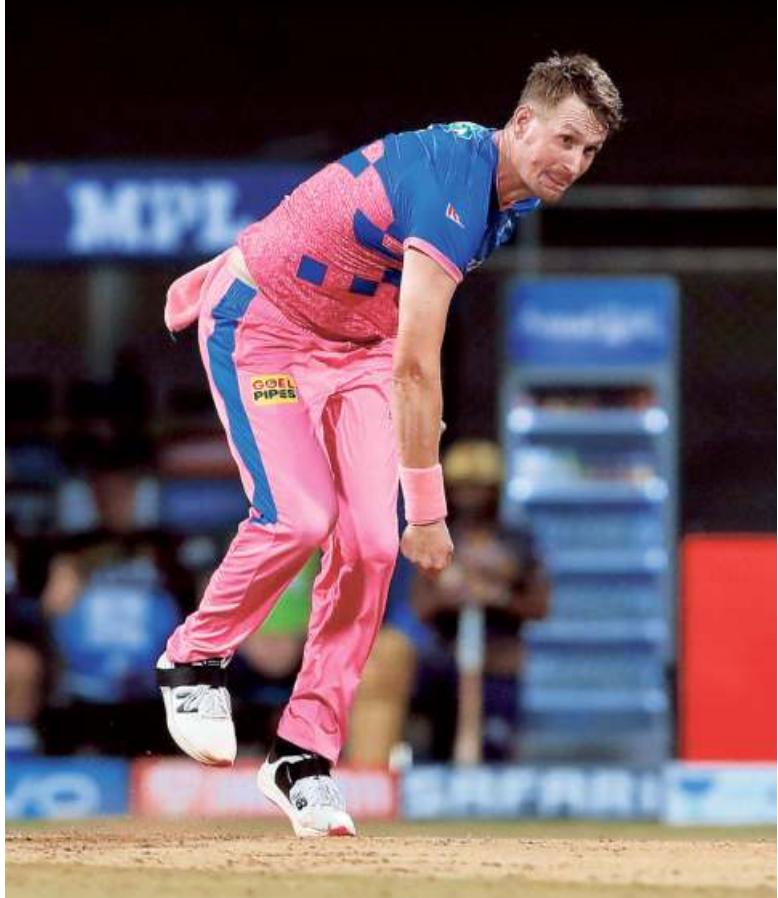
Rajasthan Royals' clever bowling, aided by tight fielding, fashioned a six-wicket win over Kolkata Knight Riders at the Wankhede Stadium in Mumbai on Saturday.

Electing to bowl, Royals restricted Knight Riders to 133/9. Despite losing wickets at regular intervals, Royals chased down the target comfortably, courtesy Yashasvi Jaiswal (22), Sanju Samson (42 n.o., 41b, 2x4, 1x6), Shivam Dube (22) and David Miller (24 n.o., 23b, 3x4).

Jos Buttler (5) lost his way after a Pat Cummins bullet struck his helmet. Dazed and confused, the Englishman was trapped in from by Varun Chakravarthy. After five fours, Jaiswal's adrenaline got the better of him as he attempted to drive a Shivam Mavi delivery and found substitute fielder Kamlesh Nagarkoti at deep-cover.

But skipper Samson dug his heels in, rotating the strike and hitting the odd boundary. He added 34 for the fifth wicket with David Miller, and also hit the winning runs.

Earlier, Knight Riders adopted a conservative approach on a decent batting



Leading lights: Morris' four for 23, equaling his best in the IPL, put the skids on KKR before Samson anchored the chase with a disciplined innings. • SPORTZPICS/IPL



track. Openers Nitish Rana (22) and Shubman Gill (11) struggled to negate the slower ones and cutters from left-arm seamers Jaydev Unadkat, Chetan Sakariya and Mustafizur Rahman. They hit only two boundaries in the PowerPlay (25/1). Soon after being dropped by Jaiswal on six, Gill threw his wicket away while going for a cheeky single.

Buttler's under-arm throw hit the stumps before the young opener could make his ground. Even before Rana could explode, Sakariya forced him to

edge a short ball outside off to wicket-keeper Samson.

Things worsened when Rahul Tripathi (36 off 26) and skipper Eoin Morgan had a communication gap, the con-

fusion leading to the skipper getting run out without facing a ball.

Tripathi and Dinesh Karthik's 33-run stand looked promising before the former

SCOREBOARD

KOLKATA KNIGHT RIDERS

Nitish Rana c Samson b Sakariya 22 (25b, 1x4, 1x6), Shubman Gill run out 11 (19b, 1x4), Rahul Tripathi c Parag b Mustafizur 36 (26b, 1x4, 2x6), Sunil Narine c Jaiswal b Unadkat 6 (7b, 1x4), Eoin Morgan run out 0 (Ob), Dinesh Karthik c Sakariya b Morris 25 (24b, 4x4), Andre Russell c Miller b Morris 9 (7b, 1x6), Pat Cummins c Parag b Morris 10 (6b, 1x6), Shivam Mavi b Morris 5 (7b, 1x4), Prasidh Krishna (not out) 0 (Ob); Extras (b-2, lb-1, w-5, nb-1); 9; Total (for nine wkt.s. in 20 overs): 134.

FALL OF WICKETS

1-24 (Gill, 5.4 overs), 2-45 (Rana, 8.1), 3-54 (Narine, 9.5), 4-61 (Morgan, 10.2), 5-94 (Tripathi, 15.2), 6-117 (Russell, 17.4), 7-118 (Karthik, 17.6), 8-133 (Cummins, 19.2), 9-133 (Mavi, 19.6).

ROYALS BOWLING

Unadkat 4-0-25-1, Sakariya 4-0-31-1, Mustafizur 4-0-22-1, Morris 4-0-23-4, Tewatia 3-0-24-0, Dube 1-0-5-0.

RAJASTHAN ROYALS

Jos Buttler lbw b Varun 5 (7b, 1x4), Yashasvi Jaiswal c sub (Nagarkoti) b Mavi 22 (17b, 5x4), Sanju Samson (not out) 42 (41b, 2x4, 1x6), Shivam Dube c Prasidh

b Varun 22 (18b, 2x4, 1x6), Rahul Tewatia c sub (Nagarkoti) b Prasidh 5 (8b), David Miller (not out) 24 (23b, 3x4); Extras (lb-7, nb-1, w-6); 14; Total (for four wkt.s. in 18.5 overs): 134.

FALL OF WICKETS

1-21 (Buttler, 3.2), 2-40 (Jaiswal, 4.5), 3-82 (Dube, 10.5), 4-100 (Tewatia, 13.4).

KNIGHT RIDERS BOWLING

Mavi 4-0-19-1, Cummins 3.5-0-36-0, Varun 4-0-32-2, Narine 4-0-20-0, Prasidh 3-0-20-1.

Toss: Rajasthan Royals.

Royals won by six wickets with seven balls to spare.

Innings scan

KKR	Dots	RR
56	9	48
9	4	13
5	6	2
25/1	PP	50/2
6.65	RR	7.11

Next assignment

KKR: April 26 vs. PBKS Ahmedabad, 7.30 p.m.

RR: April 29 vs. MI Delhi, 3.30 p.m.

thick, with Sakariya taking a blinder at extra-cover. The South African finished with four for 23, matching his best figures in the IPL, also against KKR in 2015.

Can Dhoni & Co. stop the RCB juggernaut?

CSK's nifty attack will be up against Royal Challengers' fearsome batting

S. DINAKAR

The duel of the swords and the clang as the metals make contact will signify the intensity of the combat in this top-of-the-table IPL clash at Mumbai's Wankhede Stadium on Sunday.

Chennai Super Kings will have to find a way past the three musketeers – Virat Kohli, A.B. de Villiers and Glenn Maxwell – in its quest to breach Royal Challengers Bangalore's fortress.

Dream run

RCB is on a dream run. It has four wins in four games. And the second-placed CSK has been victorious in three out of four.

Sparks are bound to fly in the day game.

The surface at the Wankhede has some pace and the ball does come out to the bat.

RCB is not about the Big Three alone. Young opener Devdutt Padikkal notched up a spectacular hundred against Rajasthan Royals.

There will be some seam



Intriguing match-up: Ravindra Jadeja versus AB de Villiers will be a fascinating duel. • SPORTZPICS/IPL

TODAY'S MATCHES	
MUMBAI, 3.30 P.M. IST	CHENNAI, 7.30 P.M. IST
HEAD-TO-HEAD	HEAD-TO-HEAD
Played: 26 CSK 16 RCB 9 NR 1 In 2020 Played 2 CSK 1 RCB 1	Played: 18 SRH 11 DC 7 In 2020 Played 3 SRH 2 DC 1
STAR SPORTS 1 & STAR SELECT 1 (SD & HD)	

Karunaratne, Dhananjaya in big stand

AGENCE FRANCE-PRESSE
PALKELE

Dimuth Karunaratne scored his maiden double hundred (234 batting, 41b, 25x4) and Dhananjaya de Silva his sixth Test century (154 batting, 278b, 20x4) as Sri Lanka batted through the day without losing a wicket to reach 512 for three on day four on Saturday, replying to Bangladesh's 541 for seven declared.

The two have added 322 for the fourth wicket, the highest stand at Palkele. The previous best was Australia's Michael Hussey and Shaun Marsh, who made 258 in 2011, also for the fourth wicket.

The scores: Bangladesh 541/7 dec. vs Sri Lanka 512/3 in 149 overs (Dimuth Karunaratne 234 batting, Lahiru Thirimanne 58, Dhananjaya de Silva 154 batting).



Mithali Raj. • FILE PHOTO

2022 edition will be my last World Cup: Mithali

V.V. SUBRAHMANYAM
HYDERABAD

Mithali Raj said the 2022 World Cup in New Zealand will be her final edition, adding that she will look to play in a home series before taking a final call on whether to continue at the international level.

The 38-year-old, who scored an unbeaten 114 against Ireland on her international debut in 1999, said not winning the World Cup has been her biggest regret.

"Yes, I am desperate to be part of a World Cup-winning team. Otherwise, it has been an immensely satisfying career for me, and I take pride in my consistency and longevity at the highest level," Mithali told *The Hindu* on Saturday.

Mithali insisted that it doesn't mean she will stop playing ODIs after next year's World Cup in March.

Final decision

"Hopefully, I will be playing in my sixth World Cup if the situation improves by then after the second wave of the coronavirus. But, I will be looking to take a final decision on continuing at the international level after a home series next year," said Mithali, who trains with her mentor-cum-coach R.S.R.



Surging ahead: Nadal stayed on course for a 12th Barcelona Open title with a runaway win against Busta. • GETTY IMAGES

Nadal romps into the final

Tsitsipas' incredible run continues

TENNIS

AGENCE FRANCE-PRESSE
BARCELONA

Rafael Nadal trounced compatriot Pablo Carreno Busta to reach his 12th Barcelona final where he will face Stefanos Tsitsipas, the Greek star who stunned the great Spaniard from two sets down in this year's Australian Open.

Top seed Nadal, an 11-time champion here, eased to a 6-3, 6-2 win over World No. 13 Carreno Busta in 90 minutes.

It was Nadal's eighth win in eight meetings against his 29-year-old Davis Cup teammate and his 65th in Barcelona.

Tsitsipas, winner of his first Masters 1000 event in Monte Carlo last week,

booked his place in a second successive final when he beat Italian teenager Jannik Sinner 6-3, 6-3 in his semifinal.

Nadal defeated Tsitsipas in the 2018 Barcelona final losing just three games.

Djokovic loses

World No. 1 Novak Djokovic lost to Aslan Karatsev 5-7, 6-4, 4-6 in the semifinals of the Serbia Open. The Russian had a dream run at the Australian Open before losing to Djokovic in the semifinals. Karatsev later went on to win the Dubai ATP 500.

Top seed Nadal, an 11-time champion here, eased to a 6-3, 6-2 win over World No. 13 Carreno Busta in 90 minutes.

The results: Semifinals: Rafael Nadal bt Pablo Carreno Busta 6-3, 6-2; Stefanos Tsitsipas bt Jannik Sinner 6-3, 6-3.

Quarterfinals: Busta bt Diego Schwartzman 6-4, 3-6, 7-5.

Chelsea tightens hold on top four; Liverpool held



The clincher: Timo Werner's strike was enough to give Chelsea full points against West Ham. • AP

EURO LEAGUES

AGENCE FRANCE PRESSE
LONDON

Chelsea took control of the battle to secure Champions League spot next season as Timo Werner's goal earned a 1-0 win over West Ham on Saturday, while Liverpool conceded a stoppage time equaliser from Joe Willock to draw 1-1 with Newcastle.

Watford back in top flight

Watford bounced back to the Premier League after a 1-0 win over Millwall sealed its promotion.

In the Bundesliga, Bayern Munich missed the chance to clinch the title when it lost 1-2 at Mainz.

On Friday: Premier League: Arsenal 0 lost to Everton 1 (Le-76-06).

Bundesliga: Augsburg 2 (Gumny 54, Vargas 62) lost to Cologne 3 (Duda 8, 33, Kainz 23).

Indian women archers in final

SPORTS BUREAU
GUATEMALA CITY

The top-ranked Indian recurve team of Deepika Kumari, Ankita Bhakat and Komalika Bari beat Guatemala in the quarterfinals and Spain in the semifinals with 6-0 scorelines to set up a final with Mexico on Sunday.

The men's team, comprising Atanu Das, Pravin Jadhav and Tarundeep Rai, got a first round bye but lost to Spain 5-4 in a last-eight match.

FC Goa thrashed by Persepolis FC

PRESS TRUST OF INDIA
MARGAO