



EVERYDAY CURRENT AFFAIRS – DECEMBER 3, 2020

TAMIL NADU

- **Chennai Metro Rail Limited (CMRL) - has been conferred the International Award 2020 by the World Safety Organisation (WSO), United States**
- ✓ The agency is recognized with an award for its efforts to maintain safety standards, periodic conduct of safety programmes for its engineers and staff, and ensuring safety of people, property and the environment.
- ✓ WSO presents the annual award to WSO concerned companies or corporations that ensure strict safety standards.
- ✓ Every year, six companies are selected for the top award.

STATES

- **Gujarat - has become the first state to penalise people not wearing face mask or violating social distancing norms with a punishment to do community service in Covid-19 care centres.**
- ✓ On December 2, the Gujarat high court directed the state government to introduce a policy making this penalty mandatory for those violating facemask norms.
- ✓ The bench of Chief Justice Vikram Nath and Justice J B Pardiwala felt mere issuing of challans is not enough and ordered the government to issue a notification on the new penalty.
- ✓ Gujarat recently crossed 4,000 Covid deaths and is struggling under a second surge.
- ✓ The court ordered that such defaulters render service which is non-medical in nature such as, cleaning, housekeeping, help in cooking and serving food, preparation of records, data feeding, etc.
- ✓ The nature of the duties shall be appropriately decided by the authorities, considering the age, qualifications, gender and health status of the violator
- ✓ The court further clarified that such duty for defaulters should be at least for 4-6 hours a day ranging from 5 to 15 days “as the authorities deem it fit and necessary”.

INTERNATIONAL

- **The World Meteorological Organisation (WMO) – has released its annual ‘State of the Global Climate’ report on December 2**
 - ✓ The report is based on data from January-October, 2020
 - ✓ Accordingly, the year 2020 is on track to be one of three warmest years on record
 - ✓ The atmospheric concentrations of greenhouse gases (GHG) continued to rise despite the Covid-19 lockdown, leading to further warming of the planet, said the WMO report.
 - ✓ The report noted that the average global temperature in 2020 is set to be about 1.2 degree C above the pre-industrial (1850-1900) level
 - ✓ Further, there is at least a one in five chance of it temporarily exceeding 1.5 degree C by 2024 – the warming average considered quite disastrous for the globe.
 - ✓ It observed that 2011-2020 will be the warmest decade on record, with the warmest six years all being since 2015.
 - ✓ The WMO report didn't mention anything about country-specific temperature rise figures
 - ✓ The final version of the report will be released in March next year
 - ✓ It flagged a number of extreme weather events in many countries, including in India such as cyclone ‘Amphan’
 - ✓ The report called the cyclone ‘Amphan’ as the “the costliest tropical cyclone on record for the North Indian Ocean, with reported economic losses in India of approximately US\$14 billion”.
 - ✓ Besides ‘Amphan’ which made landfall on May 20 near the India-Bangladesh border, the report also noted above normal monsoon which India experienced as one of the two wettest monsoon seasons since 1994.
 - ✓ The India Meteorological Department (IMD) will come out with a similar report for India by February, 2021
 - ✓ Although the overall warmth of the year is clear, there were variations in temperature anomalies across the globe.
 - ✓ For Europe, it was the warmest January to October period on record.
 - ✓ On the other hand, areas of below-average temperature on land included western Canada, limited areas of Brazil, northern India and south-eastern Australia.

- **Eat Just Inc, a maker of meat and egg substitutes - has been approved to sell its laboratory-created chicken in Singapore**
 - ✓ Thus, Singapore becomes the first government to allow the sale of cultured meat.
 - ✓ The product was created from animal cells without the slaughter of any chickens
 - ✓ It will be sold in Singapore under the GOOD Meat brand as nuggets with seasoning in a single restaurant.

- ✓ Eat Just is initially working with local manufacturer the Food Innovation and Resource Centre to make the cultured chicken.

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **On December 2, UK – has become the first country to authorize Pfizer’s Covid-19 vaccine for emergency use**
- ✓ The Medicines and Healthcare Products Regulatory Agency (MHRA), which licenses drugs in the UK, recommended the vaccine could be used after it reviewed the results of clinical trials
- ✓ The clinical trials showed the vaccine was 95% effective overall — and that it also offered significant protection for older people, among those most at risk of dying from the disease

ROLLING REVIEWS SPEEDED UP PROCESS

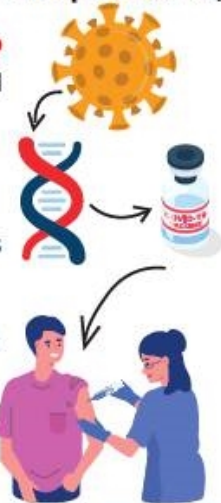
Pfizer’s BNT162b2 vaccine took just 10 months from concept to approval, partly due to ‘rolling reviews’ by regulators. Instead of waiting for detailed reports from pharma firms, regulators reviewed results as they become available

IS IT SAFE?

- This is the first time an mRNA vaccine has been authorised for human use, though mRNA vaccines have been tested for various applications in cancer for over a decade
- Pfizer’s vaccine, as well as Moderna’s, have been in trials involving almost 73,000 volunteers. There have been no serious adverse events in either case
- In fact, mRNA vaccines might be safer than other kinds. Live vaccines are weakened versions of the virus, but there is a risk that the virus will revert to a more dangerous form

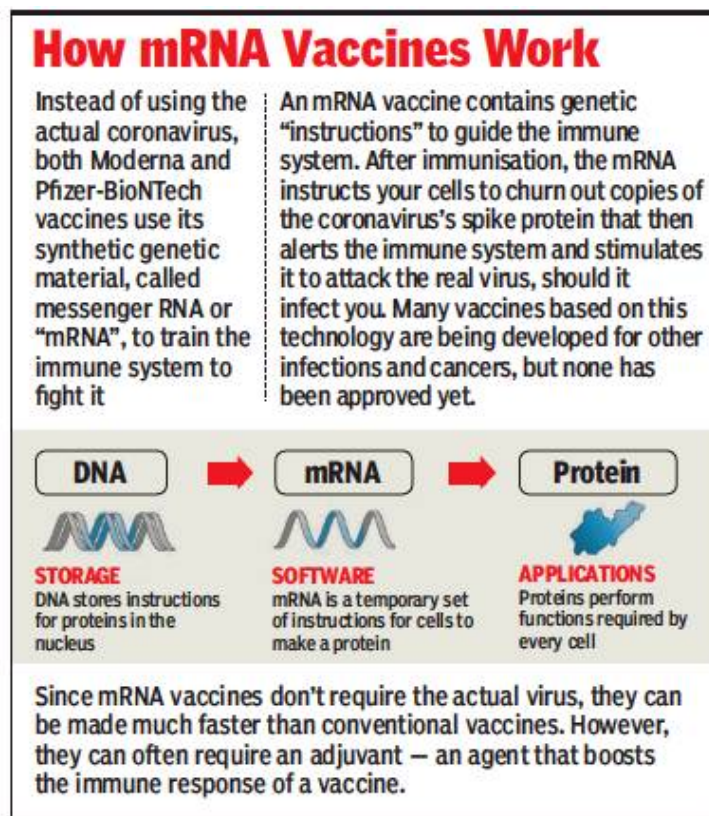
HOW DOES IT WORK?

- The vaccine delivers a strand of genetic material—mRNA—encapsulated in tiny spheres of fat. This mRNA directs human cells to produce a piece of the virus, the spike protein, inside the body. The body then mounts an immune response
- mRNA is a natural component of living cells, made and destroyed every day. Once mRNA from the vaccine is delivered into the body, it will prime the immune system and then be broken down



- ✓ Earlier, China and Russia have offered different vaccinations to their citizens, but without undergoing late-stage testing.
- ✓ The vaccine was developed by American drugmaker Pfizer and Germany's BioNTech
- ✓ It took only 10 months to go from concept to reality as against the normal span of 10 years.
- ✓ As a comparison, it has taken nine years between the isolation of the measles virus in 1954 and the licensing of a vaccine.
- ✓ There was a gap of 20 years between early trials of a polio vaccine and the first American licence in 1955.
- ✓ Many countries such as the UK, USA, and EU pre-ordered millions of doses of the Pfizer vaccine using advance purchase agreements.
- ✓ But India has not as of now signed any advance purchase agreement with Pfizer BioNTech.

- ✓ Other than the UK, Pfizer and BioNTech have filed for approval in the EU, Australia, Canada, and Japan
- ✓ The UK has pre-ordered 40 million doses of the jab — enough to vaccinate 20 million people — and the first 800,000 doses will arrive from Belgium next week.
- ✓ The US has pre-ordered 100 million doses of Pfizer BioNTech vaccine and the EU has pre-ordered 200 million with a further option of ordering another 100 million.
- ✓ The vaccine is given as two injections, 21 days apart, with the second dose being a booster.
- ✓ People will be immune seven days after the second dose.
- ✓ The technology underlying the Pfizer-BioNTech vaccine had never before produced an approved vaccine.
- ✓ It relies on sending genetic instructions through a molecule known as “messenger RNA” to prompt an immune response.

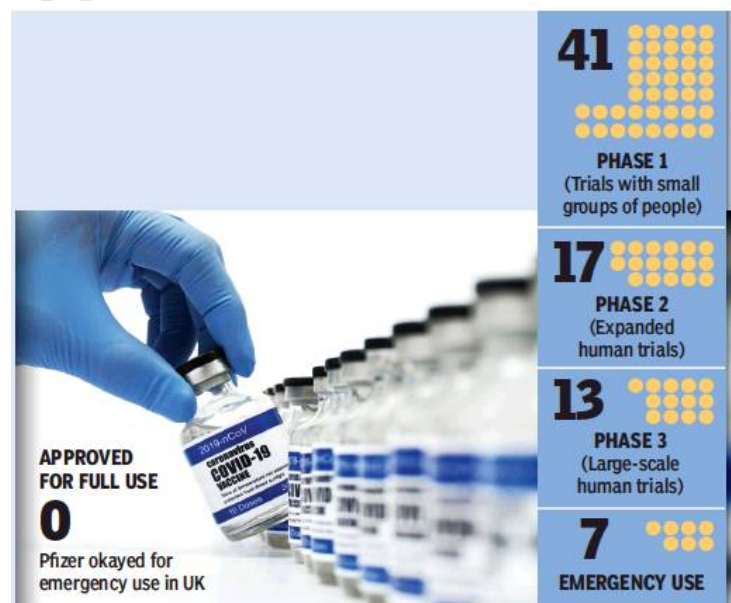


- ✓ Another American company, Moderna, has also developed a vaccine using mRNA that has proved extraordinarily effective — 94.1% — in large trials.
- ✓ This is the first time an mRNA vaccine has been authorised for human use
- ✓ Earlier, mRNA vaccines have been tested for various applications in cancer for over a decade.
- ✓ The emergency use authorization (EUA) is a mechanism used by the regulatory bodies to grant interim approval in case of emergencies based on sufficient evidence generated at the end of Phase III trials.
- ✓ The final approval, however, is given after completion of trials.

- ✓ For Covid-19 vaccine, the Food and Drug administration of United States has specified that it will consider an application for Emergency Use Authorisation only if the Phase 3 data proves at least 50% efficacy in preventing the disease.

PHASE 3 EFFICACY RESULTS	
PFIZER	95%
MODERNA	94%
OXFORD-ASTRAZENECA	70%
SPUTNIK V	95% (PRELIMINARY)

- ✓ The data has to be generated from more than 3000 volunteers.
- ✓ The drug regulations in India do not have provisions for Emergency Use Authorisation.
- ✓ However, Central Drugs Standard Control Organisation (CDSCO) has been granting restricted emergency approval to Covid-19 drugs.
- ✓ For instance, the CDSCO granted restricted emergency approval for Favipiravir and Remdesivir in June and Itolizumab in July.
- ✓ **The Pfizer-BioNTech Covid-19 vaccine is not available for India at present**
- ✓ This vaccine has a requirement for ultra-cold temperature — minus 70 °Celsius (minus 94 °Fahrenheit) — for storage
- ✓ It is a serious hurdle in Indian conditions as the vaccine will need to be distributed in remote areas and even urban centres lack such facilities.
- ✓ The government is keenly watching developments in Oxford-AstraZeneca candidate for which Serum Institute is the local partner and has said it will apply for emergency use authorisation in next few days.



- ✓ **Other Indian vaccines in the works**
- ✓ **Phase 3**

- ✓ Covaxin, the first Indian Covid vaccine candidate to enter clinical trials, is being developed by Bharat Biotech in collaboration with the Indian Council of Medical Research (ICMR).
- ✓ This vaccine uses an inactive version of the virus to prompt the immune system to produce antibodies.
- ✓ The Phase 3 human trials are under way at AIIMS, New Delhi.
- ✓ Trial results are expected in early 2021 and the vaccine could be ready for distribution by next June.
- ✓ **Phase 2**
- ✓ Ahmedabad-based Zydus Cadila is testing two versions of its vaccine, called ZyCov-D, one of which uses molecular DNA while the other uses a live measles viral strain to elicit an immune response.
- ✓ The vaccine is expected to be available by March 2021.
- ✓ **India's billion-dose Novavax order**
- ✓ After getting promising results from preliminary studies in monkeys and humans, US-based Novavax launched a Phase 2 trial in South Africa in August.
- ✓ The following month, Novavax launched a Phase 3 trial enrolling up to 15,000 volunteers in UK.
- ✓ It is expected to deliver results in early 2021.
- ✓ A larger Phase 3 trial in US is expected to launch by the end of December.
- ✓ In September, Novavax reached an agreement with the Serum Institute of India that they said would enable them to produce as many as 2 billion doses a year.
- ✓ The Indian government has already secured a billion doses.
- ✓ Apart from these candidates, India has Russia's vaccine Sputnik-V, which is also under Phase 2/3 trials in India and expected to be rolled out sometime in 2021.

APPOINTMENTS

- **Shyamli Haldar - took over as the general manager of air traffic control (ATC) in Kolkata**

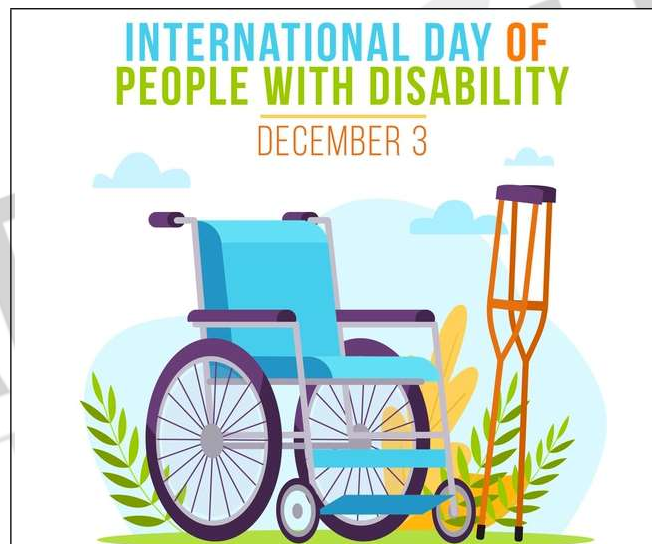


- ✓ With this, she has become the first woman to enter what has been an exclusive male dominant area in India till now

- ✓ Haldar was among the first batch of nine women air traffic controllers recruited three decades ago in 1989
- ✓ Before that only three women had very short stints as controllers - the first joined in 1973 but left after 2-3 years, the second appointee in 1985 left to join the Directorate General of Civil Aviation and the third, who joined in 1987, expired due to medical reasons.
- ✓ After completing training at the Civil Aviation Training College in Allahabad, Haldar's first posting was in Kolkata in 1991 where she and Aryama Sanyal (now Indore airport director) were the only women controllers.
- ✓ Haldar qualified all the on-the-job examinations and received the tower rating, followed by approach rating and area rating before finally bagging the ultimate rating to become the country's first woman radar controller.

INTERNATIONAL DAY

➤ International Day of Persons with Disabilities – December 3



- ✓ Every year, the Day is celebrated by the United Nations to promote well-being and rights of the persons with disabilities
- ✓ This day also aims to create awareness of the struggles of persons with disabilities in social, political, economic and cultural aspects.
- ✓ Theme 2020 - "Building Back Better: Towards a disability-inclusive accessible and sustainable post COVID-19 World".
- ✓ The International Day of Persons with Disability was first proclaimed by the United Nations General Assembly in 1992.
- ✓ There are more than 1 billion persons with disabilities in the world, with around 80% of them living in developing countries.
- ✓ In 2006, the Convention on the Rights of Persons with Disabilities was adopted by the United Nations.
- ✓ The following Sustainable Development Goals (SDGs) include disabilities as a major part in their agenda

- ✓ Goal 4: Inclusive and Equitable Quality of Education
- ✓ Goal 8: To promote inclusive, sustainable economic growth. This is to be achieved by providing productive employment to all men, women and persons with disabilities.
- ✓ Goal 10: To reduce inequality
- ✓ Goal 11: To make human settlements, cities safe, inclusive and sustainable.
- ✓ Goal 17: To strengthen and revitalise global partnership for sustainable development.

