

My Notes....

NATIONAL

NAM TO CONTINUE TILL 2026

The Union Cabinet on 14 July 2021 approved continuation of the **National Ayush Mission (NAM)** as a **Centrally Sponsored Scheme** for **another five years till 2026**. The **scheme would continue from 1 April 2021 to 31 March 2026**. The scheme involves the **expansion of the Ayush sector** to promote the holistic health of Indians.

What

- Under the scheme, **old and traditional medicinal systems** would be promoted and **Ayush wellness centres**, medical colleges, hospitals and dispensaries set up and upgraded.
- The Cabinet also approved **change of nomenclature** and mandate of **North Eastern Institute of Folk Medicine (NEIFM)** as **North Eastern Institute of Ayurveda and Folk Medicine Research (NEIAFMR)**.
- The consequential changes will also be carried out in the **Memorandum of Association and Rules and Regulations**.
- The **inclusion of Ayurveda** within the mandate of the institute will be highly beneficial for the people of North East for imparting quality education and research in Ayurveda and folk medicine.
- The institute will also provide opportunities for students of **Ayurveda and folk medicine**, not only in India but also the neighbouring countries such as **Tibet, Bhutan, Mongolia, Nepal, China and other Central Asian countries**.

Flashback

- It was launched on 15 September 2014. The scheme is **being implemented by the AYUSH Ministry** with the objective of **providing cost-effective services**, with a universal access through **upgrading AYUSH hospitals and dispensaries**, coU-location of AYUSH facilities at **Primary Health Centres (PHCs), Community Health Centres (CHCs)** and **District Hospitals (DHs)**.
- The mission is **addressing the gaps in health services** through supporting the efforts of state and UT governments particularly in vulnerable and far-flung areas, the statement said.
- Under NAM, **special focus is given for specific needs of such areas** and for allocation of higher resources in their annual plans.

SC ASKS CENTRE FOR SEDITION LAW

The **Supreme Court** on 15 July 2021 questioned the Central government over the **requirement of a sedition law** even after 75 years of the country's independence, observing that it was a "**colonial law used against freedom fighters**". A Bench headed by Chief Justice of India NV Ramana asked why the law can't be repealed.

What is Sedition Law?

- Section 124A of the Indian Penal Code (IPC)**, which deals with sedition, was drafted by **Thomas Babington Macaulay** and **included in the IPC in 1870**.
- Section 124A of the IPC**, which deals with sedition, states, "Whoever, words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the Government established by law in India shall be punished with imprisonment for life, to which fine may be added, or with imprisonment which may extend to three years, to which fine may be added, or with fine."

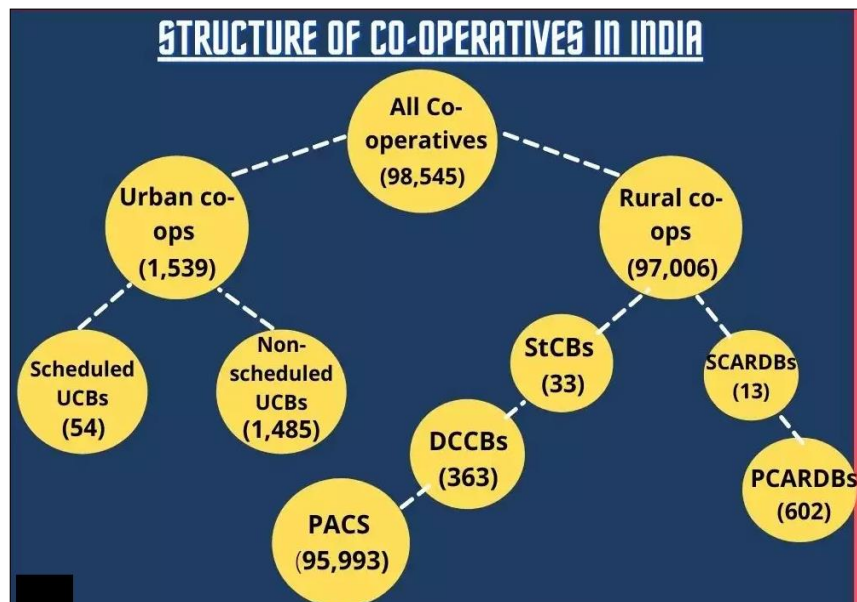
3. **Sedition is a non-bailable offence.** Punishment under the law varies from imprisonment up to three years to a life term and fine.
4. A person charged under **this law can't apply for a government job.** They have to live without their passport and must present themselves in the court as and when required
5. Mahatma Gandhi called Section 124A "the prince among the political sections of the IPC designed to **suppress the liberty of the citizen**".

NEW MINISTRY OF COOPERATION

The Centre on 6 July 2021 created a new portfolio '**Ministry of Co-operation**' to provide a **separate administrative, legal and policy framework** for strengthening the **co-operative movement** in the country. Finance Minister had made the announcement for **creation of a separate Ministry for Co-operation** in her Budget speech.

What

1. This will give a massive boost to the co-operative movement and create a "**true people's momentum**" for development.
2. The new ministry will work to streamline processes for '**ease of doing business**' for co-operatives and enable development of **Multi-State Co-operatives (MSCS)**.
3. It is expected to help deepen co-operatives as a true people based movement **reaching upto the grassroots.**
4. The government called the move a "historic" one, saying it has been created for realising the vision of '**Sahkar se Samridhi**'.
5. Noting that in the country, a **co-operative based economic development model is very relevant** where each member works with a spirit of responsibility, the statement said that the central government has signaled its deep commitment to **community based developmental partnership.**



INDIA'S DRAFT SPACE TRANSPORTATION

The Indian government, while **encouraging the private players** to play a good part in the space sector with policy reforms, will continue to **focus on research and development (R&D)** on **green fuel, robotic space exploration and reusable rockets**, states the **draft National Space Transportation Policy**. The draft policy states focused **research is essential on new propulsion systems** based on **semi-cryogenic, liquid oxygen-methane and green propellants.**

What

1. The **Department of Space (DOS)** under Government of India has recently come out with its **draft National Space Transportation Policy.**
2. Its space arm -- **Indian Space Research Organisation (ISRO)** -- is working on **green**

- fuel** (for rockets and satellites), **human space missions** and others. Similarly, private rocket makers are also for green fuel.
- ISRO Chairman K.Sivan said the space agency is looking at **green propulsion through hydrogen peroxide in its rocket** that would take Indians into space under its 'Gaganyaan' mission.
 - ISRO is also looking at rocket engines powered by **hydrogen peroxide as a mono-propellant** or as a **bi-propellant along with ethanol**.
 - The Indian space agency is also developing another green fuel -- **LOX/Methane -- liquid oxygen as oxidiser and methane as fuel**.
 - The **LOX/Methane propellant** has advantages in terms of specific impulse, storability, low toxicity, and cost.
 - The space agency is looking **to replace its existing liquid engine fuels with green fuel-powered ones**.
 - ISRO has also developed **ISROSENE**, which is a **rocket-grade version of kerosene** as an alternative to **conventional hydrazine rocket fuel**.

GOVT BRINGS DPE UNDER FINANCE MINISTRY

The government has brought **Department of Public Enterprises (DPE)** under the **Finance Ministry** in a bid facilitate its **ambitious disinvestment programme**. Earlier, **DPE was part of Ministry of Heavy Industries and Public Enterprises, Ministry of Finance (Vitta Mantralaya)**, after the sub-heading (v) **Department of Financial Services (Vittiya Sewayen Vibhag)**, following sub-heading shall be inserted, namely:- (vi) **Department of Public Enterprises (Lok Udyam Vibhag)"** as per the Cabinet Secretariat notification dated July 6, 2021.

What

- The gazette notification issued said these rules may be called the **Government of India (Allocation of Business) Three Hundred and Sixty First Amendment Rules, 2021**.
- They shall come into force at once. With the addition, this will be the **sixth department under the Finance Ministry**.
- Finance Minister in her **Budget 2021-22** had announced a **big-ticket privatisation agenda**, including privatisation of two public sector banks and one general insurance company.
- As part of the **divestment strategy for the financial sector**, the government has decided to go for a mega **initial public offering (IPO) of Life Insurance Corporation of India (LIC)** and residual stake sale in IDBI Bank during the financial year beginning April.
- The government has **budgeted Rs 1.75 lakh crore** from stake sale in public sector companies and **financial institutions during 2021-22**.



SC REJECTS CENTRE'S REVIEW PLEA

The **Supreme Court** has **dismissed the Centre's plea** seeking review of the 5 May 2021 **majority verdict** which held that **102nd Constitution amendment** took away states' power to declare **socially and Educationally Backward Classes (SEBC)** for grant of quota

in **jobs and admissions**.

What

1. The **102nd Constitution amendment Act of 2018** inserted **Articles 338B**, which deals with the **structure, duties and powers** of the **National Commission for Backward Classes (NCBC)**, while **342A** deals with **power of the President** to notify a particular caste as SEBC and power of Parliament to change the list.
2. A five-judge bench headed by **Justice Ashok Bhushan** said, "We have gone through the review petition filed against the judgment dated 5 May 2021, in Writ Petition... The grounds taken in the review petition **do not fall within the limited ground** on which review petition can be considered".
3. The bench said that the **various grounds taken in the review petition** have **already been dealt** with in the main judgment.

Flashback

1. The **bench in its 3:2 majority verdict** had ruled that **102nd Constitution amendment**, which also led to setting up of NCBC, **gives exclusive power to the Centre** to identify and declare SEBC as only the President can notify the list.
2. All the five judges of the bench, however, had held the amendment as valid and said it **did not affect the federal polity** or **violate the basic structure of the Constitution**.

INDIA'S FIRST CRYPTOGAMIC GARDEN

India's first cryptogamic garden housing **nearly 50 species** of **lichens, ferns** and **fungi** was inaugurated in Uttarakhand's Dehradun district on 11 July 2021, located in the **district's Chakrata town**. Around 50 species have been grown in the garden at **Deoban in Chakrata** at a commanding height of 9,000 ft.

What

1. **Deoban has pristine majestic forests** of **Deodar and Oak** which create a **natural habitat for cryptogamic species**.
2. **Cryptogamae** means "**hidden reproduction**" referring to the fact that no seed, no flowers are produced. Thus, cryptogams represent the non-seed bearing plants.
3. **Algae, bryophytes (moss, liverworts), lichens, ferns and fungi** are the best-known groups of **cryptogams** that require moist conditions to survive.
4. In the garden, **algae comprise the most primitive organisms** which are **predominantly aquatic**, both in marine as well as freshwater habitats.
5. **Bryophytes** are the simplest and primitive land plants that occupy an intermediate position between **algae and pteridophytes**.
6. **Lichens are a complex life form** that is a **symbiotic partnership** of two separate organisms, a **fungus and an algae**.
7. **Ferns are the largest living group of primitive vascular plants** while fungi are a kingdom of usually **multicellular eukaryotic organisms** that are heterotrophs.

INTERNATIONAL

NEPAL SIGNS PACT WITH SJVN

Nepal Investment Board has said it has **signed a pact** with India's state-owned **SJVN Ltd** to develop the 679-megawatt (MW) Lower **Arun Hydro Electric Project** in eastern Nepal. India's state-owned **Satluj Jal Vidyut Nigam (SJVN)** which is the second mega project undertaken by **Southern neighbour**.

What

1. After the **Arun-3 hydropower project**, the **Lower Arun Hydel project** is expected to cost around 1.3 billion dollars, the **single biggest foreign investment project**, as per 2017 cost estimates.
2. Prior to the latest project, **India is building 900 MW Arun-3 project** at an estimated cost of 1.04 billion dollars in the Arun river which is located in **Sankhuwasabha district**.
3. Lately signed Lower Arun Hydel Project lies in **Bhojpur district of the Himalayan Nation**.
4. The project will be built under the **build, own, operate and transfer (BOOT) model**.
5. The project will **not have any reservoir or dam** and will be a tailrace development of Arun-3 hydro project, which will mean water re-enters the river for the Lower Arun project.
6. SJVN's current **installed capacity stands at 2,016 MW** and it aims to be a 25,000 MW entity by 2040.

Flashback

1. **SJVN Limited (Satluj Jal Vidyut Nigam Limited)**, a **Mini Ratna CPSU** under the **Ministry of Power**, Govt. of India, is a joint venture between the **Govt. of India & Govt. of Himachal Pradesh**.
2. **Incorporated in the year 1988**, the Company is fast emerging as a major power player in the country.
3. SJVN is successfully operating the **country's largest 1500 MW Nathpa Jhakri Hydropower Station** and is setting new benchmarks in generation and maintenance year after year.

SHER BAHADUR DEUBA BECOMES NEPAL'S PM

Nepali Congress President **Sher Bahadur Deuba** on 13 July 2021 became the **country's Prime Minister (PM) for the fifth time**. President **Bidya Devi Bhandari** appointed him in accordance with. This is the **fifth time that 74-year-old Deuba** is returning to power as the Prime Minister of Nepal.

What

1. His appointment is in line with the **ruling issued by the Supreme Court** on 12 July 2021 to make way for his claim to premiership, **replacing incumbent K P Sharma Oli**.
2. Previously, Deuba served as Nepal's Prime Minister four times from June 2017 to February 2018, June 2004 to February 2005, July 2001 to October 2002 and September 1995 to March 1997.
3. **Reinstating the House yet again** -- the court had restored the House earlier on 23 February 2021 after Oli dissolved it on 20 December 2020 -- the bench has ordered to make arrangements for holding the House meeting by 5 PM on 18 July 2021.
4. In its order, the constitutional bench said President Bhandari's decision to reject Deuba's claim to form a new government was unconstitutional.

CHINA LAUNCHES NEW METEOROLOGICAL SATELLITE

China on 5 July 2021 successfully launched a **new meteorological satellite** with 11 remote sensing payloads, which besides enhancing the **country's weather forecasting capacity**, will monitor global snow coverage and sea surface temperatures. The satellite was launched into planned orbit from the Jiuquan Satellite Launch Centre in northwest China.

What

1. Equipped with 11 remote sensing payloads, **FY-3E will be the world's first meteorological satellite** in early morning orbit for civil service.
2. It is designed **with a lifespan of eight years** and will mainly obtain the **atmospheric temperature, humidity and other meteorological parameters** for numerical

prediction applications, improving China's weather forecast capacity.

3. It will also monitor the **global snow cover, sea surface temperature, natural disasters** and ecology to better respond to climate change and prevent and mitigate meteorological disasters.
4. In addition, the satellite will **monitor solar and space environments** and their effects, as well as **ionospheric data** to meet the needs of space weather forecasts and supporting services.

WWF-UNEP REPORT

A new report by **WWF and UNEP** has found that **35 per cent of India's tiger ranges** currently **lie outside protected areas**. The report, **A Future for All – A need for Human-Wildlife Coexistence**, examined increasing **human-wildlife conflict**, and has found that marine and terrestrial protected areas only **cover 9.67 per cent globally**.

What

1. With most of these **protected areas disconnected from each other**, many species depend on human-dominated spaces for their survival, and shared landscapes.
2. **Protected areas play an increasingly important role** for the survival of key species such as large **predators and herbivores**.
3. Apart from India's tigers, **40 per cent of the African lion range and 70 per cent of the African and Asian elephant ranges** fall outside protected areas.
4. **In India**, data from the **Ministry of Environment, Forests and Climate Change** shows that **over 500 elephants** were killed between 2014 and 2015 and 2018 and 2019, most related to **human-elephant conflict**. During the same period, 2,361 people were killed as a result of conflict with elephants.
5. **India faces an increasing challenge of human wildlife conflict**, which is driven by development pressures and an increasing population, high demand for land and natural resources, **resulting in loss, fragmentation, and degradation of wildlife habitats**.
6. These pressures intensify the interactions between people and wildlife because they often share living space without a clear demarcation of boundaries.
7. The report also points to the **increase of pandemics** as a **subset of this Human-Wildlife Conflict**.
8. The COVID-19 pandemic – sparked by a zoonotic disease that very likely originated in wild animals and then spread to people.

ECONOMY

INDIA AGREES TO LANDMARK GLOBAL TAX FRAMEWORK

India has agreed to a **pathbreaking international framework with 129** other countries for **taxing multinationals** that could impact its ability to tax them and have the potential to douse trade wars over taxing tech giants. **India and the other countries** issued a joint statement on 1 July 2021 affirming support for the proposed framework which has at **its core a global minimum corporate tax of 15 per cent** and makes way for countries to tax **multinational enterprises (MNEs)**, especially tech giants like **Google, Facebook and Amazon**, on their earnings there.

WHY A GLOBAL MINIMUM TAX?

1. Major economies are aiming **to discourage multinationals from shifting profits** - and **tax revenues** - to low-tax countries regardless of where their sales are made.
2. Increasingly, **income from intangible sources** such as **drug patents, software and royalties on intellectual property** has migrated to these jurisdictions, allowing

- companies to avoid paying higher taxes in their traditional home countries.
3. With its proposal for a **minimum 15% tax rate**, the Biden administration hopes to reduce such tax base erosion without putting American firms at a **financial disadvantage**, allowing competition on innovation, infrastructure and other attributes.
 4. The Trump administration took a first stab with a U.S. corporate **offshore minimum tax in 2017**.
 5. The "**Global Intangible Low-Taxed Income**," or GILTI, tax rate was only 10.5% - half the domestic corporate tax rate.

WORLD'S FIRST CARBON BORDER TAX

The **European Commission** on 14 July 2021 put forward plans for the **world's first "carbon border tax"** on **imports of carbon-intensive goods**, including **steel, cement, fertilisers and aluminium**, as part of a programme to meet its **new climate target**. The border levy should be **phased in from 2026**. The measure is designed to protect European industries from competitors abroad not subject to the same carbon levies.

What

1. A **transitional phase from 2023-25** will see importers monitoring and reporting their emissions.
2. Under the proposal, importers will be required to buy **digital certificates** representing the **tonnage of carbon dioxide emissions** embedded in their imported goods.
3. Importers may be able to claim a **reduction in carbon border costs** if the goods have already been subject to a **carbon levy** in their country of manufacture.
4. Some **64 carbon pricing instruments** such as **emissions trading schemes** or taxes are in use around the world, in places including China and some U.S. states, not least California. But they cover **only 21% of global greenhouse gas emissions**, a May report by the World Bank said.
5. The Commission has said the carbon border measure will **comply with World Trade Organization rules**, but the idea has received a hostile reception from trading partners including **China and Russia**.

PANEL AS ADVISOR TO PREVENT DIGITAL MONOPOLIES

The government has set up a **nine-member advisory council**, including Nandan Nilekani from Infosys and National Health Authority CEO R S Sharma, on steps required to design and accelerates adoption of **open network for digital commerce (ONDC)**. The **Department for Promotion of Industry and Internal Trade (DPIIT)** in an order said it has initiated a project on ONDC and the task has been assigned to **Quality Council of India**.

What

1. **ONDC aims** at promoting open networks developed on **open sourced methodology**, using open specifications and open network protocols **independent of any specific platform**.
2. It is expected **to digitise the entire value chain**, standardise operations, promote inclusion of suppliers, derive efficiencies in logistics and enhance value for consumers.
3. It has been decided to constitute an **advisory council** to advise the government on measures needed to **design and accelerate adoption of ONDC**.
4. The other members of the council are **QCI Chairman Adil Zainulbhai**, Avaana Capital Founder **Anjali Bansal**, Digital India Foundation Co-Founder **Arvind Gupta**, National Payments Corporation India CEO **Dilip Asbe**, National Security Depository MD Suresh Sethi, CAIT Secretary General P Khandelwal, and Retailers Association of India CEO Kumar Rajagopalan.

FREIGHT SMART CITIES

The **commerce ministry** on 2 July 2021 said it unveiled plans for **freight smart cities** to improve **urban freight efficiency**, and create an opportunity for **reduction in the logistics costs**. Under the **freight smart cities initiative**, city-level logistics committees would be formed and they will have related government departments and agencies at the local and state levels.

What

1. These would also **include the private sector** from the logistics services and also users of logistics services, the ministry said.
2. On the **freight smart city initiatives**, the logistics division is **working closely with GIZ (Germany)** under **Indo-German Development Cooperation**, Rocky Mountain Institute (RMI) and RMI India. A challenge is expected to be announced to encourage the **participation of cities in this initiative**.
3. From the **10 cities to be identified on immediate basis**, it is planned to expand the **list to 75 cities** in the next phase before scaling up throughout the country, including **all state capitals and cities** that have more than one million populations.
4. The list of cities to be taken up would be finalised in **consultation with the state governments**.
5. Minister of State for Commerce and Industry Hardeep Singh Puri launched a website on '**Freight Smart Cities**' and also released a handbook outlining 14 measures that can be taken to improve **urban freight**.
6. The states to identify 10 cities, to begin with, **to be developed as freight smart cities** and to set up **institutional mechanisms for the same**.

EXTENDS TIME LIMIT UNDER TMA SCHEME

The commerce ministry on 13 July 2021 **extended the time limit** for filing claims under the **Transport Marketing Assistance (TMA) scheme** for **specified agricultural products**. In March 2019, the government had announced **the scheme for providing financial assistance** for **transport and marketing of agricultural products** to boost exports of such commodities to certain countries in **Europe and North America**.

What

1. Under the TMA plan, the government **reimburses a certain portion of freight charges** and provides assistance for marketing of agricultural produce.
2. The claims for assistance under the TMA scheme for the quarters ending on 31 March 2020 and 30 June 2020 can be filed up to 30 September 2021.
3. **DGFT comes under the commerce ministry**.
4. The scheme **covers freight and marketing assistance for export by air** as well as **sea** (both normal and refrigerated cargo).

SCIENCE AND TECHNOLOGY

VIKAS ENGINE TEST SUCCESSFULLY

The **Indian Space Research Organisation (ISRO)** on 14 July 2021 successfully conducted the **third long-duration hot test** of the liquid propellant **Vikas engine** for the **Gaganyaan programme**, the **country's first manned mission to space**. The test was done for the **core L110 liquid stage of the human rated GSLV MkIII vehicle**, as part of the engine qualification requirements for the Gaganyaan programme.

What

1. The engine was fired for 240 seconds at the test facility of **ISRO Propulsion Complex**

(IPRC), Mahendragiri, Tamil Nadu.

2. The **performance of the engine** met the test objectives and the engine parameters were closely matching with the predictions during the entire duration of the test.
3. The **objective of the Gaganyaan programme** is to demonstrate the capability to **send humans to low earth orbit** onboard an Indian launch vehicle and bring them back to earth.
4. The **first unmanned mission** is planned in December 2021 and the **second unmanned one in 2022-23** followed by the human spaceflight demonstration.
5. Four Indian astronaut-candidates have already undergone **generic space flight training in Russia** as part of the Gaganyaan programme. ISRO's **heavy-lift launcher GSLV Mk III** has been identified for the mission.

Flashback

1. **Formal announcement of the Gaganyaan programme** was made by Prime Minister during his Independence Day address on August 15, 2018.
2. The initial target was to launch the human spaceflight before the 75th anniversary of India's independence on 15 August 2022.
3. ISRO is also taking the help of **French, Russian and US space agencies** in some of the crucial activities and supply of components.

VIRGIN GALACTIC FLYING TO SPACE

After a **lifetime of yearning to fly in space**, **Virgin Galactic's Richard Branson** was blast off aboard his own rocket ship 11 July 2021 in his **boldest, grandest adventure yet**. The **thrill-seeking billionaire** joined five company employees also assigned to the test flight to the edge of space high above the southern desert of New Mexico.

What

1. He viewed the brief up-and-down trip as a confidence builder not only for the **600-plus people** already holding reservations and waiting in the wings, but **potential space tourists** willing to plunk down a few hundred-thousand dollars for a shot at space.
2. The **London-born founder of the Virgin Group**, who turns 71 in a week, wasn't supposed to fly until later this summer. But he assigned himself to an earlier flight after **Blue Origin's Jeff Bezos** announced plans to ride his own rocket into space from West Texas on 20 July 2021.
3. **Blue Origin** has yet to open ticket sales or even announce prices, but late last week boasted that it would take clients higher and offer bigger windows.
4. Unlike Blue Origin and **Elon Musk's SpaceX**, which launch **capsules atop reusable booster rockets**, Virgin Galactic uses a twin-fuselage aircraft to get its rocket ship aloft.
5. The space plane is released from the mothership about **44,000 feet (13,400 meters) up**, then fires its rocket motor to streak straight to space.
6. **Maximum altitude is roughly 55 miles (70 kilometers)**, with three to four minutes of weightlessness provided.
7. **Virgin Galactic reached space for the first time in 2018**, repeating the feat in 2019 and again this past May, each time with a minimal crew. It received permission from the **Federal Aviation Administration** last month to start launching customers.

LAMBDA VARIANT OF COVID-19

The **lambda variant of COVID-19** has **not been reported in India so far**, sources said on 7 July 2021. Dr Pragya Yadav, head of the National Institute of Virology's Maximum Containment Facility, "**Lambda variant has been detected in 30 countries. Lambda variant was first reported from Peru**, in December 2020.

What

1. The number of cases reported from this variant **is increasing in different countries**, indicating it to be **highly transmissible**.
2. A recent study revealed that the **lambda variant is susceptible to mRNA vaccine-elicited antibodies** and **convalescent serum** was able to neutralize the lambda variant.
3. Notably, the lambda variant has been designated as a '**Variant of Interest**' by the **World Health Organisation (WHO)**.
4. A **new COVID-19 strain** called '**Lambda**' is much **more dangerous than the Delta variant**.
5. According to the WHO, the **Lambda variant has at least seven significant mutations** in the **spike protein** (the **Delta variant has three**) which could have a range of implications, including the **possibility of increased transmissibility** or **enhanced resistance to antibodies**, created either through natural infection or vaccination.

Flashback

1. There are **currently seven variants**, including the **Lambda** that the WHO classifies as "**variants of interest**".
2. Another four – **Alpha, Beta, Gamma and Delta** – have been designated as "**variants of concern**", and are considered a bigger threat.
3. These were all recently named after **letters of the Greek alphabet** to avoid linkage with the country of their origin that had been happening until then.

GLOBAL STANDARDS FOR HUMAN GENOME EDITING

Indian stem cell and developmental biologist Maneesha S Inamdar has been part of the **WHO Expert Advisory Committee on Developing Global Standards for Governance and Oversight of Human Genome Editing**, according to a statement on 12 July 2021.

What

1. The panel released **two new companion reports** providing the **first global recommendations** to help ensure that **human genome editing is used for public health**, with an emphasis on **safety, effectiveness, and ethics**.
2. The reports contained a **forward-looking governance framework** for oversight mechanisms for research into and potential application of **human genome editing technology** at **institutional, national, regional and international levels**.
3. Inamdar, along with her group, is conducting research at the **Jawaharlal Nehru Centre for Advanced Scientific Research**, Bengaluru, an autonomous Institute of the Department of Science and Technology (DST) that uses **gene-editing tools** to **manipulate stem cells in vitro**.
4. This can **generate disease models for scientific insight** into **human development** and devising **therapeutic strategies**.
5. She pioneered **human embryonic stem cell derivation** and use in India and has contributed significantly to national and international stem cell guidance documents, ethics committees, and training programmes.

DRDO NOD TO MANUFACTURE COVID DRUG 2-DG

Drug firm Mankind Pharma on 8 July 2021 said it had **received the licence** from the **Defence Research and Development Organisation (DRDO)** to manufacture and market **oral 2-Deoxy-D-Glucose (2-DG)**, which is used for the **treatment of Covid-19**. The drug was developed by the **Defence Research and Development Establishment, Gwalior**.

What

1. The clinical trials were conducted by the **Institute of Nuclear Medicine and Allied Sciences**, a DRDO lab, in association with **Dr Reddy's Laboratories**.
2. The company would manufacture the product at its facilities in **Visakhapatnam and Himachal Pradesh**.
3. The office of the **Drugs Controller General of India** on 1 May 2021 had **permitted the emergency use of 2-DG** as an adjunct treatment for **moderate to severe Covid-19 patients**.
4. The drug is found to **help hospitalised Covid-19 patients recover faster** and is known to **reduce the supplemental oxygen dependency** among Covid-19 patients.

MISCELLANEOUS

INS SARVEKSHAK COMPLETES SAFETY STUDY

The Indian High Commission in Sri Lanka on 3 July 2021 said **Indian naval ship, INS Sarvekshak**, has surveyed **800 miles of the sea near the Colombo Port** and a findings report has been sent to the Sri Lankan Ministry of Fisheries to resume **safe navigation and commercial fishing**. The survey was necessitated in the aftermath of **Singapore-flagged cargo vessel MV X-Press Pearl** catching fire and sinking in this water earlier in June.

What

1. The study aimed to **identify underwater debris** which could pose a threat to mariners and fishermen.
2. **INS Sarvekshak**, described as a **state-of-the-art Hydrographic Survey Ship**, was dispatched by the Indian Navy on 23 June upon a formal request from the Government of Sri Lanka to conduct a joint safety study along with the Sri Lanka Navy and **National Aquatic Resources Research and Development Agency** in the waters near and along major navigation routes off the Colombo harbour.
3. The survey data will be used to **issue advisories to mariners and fishermen** and also to salvors when removing debris.
4. The **continued assistance to Sri Lanka** in recent maritime incidents has showcased India's '**Neighbourhood First**' policy.
5. INS Sarvekshak surveyed **807 miles of the sea** using side **scan sonar technology, integral sensors** and **two survey boats**.

CO-WIN GLOBAL CONCLAVE

Prime Minister addressed the **Co-WIN Global Conclave** on 5 July 2021 as **India will now offer the Co-WIN platform** as a **digital public good to other countries** to run their own Covid-19 inoculation drives. About **50 countries**, including Canada, Mexico, Nigeria, Panama and Uganda, have shown interest in adopting Co-WIN to run their vaccination drives, National Health Authority (NHA) said.

What is CoWin?

1. **CoWin stands for Covid Vaccine Intelligent Work**. Back in **January 2021**, the platform was unveiled by the union government as it launched the vaccination drive in the country.
2. The website was created to give users a chance to **book vaccine slots**, keep a track of the overall vaccination drive in the country and download the Covid-19 vaccine certificate.

3. At the backend, it also allows healthcare providers to manage vaccine stock and keep a track of the workflow.
4. The primary feature is to **give users a chance to book a vaccine slot anywhere in the country**. Users have to register on the CoWin platform with their phone number.
5. CoWin also gives users the opportunity to **download the vaccination certificate**. Users can also add their passport details in the vaccination certificate.

What technology will India be giving to these countries?

1. The government of India has made it clear that the **code for CoWin will be made open source**.
2. The government **won't attach any intellectual property rights** to it. The government said that the code will be given to countries that are looking for an "orderly and transparent vaccination program".
3. The government will **not allow any commercial use of the platform** or for it to be repackaged in another form.

WORLD ZONNOSES DAY 2021

World Zoonoses Day is observed **every year on 6 July** to commemorate the **first vaccination administered against a zoonotic disease** like **Ebola, Avian influenza, and West Nile virus**. Zoonosis is an infectious disease that spread **from non-human animals to humans**. Zoonotic pathogens can be **bacterial, viral, or parasitic** which can spread to humans through direct contact or through food, water, or the environment. For example, Coronavirus spread from **bats to humans**, and we already have witnessed how it can create a major public health problem around the world.

What

1. **Zoonoses comprise a large percentage of all newly identified infectious diseases** like **HIV, Ebola virus disease and salmonellosis**.
2. They started as a zoonosis but later **mutate into human-only strains**. The **first vaccination against a zoonotic disease** was successfully administered on 6 July 1885, by a French biologist, **Louis Pasteur**.
3. The day is also celebrated to **raise awareness about the risk of zoonotic diseases** and their prevention.
4. Animals play a significant part in spreading zoonotic diseases as **75 percent of new or emerging diseases originate from them**.
5. According to the Centers for Disease Control and Prevention (CDC), the transmission of zoonotic disease spreads through **contact with the animals** like the **consumption of meat or using animal products**.

NEW PLANT SPECIES IN HOSTILE ANTARCTICA

A **group of Indian botanists from Bathinda** has discovered a **new plant species** growing on rocky surfaces in the **eastern Antarctica region** near **India's Bharati station**. The dark-green and unbranched **moss Bryum bharatiensis** has been named after India.

What

1. Since the commencement of **scientific explorations in 1981** over the southernmost continent, India has been operating **two stations, Maitri and Bharati**, in Antarctica.
2. The foremost station — **Dakshin Gangotri** — today functions as a pit stop to supply essentials to Indian scientists visiting Antarctica for research.
3. Every year, the **Ministry of Earth Sciences** sends a select team of botanists, meteorologists, geologists, seismologists and others on either a month, three-month, six-month or a year-long scientific expedition to Antarctica.

4. **Felix Bast**, head of the department of Botany, Central University of Punjab, Bathinda (CUPB), was part of **India's 36th expedition to Antarctica in 2016-2017**.
5. It was during this expedition that samples of the **newly-discovered moss species** were collected and studied.

WORLD POPULATION DAY 2021

World Population Day is observed **every year on 11 July**. The main purpose of this day is **to draw attention towards the issues arising out of rising population** across the globe. **India has the world's second-largest populace after China**. The **United Nations has sent up a population fund (UNFPA)** and a population division to plan programmes and coordinate with other agencies in order to highlight and disseminate information about **population control measures**.

What

1. The **World Population Day** was established by the **United Nations in 1989**, buoyed by the interest the **Five Billion Day celebrated in 1987**.
2. A resolution to the effect was passed, and the day as first marked on 11 July 1990. In December 1990, the **United Nations General Assembly (UNGA)** decided to continue observing World Population Day to enhance awareness about population issues, including their relations to the environment.
3. The **World Population Day** is observed with the goal of highlighting the difficulties created by overpopulation and raising awareness about how overpopulation may harm the ecosystem and progress of humanity.
4. This year, the **theme of World Population Day 2021** is '**the impact of the Covid-19 pandemic on fertility**'.
5. It will be observed to shed more light on the impact of the Covid-19 pandemic on **sexual and reproductive health** and **reproductive behaviour globally**.
6. It is organised by the **Population Division of the United Nations Department of Economic and Social Affairs (DESA)**.

US APPROVES BLUE ORIGIN LICENSE

The **Federal Aviation Administration (FAA)** said on 12 July 2021 it approved a **Blue Origin license** to carry humans on the **New Shepard launch system** into space. **Jeff Bezos** is set to fly to the edge of space on Blue Origin's maiden crewed voyage on 20 July 2021.

What

1. **Blue Origin is authorized to carry humans** while its FAA license is valid through August and is approved to conduct these missions from its Launch Site One facility in Texas.
2. **Blue Origin was required to verify its launch vehicle's hardware and software** worked safely during a test flight and the FAA confirmed it met regulatory requirements.
3. Blue Origin's flight will come a little over a week after space-tourism rival **Virgin Galactic** successfully sent a crew including its founder, British billionaire Richard Branson, to the **edge of space**.
4. **Virgin Galactic and Blue Origin**, as well as the space firm founded by rival billionaire Elon Musk, are working to usher in a new era of routine commercial civilian space travel in what has been popularized as the "**billionaire space race**."

WORLD'S BIGGEST FLOATING SOLAR PANEL FARMS

Singapore unveiled on 14 July 2021 one of the **world's largest floating solar panel**

DELHI: VIJAY NAGAR 9717380832 & OLD RAJENDER NAGAR 9811293743 | JAIPUR: 8290800441
 BENGALURU: KORMANGALA 7619166663 & CHANDRA LAYOUT 7619136662 | BHOPAL: 7509975361
 PATNA: 7463950774 | INDORE: 7314977441 | RANCHI: 9939982007 | www.ksgindia.com

farms, spanning an area equivalent to 45 football fields and producing enough electricity to power the **island's five water treatment plants**. The project is part of efforts by the **land-scarce Southeast Asian city-state** to meet a goal of quadrupling its solar energy production by 2025 to help tackle climate change.

What

1. **Located on a reservoir in western Singapore**, the 60 megawatt-peak **solar photovoltaic (PV) farm** has been built by a wholly-owned subsidiary of **Sembcorp Industries**.
2. The solar farm could help **to reduce carbon emissions** by about **32 kilotonnes annually**, comparable to taking 7,000 cars off the roads.
3. As opposed to **conventional rooftop solar panels**, floating ones perform between 5% to 15% better because of the cooling effect of the water and are not impacted by shading from other buildings.
4. The electricity generated from the **122,000 solar panels** on the **45-hectare (111.2 acres)** site should make Singapore one of the few countries in the world to have a water treatment system fully powered by sustainable energy.
5. The solar panels are **designed to last for 25 years** and drones will be used to assist with maintenance.

UPDATED DRONE RULES RELEASED

The **Civil Aviation Ministry** on 15 July 2021 released the **updated Drone Rules, 2021** for public consultation. The **Drone Rules, 2021** will **replace the UAS Rules 2021** which was released on 12 March 2021. "The updated rules are built on a **premise of trust, self-certification, and non-intrusive monitoring**, the ministry said. The **new drone corridors will be developed for cargo deliveries** and a **drone promotion council** will be set up to facilitate a business-friendly regulatory regime.

Under the new rules

1. **Number of forms has been reduced from 25 to 6**. The ministry said the **fees have been reduced** to nominal levels and there is **no linkage with the size of the drone**.
2. Safety features like **'No permission - no take-off' (NPNT)**, real-time tracking beacon, geo-fencing etc. will be notified later.
3. As per the new rules, a **six-month lead time will be provided for compliance**. **Digital sky platform** shall be developed as a **business-friendly single-window online system**.
4. There will be minimal human interface on the digital sky platform and **most permission will be self-generated**. **Interactive airspace map** with **green, yellow, and red zones** will now be displayed on the digital sky platform. **Yellow zone reduced from 45 km to 12 km** from the airport perimeter.
5. **No flight permission required upto 400 feet in green zones** and upto 200 feet in the area between 8 and 12 km from the airport perimeter.
6. In the R&D space, **no pilot licence is required for micro drones** (for non-commercial use), nano drone and for R&D organisations. Restriction on drone operations by **foreign-owned companies registered in India** has also been removed.
7. **Import of drones and drone components will be regulated** and no security clearance is required before any registration or licence issuance.
8. Requirement of certificate of airworthiness, unique identification number, prior permission and remote pilot licence for R&D entities is also not there.
9. Under new rules, **coverage of drones under Drone Rules, 2021 is increased from 300 kg to 500 kg**. This will cover **drone taxis also**. All drone training and testing will be carried out by an authorised drone school.
10. The maximum penalty under Drone Rules, 2021 reduced to Rs 1 lakh. This shall, however, not apply to penalties in respect of violation of other laws.