

## EVERYDAY CURRENT AFFAIRS – OCTOBER 3, 2021

### TAMIL NADU

- **Tamil Nadu Chief Minister MK Stalin - participated in Pappapatti Gram Sabha meeting in Chellampatti union in Madurai on October 2**
- ✓ This is the first time ever that a Chief Minister of the State has participated in the Grama Sabha meeting and discussed the resolutions adopted by the village committee.
- ✓ The Chief Minister's visit to the caste conflicted Pappapatti village panchayat holds historical significance.
- ✓ Piranmanai Kallars, a caste Hindu group, are in majority in this village and the Scheduled Caste (SC) members belong to the Pallar and Paraiyar communities.
- ✓ Ever since the reservation of posts for people from SC communities was made mandatory in 1996, the caste Hindus in Pappapatti, Keeripatti and Nattarmangalam had barred SCs from holding the panchayat president post for a very long time



- ✓ In 2006, the DMK-led government conducted smooth elections in the 3 caste-conflicted villages including Pappapatti, Keeripatti and Nattarmangalam, bringing an end to the 10-year-long struggle

- ✓ Chief Minister M K Stalin was the then Minister for Rural Development and Panchayat Raj, and the CM's Secretary, T Udhayachandran, was the then Madurai Collector
- ✓ Since then, presidents from SC communities have been elected thrice without much conflict.
- ✓ T Muruganandham, who was holding office of Panchayat President in last tenure in Pappapatti won the polls unopposed while P Manikandan holds the office of Vice President.
- ✓ The CM said he had come to Pappapatti because the village stood for social equality.
- ✓ After elections were conducted for the reserved constituencies of Pappapatti, Keeripatti, Nattarmangalam and Kottakatchiyendal, the then chief minister M Karunanidhi had called for a celebration and Samathuva Peruvizha was held in Chennai.
- ✓ The CM also recalled that it was during this festival that VCK leader Thol Thirumavalavan gave Kalaignar the title of Samathuva Periyar.
- ✓ The CM announced many welfare measures for the village and said he would track their implementation.
- ✓ They include new building for the panchayat office, Anganwadi in Mahadevanpatti, a ration shop in Pappapatti, upgradation of crematorium and street light facility, a new overhead tank and a borewell.
- **The Tamil Nadu Government – had recently announced that a 500-sqkm dugong conservation reserve will soon be set up.**



- ✓ India's first Dugong Conservation Reserve is being planned to be set up in the Palk Bay on the southeast coast of the state with community participation
- ✓ The reserve will span the northern part of the Palk Bay from Adiramapattinam to Amapattinam.
- ✓ Dugong or sea cow is an endangered marine mammal that is facing extinction due to habitat loss, sea pollution, and loss of seagrass
- ✓ Dugong is the only living species of the family Dugongidae and order Sirenia
- ✓ They have a distinct dolphin-like tail, a different skull form, teeth pattern and survives on seagrass that is found in the area

- ✓ In Tamil Nadu, dugong is found in Gulf of Mannar and at Palk Bay
- ✓ According to Wildlife Institute of India (WII) estimates, only 200-250 Dugongs are left in the wild, of which 150 are found in the Palk Bay and Gulf of Mannar
- ✓ They can grow upto three meters long, weigh about 300 kilograms, and live for about 65 to 70 years, grazing on seagrass and coming to the surface to breathe.
- ✓ Dugongs are also victims of accidental entanglement in fishing nets and collision with boats, trawlers
- ✓ In India, dugongs are distributed in shallow waters of Palk Bay, Gulf of Mannar in Tamil Nadu, Gulf of Kutch in Gujarat and Andaman and Nicobar islands.
- ✓ Dugongs are listed as Vulnerable on the IUCN Red List of Threatened Species.
- ✓ Internationally, dugongs are listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which prohibits the trade of the species and its parts.
- ✓ Dugongs are protected in India under Schedule 1 of the Indian Wildlife Act 1972 which bans the killing and purchasing of dugong meat.

## STATES

- **The Delhi government – has launched the ‘Business Blasters’ programme in all Delhi government schools under the "entrepreneurship mindset curriculum" launched in 2019**



- ✓ Under the programme, the government will provide seed money of Rs 2,000 to 3.5 lakh students of Delhi government-run schools to groom them as "future entrepreneurs".
- ✓ This money will be given to students of classes 11 and 12 and they, in turn, have to invest it for running small businesses.
- ✓ Under the initiative, teachers are being trained and they will scrutinise the projects of students.
- ✓ Further, district and state-level competitions will be held which will culminate in a carnival at Thyagraj Stadium in February next year where 100 best projects will be displayed

- ✓ A total of 1000 children will qualify for the district-level competition from which 10 winners be selected
  - ✓ These winners will get direct admission to Indira Gandhi Delhi Technical University for Women (IGDTUW), Delhi Technological University (DTU), Guru Gobind Singh Indraprastha University (GGSIPIU) and Netaji Subhas University of Technology (NSUT)
  - ✓ Deputy Chief Minister Manish Sisodia, who is also the Delhi Education Minister, launched the programme recently
  - ✓ The 'Business Blasters' programme was started at the School of Excellence in Khichripur under a pilot project.
  - ✓ In this project, nine groups of 41 children were formed and each child was given seed money of at least Rs.1,000.
- **Khadi and Village Industries Commission (KVIC) – has set up a Tussar Silk Yarn Production Centre at Choudwar in Cuttack district in Odisha.**



- ✓ The centre, capable of producing 200 kg of silk yarn worth Rs 94 lakh annually, is set up at a cost of Rs 75 lakh
  - ✓ The development assumes great significance as silk comprises nearly 75% of the total khadi fabric production in Odisha
  - ✓ For several years, Odisha has been known for its exquisite silk, particularly the tussar variety, which provides livelihood to thousands of tribal people, particularly women
  - ✓ However, Odisha's silk weavers were totally dependent on states like West Bengal, Jharkhand and Karnataka for silk yarn, which increased the cost of the fabric.
  - ✓ Tussar silk is one of the finest varieties of silk that is distinguished by its coarseness and porous weave that give it a rugged and rustic appearance
  - ✓ Of the total 66 institutions dealing with manufacturing and supplying of khadi fabrics registered with KVIC, as many as 44 units are located in Cuttack district
- **The first Palmetum of Uttarakhand and the biggest Palmetum of North India - was inaugurated recently in Haldwani of Nainital district in Uttarakhand**



- ✓ Developed by Research wing of Uttarakhand forest department, the Palmetum has 110 different species of Palms
- ✓ It was set up with an aim of promoting conservation, further research and to create awareness about importance and ecological role of various palm species
- ✓ Completed in a period of 3 years, it has been funded under CAMPA (Compensatory Afforestation Fund Management and Planning Authority) scheme of central government with an amount of 16 lakhs spanning in an area of approximately 3 acres
- ✓ Around 20 species of Palm in this Palmetum are endangered or threatened
- ✓ Out of this, 4 species are critically endangered, 2 species are endangered, 2 species are vulnerable and 6 species are near threatened as per IUCN ((International Union for Conservation of Nature) categorization, while one is rare as per ENVIS (Environmental Information System), one is threatened as per Uttarakhand Biodiversity Board and one is rare as per Indian Biodiversity Portal.
- ✓ Out of the total palm species in the palmetum, one is endemic to Uttarakhand- Trachycarpus takil (Takil Palm).
- ✓ This is only Palm species which can survive sub-zero temperature and declared as threatened by Uttarakhand Biodiversity Board
- ✓ In August, the Uttarakhand Forest department had launched the High Altitude Herbal Garden situated at nearly 10,500 feet height and believed to be the highest herbal garden in India.
- ✓ The garden spread over three acres has rare Himalayan herbs including Brahma Kamal, Neel Kamal and Phen Kamal, associated with the trinity of Hindu Gods- Bhahma, Shiva and Vishnu.

## NATIONAL

- **A total of nine start-ups - were selected for their innovative products and services for the elderly under the Centre's 'Seniorcare Ageing Growth Engine' project**
- ✓ The ministry of social justice and empowerment will act as the facilitator in the entire process to help the elderly with identified start-ups.

- ✓ The selected start-ups will be hosted on the MSJ&E's SAGE portal and the ministry will provide a fund of Rs 1 crore as one-time equity to each of them.
  - ✓ In the next five years, the government plans to fund 100 innovative start-ups.
  - ✓ The nine startups chosen for the project includes Neomotion, Newnara, Flexmo, Ducere, Avyantra, Life Circle, Mediyatra, KareVoyage and Primate Healthtech
  - ✓ Neomotion has designed a “no transfer” accessibility solution where a user will be able to attach a wheelchair to a motorbike and travel
  - ✓ Newnara’s “Indoknee” offers lightweight, unhindered corrective support, Flexmo offers a wearable hip guard, and Ducere provides smart insoles for fall prevention.
  - ✓ Avyantra is working to deliver an automated medical device for home dialysis, while Life Circle offers subscription-based home healthcare services for the elderly
  - ✓ Mediyatra seeks to make travel more accessible for elderly patients and people with disabilities, and Primate Healthtech provides accessible diagnostics for early detection of chronic diseases.
  - ✓ For the travel-loving elderly, KareVoyage offers the necessary support.
  - ✓ Vice-President M Venkaiah Naidu launched the employment exchange SACRED (Senior Able Citizens for Re-Employment in Dignity) for the elderly on the International Day of Older Persons at the Ayoshreshtha Samman
- **The digital format of NCERT textbooks for Class I to V students in Indian Sign Language (ISL) - was launched recently by the social justice and empowerment minister Virendra Kumar on the occasion of Sign Language Day on September 23**



- ✓ Textbooks for Classes VI-VIII are expected to be converted to ISL over next one year and made available by December 2022.
- ✓ These measures are in keeping with the National Education Policy 2020 which states that Indian Sign Language (ISL) must be standardised across the country, and national and state curriculum materials developed, for use by students with hearing impairment.
- ✓ The Class I-V textbooks in digital format was prepared by Indian Sign Language Research and Training Centre (ISLRTC) and NCERT

- ✓ Spread over 490 modules, the Class I-V textbooks have been uploaded on the Diksha (Digital Infrastructure for Knowledge Sharing) portal of NCERT.
  - ✓ The portal as per government estimates is accessed by nearly five crore students and teachers daily.
  - ✓ The material will also be disseminated through PM e-Vidya DTH TV channels
  - ✓ The ISLRTC will also be uploading the links to the textbook modules along with a accessibility guide on their website.
  - ✓ ISLRTC is an autonomous institute under the department of empowerment of persons with disabilities (DEPwD) of the ministry of social justice and empowerment
  - ✓ The eventual plan is to convert all NCERT textbooks upto Class XII in ISL format.
- **IIT-Bombay - launched “Project Udaan”, an artificial intelligence (AI)-based language translator software programme, to help linguistic minority students**
- ✓ The software, Project Udaan, is designed to translate scientific and technical content from English to Hindi and several other Indian languages
  - ✓ It can translate engineering textbooks and learning material in one-sixth the time it would take for a team of domain and linguistic experts to work manually.
  - ✓ Project Udaan is a donation-based project with an end-to-end ecosystem that helps in translation
  - ✓ Through donations, the IIT-B team aims to translate 500 engineering texts in Hindi in one year and 15 Indian languages in three years
  - ✓ The virtual inauguration, which coincided with Hindi Diwas on September 14, was attended by Principal Scientific Adviser to the Government, Dr. Krishnaswamy Vijay Raghavan as the chief guest.
  - ✓ This project was spearheaded by Prof. Ganesh Ramakrishnan from Department of Computer Science & Engineering in IIT Bombay.
  - ✓ The institute has developed similar projects that focus on Indian languages, such as Akshar Anveshini, MALTA, DECILE, INDICOOR, and more.
  - ✓ Recently, All India Council for Technical Education (AICTE) developed AICTE Translation Automation Artificial Intelligence Tool which translates English language online courses into eleven different languages- Hindi, Bengali, Marathi, Telugu, Tamil, Gujarati, Kannada, Malayalam, Punjabi, Assamese, and Odia
- **The Railway Ministry - has announced the closure of the Indian Railways Organization of Alternate Fuel (IROAF) recently**
- ✓ The IROAF is a separate enterprise working in the field of green fuels for transport and seeks to introduce alternative energy, fuel efficient and emission-control technologies across the railway network.
  - ✓ The IROAF had invited bids in August for Hydrogen Fuel Cell-based trains to kickstart the concept of hydrogen mobility in the country along the 89-km Sonipat-Jind sector of Northern Railway.

- ✓ The existing work handled by IROAF — Solar Power and Hydrogen Fuel Cell projects — was transferred to the Principal Chief Electrical Engineer and Chief Administrative Officer, Northern Railway with effect from September 7, 2021
  - ✓ IROAF, based out of Laxmi Nagar in East Delhi, had experimented with bio-diesel, CNG-fuelled engines etc in the past
  - ✓ Four years ago, the country's first solar-powered train was launched based on the technology developed by IROAF
  - ✓ Under this technology, the entire electrical needs of the train like lights, fans and other systems were met by power generated by solar panels fitted atop coaches of a DEMU
  - ✓ The IROAF had also been working on solar-powered trains in tandem with the NDA government's plans to reduce carbon emission through adoption of renewable energy by 2022.
- **Union Ministry of Environment, Forests and Climate Change (MoEFCC) – recently launched 'PRANA', a national portal to regulate air pollution**
- ✓ PRANA, meaning 'Life' in Sanskrit, is a portal for regulation of air pollution in 132 cities across the country.
  - ✓ PRANA referring to the 'Portal for Regulation of Air-pollution in Non-Attainment cities' is launched under the National Clean Air Programme (NCAP) of the Centre



- ✓ National Clean Air Programme, a mid-term, five-year action plan was launched in 2019 by the Ministry of Environment, Forest and Climate Change
- ✓ NCAP aims to achieve a tentative national level target of a 20%–30% reduction of particulate matter (PM10 and PM2.5) concentration by 2024 across the country.
- ✓ The PRANA portal will provide all information related to various policies/schemes/ Programmes of the stakeholders along with the progress made towards improvement in air quality across the country.
- ✓ This portal will be a platform for monitoring and feedback on all efforts made for air quality improvement.
- ✓ A B2B company, Knowledge Lens collaborated with the Central Pollution Control Board (CPCB), Deutsche company GIZ and MoEFCC to develop PRANA.

- ✓ The United Nations General Assembly has designated September 7 as the International Day of Clean Air for Blue Skies last year to emphasize the need for improving air quality all across the globe to protect human health and well being.
- **India - has become the first Asian country to launch a Plastics Pact, a new platform to promote a circular system for plastics by the year 2030.**



- ✓ World-Wide Fund for Nature-India (WWF India) and the Confederation of Indian Industry (CII) have collaborated to develop a platform called the 'India Plastic Pact'
- ✓ It is supported by UK Research & Innovation (UKRI) and WRAP, a global NGO based in the UK
- ✓ WRAP provides operational and technical support to Plastics Pacts in Europe, the Americas, Australia and Africa and fully supports the Pact in India
- ✓ India generates 9.46 MT of plastic waste annually, of which 40% is not collected and about half of all plastics produced in the country are used in packaging, most of it is single-use in nature.
- ✓ Commitments made under the Pact aim to keep plastic packaging in the economy and out of the natural environment.
- ✓ The statement mentioned 17 businesses including major FMCG brands, manufacturers, retailers and recyclers have committed to the pact as founding members, and nine have joined as supporting organisations.
- ✓ Under the pact, 100% of plastic packaging will be made reusable or recyclable, 50% of plastic packaging will be effectively recycled and 25% average recycled content will be made across all plastic packaging
- **The Union Minister of Commerce and Industry, Piyush Goyal - launched the National Single Window System (NSWS) for investors and businesses in India recently**
- ✓ A National Single Window is a customs portal where traders can submit all documents relating to trade and can access all relevant information regarding trade via a single electronic gate way.
- ✓ This single window portal will become a one-stop-shop for investors for approvals and clearances

**NATIONAL SINGLE WINDOW SYSTEM (SOFT-LAUNCH)**

Single Platform to Enable Investors Identify & Obtain Approvals & Clearances

- End to End facilitation and support to investors
- Facilitate clearances at Centre and State level
- Pre-investment advisory to new businesses
- Shares information related to land banks

**Online Services Available**

- Know Your Approval Service
- Common Registration Form
- State Registration Form
- Applicant Dashboard
- Document Repository
- E-Communication module

**NATIONAL SINGLE WINDOW SYSTEM (SOFT-LAUNCH)**

Single Platform to Enable Investors Identify & Obtain Approvals & Clearances

- Digital platform to streamline approvals
- Enhancing Ease of Doing Business
- Clearances to investors at one point
- Investors to get land in a transparent & simple manner

- ✓ This would bring Transparency, Accountability and Responsiveness in the ecosystem where all information will be available on a single dashboard
- ✓ The Department for Promotion of Industry and Internal Trade along with Invest India initiated the process of developing the portal as a National Single Window System
- ✓ The National Singal Window System will provide several services like Know Your Approval (KYA), Common Registration & State Registration Form, Document repository & E-Communication.



- ✓ The beta version of the portal has now been completed and is being opened to all stakeholders and the public as a trial soft launch.
- ✓ The portal hosts approvals across 18 Central Departments & 9 States, while another 14 Central Departments & 5 states will be added by December 2021

- **The Automotive Research Association of India (ARAI) - has indigenously developed charger for electric vehicles, which will be cost-effective and to boost local economy.**
- ✓ ARAI has developed an indigenous technology for EV charger AC001, which has been taken up for manufacturing and promotion by Bharat Electronics.
- ✓ The charging points will be set up by Bharat Electronics and parts for EV charger systems- Type 1, Type 2, CCS and CHAdeMO will be manufactured locally
- ✓ ARAI has recently signed MoU with Bharat Electronics Limited where ARAI will provide the knowhow of the charges and Bharat Electronics will manufacture the chargers
- ✓ The cost of the charger is expected to be in the range of Rs. 50,000-60,000.
- ✓ The charger has been designed considering the safety aspects and power surge in India with other aspects like environmental conditions
- ✓ Currently, in India, mobility chargers are imported, mostly from China
- ✓ In another development, world's highest EV charging station was recently opened at 500 feet at Kaza town, which is located in Lahaul and Spiti district of Himachal Pradesh
- **The first-ever Himalayan Film Festival 2021 – concluded at Sanskriti Kendra, Leh recently**



- ✓ The festival was held in Leh district for five days from September 24-28 as a part of the Azadi Ka Amrit Mahotsav celebrations.
- ✓ The festival is being organised by the Ladakh Autonomous Hill Development Council, Leh in collaboration with the Directorate of Film Festivals under the Union Ministry of Information and Broadcasting.
- ✓ It was inaugurated by Information and Broadcasting Minister, Anurag Thakur, on September 24
- ✓ The festival featured a documentary and short-film competitions, a food festival, music fest, cultural shows in collaboration with the Department of Culture to showcase the rich cultural variety of Ladakh

- ✓ Shershaah, a film on late Captain Vikram Batra, was shown on the big screen for the first time during the opening session of the festival in the presence of actor Sidharth Malhotra and his co-actors, director Vishnu Vardhan
  - ✓ The film festival featured films from 12 Himalayan states and Union Territories to provide a platform to filmmakers
  - ✓ Ladakhi filmmakers Stenzin Tankong and Stanzin Gurmet, and three short films were felicitated at the inaugural edition of the Himalayan Film Festival
  - ✓ While Tankong's acclaimed film Sekool won the best story award, Shadey: A Forgotten Land by Gurmet received the best editing award.
  - ✓ The award of best three short films was bagged by The Tainted Mirror (Meiteilon/Manipur), Go for Organic, and Homework and Godliness, which were awarded the cash prize of Rs 3.5 lakh each.
- **Amazon - announced the launch of Amazon future engineer, its global computer science education programme, in India recently**



- ✓ This global programme will enable access to quality computer science education and career opportunities for students from underserved communities in India.
- ✓ In the opening year of launch, the company will provide learning initiatives to more than 1 lakh students from 900 government & assisted schools across seven states in India.
- ✓ Amazon is working with a global knowledge partner Code.org, a global non-profit organization dedicated to computer science education
- ✓ The main goal of Amazon future engineers is to give students early exposure and access to computer science education through in-person contact, blended and online learning formats.
- ✓ The curriculum will offer students coding fundamentals along with future-focused tech courses like Machine learning, Artificial Intelligence, and Natural Language Processing, also called Voice Technology in Indian Languages
- ✓ The programme will mainly focus on students of 6-12 standards and train educators and teachers to teach computer science more engagingly.

- ✓ Amazon will partner with multiple non-profit organizations to take quality computer science educations to students of government schools of the following states, Karnataka, Tamil Nadu, Telangana, Delhi, Haryana, Maharashtra and Odisha.

## INTERNATIONAL

- **The International Astronomical Union - has named a crater at the Moon's south pole after the Arctic explorer Matthew Henson**



- ✓ Henson is a Black man who was one of the first people to stand at the very top of the world in the year 1909.
  - ✓ The proposal to name the crater after Henson was put forth by Jordan Bretzfelder, an Exploration Science summer intern with the Lunar and Planetary Institute, in Houston, TX
  - ✓ The Institute is a member of the Solar System Exploration Research Virtual Institute, headquartered at NASA's Ames Research Center in California's Silicon Valley.
  - ✓ Located between Sverdrup and de Gerlache craters at the south pole of the Moon, Henson Crater is in the same region where the Artemis program aims to land the next slate of lunar explorers
  - ✓ Henson was an experienced explorer and skilled as a carpenter and craftsman.
  - ✓ He was on the front lines of almost a dozen Arctic expeditions organized by Robert Peary over the course of 18 years, including the one that ultimately reached the North Pole.
- **Facebook – has recently announced that it will pump in \$50 million investment for its 'metaverse' project**



- ✓ 'metaverse' refers to a digital world where people can use different devices to move and communicate in a virtual environment
- ✓ While many virtual worlds exist online, users currently can't move between them while retaining their identities and assets
- ✓ Popularised by Snow Crash, a 1992 sci-fi novel by Neal Stephenson, the 'metaverse' refers to a collection of shared online worlds in which physical, augmented, and virtual reality converge.
- ✓ It has even been dubbed the next evolution of the internet, where people can hang out with friends, work, visit places, buy goods and services, and attend events
- ✓ In this regard, the world's largest social network Facebook has invested heavily in virtual reality and augmented reality
- ✓ It had developed hardware such as its Oculus VR headsets and working on AR glasses and wristband technologies.
- ✓ The new XR Programs and Research Fund will invest the money globally over two years to develop metaverse technologies

## **INDIA AND OTHER COUNTRIES**

- **The US International Development Finance Corporation (DFC) and the United States Agency for International Development (USAID) - are jointly sponsoring a \$55 million ( Rs.400 crore) credit guarantee scheme in the country**
- ✓ The programme will support the loans to farmer producer organizations, agri-tech companies, and companies engaged in clean energy solutions for the agriculture sector
- ✓ The financial support will be complemented with technical assistance led by the Rabo Foundation to focus on areas of business management
- ✓ Loans to farmer producer organizations will be provided by three Indian lenders— Samunnati Financial, Maanaveeya, and Avanti Finance
- ✓ The initiative will introduce and support clean technologies for small-holder farmers, particularly women, to improve market linkages and increase incomes while having a positive impact on the environment.

## **COMMITTEES**

- **International Financial Services Centres Authority (IFSCA) - has constituted an Expert Committee for sustainable climate finance**
- ✓ The expert panel is being chaired by C.K. Mishra, Former Secretary to the "Ministry of Environment, Forest & Climate Change"
- ✓ The committee will recommend approach towards development of Sustainable Finance Hub and provide road map for the same

- ✓ The committee consists of leaders across the sustainable finance spectrum, including international agencies, standard setting bodies, funds, academia, and consultancies.
- ✓ International Financial Services Centres Authority (IFSCA) has been established in 2020 as a unified regulator to develop and regulate financial products, financial services, and financial institutions in the International Financial Services Centres (IFSCs) in India
- ✓ Presently, there is only one IFSC called “Gift City” in Gandhinagar, Gujarat.
- ✓ GIFT-City stands for “Gujarat International Finance Tec-City”.

## **SCIENCE, TECHNOLOGY & ENVIRONMENT**

- **The Indian Space Research Organisation - is set to launch three Earth Observation Satellites (EOSs) in the last quarter of 2021.**
  - ✓ Two of them, EOS-4 (Risat-1A) and EOS-6 (Oceansat-3), will be launched using Isro’s workhorse PSLV.
  - ✓ EOS-2 (Microsat) will be launched in the first developmental flight of the Small Satellite Launch Vehicle (SSLV), marking the beginning of a new class of launch vehicles in India.
  - ✓ Isro has completed SSLV Payload Fairing (SPLF) functional qualification test and other testing activities are in progress.
  - ✓ EOS-4 was to be originally launched in September, but it had to be postponed as the review committee is yet to give the go-ahead
- **A team of scientists - have developed a “thermostable” variety of insulin, which eliminates the need to keep it refrigerated.**
  - ✓ The research has been led by two scientists of the Bose Institute and the Indian Institute of Chemical Biology (IICB) here and two others from the Indian Institute of Chemical Technology (IICT), Hyderabad.
  - ✓ Diabetic patients need to carry insulin along with them wherever they travel.
  - ✓ Insulin needs to be stored at 4 degrees Celsius.
  - ✓ However, the new variety can withstand a temperature of up to 65 °C.
  - ✓ Insulin is a hormone that is produced by the pancreas to allow cells to use glucose.
  - ✓ When the body stops producing or using insulin, doctors inject insulin into the body to control the blood sugar.
  - ✓ Diabetes is a condition that occurs when the blood sugar level is too high
- **American Space Agency, NASA – to launch ‘Mission Lucy’, the first space mission to explore Jupiter’s Trojan asteroids, on October 16**
  - ✓ Lucy is a planned NASA space probe that will complete a 12-year journey to seven different Trojan asteroids of Jupiter

- ✓ The spacecraft will be launched from Cape Canaveral Space Force Station, Florida
  - ✓ It will provide new insights into the solar system's formation 4.5 billion years ago
  - ✓ The mission is named after Lucy, an ancient fossil found in Ethiopia in 1974 that provided insights into the evolution of human species
  - ✓ Lucy was built by Lockheed Martin and includes over two miles of wire and solar panels that were placed end-to-end
  - ✓ Lucy will fly by its target objects within 250 miles (400 kilometers) of their surfaces, and use its onboard instruments and large antenna to investigate their geology, including composition, mass, density and volume.
  - ✓ It will be the first solar-powered to venture this far from the Sun, and will observe more asteroids than any other spacecraft before it.
  - ✓ The total mission cost is \$981 million.
  - ✓ According to NASA, Jupiter Trojans or Trojan asteroids are a large group of celestial bodies that share a common planet.
  - ✓ Named after characters in Greek mythology, these asteroids circle the Sun in two swarms, with one group leading ahead of Jupiter in its path, the other trailing behind it.
- **Researchers from Indian Institute of technology, Hyderabad (IIT-H) - developed a hydrogel from discarded corneas to protect the eyes from corneal scars**
- ✓ A corneal scar is either opacity or irregularity in the cornea that could affect the cornea's ability to accurately focus light.
  - ✓ Today, if one experiences corneal scarring, they have only one of the two options -- a partial donor corneal graft or transplantation for corneal scarring
  - ✓ Researchers from the biomedical department at IIT Hyderabad have collaborated with LV Prasad Eye Institute and Centre for Cellular and Molecular Biology to develop a technique that is less invasive, replacing the need for complex surgical procedures that are often seen in this case.
  - ✓ They've developed a tissue-based hydrogel with the help of discarded cornea from slaughterhouses as well as disqualified cornea for transplantation from eye banks.
  - ✓ This gel, when injected can regenerate the cornea without causing any scars.
- **NASA – has announced to halt commanding its Mars Perseverance mission for the next few weeks as Earth and the Red Planet are on opposite sides of the Sun**
- ✓ The period, called Mars solar conjunction, happens every two years.
  - ✓ This year it falls between October 2 and October 16.
  - ✓ The Sun expels hot, ionised gas from its corona, which extends far into space.

- ✓ During solar conjunction, when Earth and Mars can't "see" each other, this gas can interfere with radio signals if engineers try to communicate with spacecraft at Mars.
- ✓ That could corrupt commands and result in unexpected behaviour from deep space explorers
- ✓ The Ingenuity Mars Helicopter will remain stationary at its location 575 feet (175 metres) away from Perseverance and communicate its status weekly to the rover.

## ECONOMY

- **The Tata Group – has unveiled its super app ‘TataNeu’ to its senior leadership**
- ✓ The term 'super app' was introduced by Mike Lazardis, Founder of BlackBerry in 2010, which means to have many apps in an umbrella of one app
- ✓ Tata Group chairman N Chandrasekaran gave a sneak peek of the ‘TataNeu’ super app to its senior leadership recently.
- ✓ The app is yet to get a commercial launch and currently the platform will be open only for use among its employees.
- ✓ The super app TataNeu will board many apps such as BigBasket, 1MG, Taj, Croma and AirAsia and apps like Titan, Tanishq, Cliq and Starbucks are yet to get into it.
- ✓ In the app, Tata Neu will have a loyalty programme where customers can earn redeemable points and use it at the time of their next purchase.
- ✓ With this move, Tata Group will become the first in the list to launch a super app.

## AWARDS

- **Five distinguished personalities – were named the recipients of this year’s Ramon Magsaysay Award**



- ✓ Dr Firdausi Qadri, a Bangladeshi scientist instrumental in the development of vaccines that have saved millions of lives, has been honoured with the award this year
- ✓ Four other recipients of the award are- microfinance pioneer Mohammad Amjad Saqib from Pakistan, fisher and community environmentalist Roberto Ballon from Philippines, Steven Muncy from South-East Asia for humanitarian work and WATCHDOC, Indonesia, for Emergent Leadership.
- ✓ Dr Qadri is a senior scientist at the Mucosal Immunology and Vaccinology Unit at the Infectious Diseases Division of International Centre for Diarrhoeal Disease and Research, Bangladesh
- ✓ She played a key role in the development of a more affordable oral cholera vaccine (OCV) and the typhoid conjugate vaccine (ViTCV) for adults, children, and even infants as young as nine months.
- ✓ In 2014, Dr. Qadri founded the Institute for Developing Science and Health Initiatives (ideSHi), which conducts biomedical research and runs training courses and a testing center.
- ✓ In 2020, she was awarded the L'Oréal-UNESCO Award 2020 for her outstanding work in science to prevent infectious diseases affecting children in developing countries
- ✓ Ramon Magsaysay Award is Asia's highest honor and is widely regarded as the region's equivalent of the Nobel Prize.
- ✓ The Ramon Magsaysay Award was established in April 1957 to honour people and groups tackling development problems.
- ✓ It was announced by the trustees of the Rockefeller Brothers Fund based in New York City with the concurrence of the Philippine government.
- ✓ This year's Magsaysay Award winners will each receive a certificate, a medallion bearing the likeness of the late President, and a cash prize.
- ✓ They will be formally conferred the Magsaysay Award during formal Presentation Ceremonies to be held on Sunday, 28 November 2021, at the Ramon Magsaysay Center in Manila.

## SPORTS

- **Manu Bhaker – won her second gold medal in the mixed team event with Sarabjot Singh in the ISSF Junior World Championships in Lima, Peru, on October 2.**



- ✓ The pair of Manu and Sarabjot defeated Naveen and Shikha Narwal in the all-India gold-medal match.
  - ✓ This was Manu's second gold in as many matches, after winning gold in the 10m air pistol individual gold earlier
  - ✓ In the 10m air rifle mixed event, the pair of Atmika Gupta and Rajpreet Singh lost against Olympic medallist pair of Mary Tucker and William Shaner in the final
  - ✓ The Indians, playing in their first international meet, lost to the Americans in a nail-biting final.
  - ✓ Earlier, on October 1, women's skeet team of Ganemat Sekhon, Raiza Dhillon and Areeba Khan clinched gold as they defeated favorites Italy 6-0 in the gold medal match.
  - ✓ The men's skeet team of Rajveer Gill, Ayush Rudraraju and Abhay Singh Sekhon took bronze after defeating Turkey.
- **Russia - defeated India 2-0 to regain the FIDE World women team chess title at Sitges, Spain, on October 2.**
- ✓ For the fourth seed India, the silver is the first-ever medal in this premier team championship.
  - ✓ In the first set, India lost to Russia 1.5-2.5, despite GM D Harika's win with black pieces over GM Aleksandra Goryachkina
  - ✓ Russia won the second set 3-1 with wins by GM Kateryna Lagno (Elo 2550) and IM Polina Shuvalova (2510) against IM Tania Sachdev (2392) and Mary Ann Gomes (2354).
  - ✓ Harika and R Vaishali had drawn their games on the top two boards against higher-rated GMs Aleksandra Goryachkina and Women's World Cup winner Alexandra Kosteniuk respectively.
  - ✓ Harika remained undefeated in the four games of semis and finals, scoring a sole win.
  - ✓ India reached the final after a win over a strong Georgian team.
  - ✓ They had finished second in the preliminary Pool A by winning three matches and drawing one while losing to Russia
  - ✓ The 2021 FIDE World Women's Team Championship was held from September 27-October 2, 2021 at Sitges, Spain
- **Indian tennis player, Vedant Mohan – finished runner-up in the Champions Bowl World Finals at Umag, Croatia**



- ✓ Vedant Mohan was the only player in the elite field of 14 boys, aged 10 and under, who had travelled without a coach.
  - ✓ Vedant qualified for the meet, Europe's prestigious U-10 event, by winning regional and national meets in Spain, where he trains.
  - ✓ The 10-year old lost the final to Greece's Rafael Pagonis, with whom he won the doubles title in the tournament
  - ✓ The fifth-grader trains under Daniel Kiernan at Soto Tennis Academy in Sotogrande and is a regular on the Spanish circuit, where trainees of world's best academies compete.
- **Team Europe - beat Team World for the fourth straight year in the Laver Cup with a resounding 14-1 margin.**
- ✓ Team Europe entered the final day of the event needing one victory from any of the four scheduled matches to secure the win
  - ✓ Andrey Rublev and Alexander Zverev clinched the Laver Cup for Team Europe on the final day with a win over Team World's Reilly Opelka and Denis Shapovalov in Boston.
  - ✓ Each win at the Laver Cup is awarded one point on the first day, two points on second day and three points on third day, with the first team to reach 13 points declared winners of the event.

## RANKINGS

- **Silicon Valley – is ranked at the top of the International start-up hubs ranking 2021 released recently by Start-up Genome for its annual Global Start-up Ecosystem Report 2021.**
- ✓ London maintained its second-place ranking tied with New York for the second year in a row.
  - ✓ London has risen up the league table in the last few years, climbing from number eight in 2012 when the first rankings were released to number two in 2020.
  - ✓ In the list, London ranks highly for funding, connectedness and talent.
  - ✓ Beijing and Boston were ranked in fourth and fifth respectively among the world's top start-up hubs.
  - ✓ From India, Bangalore is featured at top 30 global tech hubs and the national capital Delhi featured under top 40, ranked 36<sup>th</sup>
  - ✓ In another report of 2018, Bangalore emerged as the third city with maximum number of startups.
  - ✓ In the category of emerging ecosystem, Mumbai maintained its first position outperforming other fast-growing ecosystems in areas of funding, performance, market research, and talent.
  - ✓ In India, Bengaluru and the surrounding state of Karnataka is also the world's 4th largest technology and innovation cluster and home to more than 400+ global R & D centres.

- ✓ Alongside Mumbai, a number of other Indian hubs made it into the 'Top 100 Emerging Ecosystems' list, including Chennai, Pune and Hyderabad.
- ✓ As of August 2021, India has produced 24 unicorns in 2021, including 6 in just 4 days in April.
- ✓ The report ranks the leading 140 startups ecosystem based on seven success factors including performances, talent and connectedness.

## NATIONAL DAY

- **The Pension Fund Regulatory and Development Authority (PFRDA) - observed October 1 as the National Pension System Diwas to promote pension and retirement planning**
- ✓ In this regard, the pension regulator has kick started a campaign on its social media platforms
- ✓ The pension regulator aims to encourage every citizen to plan towards creating a financial cushion to ensure for oneself a financially sound future after retirement.
- ✓ As on August, the total NPS subscriber base was at 4.53 crore from 3.65 crore in August 2020, showing a year-on-year (Y-o-Y) increase of 24.06%.
- ✓ Pension Fund Regulatory and Development Authority is the regulatory body under the jurisdiction of the Ministry of Finance, Government of India for overall supervision and regulation of pension in India

