EXCEL

QUEST

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PRADHAN MANTRI GARIB KALYAN PACKAGE :
Progress so far

AIIB

AIIB approves $750 million dollar loan to India to fight COVID-19

India's foreign exchange reserves cross half trillion dollars for the first time

CORONA VIRUS IS AIRBONE

A Monthly Magazine from
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Director's message

Dear Aspirants,

In the EXCEL QUEST June 2020 issue, I have discussed in detail about the Indo-China border issue in Eastern Ladakh where China intruded deep into the undisputed Indian territory in Galwan Valley and raised military infrastructure in clear violation of our Sovereignty and Territorial integrity. PLA(People's liberation Army of China) intruded into Indian Territory at four locations-Patrol Points 14(in Galwan), 15,14 (Gogra) and finger 4(Pangong Tso). At Galwan they objected to the construction of an Indian bridge and road and at Pangong, PLA moved in troops to stop Indian Patrols beyond Finger 4 effectively cutting off an area of over 50 sq km. At least two violent clashes also took place at Galwan and Pangong-both involving sticks and stones-in which scores of soldiers were injured. On 6th June, 2020, Lt General level talks were held between both the Countries at Chushul-Moldo border to defuse tension and limited disengagement has taken place in the Galwan Valley and near Gogra though PLA troops still remain deployed in strength. While the Lt General talks were going on, intervening night of 15/16 June 2020 witnessed fatal face-off when Indian Army soldiers clashed with the PLA troops close to Patrol Point 14 at a height of 4,300 metres above sea level in which 20 Indian soldiers including the Commanding Officer of the Battalion Col Santosh Babu made supreme sacrifice at the altar of duty but not before giving a befitting reply to the PLA whose causalities are not declared by China but reliable sources estimate the causalities to be around 40 to 45. This confrontation resulted in large scale mobilization of the Army on both the sides taking the relations between both the Countries to a new low. In addition, India has taken certain retaliatory steps against China by banning 59 popular Chinese Software Applications including 'Tik Tok' on the grounds of National Security. Talks are being held at Politico-Military-Diplomatic level to de-escalate and disengage the troops and restore status quo ante to restore peace in the region, which is a long drawn process as the triggering point is the long pending undemarcated border issue.

'BLACK LIVES MATTER' was a slogan which reverberated all over the world highlighting the racial discrimination and Police brutality in the recent past. George Floyd, a 46 year-old black American man, was killed in Minneapolis on 25th May by a White Police Officer, Derek Chauvin, while in custody by kneeling on his neck(choke hold)

despite repeated pleadings by George Floyd that he cannot breathe and is dying. The allegation against Floyd was that he bought Cigarettes with a counterfeit 20 Dollar Bill. On a complaint by the shopkeeper, the Police arrested Floyd, handcuffed him and in a brazen display of racial discrimination, pinned him onto the ground with knee on his neck for 8.46 Mins which resulted in his death. Floyd's death in Police Custody triggered large scale public protests all across US and many other European Countries against racial discrimination, Police brutality and accountability. Though the concerned Police Officers have been fired and booked under criminal offences for Homicide, the issue spread like a wild fire all across so much so, there were calls to abolish the Minneapolis Police Department and replace it with a new public safety department. A majority of City Council members supported the move on the saying that the department has a long history and culture of brutality that has resisted change.

Back home in Tamilnadu's Sathankulam town near Thoothukudi, P Jeyaraj 62, who worked at his mobile shop at Sathankulam town was taken into custody on June 19th evening and taken to the Police Station. His Son, J Bennix, 32 followed the Police team to the Station. While the entire family was waiting to see the father son duo at the the Police Station, both of them were taken to a Hospital the next day reportedly in a very bad condition, bleeding profusely and thereafter taken to a Magistrate for remand who gave the same even without seeing them physically and then they were lodged in Kovilpatti Sub Jail. They were later shifted to Hospital due to deterioration of their health and subsequently, Bennex died late evening on June 22nd and Jeyaraj died in the wee hours on June 23. As the public outcry attracted great attention and a similar movement akin to 'BLACK LIVES MATTER' started gaining momentum, the Government registered two FIRs and handed over the case to CBI for investigation besides initiating administrative as well as legal action against all the Police Personnel involved in the episode.

The above two examples have been cited and are just a tip of the iceberg which happened in the recent past which are still in public memory while numerous such incidents have taken place all over the world but most of them happen in India with impunity due to adherence to obsolete 18th Century Colonial Police Act which still governs the Country's policing. Most of the Police men involved in such heinous acts of brutality, corruption and custodial deaths escape the clutches of law due to Politician-Police-Criminal nexus. All the Governments

since Independence in India since 1947 have been talking about Police Reforms to meet the aspirations of the 21 Century Indian Citizens in conformity with the laid down principles of law as well as uphold Human Rights under all circumstances as in the rest of the World, Political patronage of Police and the politico-criminal nexus serves the interests of all the unscrupulous elements including the Police. It is a sad plight to note that while 35,136 (thirty five thousand one hundred and thirty six) Police Personnel made supreme sacrifice at the altar of duty while upholding the rule of law and protection of lives and property of People since 1947 in India, police are still seen as brutal, corrupt, partial, unaccountable, pliable, inefficient and insensitive due to the existing system of recruitment, training and their control by the Governments in power irrespective of party affiliation. There is a huge gap between the expectations of the 21st Century citizens of the Country and the 18th Century Policing system with little cosmetic changes since then. A series of Police Commissions since 1861 came out with numerous recommendations to make police more responsive, accountable and efficient had little effect. The Dharamveer Commission on Police Reforms submitted recommendations in 1977 dealt extensively on reforms and systemic changes that are required to be effected to make Police People friendly and transform it into a Service oriented organization by insulating it from undue Political interference rather than act as an instrument in the hands of the Government. While these recommendations are gathering dust, a PIL was filed in Supreme Court of India by Sh Prakash Singh, IPS (Retd) demanding implementation of Police Reforms for making police accountable, efficient and insulate it from Political interference. Supreme Court of India in 2006, passed a landmark judgment issuing a series of directives to the Government of India for implementation to make Police people friendly, impartial and efficient by constituting State Security Commission comprising of people from ruling party, leader of opposition and other eminent persons of the society to oversee the Police functioning to insulate the police from any extraneous influence, separation of Investigation and Law and Order, fixed tenure of 2 years to DGP and other functionaries, Establishment Board for Transfer and Posting of Police officers on merit and an independent Complaints Authority at State and District levels to enquire into complaints against the Police Officers in a transparent manner so as to instill the confidence of the people in the Police. None of the State Governments have implemented the directives in principle and some States completely diluted the spirit

of the directives and came out with a much regressive Police Acts to suite their requirements. Under the given circumstances, it is the bounden duty of the civil society and concerned citizens to raise their voice for implementation of the Police Reforms to ensure that rule of law is upheld in letter and spirit.

On the major crisis confronting the World today COVID-2019, India crossed a million figure becoming the third largest country after USA and Brazil registering 25,619 deaths but the recovery rate has been much higher compared to most other Countries which indicates better management of the infected population and ramped up Health Care facilities. However, its side effects on the economy and various other sectors like education and other manufacturing and developmental activities are bound to have a debilitating impact on the Country's GDP which is likely to register a negative growth. The Prime Minister of India has initiated several measures to kick start the economy and generate demand by providing financial stimulus as well as commercial exploitation of the Coal mines to generate employment and livelihood to lakhs of needy population and also create tangible assets in the process.

Stay safe.

Best wishes.

K. Rajendra Kumar IPS (Retd.)
Director.

Table of Content

1. NATIONAL

1.1 "MY LIFE MY YOGA"

Prime Minister (PM) Narendra Modi has launched a video blogging competition titled **"My Life, My Yoga"** inviting citizens to take part in it to promote the practice of yoga among the masses.

About the Background

- The development comes as one of the Government's activities to observe the sixth International Day of Yoga which is set to be celebrated on 21 June.
- The contest is a joint effort by the Union Ministry of AYUSH and the Indian Council for Cultural Relations (ICCR).

About the contest

- The contest which had been announced by PM Modi in his monthly Man Ki Baat national address has already gone live on the Ministry of AYUSH's website.
- As per a statement issued by the Ministry, the video blogging competition as an effort to promote the practice of Yoga comes as no mass gatherings would be possible this year in the wake of the COVID-19 pandemic.
- In its first leg, the competition will consist of an international contest wherein the winners will be picked within a country.
- Thereafter, in the second leg, global prize winners will be chosen who will be selected from the winners from different nations.
- Entries can be sent in by participants under three categories covering the youth (less than 18-years of age), adults (more than 18-years of age) and yoga professionals further broken down separately for men and women.

1.2 CHAMPIONS

Prime Minister Narendra Modi launched the technology platform 'Champions' which stands for the Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength to empower MSMEs.

Background

- According to a PIB release outlining the platform's objectives, this portal "is a one-stop place for the MSME sector.
- The focus areas are support & hand-holding, grievance redressal, harnessing entrepreneurial talent, and discovering new business opportunities."

About the platform

- Some of the major objectives of this portal are to help the MSMEs in this difficult situation in terms of finance, raw materials, labour, permissions, etc.

- And, also help the MSMEs capture new opportunities including manufacturing of medical items & accessories.
- The platform also aims to identify the sparks, i.e., the bright MSMEs who can withstand at present and become national and international champions.
- It is a technology-packed control room-cum-management information system.
- In addition to ICT tools including telephone, internet, and video conference, the system is enabled by Artificial Intelligence, Data Analytics, and Machine Learning.
- It is also fully integrated on a real-time basis with GOI's main grievances portal CPGRAMS and MSME Ministry's own other web-based mechanisms.
- The entire ICT architecture is created in house with the help of NIC at no cost. Similarly, the physical infrastructure is created in one of the ministry's dumping rooms in record time.

1.3 PM SVANidhi

- Union Government launched PM SVANIDHI - Pradhan Mantri Street Vendor's Atmanirbhar Nidhi - a special micro-credit facility scheme for providing affordable loan to street vendors.
- The scheme is aimed at enabling the street vendors to resume their livelihoods that have been adversely affected due to COVID-19 lockdown.

About the background

- Housing and Urban Affairs Ministry launched the scheme in pursuance of the announcement made by Finance Minister Nirmala Sitharaman last month.
- Street vendors play a significant role in ensuring availability of the goods and services at affordable rates at the door-step of the city dwellers.

About the scheme

- The scheme targets to benefit over 50 lakh street vendors, who had been vending on or before 24th March this year, in Urban areas.

- The duration of the scheme is valid till March 2022.
- The street vendors belonging to the surrounding peri-urban or rural areas are being included as beneficiaries under the urban livelihoods program for the first time.
- The vendors can avail a working capital loan of upto ten thousand rupees, which is repayable in monthly installments in the tenure of one year.
- On timely and early repayment of the loan, an interest subsidy at the rate of seven percent per annum will be credited to the bank accounts of beneficiaries through Direct Benefit Transfer on a six-monthly basis.

Highlights

- The Ministry said, if the vendor will repay the installments in time or earlier, they will develop a credible credit score that makes him eligible for a higher amount of term loan to 20 thousand rupees and so on.
- Urban Local Bodies will play a pivotal role in the implementation of the scheme.
- The lending institutions under the Scheme include Scheduled Commercial Banks, Regional Rural Banks, Small Finance Banks, Cooperative Banks, NBFCs, Micro Finance institutions, and Self Help Group banks.
- In order to ensure fast implementation of the scheme with transparency, a digital platform with a web portal and mobile app is being developed to administer the scheme with an end-to-end solutions.
- The IT platform will also help in integrating the vendors into the formal financial system.

1.4 WORLD MILK DAY

- World Milk day was established by the (FAO) Food and Agriculture Organisation of the UN 20 years ago.

- It is celebrated to recognize the importance of milk as a global food.
- Since its inception in 2001, World Milk day celebrations have been joined by many Countries.
- The number is growing each year as the benefits of milk and other dairy products have been actively publicized throughout the world.

About the Background

- June 1 is celebrated as World Milk day every year.
- 2020 marks the 20th anniversary of World Milk day.
- The day is celebrated to bring attention to how dairy supports the livelihoods of one billion people.

About the theme

- The theme for World Milk day 2020 is 'the 20th Anniversary of World Milk Day'.
- The day is being celebrated to promote the health benefits of milk and dairy products.
- Last year, the theme on this day was 'Drink Milk: Today & Everyday'.

About the day

- India has become the largest producer of milk in the world with over 150 million tonnes of production in the last few years.
- This day is celebrated with a lot of zeal in India

1.5 MANDATORY PUBLIC PROCUREMENT OF CHEMICALS

The Minister of Chemicals and Fertilizers said that mandatory public procurement of chemicals and petrochemicals to boost manufacturing and production of goods and services will promote Make in India.

Highlights

- Department of Promotion of Industry and Internal Trade, DPIIT has recently revised the public procurement order to encourage Make in India initiative with an aim to enhance income and employment generation in the country.
- Subsequently, the Department of Chemicals and Petrochemicals prescribed a minimum 60 per cent for 2020-21, 70 per cent for 2021-23 and 80 per cent local content for 2023-25 respectively of local chemicals and petrochemical contents in public procurement.

1.6 CENTRAL EMPLOYMENT GUARANTEE COUNCIL

Union Minister of Rural Development chaired the 21st meeting of Central Employment Guarantee Council.

Highlights

- The Central Employment Guarantee Council was constituted under Section 10 of the Mahatma Gandhi National Rural Employment Guarantee Act (Mahatma Gandhi NREGA), 2005.

- Addressing the participants, the rural development minister said that for the Financial Year 2020-21, Rs.61,500 crore has been allocated for this programme which is an all-time high.
- Additional provision of Rs.40,000 crore has been made for this programme under Atmanirbhar Bharat Abhiyan to provide employment to the needy workers during this difficult period arising of COVID-19.

1.7 <u>MINIMUM SUPPORT PRICES</u>

India has raised the price at which it could buy new-season summer crops, including rice by up to 50%, the farm minister told a news conference after a Cabinet meeting chaired by Prime Minister Narendra Modi.

About the Background

- The government announces the so-called minimum support prices (MSPs) for various crops to set a benchmark.
- But state agencies buy limited quantities of staples such as rice and wheat at those prices, restricting the benefits of guaranteed prices to only around 7% of the country's 263 million farmers, according to various studies.
- But the government has decided to raise the support price by up to 50% to support farmers reeling from an extended lockdown to curb the spread of the coronavirus.

About Minimum Support Price

- The minimum support price (MSP) is an agricultural product price set by the government of India to purchase directly from the farmer.
- This rate is to safeguard the farmer to a minimum profit for the harvest if the open market has a lesser price than the cost incurred.

- The Indian government sets the price for 22 commodities twice a year.
- It is fixed by an expert group.

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1.9 MINIMUM SUPPORT PRICES

A substantial hike
Minimum support prices of most kharif crops have been raised sharply for the 2018-19 season.
Change in MSP (year-on-year in %)
Paddy (Rice) ■ Cotton (Medium Staple)
Maize ■ Jowar (Hybrid)
Source: Cabinet Committee on Economic Affairs, Centre for Monitoring Indian Economy

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1.10 KOHALA HYDROPOWER PROJECT

- China under the multi-billion-dollar CPEC will set up a 1,124-megawatt power project in Pakistan-occupied Kashmir despite India's objection to it, according to a media report.
- The details of the Kohala hydropower project were presented in the 127th meeting of the Private Power and Infrastructure Board (PPIB) chaired by Energy Minister Omar Ayub.

About G7

The meeting was informed that a tripartite agreement has been finalised among China's Three Gorges Corporation, the authorities in Pakistan-occupied Kashmir (PoK) and the PPIB to implement the 1,124-megawatt Kohala hydroelectric power project under the China-Pakistan Economic Corridor (CPEC) framework.

About the project

- The project will be built on the Jhelum River and aims at annually providing more than five billion units of clean and low-cost electricity for consumers in Pakistan.
- The paper further reported that this marks one of the largest investments of USD 2.4 billion in an independent power producer (IPP) in the region.
- The 3,000-km-long CEPC is aimed at connecting China and Pakistan with rail, road, pipelines and optical cable fiber networks.

- It connects China's Xinjiang province with Pakistan Gwadar Port, providing access to China to the Arabian Sea.
- The CPEC passes through PoK, over which India has conveyed its protests to China.

1.11   SYAMA PRASAD MOOKERJEE PORT

- The Union Cabinet has given its approval to rename Kolkata Port as Syama Prasad Mookerjee Port.
- The Kolkata Port is the first Major Port as well as the only riverine Port of the Country.

About the Port

- It came to be governed by a Trust in 1870 on appointment of the Commissioners for Improvement of the Port of Calcutta as per Act V of 1870.
- It features at Serial Number 1 in The First Schedule, Part I—Major Ports of the Indian Ports Act, 1908 and is governed by the Major Port Trusts Act, 1963.

About Syama Prasad Mookerjee

- Syama Prasad Mukherjee (1901 – 1953) was an Indian politician, barrister and academician.
- He served as the Minister for Industry and Supply in Prime Minister Jawaharlal Nehru's cabinet.
- He quit the Union Government because of differences of opinion with the Nehru-led government and founded the Bharatiya Jana Sangh, the predecessor to the Bharatiya Janata Party, in 1951.

1.12   ARSENICUM ALBUM 30

The global economy is facing **"staggeringly large"** losses and the recovery effort is hampered by a shortage of resources to make up for the damage caused by the coronavirus pandemic, World Bank President David Malpass.

About the background

- The debate stems from the fact that there is no scientific evidence that the drug works against Covid-19, a fact stressed not only by medical scientists but also by some homoeopathic practitioners themselves.
- Arsenicum album 30 has been recommended by the state governments in Rajasthan, Karnataka, Tamil Nadu, Andhra Pradesh and Kerala.
- While the Maharashtra government is yet to take a formal decision, Mumbai civic authorities have been distributing the drug to high-risk populations in at least two wards.
- The Haryana Prisons Department and Mumbai police too are also distributing the drug to prisoners and officers respectively.

About the drug

- Arsenicum album is made by heating arsenic with distilled water, a process repeated several times over three days.

- The health hazards of arsenic contamination in water are well known: long-term exposure to the metal can cause skin cancer, pulmonary and cardiovascular diseases.
- The homoeopathic drug has less than 1% arsenic.

1.13   GREENFIELD EXPRESSWAY TO AMRITSAR

Union Minister for Road Transport & Highways Nitin Gadkari announced the development of a new Greenfield connectivity to Amritsar City from Nakodar via Sultanpur Lodhi, Goindwal Sahib, Khadoor Sahib as part of Delhi-Amritsar Expressway.

About the connectivity

- With this expressway, travel time from Amritsar to Delhi International airport would reduce to about four hours from the present about eight hours.
- This would fulfil one of the long-standing demands of the people of Punjab.
- The first phase of the expressway would cost about Rs 25,000 crore.
- The road from Amritsar to Gurdaspur would also be fully developed and made completely signal free.
- With this, traffic would have the option to travel to Gurdaspur onwards from Nakodar via Amritsar or via Kartarpur.
- This Greenfield alignment will not only provide shortest and alternate express connectivity to Amritsar city but also to other religious centres of Sultanpur Lodhi, Goindwal Sahib, Khadoor Sahib as well as the recently developed Dera Baba Nanak/Kartarpur Sahib International Corridor in Punjab.

About the Highlights

- Ministry of Road Transport & Highways have taken up the development of Delhi Amritsar Katra Expressway under Bharatmala Pariyojana.
- The alignment of the expressway was firmed up in January 2019 and the process of land acquisition was initiated.
- Recently, the issue of alignment of Expressway to Amritsar was taken up by the Minister of Food Processing Industries Harsimrat Kaur Badal, and the Minister of State (I/C) Civil Aviation, Housing & Urban Affairs Hardeep Singh Puri with Gadkari.

1.14   BHARAT OR INDIA

More than seven decades later, the nomenclature of the Country, has once again become a topic of debate as a petition filed by a Delhi-based businessman, seeks to amend Article 1 of the Constitution, arguing that "The removal of the English name though appears symbolic, will instill a sense of pride in our own nationality, especially for the future generations to come".

About the Background

- "Often, as I wandered from meeting to meeting, I spoke to my audiences of this India of ours, of Hindustan and of Bharata, the old Sanskrit name derived from the mythical founders of the race."

- These words were written by Pandit Jawaharlal Nehru in 'The discovery of India', which he penned down as a tribute to the rich cultural heritage of the country that was just at the brink of being freed from the clutches of British rule.

- Nehru is believed to have consciously taken note of the different names that went into describing the idea of India, and the unity of its people that superseded all of them.

- Four years after the book was published, the Constitution of an Independent India came into force, its first Article, dropped one of the three names that Nehru had identified with the country, as it read- "India, that is Bharat, shall be a Union of States'.

About the many names of India

- It is important to note that in geographical terms, the space that is today referred to as India, was never a constant entity in the preceding centuries.

- However, scholars have often pointed out that one of the oldest names used in association with the Indian subcontinent was Meluha that was mentioned in the texts of ancient Mesopotamia in the third millennium BCE, to refer to the Indus Valley Civilisation.

- Meluha, it is now generally agreed, was the name by which the Indus civilisation was known to the Mesopotamians: Meluha was the most distant of the trio of foreign lands, and the imports from Meluha mentioned in Sumerian and Akkadian texts, such as timbers, carnelian, and ivory, match the resources of the Harappan realms," writes archaeologist Jane R. McIntosh in his book, The ancient Indus Valley : new perspectives.

- But Meluha, of course, had lost currency way before modern political systems developed in the region.

- The earliest recorded name that continues to be debated is believed to be 'Bharat', 'Bharata', or 'Bharatvarsha', that is also one of the two names prescribed by the Indian constitution.

- While its roots are traced to Puranic literature, and to the Hindu epic, Mahabharata, the name's popularity in modern times is also due to its sustained usage during the freedom struggle in slogans such as 'Bharat mata ki jai'.

- Bharata, as explained by Ojha, was more of a religious and socio-cultural entity, rather than a political or a geographical one.

- Yet, on another note, Bharata is also believed to be the mythical founder of the race.

- Apart from Bharat though, there are few other names associated with the country as well that trace their roots to Vedic literature.

- For instance, 'Aryavarta', as mentioned in the Manusmriti, referred to the land occupied by the Indo-Aryans in the space between the Himalayas in the north and the Vindhya mountain ranges in the south.
- The name 'Jambudvipa' or the 'land of the Jamun trees' has also appeared in several Vedic texts, and is still used in a few Southeast Asian countries to describe the Indian subcontinent.

1.15 THE URBAN LEARNING INTERNSHIP PROGRAM
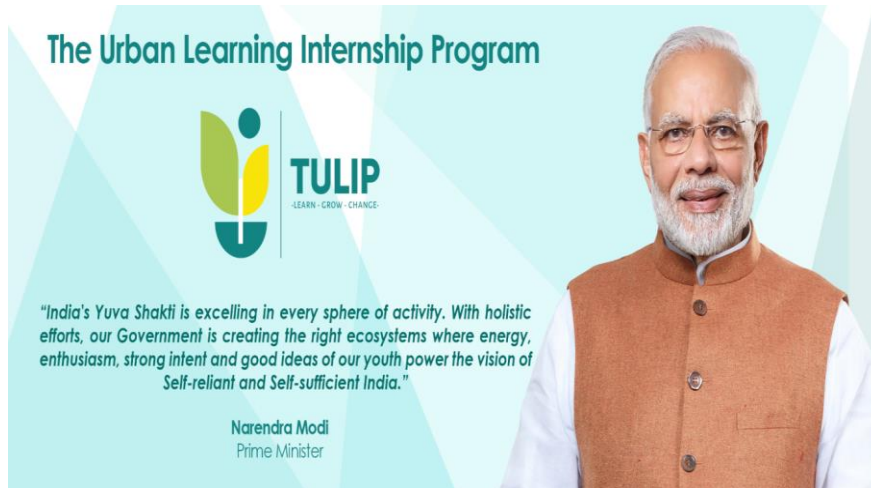
The Centre launched an urban learning internship programme — TULIP — for fresh engineering graduates, who will get an opportunity to work for 4,400 urban local bodies and 100 smart cities in the country.

About the Background

Housing and Urban Development Minister Hardeep Singh Puri and HRD Minister Ramesh Pokhriyal 'Nishank' jointly launched an online portal of The Urban Learning Internship Programme, which will allow applicants internship for up to one year in areas like urban planning, financing, environmental engineering, sanitation and infrastructure.

About the programme

- Urban services in the country were very comprehensive and this programme offered on-ground experience for fresh engineering graduates, asserting that 'it is a dynamic model".
- Both ULBs and smart cities could utilise the fresh ideas of the young people in improving services and making local bodies effective.
- The government aimed to provide internship to one crore youths in the next five years.
- The online portal would provide a common platform to interested candidates, ULBs and smart cities, who would post details of their requirements.
- This is a flexible programme which has a target of providing 25,000 fresh engineering graduates in the next one year.

- An applicant will also have liberty in choosing his or her subject like sanitation, urban planning, infrastructure and financing.
- The government was soon going to launch "Swachh Bharat Mission 2.0" where water management will be in focus.
- According to the government, the new programme would lead to infusion of fresh ideas and energy with engagement of youth in co-creation of solutions for solving India's urban challenges.
- It would further government's endeavour to boost community partnership and government-academia-industry-civil society linkages.

1.16 TIMES HIGHER EDUCATION (THE) ASIA UNIVERSITY RANKING 2020

Times Higher Education (THE) Asia University Ranking 2020

HEI Name	Ranking
Indian Institute of Science, Bangalore	36
Indian Institute of Technology, Ropar	47
Indian Institute of Technology, Indore	55
Indian Institute of Technology, Kharagpur	59
Indian Institute of Technology, Delhi	67
Indian Institute of Technology, Bombay	69
Indian Institute of Technology, Roorkee	83
Institute of Chemical Technology	92

- The Times Higher Education (THE) Asia University Ranking for 2020 was launched recently.
- Times Higher Education (THE) is a weekly magazine based in London, reporting specifically on news and issues related to higher education.

Background

- The Times Higher Education (THE) Asia University Rankings 2020 use the same 13 performance indicators as the THE World University Rankings.
- The universities are judged in four core areas: (1) Teaching, (2) Research, (3) Knowledge Transfer and (4) International Outlook.

Highlights

- China is home to the Continent's top two universities for the first time this year, as Tsinghua University is ranked 1 and Peking University is ranked 2.
- With eight institutes in the top 100, India is the third most represented country in the Ranking.
- The Indian Institute of Science (IISc) Bangalore retains its top position in the country by attaining the 36th spot globally.
- Eight Indian Institutes of Technology (IITs) have also been featured in the top 100.

1.17   JAYA JAITLY TASK FORCE

- The Ministry of Women and Child Development Ministry has set up a taskforce, headed by Jaya Jaitly, to examine the matters related to age of motherhood and lowering maternal mortality rate (MMR).
- Jaitly will lead a 10-member task force and will submit the report on the 'right age for women to become mothers' by 31 July.

About the background

- The move comes after Finance Minister Nirmala Sitharaman indicated they plan to roll out similar measures in her budget speech in 2020.
- In her speech, Sitharaman noted that the age of marriage had been amended from 15 to 18 for women in 1978.
- She linked the lowering of MMR and improving nutrition levels to the progress of our country, and urged that the "issue about the age of a girl entering motherhood needs to be seen in this light".

About the committee

- The committee is expected to suggest suitable legislations or amendments in the existing laws to support its recommendations, along with a timeline of implementation of such plans.
- They will also suggest measures to promote higher education among women.
- India has been reducing its MMR in recent years, with a 77 percent dip between 1990 and 2016.
- The latest figures, released in 2019, showed a further decline to 122 deaths per live births.

1.18   WORLD FOOD SAFETY DAY

- According to the World Health Organisation (WHO), food safety refers to the absence or acceptable levels of hazardous microbiological, chemical, or physical components present in food that might cause harm to consumers.
- An article by the United Nations states, "Food safety has a critical role in assuring that food stays safe at every stage of the food chain - from production to harvest, processing, storage, distribution, all the way to preparation and consumption."

About UN's 'Zero Hunger Initiative'

- The UN's 'Zero Hunger Initiative', talks about how food safety is key to achieving several 'Sustainable Development Goals' as safe food practices can lead to economic prosperity, boosts in agriculture, market access, tourism, and sustainable development. Some of the goals are as follows:

- Goal 2 — There is no food security without food safety. Ending hunger is about all people having access to safe, nutritious, and sufficient food all year round.

- Goal 3 — Food safety has a direct impact on people's health and nutritional intake. Foodborne diseases are preventable.

- Goal 12 — When countries strengthen their regulatory, scientific, and technological capacities to ensure that food is safe and of the expected quality throughout the food chain, they move towards more sustainable patterns of food production and consumption.

About the day

- WHO in collaboration with the Food and Agricultural Organisation of the United Nations (FAO) has organised the second 'World Food Safety Day' on June 7 particularly to ensure safe and healthy food practices.

- Their theme, 'Food Safety, Everyone's Business' seeks to bring together the government, food producers and consumers, alike to share the responsibility of keeping food safe and of raising awareness about the many ways in which lax practices can cause serious health issues.

- This year's World Food Safety Day is being celebrated virtually and you can participate by sharing food safety tips on social media with the hashtag #WorldFoodSafetyDay2020.

- In a statement, the NGO said, "The installed buoys will only help collect a small part of the pollution, leading us to say that nearly all the diesel fuel will remain in the environment."

1.19   Online ANIMISHA 2020 Program

- National Gallery of Modern Art, New Delhi has announced ONLINE NAIMISHA 2020- Summer Art Program from 8th June 2020 to 3rd July 2020.

- During this pandemic situation and lockdown, museums and cultural institutions cannot serve visitors and audiences as usual.

About the Background

- It led NGMA to explore new areas and platforms to reach its audiences.

- In the last two months or so NGMA has organised many programs and exhibitions virtually.

- The technological development provides an opportunity to organise such programs digitally. So, NGMA is making an endeavour to host its most popular summer art program NAIMISHA digitally.

About the Programme

- The month-long ONLINE summer program by NGMA, New Delhi is an initiative to provide a chance to its participants to create and learn from practicing artists without compromising their health.

- Four inclusive workshops have been planned by NGMA to engage and increase engagement virtually.

- The announcement of these workshops on 1st June was very well received with the registration of more than 600 participants.

- In the online NAIMISH 2020 program, four workshops will be organized entitled Painting workshop, Sculpture workshop, Printmaking and Indrajaal - The Magic of Art (Interdisciplinary creative workshop to understand Freedom) from 8th June 2020 to 3rd July 2020.

- Online workshops sessions will be organized in two groups: Group 1: 6 years to 15 years having the timings: 11 am to 11.35 am and Group 2: 16 years and above with no closing limit having the timings: 4.00 pm to 4.35 pm.

1.20   ESSENTIAL COMMODITIES ACT, 1955

- The Union Cabinet has approved an ordinance to amend The Essential Commodities Act, 1955, to deregulate commodities such as cereals, pulses, oilseeds, edible oils, onion and potatoes.

- The ordinance, once assented by the President of India and notified in the gazette, will become law.

- The text of the ordinance has not been made public so far. Here is what we know.

ABOUT THE ESSENTIAL COMMODITIES ACT AMENDMENT

- Sources at the Ministry of Consumer Affairs, Food and Public Distribution said that the ordinance has introduced a new subsection (1A) in Section 3 of The Essential Commodities Act, 1955.

- The amended law provides a mechanism for the "regulation" of agricultural foodstuffs, namely cereals, pulses, oilseeds, edible oils, potato, and supplies under extraordinary circumstances, which include extraordinary price rise, war, famine, and natural calamity of a severe nature.

About the definition

- There is no specific definition of essential commodities in The EC Act. Section 2(A) of the act states that an "essential commodity" means a commodity specified in the "Schedule" of this Act.
- The Act gives powers to the central government to add or remove a commodity in the "Schedule."
- The Centre, if it is satisfied that it is necessary to do so in public interest, can notify an item as essential, in consultation with state governments.
- At present, the "Schedule" contains 9 commodities — drugs; fertilisers, whether inorganic, organic or mixed; foodstuffs, including edible oils; hank yarn made wholly from cotton; petroleum and petroleum products; raw jute and jute textiles; seeds of food-crops and seeds of fruits and vegetables, seeds of cattle fodder, jute seed, cotton seed; face masks; and hand sanitisers.
- The latest items added to this schedule are face masks and hand sanitisers, which were declared essential commodities with effect from March 13, 2020 in the wake of Covid-19 outbreak.
- By declaring a commodity as essential, the government can control the production, supply, and distribution of that commodity, and impose a stock limit.

1.21   GAIRSAIN
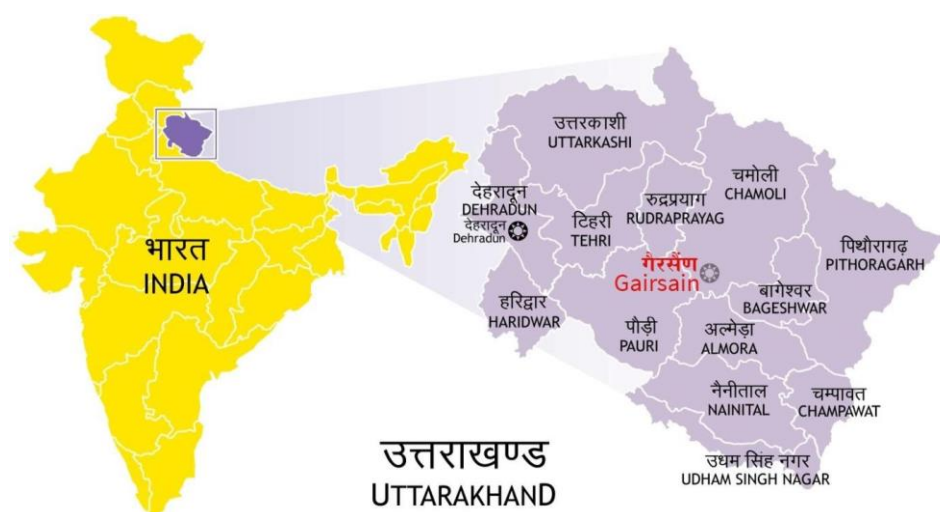
- Uttarakhand will have Bhararisen (Gairsain) in Chamoli district as the Summer Capital, while Dehradun remains the temporary state capital.
- Chief Minister Trivendra Singh Rawat had announced the decision of making Gairsain the summer capital during the budget session in March, but the move was implemented after governor Baby Rani Maurya gave assent.

About the Background

- Gairsain was chosen as the summer capital because it has been a longstanding demand of the people of Uttarakhand.
- The demand has been backed by years of protests by activists, seeking higher representation for hill areas of the state.

- When the agitation for a separate State was going on, the people of Garhwal and Kumaon regions had unanimously decided that Gairsain should be the state capital since it is located in the middle of both the prominent regions.
- Since then there was a constant demand to make Gairsain the State Capital.

Highlights

- With total 13 Districts in Uttarakhand, 11 are hill Districts while two are in the plains.
- BJP, which defeated Congress to wrest power in the State in 2017 Assembly elections, had promised making Gairsain the Summer Capital in its manifesto.
- A news report by Press Trust of India, quoting Rawat, said work on creating an e-assembly at Gairsain was in progress so that files need not be taken there and sessions are conducted paperless.
- Political analysts believe while the Uttarakhand government may have announced a populist move, it may not necessarily solve the problem of hilly regions.

1.22   PLACENTA AND COVID-19
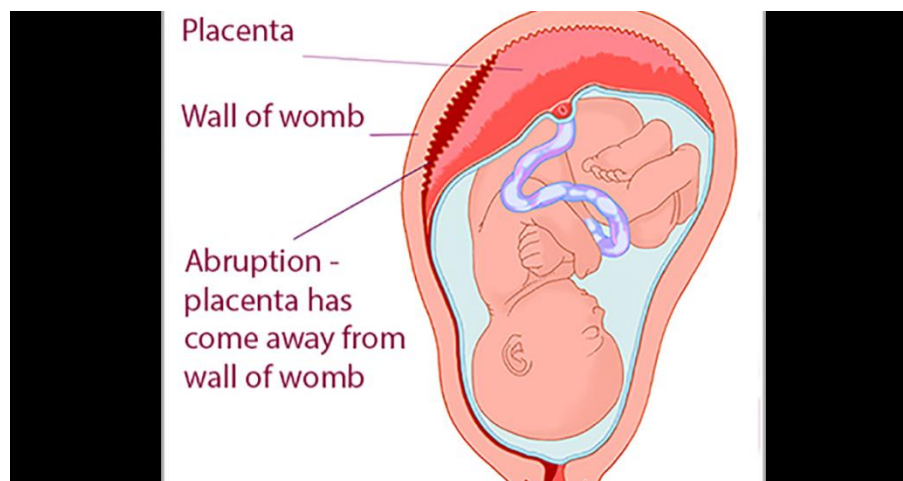
- Women who had Covid-19 while pregnant showed evidence of placental injury, suggesting a new complication of the illness, researchers say.
- The good news from the small study of 16 women is that "most of these babies were delivered full-term after otherwise normal pregnancies".
- However, signs of reduced blood flow in the placentas of women infected with the new Coronavirus do have doctors concerned.

About the Background

Right now, Covid-19 injury to the placenta "doesn't appear to be inducing negative outcomes in live-born infants, based on our limited data, but it does validate the idea that women with Covid should be monitored more closely,"

About abnormal blood flow

- The placenta provides the foetus with nutrients and oxygen from the mother, while at the same time removing waste.

- In the research, the Chicago team examined the placentas of the women immediately after they gave birth.
- The researchers found signs of abnormal blood flow between the mothers and their babies.
- All of the women had tested positive for Covid-19, but their symptoms varied.
- Five never developed any symptoms of Corona Virus infection at all, the researchers noted.
- Four had flu-like symptoms three or four weeks prior to delivering their babies, while others showed symptoms at the time of delivery.
- Only one baby was born prematurely; 14 others had normal delivery times and weights. One woman suffered a miscarriage in her second trimester.

1.23 INDIA RANKINGS 2020

- Union HRD Minister DR Ramesh Pokhriyal released the NIRF Rankings 2020.
- The Education Minister along with Minister of State Sanjay Dhotre, chairman of AICTE Anil Saharsrabudhe and UGC chairman DP Singh announced the ranking through a webcast on his Twitter account.

About the rankings

- The Indian Institute of Technology (IIT) Madras has topped the list of higher education institutes in the overall category, in the National Institutional Rankings Framework list 2020.
- IISc Bengaluru has bagged the second place in the list while IIT Delhi stood at the third place.
- Among the colleges, Delhi University's Miranda House has topped the national ranking of colleges while LSR has bagged second place and Hindu college has come third.
- The AIIMS New Delhi has been named the foremost medical sciences institute in the country.
- National Law School of India University, Bengaluru has topped the list for 'Law' Discipline.
- National Law University Delhi has bagged the second rank followed by NLU Hyderabad.

- Among the pharmacy institutes, Jamia Hmdard has come out as the leader, with IIM Ahmedabad being ranked the top most among management institutes.
- In Dental colleges, Maulana Azad Institute of Dental Scinces has bagged the first position.
- This is the first time that dental colleges have been ranked under NIRF.

1.24   AAROGYAPATH

- In the wake of COVID-19 pandemic, the Centre "AarogyaPath" is India's web-based solution for the healthcare supply chain portal, to provide real-time availability of critical healthcare supplies for manufacturers, suppliers, and customers.
- The Council of Scientific and Industrial Research (CSIR) launched the portal on June 12.

About the background

According to the Ministry of Information & Broadcasting, the integrated public platform can help customers in tackling a number of routinely experienced issues like dependence on limited suppliers, time-consuming processes to identify good quality products, limited access to suppliers etc.

About the significance

- It will also help the manufacturers and suppliers to reach customers efficiently like nearby pathological laboratories, medical stores, hospitals, etc.
- CSIR is expecting the portal to fill a critical gap in last-mile delivery of patient care within India through improved availability and affordability of healthcare supplies.
- It will also create opportunities for business expansion due to an expanded slate of buyers and visibility of new requirements for products.
- As per the latest data by the Union Health Ministry, India has witnessed 11,502 new coronavirus cases, taking the tally to 3,32,424 in the country so far.

1.25   NATIONAL LEVEL TESTING LABS FOR PHARMA PRODUCTS

National Institutes of Pharmaceutical Education and Research (NIPERs), under the aegis of the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers makes its place in top ten Institutions of Higher Education in pharma category.

About the Background

- This clearly underlines their improving performances and commitments to the cause of education, research and innovation in field of pharmaceuticals and medical devices.
- This latest ranking have definitely added the shine to '' Brand Niper''.

Highlights

- In the pharmacy category NIPERs have much to cheer about on the declared ranking.

- Out of seven NIPERs all across the country, SAS Nagar (Mohali) has retained its third position, while NIPERs at Hyderabad and Ahmedabad have improved one rank from the last year and have been ranked 5th and 8th position in the country respectively' as they did in previous year also.

- Most importantly, this year ranking saw the remarkable stellar performances by other three NIPERs at Guwahati, Raebareli and Kolkata, who have entered for the first time and ensured 11th, 18th and 27th spots for themselves.

- Under the annual ranking, various Universities, colleges, medicine, dental, law, architecture, engineering, management and pharmacy institutes are ranked.

1.26   RAJA PARBA FESTIVAL

- Mithun Sankranti is a festival that is celebrated with a lot of zeal and enthusiasm across India, especially in eastern part of the Country.

- This year, we will celebrate Mithun Sankranti on June 14.

About Mithun Sankranti

- Mithun Sankranti is a day which is celebrated to mark the beginning of the third solar month according to the Hindu calendar.

- In eastern India, Mithun Sankranti is known as 'Asharh' while it is called 'Aani' in southern India.

- In Kerala, it is called 'Mithunam onth' while in Odisha, it is known by the named of 'Raja Parba'.

About the festival

- On the occasion of Mithun Sankranti, the sun transits from Vrishabha rashi or the Taurus to Mithuna rashi or the Gemini.

- According to legends, this movement is considered very auspicious and worshipping Lord Vishnu can help people remove their sins.

- Mithun Sankranti is celebrated with a lot of zeal and enthusiasm, especially in Odisa where it is called 'Raja Parba'.

- Mithun Sankranti is celebrated across Odisha for three days and people worship Lord Jagannath on this day and organise a special puja for him.

- Mithun Sankranti also marks the beginning of monsoon season in India.

1.27   INDIA'S FIRST GAS EXCHANGE

- India's first gas exchange — the Indian Gas Exchange (IGX) — was launched.

- The exchange is expected to facilitate transparent price discovery in natural gas, and facilitate the growth of the share of natural gas in India's energy basket.

About its working

- The IGX is a digital trading platform that will allow buyers and sellers of natural gas to trade both in the spot market and in the forward market for imported natural gas across three hubs —Dahej and Hazira in Gujarat, and Kakinada in Andhra Pradesh.

- Imported Liquified Natural Gas (LNG) will be regassified and sold to buyers through the exchange, removing the requirement for buyers and sellers to find each other.

- The exchange also allows much shorter contracts – for delivery on the next day, and up to a month – while ordinarily contracts for natural gas supply are as long as six months to a year.

- This, experts say, will allow buyers and sellers greater flexibility.

About its significance

- Domestic production of gas has been falling over the past two fiscals as current sources of natural gas have become less productive.

- Domestically produced natural gas currently accounts for less than half the country's natural gas consumption; imported LNG accounts for the other half.

- LNG imports are set to become a larger proportion of domestic gas consumption as India moves to increase the proportion of natural gas in the energy basket from 6.2% in 2018 to 15% by 2030.

1.28   RESERVATION FOR ECONOMICALLY WEAKER SECTIONS

- In Sikkim, the State Cabinet decided to allow Economically Weaker Sections of people who do not fall in the reserved category of ST, SC and OBC for 10 per cent Central reservation.

- This was informed by Secretary to Chief Minister S.D. Dhakal in a press conference in Gangtok.

About the Background

- This was a long-pending aspiration of a section of people who had been deprived privileges, especially with regard to availing employment and educational opportunities outside the state, including All India services.

- The matter was given highest priority by the State Government and was vigorously pursued.

About the Highlights

- The notification regarding the entitlements to the reservation will be issued within a week.

- Eligible persons should have an annual family income of less than rupees eight lakhs, or who possess less than five acres of land or less than 1,000 square feet residential flat in any municipal area or less than 100 square yards of residential plot in a municipal area or less than 200 square yards of residential plot outside municipal area along the roadside or in commercial areas.

- The reservation will not apply to technical and scientific posts and other such posts which are outside the purview of the Central services.

- The decision to discontinue viva-voce for all State Government posts for C and D categories in future.

1.29   DEXAMETHASONE SHOWS PROMISE AS A COVID-19 TREATMENT

Scientists at Oxford University in the United Kingdom this week reported that a trial of the drug Dexamethasone shows it may be the first treatment demonstrated to save the lives of Covid-19 patients.

About Dexamethasone

- Dexamethasone is a corticosteroid typically used to treat inflammation.

- It's cheap, as little as $1 per dose.

- It's also been around since the 1950s, is cleared for human use, and is available as a generic.

- That makes it an ideal option to treat severe cases of Covid-19, especially compared to more expensive, unproven drugs still in testing.

- The research team reported that a 6-milligram daily dose of dexamethasone reduced deaths by one-third in Covid-19 patients on ventilators and reduced deaths by one-fifth for patients receiving just oxygen support.

About the Highlights

- Covid-19 has proven to be a fierce and deadly foe, with more than 8 million cases and 445,000 deaths reported around the world as of June 17.

- But without a proven treatment or vaccine, health officials have been forced to resort to blunt, expensive tactics like shutting down businesses and stay-at-home orders.

- Doctors have experimented with a variety of unproven drugs to treat the severely ill.

- So a drug with some proof behind its efficacy is good progress.

- Another drug, remdesivir, received emergency authorization from the Food and Drug Administration to treat Covid-19 based on early evidence that it could reduce the length of hospital stays among patients who recovered from the illness.

- But dexamethasone is the first drug to reduce the number of fatalities from the virus.

1.30 PRADHAN MANTRI BHARTIYA JANAUSHADHI KENDRAS

Government said that over three crore 43 lakh Sanitary pads have been sold in the last ten months at Pradhan Mantri Bhartiya Janaushadhi Kendras.

About the Background

- Under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana, these pads are being sold at one rupees per pad.

- The market price of the similar Sanitary Napkins is around three to eight rupees per pad.

About the programme

- The Jan Aushadhi Suvidha Sanitary Napkin is being made available in more than six thousand 300 Janaushdhi kendras across the country.

- Chemical and Fertilizers Ministry said, more than one crore 42 lakh pads have been sold in the month of March, April and May this year across the country.

- In many parts of the country especially in rural areas girls and women do not have access to sanitary products or they do not opt for them as most of these items available in the market are bit costly.

- The Ministry said, this step ensured Swachhta, Swasthya and Suvidha for the underprivileged Women of the country.

- This step has been taken by the Department of Pharmaceuticals to ensure the achievement of Prime Minister Narendra Modi's vision of Affordable and Quality Healthcare for All.

1.31 EIGHT KHELO INDIA STATE CENTRE OF EXCELLENCE TO PUSH INDIA'S OLYMPICS SHOW

The Sports Ministry will be establishing Khelo India State Centre of Excellence (KISCE) under the Khelo India Scheme in order to give world-class sporting facilities to athletes to enhance their Olympic performances.

- One KISCE will be identified in each State and Union territory as an effort to create a robust sporting ecosystem in the entire country.

About the Background

- In the first leg, the Ministry had identified state-owned sports facilities in eight states of India, including, Karnataka, Odisha, Kerala, Telangana and the northeast states of Arunachal Pradesh, Manipur, Mizoram and Nagaland.

- The process of selection of these sports facilities was started in October 2019, when each State and UT was asked to identify the best sports infrastructure available with them, their agencies or any eligible agencies, which could be developed into a world-class sporting facility.

Highlights

- Of the 15 proposals received and examined, 8 have been shortlisted based on the training facilities available in priority sports, infrastructure facilities and champion produced by the centre.

- In order to upgrade the existing centre to the KISCE, the government will extend a `Viability Gap Funding` in sports science and technology support for sports disciplines practiced at the centre and also bridge the gaps in requirement of sports equipment, expert coaches and high-performance managers.

- The support extended will be to Olympic sports, though support can be extended in sports science and allied fields in other sporting disciplines being run by the centre.

1.32 INTERNATIONAL DAY FOR THE ELIMINATION OF SEXUAL VIOLENCE IN CONFLICT

- In 2015, the United Nations adopted June 19 every year as the International Day for the Elimination of Sexual Violence in Conflict.

- The main aim of this day is to raise awareness of the need to put an end to conflict-related sexual violence.

About the objective

- The days honours all the victims and survivors of sexual violence around the world and also pay tributes to the brave hearts that have devoted and lost their lives in raising voices for the eradication of such crimes.

- According to UN, conflict-related sexual violence is defined as a term that "refers to rape, sexual slavery, forced prostitution, forced pregnancy, forced abortion, enforced sterilization, forced marriage, and any other form of sexual violence of comparable gravity perpetrated against women,

men, girls or boys that is directly or indirectly linked (temporally, geographically or causally) to a conflict".

- The date was chosen to commemorate UN Security Council resolution 1820 (2008) which has first recognised sexual violence as a weapon of war, rather than an unintended consequence of war.

About the Day

- An event was to be held virtually on June 19 to mark the sixth annual International Day for the Elimination of Sexual Violence in Conflict.
- The objective of the event is to outline a number of consequences related to the effects of COVID-19 on the lives of the survivors and delivery of the CRSV (Conflict-Related Sexual Violence) mandate and the working of UN system as a whole.
- According to the report, as the UN says "COVID-19 hampers the possibility of survivors to report sexual violence and further exacerbates the existing structural, institutional and socio-cultural barriers to reporting such crimes."
- Thus, CRSV has been further obscured by this pandemic.
- However, ensuring justice for both victims and survivors can empower them to move on with their life.
- Also, survivors must speak up about the violence they have faced.
- Combatting impunity for sexual violence is the key to preventing such crimes.

1.33   KODUMANAL : THE CITY THAT CLOTHED ROME

The Kodumanal excavation of 10 pots and bowls, instead of the usual three or four pots, placed outside three-chambered burial cists and inside the cairn-circle, has thrown light on burial rituals and the concept of afterlife in megalithic culture.

About Kodumanal

- Kodumanal is a village located in the Erode district in the southern Indian state of Tamil Nadu.
- It was once a flourishing ancient trade city known as Kodumanam, as inscribed in Patittrupathu of Sangam Literature.
- The place is an important archaeological site, under the control of State Archaeological Department of Tamil Nadu.
- It is located on the northern banks of Noyyal River, a tributary of the Cauvery.
- The inhabitants of this destroyed ancient city of Chera dynasty were highly skilled craftsmen, who were specialized in making beads and high-quality iron.
- The place is referred to in Sangam literature as an important industrial centre that had links with the Chola port city of Kaveripoompattinam, now called Poompuhar.

- The city played a major role in Indo-Roman trade and relations, as the ancient city is located on the mid-way of a Roman trade route, linking Muzirisport on the Malabar Coast with the Kaveripoompattinam (Puhar) Port in the Coromandel Coast.

1.34 CENTRAL TRANMISSION UTILITY HIVED OFF FROM POWER GRID CORPORATION
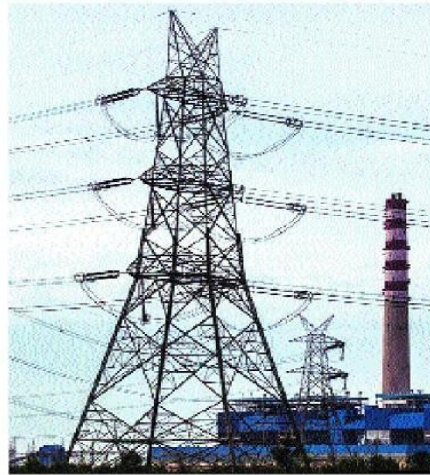
BIFURCATION PLAN
- **Plan is to avoid conflict** of interest while awarding power transmission projects
- **The Central Transmission Utility** to be formed will be a 100% subsidiary of PGCIL
- **It will have** separate accounting, board structure and carry out its statutory functions
- **PGCIL owns and operates** close to 95% of the Indian power transmission network

- In a landmark decision, the Centre has decided to hive off the Central Transmission Utility (CTU) function of state-owned Power Grid Corporation of India (PGCIL).
- Pending since 2015, this move has been taken to avoid conflict of interest while awarding power transmission projects.

About the Background

- As a CTU, Power Grid is responsible for wheeling of power generated by producers and involved in planning transmission systems and operations.
- It also has an additional role of collecting tariff from power generators and state electricity boards using the transmission infrastructure.
- The CTU retains its share and then distributes the remaining to other private licensees.

About the Highlights

- As PGCIL is also a power transmission construction company, it participates in tenders for competitive bidding for projects, alongside private players.
- This conflict of interest in PGCIL as both planner and participant in transmission projects has faced repeated criticism from the industry.
- In a letter to the chairman and managing director of PGCIL, the ministry of power has directed it to make CTU a 100 per cent subsidiary with separate accounting, board structure and carry out its statutory functions.
- It further said creation of a revenue stream of the new CTU will be formalised by the Central Electricity Regulatory Commission (CERC).

- Till then, Power Grid will manage the revenue of CTU.
- This follows hiving off the grid management function from Power Grid and creation of a separate company — Power Systems Operation Corporation (POSOCO) in 2014.

1.35   MODEL FARM TO TRAIN YOUTH IN TAPPING NEERA

- The Khadi and Village Industries Commission (KVIC) have rolled out a unique project to produce Neera and Palmgur which has huge potential to create employment in the country.
- The project that aims at promoting Neera as a substitute to soft drinks while also creating self-employment to Adivasis and traditional trappers was launched at Dahanu in Palghar district of Maharashtra, a state with more than 50 lakh palm trees.

About the Background

- KVIC distributed tool kits for extraction of Neera and making palmgur to 200 local artisans who were given 7 days training by KVIC.
- A tool kit worth Rs 15,000 comprises food grade stainless steel Kadhai, perforated moulds, canteen burners and other equipment like knives, rope and axes for extraction of Neera.
- The initiative will provide direct employment to 400 local traditional trappers.

About Neera

- Neera, extracted from the palm trees before sunrise, is a nutrient-rich health drink consumed in many Indian States.
- However, due to lack of institutionalized market technique, the commercial production and large-scale marketing of Neera has not commenced yet.
- The project has been rolled out on the initiative of Union Minister of MSME, who is also exploring the feasibility of engaging some big players of the state to start using Neera as soft drinks to make it commercially useful.
- Further, it said, a wide range of products like candies, milk chocolates, palm cola, ice-cream and traditional sweets can be produced from Neera if properly marketed.
- At present Palmgur Neera worth Rs 500 crore is traded in the country.
- The turnover is likely to increase manifold with commercial production of Neera.
- The KVIC has prepared a detailed project report on production of Neera and Palmgur (jaggery).
- It is proposed to start standardized collection, processing and packing of Neera under controlled conditions so as to prevent it from fermentation.

1.36   OIL REFINING CAPACITY OF INDIA

Refining Industry, India, Total Refining Capacity (mbd), 2018–2023 — GlobalData.
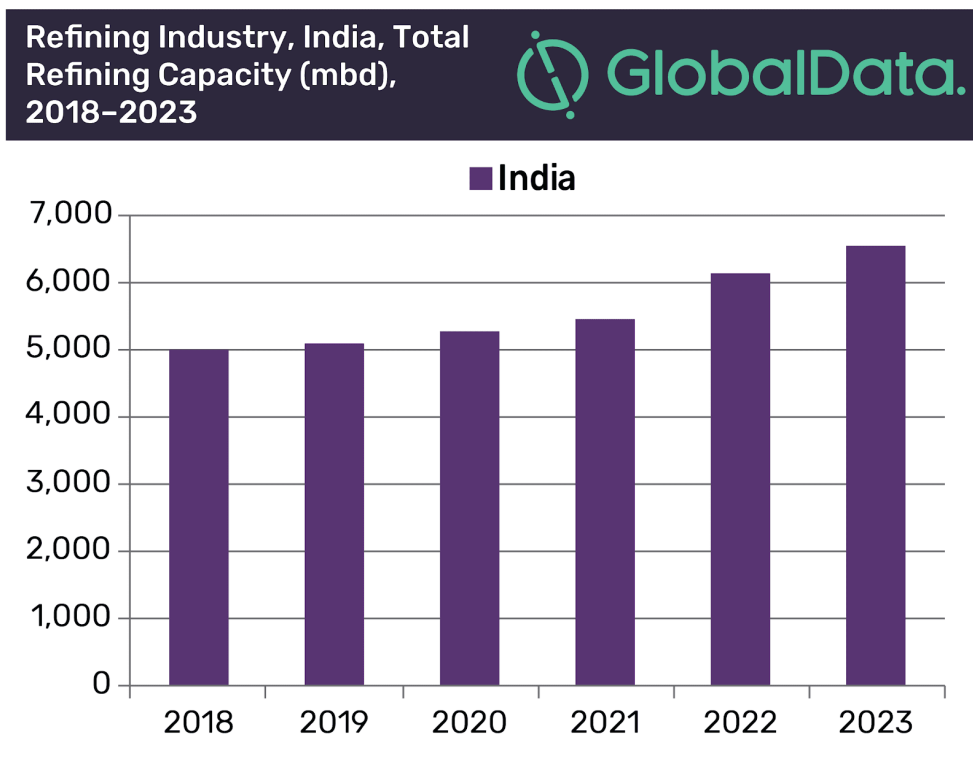
- India is set to double its refining capacity for crude oil to 450-500 million tonnes per annum by 2030, said Union Minister for Petroleum and Natural Gas Dharmendra Pradhan.
- The minister said the construction of a new refinery in Ratnagiri, Maharashtra with a refining capacity of 60 million tonnes per annum is set to start soon.

About the Background

- India's current refining capacity of 249.9 million tonnes per annum exceeds domestic consumption of petroleum products which was 213.7 million tonnes in the previous fiscal.
- However, India's consumption of petroleum products is likely to rise to 335 million tonnes per annum by 2030 and to 472 million tonnes by 2040 according to government estimates.
- India needs to boost refining capacity to meet growing demand.

About the strategy

- Pradhan said the expansion in refining capacity will come from both brownfield and Greenfield projects.
- The new refinery project in Ratnagiri is one of the key projects in the planned expansion and has received investment from Saudi Arabia and the UAE's national oil companies — Saudi Aramco and ADNOC respectively — which together own 50 per cent of the project while the remaining 50 per cent is owned by Indian PSUs, Indian Oil Corporation Ltd., Bharat Petroleum Corporation Ltd. and Hindustan Petroleum Corporation Ltd.

- Other key projects include a joint venture between HPCL and the Rajasthan government for a new refinery in Barmer Rajasthan with a refining capacity of 9 million tonnes per annum as well as the major expansion projects in existing refineries in Panipat, Paradip and Koyali.

1.37   UNION MINISTER FOR COAL LAUNCHED SATYABHAMA

- The mines ministry announced the launch of a portal "SATYABHAMA" with an aim to promote research and development in the mining and minerals sector.
- This portal will allow online submission of project proposals along with monitoring of the same and utilisation of funds.

About the portal

- The portal has been designed, developed and implemented by National Informatics Centre (NIC), Mines Informatics Division.
- The minister appealed to the scientists and researchers in the mining and mineral sector to undertake qualitative and innovative research and development work for "AatmaNirbhar Bharat".
- The researchers can also submit progress reports and final technical reports of the projects in the electronic format in the portal.
- A user manual is also available on the portal where the stepwise procedures for submission of project proposals have been highlighted.
- A user manual is also available on the portal where the stepwise procedures for submission of project proposals have been highlighted.
- The portal is integrated with NGO Darpan Portal of NITI Aayog.
- The portal will increase efficiency and effectiveness in the implementation of the scheme.
- The major institutes where research projects have been funded include Indian Institute of Science, Bengaluru and Indian Institute of Technology (IIT), Kharagpur.

1.38   GARIB KALYAN ROJGAR ABHIYAAN

Prime Minister Narendra Modi launched the Garib Kalyan Rojgar Abhiyan (GKRA) to boost employment and livelihood opportunities for migrant workers returning to villages, in the wake of COVID-19 outbreak.

Launching the scheme, the prime minister said, it focuses on durable rural infrastructure and providing modern facilities like the internet in the villages.

About the Background

- Due to the coronavirus outbreak, businesses across sectors were affected which led to the temporary shutdown of the industries, leaving migrants with no jobs.

- The railways ran several shramik special trains to take them to their native villages during the lockdown period.

- As lakhs of migrants returned back, the government has initiated Garib Kalyan Rojgar Abhiyaan to provide employment to them closer to home.

- Launching the scheme, PM Modi said, "skill mapping of the rural migrant labour being done to help them work closer home."

- The government is injecting a Rs 50,000 crore worth project to be implemented in a mission mode campaign in 125 days in 116 Districts of 6 States that will generate employment to migrants.

About the Abhiyaan

- The Abhiyaan was flagged off from village Telihar, Block Beldaur, district Khagaria, Bihar on June 20 through Video-Conference attended by the CMs and Representatives of the 6 Participating States, Various Union Ministers and others.

- The Prime Minister inquired from some of the migrants their current state of employment and also whether the various welfare schemes launched during the Lockdown period were available to them.

- The Prime Minister said that Abhiyan shall also provide modern facilities in rural areas.

- He said it is of great necessity that high speed and cheap internet be provided in every rural household to help the youth and children.

- The Prime Minister said it is the first time that the rural areas are using more internet than the urban areas.

- The Prime Minister said that Self-Reliant (AatmaNirbhar) farmers are equally essential for a Self-Reliant India (AatmaNirbhar) Bharat.

- He said the Government took a major step by removing various shackles of unwanted rules and regulations so that the farmer can freely sell his produce anywhere in the country and connect directly with traders who offer a better price for his produce.

- Modi said the farmers are being directly linked to the market and that the Government has provided an investment of Rs 1,00,000 Crore for linkages like cold storage etc.

About the Highlights

- This Abhiyaan of 125 days, will work in mission mode, will involve focused implementation of 25 categories of works/ activities in 116 districts, each with a large concentration of returnee migrant workers in 6 states of Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Jharkhand and Odisha.

- Saturate villages with public infrastructure and create livelihood opportunities viz. Roads, Housing, Anganwadis, Panchayat Bhavans, various livelihood assets and Community Complexes among others.

- The basket of a wide variety of works will ensure that each migrant worker is able to get an opportunity of employment according to his skill, in the coming 125 days.

- The Program will also prepare for expansion and development of livelihoods over a longer-term.

- The government has identified 25 work areas for employment in villages, for the development of various works.

- These 25 works or projects are related to meet the needs of the villages like rural housing for the poor, Plantations, provision of drinking water through Jal Jeevan mission, Panchayat Bhavans, community toilets, rural mandis, rural roads, other infrastructure like Cattle Sheds, Anganwadi Bhavans etc.

1.39   JUNE SOLSTICE
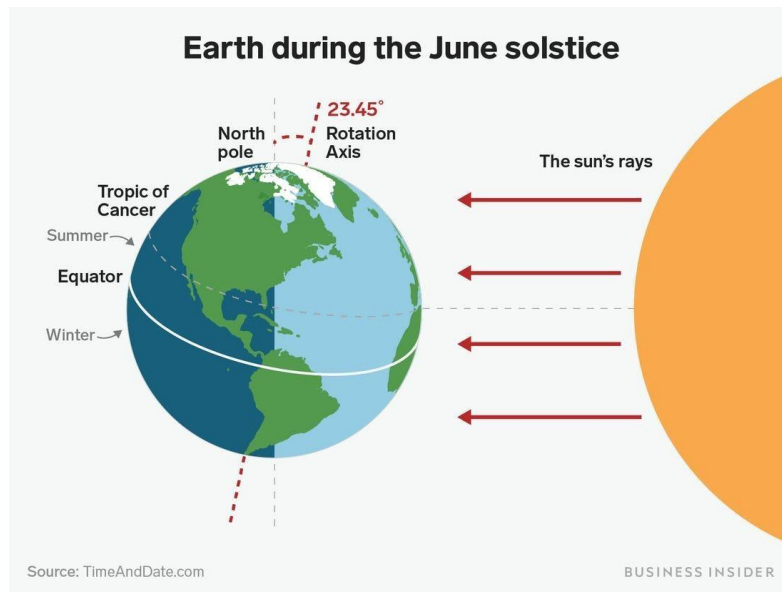
- June seems to have a long list of festivals and special events lined up in it, and they include both natural and man-made.
- After the Lunar Eclipse on June 5 now we have a Solar Eclipse happening on the same day as the Summer Solstice, which is on June 21.

About the Background

- The day itself has a number of events, like Father's Day, International Day of Yoga and World Music Day.
- The numbers of events appear to be apt for the day which happens to be the longest day of the year.
- For people living in the Northern Hemisphere, they will enjoy a very long period of daylight on the day of the Summer Solstice.
- It usually occurs between June 20 and June 22 depending on the calendar and this year it falls on June 21.
- Many people see this as a significant time of the year and in some cultures, rituals and festivals are conducted.

About Summer Solstice

- The summer solstice, which is also known as estival solstice or midsummer, occurs when one of the Earth's poles has its maximum tilt toward the Sun.
- It occurs when the Sun reaches its highest position in the sky and is the day with the longest period of daylight.
- The word 'Solstice' is derived from the Latin word Sol for 'Sun' and Sistere 'to stand still'.

- When we mention the longest day will be witnessed in the Northern Hemisphere, it does not mean that all the countries located in that area will have early sunrise or late sunset, as it all depends on the latitudinal location.

- Despite being the longest day, it is not the hottest.

- The significance of the Summer Solstice varies from culture to culture, but most see it as a day to celebrate with festivals and rituals related to religion or fertility.

- Like some people would gather together at Stonehenge in the United Kingdom and perform traditional song and dance.

1.40   FABIFLU
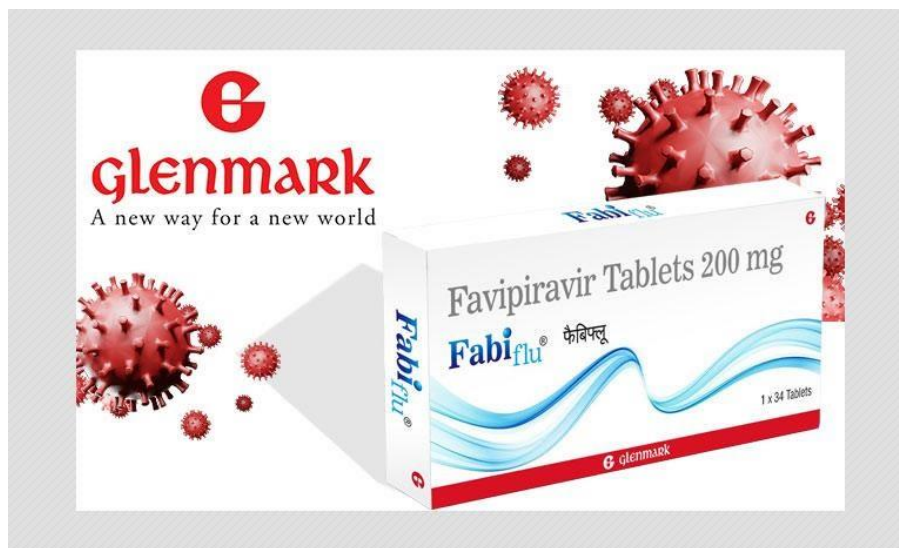
- Glenmark Pharmaceuticals Ltd's launch of the antiviral favipiravir, named Fabiflu, has sent its stock price soaring.

- The rise of about 30% should be seen in the context of the market potential of the drug and that does not quite justify the sharp jump.

About the Background

- The drug is priced at ₹103 per tablet, and Glenmark has the first-mover advantage.

- But the revenue potential of the drug depends on the infection rate and the adoption of the drug as a treatment.

- As such, the revenue potential is expected to dip once competition kicks in.

- In the coming months, a large number of players are expected to launch the drug in India.

- Some manufacturers in India are already exporting this drug to the UAE and Nepal.

About the Highlights

- Incremental revenues of ₹200-300 crore could accrue, said some analysts, although it's more of a guesstimate, given the many variables.

- Against that backdrop, the over ₹3,000 crore jump in Glenmark's market cap clearly looks overdone.

- Further, studies are still being held on the drug's efficacy for covid treatment.

- The international clinical trials, which served as the basis for the approval, include small sample size and are from semi-regulated markets such as Russia, China and UAE.

- Japan, where the drug is officially approved for resistant flu, has not approved the drug for covid due to lack of efficacy data.

- Besides, much will depend on how effective the drug is in clinical trials in India.

- Glenmark has said that it will begin a new clinical trial in the country to test a combination of two antiviral drugs, favipiravir and umifenovir, as a potential covid-19 treatment.

- In addition, a high pill burden may be a deterrent. Patients need to take about 18 tablets on day one and eight tablets thereafter for up to 13 days.

- This makes the overall cost of the treatment quite high for most Indians.

- Of course, the government could step in as a buyer, which would further lower the margins on this drug.

1.41 MEMBERS AS NUMBERS

- Another round of Rajya Sabha elections has been completed.

- Polls to some seats were postponed in view of the situation caused by the novel coronavirus outbreak.

About Rajya Sabha

- In India's bicameral Parliament – inspired by the British system – the Rajya Sabha or upper house enjoys nearly all the powers of the Lok Sabha or lower house, except that it can't veto a budget or any money bill.

- As India's federal laws need the approval of both the Lok Sabha and the Rajya Sabha, the Upper House – whose members aren't directly elected by the public – can reject a bill or seek amendments.

- Also, a legislation introduced in the Rajya Sabha has no shelf life and will remain alive till it has been passed by the House.

About the process of election

- While Lok Sabha members are elected directly by voters, the Rajya Sabha members come through a complex process of proportional representation and by votes of the legislators of their respective State.

- The calculation is: Total number of legislators of the State ÷ no of seats going to polls in the State + 1.

- Each legislator or MLA will give ranking of candidates according to his or her preference.

- If a candidate gets the minimum requisite votes, he or she will be elected.

- But in a contest, if a candidate fails to get the requisite votes from the first preference of the voters, the second preference votes will be counted.

About the types of members

- The strength of the Rajya Sabha is 245, of whom 233 are elected from the states and union territories.

- The remaining 12 are nominated by the President of India.

- The number of Rajya Sabha MPs from a State depends on the size of its population.

- Uttar Pradesh, the most populous State, sends 31 MPs to the Upper House, while Arunachal Pradesh has just one seat.

- These members are nominated by the President because of their special knowledge or practical experience in fields such as literature, science, art and social service.

- Nominated members enjoy the same perks and privileges as that of elected members except on one count – they can't participate in the election of the president.

1.42   MODI'S VILLAGE ADOPTION SCHEME FAILS: CENTRAL AUDIT

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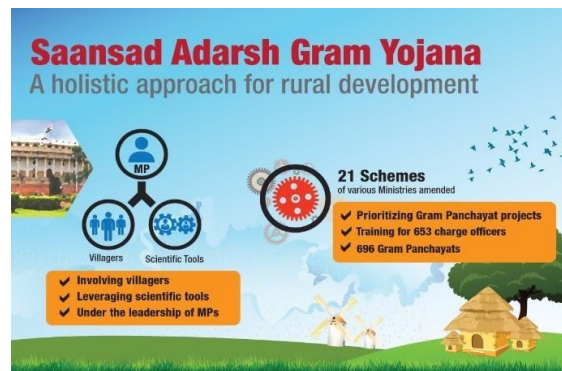
- The Saansad adarsh gram yojana has failed , the Central audit team has declared after survey that the villages have not been adopted and developed by the MPs, the scheme launched by PM Modi in 2014 has not solved it's purpose, said the audit

- The Modi government's much propagated 'Saansad Adarsh Gram Yojana' has been declared ineffective by a central audit.

About the audit findings

- Six years after it was launched with much fanfare by Prime Minister Narendra Modi, 'Sansad Adarsh Gram Yojana' aimed at developing "model villages" has been found to be ineffective in ushering in development in chosen gram panchayats, with a central performance audit urging the rural development ministry to review the scheme.

- Commissioned by the RD ministry, the Common Review Mission-2019, an audit of rural schemes, has noted, "The CRM teams that visited the states did not find any significant impact of this scheme."

- In many of the SAGY villages, MPs did not give any significant money from MPLADS.

- In isolated cases, where MPs have been pro-active, some infrastructure development has taken place, but the scheme has not made any perceptible impact."

- Launched in October 2014, SAGY offers each MP to select a village in his constituency for development. The scheme has no budgetary allocation and aims to bring about convergence in government schemes to improve developmental parameters in the selected village.

- The goal was to develop three "model villages" by each MP by March 2019, and then five more by 2024. But with each passing year, fewer MPs were adopting villages under SAGY.

- The reasons were two-fold- there was concern that picking one village would earn them the wrath of other villages in their constituencies, while the absence of budget too acted as a dampener.

- In another important red-flag, the CRM has expressed concern over the quality of roads constructed under schemes of state governments and maintenance of rural roads under central PMGSY after the end of five-year warranty period.

- The audit has urged the Centre to frame a "National Rural Road Policy" to ensure uniform norms of construction and maintenance, irrespective of whether the road belongs to a state scheme or PMGSY.

- It has also urged the Centre to examine if the finance commission can provide funds for maintenance of rural roads, as many states have requested that the Centre should share cost of maintenance.

- The village adoption scheme is one of the major failed schemes of the Modi Government and the village adopted by PM Modi also remains under developed

- The village adopted by PM Modi also remains under developed.

1.43   MAKE IN INDIA IN SHIPPING INDUSTRY

- The Shipping Ministry has invited ship owners worldwide to flag their ships in India to take advantage of the Make in India policy.
- Government has recently revised its Make in India Policy for public procurement, among others, of all services.

About the policy

- Under the revised policy, no global tender enquiry shall be issued, except with the approval of the Competent Authority, for procurement of all services with estimated value of purchases less than 200 crore rupees.
- Shipping Minister Mansukh Mandaviya reviewed the readiness of Indian shipping Industry for implementation of the Government's Cargo Transportation Policy.
- It is estimated that the Make in India policy will provide opportunity to at least double the number of Indian flag vessels in the immediate term - from the present approximately 450 to at least 900 and more over a period of 3 years.

1.44   PURI'S JAGANNATH RATH YATRA GOES OFF SMOOTHLY

For the first time in its history, the famous Rath Yatra of Jagannath temple in Odisha's Puri saw a large number of priests pulling the three colourful Chariots as lakhs of devotees stayed away from the festival following a Supreme Court order.

About the Background

- Around noon, about 1,500 priests of the 12th century temple began pulling the three colourfully-decorated wooden chariots towards the Gundicha temple amid beating of cymbals and drums in praise of Lord Jagannath and his siblings- Lord Balabhadra and Goddess Subhadra.
- The three Chariots reached the Gundicha temple by 5.30 pm.
- All the priests who pulled the chariots - Nandighosh, Taladhwaja and Darpadalana – had tested negative for Covid-19.

About the Yatra

- Ratha Jatra, also referred to as the Ratha Yatra or Chariot festival, is any public procession in a Chariot.

- It involves a public procession with a Chariot with deities Jagannath (Vishnu avatar), Balabhadra (his brother), Subhadra (his sister) and Sudarshana Chakra (his weapon) on a ratha wooden deula - shaped chariot.

- Rathayatra processions have been historically common in Vishnu-related (Jagannath, Rama, Krishna) traditions in Hinduism across India, in Shiva-related traditions, saints and goddesses in Nepal, with Tirthankaras in Jainism, as well as tribal folk religions found in the eastern states of India.

1.45 PM MODI GREETS KUTCHI COMMUNITY ON ASHADHI BEEJ

- The Kutchi people celebrate their Kutchi New Year on Ashadi Beej.

- It is the 2nd day of Shukla paksha of Ashada month of Hindu calendar (June – July).

About Ashadhi Bij

- As for people of Kutch, this day is associated with the beginning of rains in Kutch, Gujarat.

- During Ashadhi-beej, they check the moisture in the atmosphere to help predict which crop would do best in the coming monsoon.

- Moisture in the air makes the seed and soil gain weight.

- If the pre-monsoon air has a lot of moisture in it, that is a fairly good indication that the season will be well.

- Kutch is largely a desert area therefore people living value rain very much.

- Ashadhi-beej is celebrated mainly at two places in India – Vishwanath temple in Varanasi, UP and Mulesh Mahadev in Umreth, Gujarat.

- Other than these Kutchi people all around the world celebrate this day.

- Coincidentally on Ashadi Beej the famous Jagannath Rath Yatra takes place in Ahmedabad and Puri.

1.46 ANNUAL TB REPORT 2020

- Health Minister Dr Harsh Vardhan today released the annual TB Report 2020 through a virtual event.
- According to the report, over 24 lakh TB patients have been notified in 2019.

About the Background

- This amounts to a 14 percent increase in TB notification as compared to 2018.
- Near-complete on-line notification of TB patients has been achieved through the NIKSHAY system.

About the Highlights

- There has been a reduction in the number of missing cases to 2.9 lakh cases as against more than 10 lakhs in 2017.
- Private sector notifications increased by 35 percent with 6.78 lakh TB patients notified.
- Due to easy availability of molecular diagnostics, the proportion of children diagnosed with TB increased to 8 percent in 2019 compared to 6 percent in 2018.
- Provision of HIV testing for all notified TB patients increased from 67 percent in 2018 to 81 percent in 2019.
- Expansion of treatment services has resulted in a 12 percent improvement in the treatment success rate of notified patients.
- The Minister also released a Joint Monitoring Mission report, a manual on Direct Benefit Transfer to TB patients under NIKSHAY system, a Training Module, and the quarterly newsletter NIKSHAY Patrika.
- There is a need to come together to fight against TB and the stigma surrounding it so that every TB patient can seek care with dignity and without discrimination.
- The community must act as a wellspring of support and comfort for the patients.

1.47   YUKTI 2.0

- The Ministry of Human Resource Development (MHRD) has designed an online portal for multiple depositories like ideas, innovation, and contributions from students and teachers.
- The depository is being called Yukti 2.0 by the MHRD and will be available for the disposal of anyone willing to expand their knowledge horizon.

About the Platform

- It is the logical extension of an earlier version of 'YUKTI' (Young India combating COVID with Knowledge, Technology, and Innovation).
- The portal will establish a two-way communication channel between the Ministry of HRD and the institutions, to provide a support system for the institutions.
- The Minister had launched the YUKTI web portal on 11 April 2020.

- The portal will give inputs for better planning and will enable the ministry to monitor effectively its activities for the coming six months.

- The institutions can also share their strategies for tackling the COVID-19 situation.

- The platform is not just a database; it acts like an online market where people who sell ideas and buy ideas will co-exist. It will act as the missing link between innovation and commercialization.

About the Highlights

- The portal is not restricted to students, from farmers to working-class, anyone with an idea can log in to the website.

- Any start-up or innovation idea can be put in the portal and then commercialized. Two people can connect on ideas on the website.

- The platform will bring together technologies from students, faculties, and startups so that they can be showcased to the investor community such as businessmen, farmers, and industrialists.

- This will assist students to start their own startups and will also create innovation and entrepreneurship and would give a start to PM's Atma Nirbhar Bharat.

- The portal intends to cover the different dimensions of COVID-19 challenges in a very holistic and comprehensive way.

- YUKTI 2.0 will also help in fostering the culture of innovation and entrepreneurship in our academic institutions.

1.48   "COUNTRY OF ORIGIN" A MUST

- In a bid to promote Make in India and Aatma Nirbhar Bharat (Self-reliant India), the Government e-Marketplace (GeM) has mandated for sellers to spell out the "Country of Origin" of products they want to sell on the platform.

- GeM, a special purpose vehicle under the Ministry of Commerce and Industry, has also enabled a provision for the indication of the percentage of local content in products.

About the Background

- The government procurement portal has made it mandatory for sellers to enter the country of origin while registering all new products on GeM, the Ministry of Commerce and Industry said.

- With this new feature, now, the Country of Origin as well as the local content percentage will be visible in the marketplace for all items.

About the regulations

- Sellers, who had already uploaded their products before the introduction of this new feature on GeM, are being reminded regularly to update the Country of Origin, with a warning that their products shall be removed from GeM if they fail to update the same.

- Make in India filter has also been enabled on the portal granting buyers the choice to buy only those products that meet the minimum 50 percent local content criteria.

- In case of Bids, buyers can now reserve any bid for Class I Local suppliers (local content more than 50 percent).

- For those Bids below INR 200 crore, only Class I and Class II Local Suppliers (local content more than 50 percent and more than 20 percent respectively) are eligible to bid, with Class I supplier getting purchase preference.

- Since its inception, GeM is continuously working towards promotion of "Make in India" initiative.

- The marketplace has facilitated the entry of small local sellers in public procurement while implementing Make in India and MSE Purchase Preference Policies of the government in the true sense.

- It said that the GeM is enabling quick, efficient, transparent, and cost-effective procurement, especially in this hour of need when government organizations require products and services urgently to fight against the COVID-19 pandemic.

1.49   COMMISSION TO EXAMINE SUB-CATEGORIZATION OF OBCs
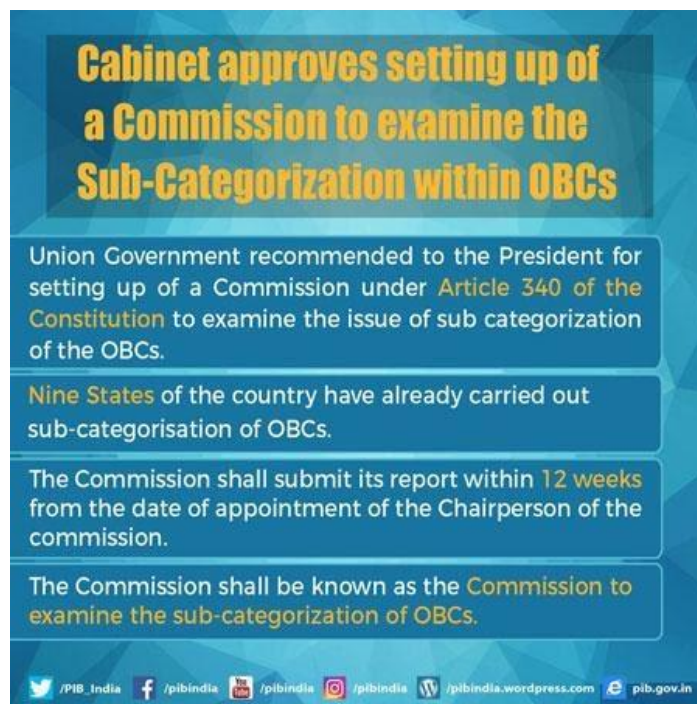
The Union Cabinet chaired by Prime Minister Narendra Modi approved the extension of the term of the Commission to examine the issue of sub-categorization of Other Backward Classes (OBCs), up to January 31, 2021.

About the Commission

- The Commission's recommendations are expected to benefit the communities in the existing list of OBCs which have not been able to get "any major benefit of the scheme of reservation for OBCs

for appointment in central government posts and for admission in central government educational institutions."

- The Commission was constituted under Article 340 of the Constitution with the approval of the President on October 2, 2017.

- Headed by Justice (Retd) G Rohini commenced functioning on October 11, 2017 and has since interacted with all the states/UTs which have subcategorized OBCs, and the State Backward Classes Commissions.

- The Commission had sought extension of its term up to July 31, however, due to due to the nationwide lockdown and a restriction on travel imposed on account of COVID-19 pandemic, the Commission was not able to go perform the task assigned to it.

1.50   SHISHU LOANS UNDER MUDRA SCHEME

Union Cabinet today approved a scheme for interest subvention of 2 per cent for a period of 12 months, to all Shishu loan accounts under Pradhan Mantri Mudra Yojana (PMMY) to eligible borrowers.

About the Background

- The scheme will be extended to loans which are not in Non-Performing Asset (NPA) category, as per Reserve Bank of India (RBI) guidelines as on 31st March 2020 and during the period of operation of the Scheme.

- The interest subvention would be payable for the months in which the accounts are not in NPA category including for the months that the account becomes a performing asset again, after turning NPA.

About the scheme

- The scheme will incentivize people who will make regular repayments of loans.

- The estimated cost of the Scheme would be approximately Rs. 1,542 crore which would be provided by the Government of India.

- This Scheme is for implementation of one of the measures relating to MSMEs, announced under the Atma Nirbhar Bharat Abhiyan.

- Under PMMY, loans for income generating activities up to Rs. 50,000 rupees are termed as Shishu loans.

- The Scheme will be implemented through the Small Industries Development Bank of India (SIDBI) and will be in operation for 12 months.

1.51   KUSHINAGAR INTERNATIONAL AIRPORT

- In what comes as a boost to Buddhist pilgrimage circuits in Uttar Pradesh and Bihar, Kushinagar's airport is being upgraded to facilitate international flights.

- Kushinagar will be India's 29th international airport and will enhance the connectivity which will in turn increase tourism and hospitality in the region.

About the Background

- The decision was taken as a part of PM Modi's Rs 20 lakh crore package to revive India's economy from the ill effects of the ongoing coronavirus pandemic.

- Union Aviation Minister Hardeep Singh Puri tweeted, "fulfilling a long pending demand of pilgrims & visitors, Union Cabinet under visionary leadership of Sh @narendramodi Ji has declared the airport in the holy Buddhist city of Kushinagar, where Lord Buddha attained Mahaparinirvan, as an International Airport."

About Kushinagar

- Kushinagar is a pilgrimage town in the Kushinagar district of Uttar Pradesh.

- It is an important Buddhist pilgrimage site, where Buddhists believe Gautama Buddha attained Parinirvana after his death.

- It is an international Buddhist pilgrimage centre.

- Prime Minister Narendra Modi also tweeted about the up-gradation of the airport and its benefits for the tourism and pilgrimage in the region.

- "Great news for Uttar Pradesh, tourism and those inspired by the noble thoughts of Lord Buddha. Kushinagar Airport will now be an international airport. Connectivity will improve significantly. More tourists and pilgrims will also mean better opportunities for local population," PM wrote in a tweet.

1.52   HRD MINISTRY'S SPARC

- Indian Institute of Technology Madras Researchers are collaborating with German Researchers to develop new materials for project Green Energy Solutions.

- The project aims to develop alternative technologies to produce Green Hydrogen as the world is expected to eventually transit to a hydrogen-based economy.

About the Background

- The depletion of conventional fossil fuels and natural gases combined with increasing demand for alternative sources of energy necessitates prioritizing research on producing and storing non-polluting energy forms or 'Green Energy.'

- In this context, the hydrogen-based economy is a promising area to invest scientific interest in the humanitarian quest to reduce carbon footprint.

About the project

- This research project was taken up under the Scheme for Promotion of Academic and Research Collaboration or 'SPARC,' an initiative of the Ministry of Human Resource Development, Government of India.

- A budget of Rs. 66 lakh has been allocated for this SPARC project.

- SPARC aims at improving the research ecosystem of India's Higher Educational Institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world from 28 selected nations to jointly solve problems of national and/or international relevance.

- In order to facilitate fundamental and socially relevant research in India, a lot of emphasis is being laid to strengthen collaboration between Indian Research groups with Top research groups in the world so that Indian scientists and students can interact with the finest minds in the world.

1.53 NAVIGATING THE NEW NORMAL

- NITI Aayog launched a behaviour change campaign 'Navigating the New Normal' and its website to help people follow norms to contain the spread of Covid-19.

- Focusing on Covid-safe behaviour, especially wearing masks, during the 'Unlock' phase of the Covid-19 pandemic, the campaign has been developed under the guidance of Empowered Group 6, chaired by NITI Aayog CEO Amitabh Kant.

About the Background

- The campaign has two parts.

- The first is a web portal containing resources informed by behavioural science and the use of nudge and social norms theory, related to Covid-safe behavioural norms during the ongoing Unlock phase and the second is a media campaign focused on the wearing of masks.

Highlights

- As India unlocks, one key worry is how do we encourage the public and institutions to practice Covid-safe behaviour.

- Until a vaccine is available, wearing masks along with practising hand hygiene and social distancing, will be important to slow down the spread of the novel coronavirus.

- Empowered Group 6 and Ministry of Health wanted that we give a nudge towards desired social behaviour in which the enforcement burden shifts from the government to the citizens.
- An effort has been made to provide people with prompts and reminders along with simple, easy-to-practice ideas of designing their environment in such a manner that practising such behaviour becomes easy.
- The campaign and website were launched in partnership with Bill and Melinda Gates Foundation (BMGF), Centre for Social and Behavioural Change (CSBC), Ashoka University, and the Ministries of Health and WCD.
- As many as 92,000 NGOs and civil society organisations (CSOs) working with NITI Aayog too participated in the virtual launch.

1.54   'eBloodServices' MOBILE APP

- Health Minister Dr Harsh Vardhan launched the 'eBloodServices' mobile App developed by the Indian Red Cross Society today through a video conference.
- The Health Minister is also the Chairman of Indian Red Cross Society.

About the Background

- This application is developed by the E-Raktkosh team of Centre for Development of Advanced Computing under the Digital India scheme launched by Prime Minister Narendra Modi in 2015.
- Dr. Harsh Vardhan said, in keeping with the people-centered vision of the Prime Minister, Digital India has now become an integral part of every person's daily life.

About the app

- This Blood Donation App is a prime example of how the Digital India Scheme is serving the need for accessing blood services.
- He added that many people require blood related services regularly because of certain medical conditions in their families.
- Through this App, four units of blood can be requisitioned at a time and the blood bank will wait for as long as 12 hours for the person to collect it.
- This app makes it easy for those in need to request for Blood units.
- The Minister said that at a time when the country is facing a pandemic like COVID 19, the Mobile App will provide succour to all those who direly require blood.
- Once the request is placed through the app, the requisite units become visible to IRCS, NHQ blood bank in its E-Raktkosh dashboard and this allows assured delivery within the specified time.
- This feature will make it easy for a blood seeker to obtain blood and shall bring the added advantage of complete transparency and single window access to the service.

1.55   VIVEKANANDA YOGA UNIVERSITY

As part of the 6th International Yoga Day commemorations, the world's first yoga university outside India has been launched in Los Angeles, offering programmes that combine scientific principles and modern research approaches to the ancient Indian practice.

About the Background

- The Vivekananda Yoga University (VaYU) was jointly launched by Minister of State for External Affairs V Muraleedharan and Chairperson of the Standing Committee on External Affairs P P Chaudhary during a virtual event held at the Consulate General of India in New York.

- Eminent Indian yoga guru Dr H R Nagendra, Chancellor of Swami Vivekananda Yoga Anusandhana Samsthana (SVYASA), is the first Chairman of VaYU.

About the University

- VaYU faculty has been recruited from Swami Vivekananda Yoga AnusandhanaSamsthana (SVYASA) – the first Yoga university in India.

- SreeSreenath, Professor from Case Western University, has been named its President.

- The university will help thousands of yoga teachers in the US whose yoga education was limited to 200 or 500 hours of certificate programs to progress further into university-based higher education, remarked P.P. Chaudhary.

- Swami Vivekananda's journey brought him to New York where he lived many years and wrote books on Yoga.

- Many years later the resolution to commemorate International Day of Yoga was also passed by the U.N. in New York in 2015.

- The University will offer an online master's program in Yoga.

- The applications for fall 2020 semester are open with the first day of classes starting on Aug 24 in a virtual mode.

- The announcement of courses by the university came within three months of receiving official recognition from the Bureau for Private Postsecondary Education, California to offer yoga-based higher education programs in Nov 2019, the release said.

1.56   SOUTHWEST MONSOON 2020

- The southwest monsoon season appears to be progressing according to schedule after its onset over Kerala on June 1, 2020.

- There have been, however, considerable variations in rainfall over what regions normally receive.

About the Background

- Tamil Nadu received 46 per cent less rainfall than what it receives during the period; Puducherry and Kerala have recorded 23 per cent and 10 per cent less rainfall — while central Indian states have received excess or large excess rainfall.

- Madhya Pradesh has received the maximum — 114 per cent — excess rainfall, Chattisgarh a close second at 104 per cent. Gujarat, Goa and Maharashtra too have received 67 per cent, 51 per cent and 49 per cent more rainfall than what they receive during the period.

About the Highlights

- One reason for the difference could be Cyclone Nisarga, which formed in the Arabian Sea right around the time of the monsoon onset and pulled the monsoon moisture further inland into central India.

- According to the first climate change assessment report for India published by the Union Ministry of Earth Sciences on June 17, this is a sign of a warming world.

- The report, Assessment of Climate Change over the Indian Region, says the country's average temperature has risen by 0.7 degrees Celsius (°C) since 1901.

- It will increase to 4.4°C by end of the 21st century, relative to the recent past (1976-2005 average).

- Even the summer monsoon rainfall has decreased over the country since 1950, particularly over the Indo-Gangetic plains and the Western Ghats.

- However, the frequency of localised heavy rainfall has significantly increased over central India, says the report, adding that extreme rains are concentrated around urban India.

- Climate models suggest that the monsoon circulation will weaken in future, which will be compensated by increased moisture content in the atmosphere.

- This will lead to an increase in the frequency of extreme precipitation events all over India, particularly over the central and southern parts.

- While monsoon onset dates are likely to be early or not to change much, the monsoon retreat dates are likely to be delayed, resulting in longer monsoon seasons.

- While such a monsoon pattern can throw agricultural activities into a disarray, it can also make locust attacks a perennial problem for the country.

1.57 LIGHTNING KILLS MORE THAN 100 IN NORTHERN INDIA

- The disaster management team in Bihar state said 83 were killed there, while another 20 were in hospital with injuries.

- At least 20 more people are reported dead in neighbouring Uttar Pradesh.

About the Background

- Lightning strikes are common in India during heavy monsoon rains.

- Meanwhile the rain and thunderstorms have caused widespread damage to trees and property.

- The authorities have warned residents to be vigilant and stay indoors, as meteorologists forecast more bad weather.
- Prime Minister Narendra Modi said relief efforts were under way and expressed condolences to the victims' families.

About the Lightning

- Lightning is a naturally occurring electrostatic discharge during which two electrically charged regions in the atmosphere or ground temporarily equalize themselves, causing the instantaneous release of as much as one gigajoule of energy.
- This discharge may produce a wide range of electromagnetic radiation, from very hot plasma created by the rapid movement of electrons to brilliant flashes of visible light in the form of black-body radiation.
- Lightning causes thunder, a sound from the shock wave which develops as gases in the vicinity of the discharge experience a sudden increase in pressure.
- Lightning occurs commonly during thunderstorms and other types of energetic weather systems, but volcanic lightning can also occur during volcanic eruptions.

1.58   SANKALP PARVA: CULTURE MINISTER URGES ALL TO PLANT TREES

- Prime Minister Narendra Modi has called for planting at least five trees either in Office campus or wherever it is possible, to ensure a clean and healthy environment of the country.
- Union Minister of State for Culture and Tourism (Independent charge) Prahlad Singh Patel called for the successful organizing of "Sankalp Parva" and plant trees as desired by our Prime Minister.

About the Background

- Patel informed that the Ministry of Culture has decided to celebrate Sankalp Parva from 28th June to 12 July 2020, wherein Ministry expects all its Subordinate Offices, Academies, Attached Institutions, Affiliated Institutions to plant trees in its campus or at the surroundings wherever it is possible.
- He added that the Ministry of Culture recommends to plants five trees that have been identified by our Prime Minister and which represent the herbal heritage of our country.
- These trees are (i) "Bargad" (ii) "Awla" (iii) "Pepal" (iv) "Ashok" (v) "Bel".
- He further said that if sapling of these trees is not available then people may do plantation of any other sapling of their choice.

About the scheme

- Patel also said that the organizations must ensure that each employee should plant at least one tree of his/her choice and over and above these five trees which should be planted as per the call of the Prime Minister.

- The Institutions must also ensure that the employee takes care of plants planted by them during the year so that it survives and flourishes.
- Patel has urged all to participate in the Sankalp Parva and share the photo of plantation with #SankalpParva with the Ministry of Culture.
- He said that the monsoon season has started, which is the right time for planting. We have seen the importance of a clean and healthy environment during this Pandemic and we are proud of our Herbal Wealth which has enough strength to enable us to sail through safely in the period of Pandemic. I urge everybody to participate in this Sankalp Parv and plant and take care of at least one plant, so we can create a healthy environment and a flourishing "Bharat".

1.59   THE 'ANTHROPAUSE' DURING COVID-19

- Researchers in the UK are set to study the "anthropause", a term they have coined to refer to the coronavirus-induced lockdown period and its impact on other species.
- The unprecedented curbs imposed on millions of people around the world, mainly due to restrictions in travel, led to reports of unusual animal behaviour.
- For instance, there were Pumas sighted in Chile's Santiago, Jackals in the parks of Tel Aviv in Israel, Dolphins in the waters of Italy and even a Monkey fight on the streets of Thailand.

About the Background

- The researchers believe studying this period will provide valuable insights into the relationship between human-wildlife interactions in the 21st century.
- They have outlined their study in the journal Nature Ecology and Evolution.

ABOUT 'ANTHROPAUSE' PERIOD

- Researchers have suggested the lockdown period, which is also being referred to as the "Great Pause", be referred to with a more precise term.
- "We propose 'anthropause' to refer specifically to a considerable global slowing of modern human activities, notably travel," they said.
- "We are aware that the correct prefix is 'anthropo-' (for 'human') but opted for the shortened form, which is easier to remember and use, and where the missing 'po' is still echoed in the pronunciation of 'pause'," they added.
- In their outline, researchers mention how the scientific community can use these "extraordinary circumstance" provided by global lockdowns to understand how human activity affects wildlife.
- They maintain that as a result of the lockdown, nature appears to have changed, especially in urban environments, since not only are there now more animals, but also some "unexpected visitors."
- On the other hand, there are some animals for whom the lockdown may have made things more challenging.

- For instance, for various urban-dwelling animals, such as rats, gulls and monkeys which depend on food provided or discarded by humans, the lockdown would have made life more difficult.

1.60   STATISTICS DAY
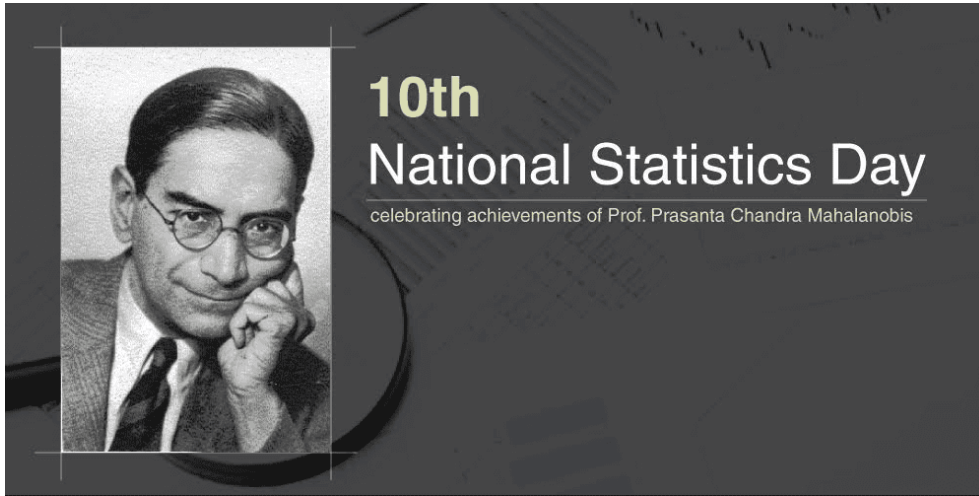
- During the communal riots in Delhi in 1947, many people from a minority community took refuge in Red Fort.
- The government had no count of the number of refugees, and contractors responsible to feed them charged high amounts.

About the Background

- A team from the Indian Statistical Institute (ISI) solved the problem.
- They felt that the contractors would have inflated the amount of rice and pulses, but had no reason to do so with salt as it was cheap.
- So, they divided the quantities of rice, pulses and salt used per day to feed all the refugees (according to the contractors) by the respective per capita requirements of these commodities, and got three estimates of the number of refugees.
- The estimate obtained by salt was the smallest and the estimate from the rice was the largest – rice being the most expensive one, its quantity was probably exaggerated.
- They proposed the quantity obtained from salt as an estimate of the number of refugees.
- The method was verified as feasible in the case of the refugees at the site of Humayun's Tomb.

About the 'salt experiment'

- The 'salt experiment' is attributed to JM Sengupta – an associate of Professor Prashanta Chandra Mahalanobis.
- Did Mahalanobis have any role in developing the idea?
- However, it's hard to believe that it was possible to conduct such a non-standard experiment in that era without discussing it with Mahalanobis.
- However, it illustrates that statistics is beyond data or methodology.

- Through decades of tireless effort and leadership, Mahalanobis built a strong statistical culture in India.

- He did world-class research on statistical theories and methodologies, carried out surveys, spotted and nurtured young scientists, established the Indian Statistical Institute (ISI) – "a mighty monument of his handicraft", founded and nurtured Sankhyā – the Indian Journal of Statistics, organised various statistical conferences, initiated teaching and training in statistics in the country, guided applications of statistics in various policy-decisions, let young talents, including future Nobel and Abel laureates blossom, and hosted world-class foreign scientists for academic interactions.

- An incredible achievement in one lifetime.

1.61   SANSKRITIK SADBHAV MANDAP

- Union Minister of Minority Affairs Shri Mukhtar Abbas Naqvi said in Rampur (UP) that "Self-reliant India" is the guarantee of "Ek Bharat Shrestha Bharat".

- Shri Naqvi laid the foundation stone for "Sanskritik Sadbhav Mandap" at Numaish Ground in Rampur (UP).

About the Background

- The "Sanskritik Sadbhav Mandap" is being constructed with the cost of Rs 92 crore by the Union Minority Affairs Ministry under Pradhan Mantri Jan Vikas Karykram (PMJVK).

- This community centre will be utilized for various socio-economic-cultural activities, skill development training, coaching, relief activities during a disaster such as Corona and different sports activities.

About the Highlights

- Prime Minister Shri Narendra Modi led Government has developed socio-economic-educational and employment-oriented infrastructure across the country in backward areas under Pradhan Mantri Jan Vikas Karyakram (PMJVK).

- These projects include 1512 New School Buildings; 22514 Additional Class Rooms; 630 Hostels; 152 Residential Schools, 8820 Smart Class Rooms (including those in Kendriya Vidyalayas); 32 Colleges; 94 ITIs; 13 Polytechnics; 2 Navodaya Vidyalayas; 403 Multi-purpose community centre "Sadbhav Mandap"; 598 Market Sheds; 2842 toilet and water facilities; 135 Common Service Centres; 22 Working Women Hostels; 1717 Health Projects; 5 Hospitals; 8 Hunar Hub; 10 various sports facilities, 5956 Anganwadi Centres etc.

- Union Minority Affairs Ministry's commitment to "Inclusive Development" has resulted into creation of a large scale infrastructure development during the last about 3 years under.

- Under PMJVK, a total of around 1,84,980 projects with a total cost of about Rs 3000 crore, have been constructed in Uttar Pradesh which includes 282 Additional class Rooms, 285 Additional Classroom Blocks, 707 Anganwadi Centres, 25 Common Service Centres (CSC), 31 Sadbhav Mandaps (1 known as Sanskritik Sabhavna Mandap), 1,73,143 Cybergram, 3,865 Drinking and Water Sanitation Projects, 27 Health Projects (1 Unani Hospital, 4 Homeopathic Hospital, 3 Ayurvedic Hospital, 20 Degree College, 15 Hostels (11 Girls Hostel), 39 ITIs, Additional Work in 02 ITIs, 4 Polytechnics, 226 Skill Training, 340 School Buildings, 2 Working Women Hostels, 666 Toilets etc have been constructed.

2. **INTERNATIONAL RELATIONS**

2.1 India to serve as the President of UNSC in August 2021

- In January 2021, Tunisia will begin as a President of the United Nations Security Council. It will be followed by a month each for the rest of the year by the United Kingdom, the United States, Vietnam, China, Estonia, France, India, Ireland, Kenya, Mexico, and Niger.

- India will be serving as president of the powerful 15 nation UN body for August 2021. India has recently been elected as a non-permanent member of the Security Council. The council presidency has been held by each of the members in turn for one month following the alphabetical order.

- As per the Office of the United Nations spokesperson, India will have a rotating presidency of the Council for August 2021. It will again preside over a council for a month in 2022.

- For a two-year term beginning on January 1, 2021, India, Norway, Mexico, Ireland, and Kenya were elected as a non-permanent members of the United Nations Security Council (UNSC) on June 17, 2020.

Countries serving as UNSC President:

- In January 2021, Tunisia will begin as President of the United Nations Security Council. It will be followed by a month each for the rest of the year by the United Kingdom, the United States, Vietnam, China, Estonia, France, India, Ireland, Kenya, Mexico, and Niger.

- In unique elections, diplomats and ambassadors from 192 member States cast their ballots in the General Assembly wearing masks and following the strict social distancing guidelines amid the ongoing COVID-19 pandemic.

- India, which was the endorsed candidate from the Asia-Pacific States, won with 184 votes out of 192 ballots cast.

- In 2021, the newly elected members of UNSC, that is India, Kenya, Ireland, Mexico and Norway will sit at the United Nations high table along with the five permanent members- France, Russia, China, US, UK- as well as the non-permanent member- Tunisia, Niger, Estonia, Saint Vincent, and the Grenadines and Vietnam. The two-year terms of the Dominican Republic, Belgium, Germany, South Africa, and Indonesia will be ending in 2020.

2.2 Nepal's President approves controversial bill to revise national map including three Indian territories

- Nepal's controversial constitution amendment bill that seeks to update the nation's political map including three Indian territories has become a law.

- Nepal's President Bidhya Devi Bhandari on June 18, 2020 approved the Constitution Amendment Bill that seeks to update the nation's political map by including areas claimed by India.

- The Bill was passed earlier in the day by Nepal's Upper House of the Parliament, National Assembly with unanimous support. All 57 members of the house voted in favour of the bill.

- The New Map Amendment Bill(Coat of Arms) was approved by Nepal's House of Representatives last week. The lower house had also given its unanimous approval to the bill. The controversial bill proposes to include three Indian territories in Nepal's revised map.

- As per government sources, India is disappointed with the manner in which Nepal went ahead with revising its map without trying to create a conducive atmosphere for talks.

- India has rejected Nepal's claim to the three Indian areas of Kalapani, Lipulekh and Limpiyadhura in Uttarakhand, saying that the artificial enlargement of their national map is not based on historical facts and evidence and violates their current understanding to conduct talks on outstanding border issues.

- Nepal's lower house of the Parliament had taken up the controversial amendment bill for discussion on June 9, 2020.

- The Bill was first tabled in the parliament by Nepalese Law Minister Shivamaya Tumbahangphe on May 31, 2020. The controversial amendment bill sought to incorporate an updated political map in the Constitution of Nepal- 2072.

- The new Political map of Nepal depicts Indian areas of Kalapani, Lipulekh and Limpiyadhura within its own borders.

Objective

- The constitution amendment bill sought to amend Schedule 3 of Nepal's constitution to update the nation's political map in the national emblem.

Key Highlights

- Under Nepal's law, a constitution amendment bill required two-thirds majority vote to pass in the Parliament.

- Nepal's Upper House voted unanimously to approve the Constitution amendment Bill. The house has a total of 59 seats, of which one is vacant and the Chairman of the House cannot vote unless his vote is supposed to play a decisive role.

- Nepal PM KP Sharma Oli's ruling Nepal Communist Party (NCP) enjoys a two-thirds majority in the National Assembly, but it falls short of a majority by around 10 seats in the lower house.

- The main opposition party- the Nepali Congress party had sought time for discussion on the issue and KP Sharma Oli's government had delayed the discussion on the bill, which was earlier scheduled for May 27.

- Following the discussion, the Nepali Congress, which has 63 seats in Nepal's lower house- House of Representatives, had agreed to support the amendment proposal, giving the ruling government its required majority in the house to pass the bill to revise Nepal's political map.

2.3 MoU between India and Bhutan

The Union Cabinet has given its approval for signing of a Memorandum of Understanding (MoU) with Bhutan for cooperation in the field of environment protection and management of natural resources.

The MoU will enable establishment and promotion of closer and long-term cooperation in environment protection and management of natural resources on the basis of equity, reciprocity and mutual benefits, taking into account the laws and legal provisions in each country.

Key Points

- A Memorandum of Understanding (MoU) was signed between the Central Pollution Control Board (CPCB) of India and the National Environment Commission (NEC) of the Government of Bhutan in 2013.

- Noting the benefits of the earlier MoU, both sides have decided to continue cooperation and collaboration in the field of environment to strengthen the Indo-Bhutan relationship.

- Time Period: The MoU shall enter into force on the date of signature and shall continue to remain in force for a period of ten years.

- Areas of Cooperation: Air, Waste, Chemical Management, Climate Change and Any other areas jointly decided upon.

- The MoU shall facilitate exchange of experiences, best practices and technical knowledge through both public and private sectors and research institutions for sustainable development.

Joint Working Group:

It provides for joint projects in areas of mutual interest.

It provides for holding of Joint Working Group / bilateral meetings to review and analyze the progress of activities and keeping their respective ministries/agencies, duly informed of progress and achievements.

Australia to be Included in Malabar Exercise

India is prepared to expand the Malabar exercise to also include Australia.

India and Australia are soon to be holding a virtual summit for better cooperation and strengthening bilateral ties.

Malabar Exercise

It is an annual trilateral naval exercise between the Navies of India, Japan, and the USA which is held alternately in the Indian and Pacific Oceans.

It began as a bilateral naval exercise between India and the USA in 1992 and was expanded into a

trilateral format with the inclusion of Japan in 2015.

Other exercises between India and Australia are Pitch Black and AUSINDEX.

Key Points

Despite regular requests from Australia, India resisted issuing the invitation due to its concerns that the move would give the appearance of a 'quadrilateral military alliance' aimed at China.

However, the recent India-China tensions over the situation at the Line of Actual Control (LAC) may have brought more flexibility to the decision making process.

India is already a member of the Quad and attended the Quadrilateral Security Dialogue held in November 2019.

Quad is the informal strategic dialogue between India, the USA, Japan and Australia with a shared objective to ensure and support a free, open and prosperous" Indo-Pacific region

2.4 US terminates Pakistan's attempt to declare Indian citizen as global terrorist

- Pakistan's efforts to get the Indian national listed as a global terrorist follow the UN ban on Jaish-e-Mohammed (JeM) chief Masood Azhar.

- The Union States has blocked Pakistan's attempt to proscribe an Indian national as a global terrorist by the UN Security Council (UNSC) 1267 sanctions committee.

- Pakistan reportedly failed to produce the required evidence against the concerned Indian citizen after which the United States blocked and terminated its proposal, delivering a huge setback to the nation.

Key Highlights

- Pakistan has been pushing for UN terror listing of an Indian national whom it has been attempting to link and frame for carrying out acts of terrorism on its soil.

- However, the nation failed to produce any fresh evidence to link the Indian citizen with any terror group.

- The concerned Indian citizen reportedly works as an engineer with an Indian construction company active in Afghanistan.

- The US had in September 2019 placed Pakistan's terror-charge proposal on 'technical hold' asking the nation to provide more evidence to prove its allegations.

- However, with the nation failing to produce no fresh evidence against the Indian national, the US formally informed all UNSC members that it was officially blocking and terminating the proposal.

2.5 US Senate passes bill to impose sanctions on China over Hong Kong security law

- China is introducing a new national security law for Hong Kong that has sparked protests in the semi-autonomous city.

- The US Senate on June 25, 20202 passed a bill that seeks to impose sanctions on China for its decision to implement the controversial national security law in Hong Kong. The bill was passed with unanimous consent.

- The bill comprises two measures, one of which- the Hong Kong Autonomy Act, aims to impose sanctions on individuals and businesses that help China restrict the autonomy of Hong Kong. The measure was jointly introduced by Republican Senator Pat Toomey of Pennsylvania and Democratic Senator Chris Van Hollen of Maryland.

- The second measure was pushed by Republican Senator Josh Hawley of Missouri. It is a resolution that condemns China for violating the Sino-British Joint Declaration signed in 1984 to guarantee autonomy for Hong Kong.

Key Highlights

- While pushing the Hong Kong Autonomy Act, Democratic Senator Van Hollen stated that "What the government of China is doing in Hong Kong is unacceptable." He stated that the law will take away the rights of people living in Hong Kong.

- According to Republican Senator Josh Hawley, China's new security law would deal a mighty blow to the freedoms and liberties that the people of Hong Kong have enjoyed for decades now. He stated that it is a permanent break from the one country, two systems principle that has governed that city since 1997.

- The two measures were combined into one bill before getting the Senate's approval.

- The bill still needs to be passed in the House of Representatives before going to US President Donald Trump for his assent.

- As per critics, China's national security law on Hong Kong will overrule the city's democratic freedom and restrict its autonomy.

2.6 RIC foreign ministers meeting: Russia supports India's candidacy as permanent member of UNSC

- The Russian Foreign Minister further stated that India and China do not need any help from the outside to resolve their issues.

- Union External Affairs Minister Dr S Jaishankar participated in the virtual RIC (Russia-India-China) foreign ministers meeting today, June 23, 2020. While addressing the trilateral meeting, Jaishankar stated that the meeting is a special one that reiterates our belief in time-tested principles of international relations. He highlighted that the challenge today is not of concept and norms but of their practice.

- Jaishankar stated that leading voices of the world must be exemplars in every way. He reiterated that respecting international law, recognising legitimate interest of partners and supporting multilateralism and promoting common good is the only way to build a durable world order.

- The Indian External Affairs Minister S Jaishankar stated that beyond history, international affairs must also come to terms with the contemporary reality. He stressed that the RIC countries have been active participants in shaping the global agenda. He stated that the special meeting reiterated their belief in international relations but the real challenge is not just one of concepts and norms, but equally of their practice.

- The Russia, India, China foreign ministers' meeting was held to commemorate the 75th anniversary of the conclusion of the Second World War. India's military contingent will be participating in the Russian Victory Day Parade on June 24, 2020. Indian Defence Minister Rajnath Singh visited Russia to attend the function.

- Recounting India's participation in several battles, Jaishankar stated that the victory over Nazism and Fascism was achieved through sacrifices by many countries such as India, which made a significant contribution with 2.3 million of its citizens taking up arms and around 14 million more participating in war production.

- Jaishankar further stated that respecting international law, recognizing the legitimate interests of partners and supporting multilateralism and promoting common good are the only way to build a durable world order. The minister further thanked Russia for convening the meeting.

- Speaking on India-China border standoff, Russian Foreign Minister Sergei Lavrov stated that they hope that the situation will continue to be peaceful and the two nations will continue to be committed to peaceful resolution of disputes.

- Russian Foreign Minister Sergei Lavrov stressed on how India and China both showed their commitment to peaceful resolution. He highlighted how they started meetings at the level of defence officers, foreign ministers and neither of the two sides made any statements that would indicate that any of them would pursue non-diplomatic solutions.

- The Russian Foreign Minister further stated that India and China do not need any help from the outside. "I don't think they need to be helped,especially when it comes to country issues," Lavrov noted. He added by saying that the two nations can solve their issues on their own.

- China's Global Times, while quoting RCEP ministerial meeting statement highlighted that India has been an important participant in the Regional Comprehensive Economic Partnership (RCEP) negotiations since its inauguration in 2012. It further noted that India's participation in RCEP will contribute to advancement and prosperity of the region. The statement further added that RCEP remains open for India.

2.7 Russia extends support to India's candidacy as permanent UNSC member

- Russian Foreign Minister Sergei Lavrov informed that the discussions also involved probable reforms of the United Nations. He emphasised that India is a strong nominee to become a permanent member of UN Security Council and announced support to India's candidacy. Lavrov stated that Russia believes that India can become a full-fledged member of the Security Council.

Significance

- The Union Ministry of External Affairs on June 18, 2020 confirmed India's participation in the virtual RIC (Russia-India-China) foreign ministers meeting on June 23. Russian Foreign Ministry had earlier confirmed the trilateral meeting.

- This is the first meeting between Indian EAM S Jaishankar and Chinese FM Wang Yi since the India-China border stand-off along the LAC. The two leaders had earlier joined for a virtual summit of the foreign ministers of the Shanghai Cooperation Organisation (SCO) on May 13 but at that time full details of the border issue hadn't been made public. The meeting comes amid rising tensions between India and China after 20 Indian soldiers were martyred in Galwan valley, Ladakh after a violent face-off with Chinese troops.

- The trilateral meeting is being convened at the initiative of Russia. Russia has been repeatedly saying that it hopes both nations take steps to de-escalate tensions. Russia shares a deep relation with both China and India. India had made it clear earlier that there is no room for third-party interference in the matter. This came after US President Donald Trump made the offer to mediate between the two nations.

Background

- The tensions between India and China are on a high over weeks of tense border standoff along the Line of Actual Control, especially in the Ladakh sector. India had though stated that it is conducting dialogue with China through diplomatic and military channels to find an "early resolution" to the issue.

2.8 GoI, World Bank signed agreements to increase access to affordable Housing for Urban Poor in TN

- GoI, World Bank signed agreements to increase access to affordable Housing for Urban Poor in TN

- Government of India, Government of Tamil Nadu and the World Bank signed an agreement to help low-income groups in Tamil Nadu State to get access to affordable housing.

Highlights:

- The agreement was signed for two projects: First Tamil Nadu Housing Sector Strengthening Program for $200 million Tamil Nadu Housing and Habitat Development Project for $50 million

- The project aims to strengthen the state's housing sector policies, institutions, and regulations.

- The first operation will support the government's ongoing efforts to increase the availability of affordable housing by gradually shifting the role of the state from being the main provider to an enabler.

- It will aim to unlock regulatory barriers and incentivize private sector participation in affordable housing for low-income families.

- The second operation aims to deepen these measures to make the affordable housing sector more efficient and inclusive.

- The first operation will support the government's ongoing efforts to increase the availability of affordable housing by gradually shifting the role of the state from being the main provider to an enabler.

3. INDIAN ECONOMY

3.1 Centre promulgates Ordinance to bring cooperative banks under RBI

- The Banking Regulation (Amendment) Ordinance, 2020 was promulgated on June 26, 2020. The Ordinance seeks to amend the Banking Regulation Act, 1949, which regulates the functioning of banks and provides details on various aspects such as licensing, management, and operations of banks.

- Exclusions: The Act does not apply to certain cooperative societies such as primary agricultural credit societies and cooperative land mortgage banks. The Ordinance amends this provision to state that the Act will not apply to: (i) primary agricultural credit societies, and (ii) cooperative societies whose principal business is long term financing for agricultural development. Further, these societies must not: (i) use the words 'bank', 'banker' or 'banking' in their name or in connection with their business, and (ii) act as an entity that clears cheques.

- Power to make a scheme for reconstruction or amalgamation without imposing moratorium: Under the Act, the Reserve Bank of India (RBI) may apply to the central government to place a banking company under moratorium. During the moratorium, no legal action can be initiated or continued against the bank for a period of up to six months. The bank cannot make any payment or discharge liabilities during this period. The Ordinance adds that during the moratorium, the bank cannot grant any loans or make investments in any credit instruments.

- Further, during the moratorium, RBI may prepare a scheme for reconstruction or amalgamation of the bank, if it is satisfied that such an order is needed to secure proper management of the bank, or in the interest of depositors, general public, or the banking system. The Ordinance allows RBI to initiate such a scheme without imposing a moratorium.

- **Issuance of shares and securities by cooperative banks:** The Ordinance provides that a cooperative bank may issue equity shares, preference shares, or special shares on face value or at a premium to its members or to any other person residing within its area of operation. Further, it may issue unsecured debentures or bonds or similar securities with maturity of ten or more years to such persons. Such issuance will be subject to the prior approval of the RBI, and any other conditions as may be specified by RBI.

- The Ordinance states that no person will be entitled to demand payment towards surrender of shares issued to him by a co-operative bank. Further a co-operative bank cannot withdraw or reduce its share capital, except as specified by the RBI.

- **Supersession of Board of Directors:** The Act states that RBI may supersede the Board of Directors of a multi-state cooperative bank for up to five years under certain conditions. These conditions include cases where it is in the public interest for RBI to supersede the Board, and to

protect depositors. The Ordinance adds that in case of a co-operative bank registered with the Registrar of Co-operative Societies of a state, the RBI will supersede the Board of Directors after consultation with the concerned state government, and within such period as specified by it.

• **Power to exempt Cooperative Banks:** The Ordinance states that RBI may exempt a cooperative bank or a class of cooperative banks from certain provisions of the Act through notification. These provisions relate to restrictions of certain types of employment, qualifications of the Board of Directors and, appointment of a chairman. The time period and conditions for the exemption will be specified by RBI.

Certain provisions omitted:

• The Act restricts cooperative banks from making loans or advances on the security of its own shares. Further, it prohibits the grant of unsecured loans or advances to its directors, and to private companies where the bank's directors or chairman is an interested party. The Act also specifies conditions when unsecured loans or advances may be granted and specifies the manner in which the loans may be reported to RBI. The Ordinance omits this provision from the Act.

• The Act states that cooperative banks cannot open a new place of business or change its location outside the city, town or village in which it is currently located, without permission from RBI. The Ordinance omits this provision. The Ordinance also omits a provision requiring a scheduled cooperative bank to maintain assets with a value not exceeding 40% of the its total demand and time liabilities, within India.

Background to the Ordinance:

Because of the Punjab & Maharashtra Cooperative (PMC) Bank Crisis, the union government in February 2020 had approved the amendment to the Banking Regulation Act in order to bring 1,540 cooperative banks under RBI regulation.

Finance Minister, Nirmala Sitharaman, during her budget speech, had mentioned that the cooperative banks will be brought under the regulation of RBI. However, the Banking Regulation (Amendment) Bill, 2020, was not able to pass in the parliament's budget session, as it was curtailed due to the COVID-19 pandemic.

3.2 PMGKP benefited over 42 crore people with an allotment of Rs. 65,454 crore

• The package launched by the central government helped and supported those who have lost their income because of the COVID-19 pandemic.

• The Finance Ministry on June 20 announced that over 42 crore people of the vulnerable and poor sections have received the financial assistance of Rs. 65,454 crore under Pradhan Mantri Garib Kalyan Package (PMGKP).

- The package launched by the central government helped and supported those who have lost their income because of the COVID-19 pandemic. The ministry mentioned that the implementation of the package has been continuously monitored by the central and state governments.
- The government on March 26, 2020, had announced free food grains and cash doles to poor senior citizens, women, and farmers to help at the time of hardship due to lockdown. It was announced as a part of Rs. 1.70 lakh crore relief package.

Finance Ministry on the progress of PMGKP:

- While giving the details of the progress achieved till June 19, the finance ministry mentioned that Rs. 17,891 crore has been front-loaded towards payment of the first installment of PM-KISAN to 8.94 crore beneficiaries and Rs. 30,952 crore has been credited to women Jan Dhan Account Holders in three installments.
- The Ministry further added that Rs. 10,325 crore has been credited to 20.65 crore women Jan Dhan Account Holders as a first installment. Rs. 10,315 crore has been credited to 20.62 crore women Jan Dhan Account Holders with the second installment and Rs. 10,312 crore has been credited to 20.62 crore women Jan Dhan Account holders with the third installment.
- The government has also disbursed Rs. 2,814.5 crore to about 2,81 crore widows, elderly and disabled persons in two installments. Under Pradhan Mantri Garib Kalyan Package, 2.3 crore construction and building workers have also received the financial support amounting to Rs. 4,312.82 crore.
- The Finance Ministry further informed that so far 113 lakh metric tonne of foodgrains have been lifted by 36 UTs and States. 36.42 lakh metric tonne of food grains have been distributed that covers 72.83 crore beneficiaries of by 36 UTs and States for May 2020.
- 13.59 LMT of food grains has been distributed that covers 27.18 crore beneficiaries of by 29 States and UTs for June 2020. Out of 5.8 lakh, a metric tonne of pulses allocated for three months, 5.68 LMT of pulses has been dispatched to various UT's and States.

Assistance under Atmanirbhar Bharat Mission:

- The central government under Atma Nirbhar Bharat Mission had announced free foodgrains supply to migrants for two months. It added 6.3 LMT foodgrain already lifted by 26 UTs and States.
- The ministry mentioned that 8.52 crore Pradhan Mantri Ujjwala Yojana LPG cylinders have already been booked and delivered for April and May 2020 under the scheme. 2.1 crore PMUY cylinders have been booked for June 2020 and 1.87 crore cylinders have already been delivered to beneficiaries this month so far.

- As per the Finance Ministry, 20.22 lakh members of EPFO have been taking the benefit of online withdrawal of non-refundable advance from their account that has been amounting to Rs. 5,767 crore.

- The government has asked the states to spend 30 percent of the fund under the District Mineral Fund (DMF) which amounts to Rs. 3,787 crore. Out of which 183.65 crore has been spent so far.

3.3 NHAI becomes first construction sector organisation to go Fully Digital

- NHAI becomes first construction sector organization to go Fully Digital. The system will also facilitate in taking correct and timely decisions as the system is likely to predict the financial impacts of different alternatives based on the historical data and will reduce a lot of disputes.

- The National Highway Authority of India (NHAI) under the Ministry of Road Transport and Highways has announced that it has gone Fully Digital as it has launched a unique cloud-based and Artificial Intelligence (AI) powered Big Data Analytics platform 'Data Lake and Project Management Software'.

Highlight:

- NHAI's entire project management workflow is transformed from manual to the online portal based.

- Also, the complete project execution operations including 'workflow with timelines and 'alert mechanism' has been configured.

- Project documentation, contractual decisions, and approvals are processed through the portal only.

- The Data Lake software, with advanced analytics, will forecast the delays, likely disputes, and will give advance alerts.

- The system will facilitate in taking correct and timely decisions as the system is likely to predict the financial impacts of different alternatives based on the historical data and will reduce a lot of disputes.

- Majority of the disputes can be minimized as the Data Lake software has provisions to keep track and check on all these constraints and will ensure work is carried out within the deadlines in a transparent manner.

- As all processes are going to be portal-based, decision-making will be faster and will eventually diminish the chances of litigation in the future.

3.4 RBI to conduct OMO to Boost Liquidity

- The Reserve Bank of India (RBI) has announced that is to conduct special "Open Market Operations (OMO)" on 2 July 2020.

- The aim is to pump up liquidity in the financial system.

Highlights:

- RBI's special OMO session will see the simultaneous purchase and sale of government securities for Rs.10,000 crore.

- RBI will sell short-term securities, that worth Rs.10,000 crore, that are maturing in the current band next year and purchase long-term securities of an equal amount maturing between 2027 and 2033.

- The move by the Central Bank is expected to improve both liquidity and bond yields.

- Open market operations (OMO) refers to a central bank's buying and selling of government securities in the open market in order to expand or contract the amount of money in the banking system.

- Securities' purchases inject money into the banking system and stimulate growth, while sales of securities do the opposite and contract the economy.

- In a multiple price-auction, each successful bidder pays the price stated in his bid. In case of 'uniform price' auctions, all successful bidders pay the same price that is the cut-off price at which the market clears the issue.

3.5 PM Narendra Modi launches auction of 41 Coal Mines, says India will turn crisis into opportunity

- PM Modi announced that the government has set the target to gasify around 100 million tonnes of coal by 2030.

- PM Narendra Modi launched the auction of 41 coal mines for commercial mining through video conference on June 18, 2020. The launch is a part of the announcements that were made by the centre under Atmanirbhar Bharat Abhiyan.

- While launching the auction process of coal mines for sale of coal, the Prime Minister said that India will turn the COVID-19 crisis into an opportunity by becoming self-reliant and reduce its dependence on imports.

- He said that the auction of coal mines is a major step to make India self-reliant in the energy sector. He stated that we are not just launching the auction for commercial coal-mining but bringing the coal sector out of decades of lockdown.

- The Prime Minister highlighted that India despite having the world's fourth-largest coal-reserves and being the second-largest producer still does not export coal but is the world's second-largest coal-importer.

Key Highlights

- PM Modi announced that the government has set the target to gasify around 100 million tonnes of coal by 2030. The centre has already identified four projects for the same and around Rs 20,000 crores will be invested in them.

- The Ministry of Coal, in association with FICCI, launched the auction process of 41 coal mines under the provisions of CM (SP) Act and MMDR Act to achieve self-reliance in the coal sector.

- The auction of the 41 coal mines for commercial mining is taking place at a time when business activity is normalizing rapidly in India. The consumption and demand is rapidly approaching the pre-COVID level.

- The auction process will pave the way for commercial mining, marking the beginning of the opening of the Indian coal sector.

- It aims to enable the country to achieve self-sufficiency in meeting its energy needs and boost industrial development.

3.6 AIIB approves $750 million dollar loan to India to fight COVID-19

- AIIB's Vice President for Investment Operations informed that the support to India aims to ensure economic resilience to prevent long term damage to the productive capacity of India's economy.

- The Asian Infrastructure Investment Bank (AIIB) has approved the loan of $750 million dollars (about Rs. 5,688 crore) to India. The loan has been sanctioned to assist the Indian government to strengthen its response to the impacts of COVID-19 pandemic on millions of people.

- As per the World Bank, India has been vulnerable to the pandemic given that around 270 million people live below the national poverty line and around 81 million has been living in the densely populated informal settlements who have limited access to health services.

- While AIIB does not consist of a regular instrument for policy-based financing, it has been extending such financing on an exceptional basis to support its members through projects which are co-financed with the Asian Development Bank or the World Bank.

- The budgetary support which is co-financed with the Asian Development Bank will go toward supporting the economic capacity of the informal sector, businesses. It will also help in expanding the social safety nets for the needy as well as will strengthen the country's healthcare systems.

- The disruption in the economic activities has impacted the poor households disproportionately, especially women, who are mostly employed in the informal sector.

- DJ Pandian, AIIB Vice President for Investment Operations, stated that many of the world's middle and low-income countries are in the initial stages of the health crisis but have already been feeling the impacts of the COVID-19 pandemic. This poses an enormous risk for millions of people across India who has recently emerged from poverty.

- Further he also added that our support to India aims to ensure economic resilience to prevent long term damage to the productive capacity of India's economy.

- The total AIIB's sovereign loans to India that have already been approved amounts to 3.06 billion dollars. It includes a recent 500 million- dollar COVID-19 emergency response.

- The current sanctioned loan will be second for India under AIIB's COVID-19 Crisis Recovery Facility (CRF). The facility was created as a part of the coordinated international response to combat the pandemic and to support AIIB's members' urgent financial, economic, and public health needs apart from quick recovery from the crisis.

- Social Venture Funds (SVFs):

It recommends a range of funding avenues, such as Social Venture Funds (SVFs) under Alternative Investment Funds (AIFs).

Social Venture Funds (SVFs) are funds investing in early-stage social enterprises to expand opportunity for people living in poverty.

Enhanced Reporting Standards:

Profit social enterprises be allowed to list on the platform with enhanced reporting requirements.

The social stock exchange can be housed within the existing national bourses like the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE).

Significance:

This will help the SSE to leverage existing infrastructure and client relationships with onboard investors, donors, and social enterprises.

Certain tax incentives allowed under the recommendation would encourage participation in the culture of 'giving' among various stakeholders.

It would encourage banks and other investors to participate with non profit organisations and thereby making social and economic growth more inclusive.

- **Import Cut to Become Self-Reliant**

Recently, the Union Government has identified 10 promising sectors to cut "unnecessary" import.

Key Points

Identified Sectors: The sectors include capital goods and machinery, mobile and electronics, gems and jewellery, pharmaceuticals, textiles and garments.

Earlier, the government had asked the Indian industry to set new targets towards building self-reliance in furniture, footwear and air conditioners.

Government's Plan:

The government is looking for increasing domestic manufacturing and exploring the export potential in these areas.

For this, the government is bringing more investment and making India a major manufacturing destination for these sectors.

The government is also focussing on raising quality controls to make India globally competitive.

If necessary, the government can also raise the import duties on these sectors without violating the

World Trade Organisation (WTO) bound rates.

PM's Focus on AtmaNirbhar Bharat: Earlier, the Prime Minister had stressed on the need for self-reliance and a stronger focus on manufacturing locally by enterprises to strengthen the economy against the impact of coronavirus and get the country back on the growth track.

He had emphasised on the need to build robust local supply chains and focus on Make In India.

He called for creating strong enterprises in India that can become global forces and help in generating employment.

He highlighted that India did not use to manufacture PPE kits earlier but the pandemic has shown that India can fulfill its own needs.

Schemes:

The government has brought various schemes towards making India a major player in sectors like medical devices, Active Pharmaceutical Ingredients (APIs). For example: Production Linked Incentive (PLI) Scheme.

However, in some cases, the schemes are repackaged versions of older attempts of the previous government to promote domestic production in these areas.

For instance, recently, the government invited applications from companies to invest in India under the second phase of the electronics manufacturing scheme.

An earlier version of a similar electronics manufacturing scheme, called the Modified Special Incentive Package Scheme was notified by the previous government in July 2012.

- **Global Economic Prospects: World Bank**

  Recently, the World Bank has released a part of the Global Economic Prospects (GEP) June 2020 report.

  The report highlighted that the Covid-19 pandemic will be having a "severe" short and long term effects on economic growth.

  Key Findings

  Impact on Global Poverty:

  The Covid-19 pandemic and economic shutdowns have devastated the poor around the world which is unprecedented in modern times.

  It has been estimated that 60 million people could be pushed into extreme poverty in 2020. These estimates are likely to rise further, with the reopening of advanced economies.

  These economic lockdowns have also damaged the multiple channels, including lower investment and innovation, erosion of the human capital and a retreat from global trade and supply linkages.

  It has also lowered the potential growth and labor productivity.

- **Agricultural Sector Reforms**

  Recently, the Cabinet has approved a proposal to promulgate three separate ordinances to push agriculture marketing and commodities trade reforms in the country.

  These reforms are part of the third tranche of the economic package announced under Atmanirbhar Bharat Abhiyan to counter Covid-19 pandemic.

  These ordinances are expected to give effect to the amendments proposed to the Essential Commodities Act and bring in two new Central laws on inter-state trading and engagement of the farmers with processors, exports, etc.

- **Amendments to Essential Commodities Act (1955)**

  Background:

  India has become surplus in most agri-commodities but farmers have been unable to get better prices due to lack of investment in cold storage, processing and export.

  The imposition of the curbs on stocking of farm produce and regulation of the prices of commodities, etc. under Essential Commodities Act (ECA) are some of factors responsible for less entrepreneurial spirit and thus less investment in the farm sector.

  Benefits of Amendments:

  The amendment would deregulate the commodities such as cereals, edible oils, oilseeds, pulses, onions and potatoes. It will help to lessen the fears of private investors of excessive regulatory interference in their business operations.

  Any limits under ECA over these commodities will be imposed only in exceptional circumstances such as war, famine, extraordinary price rise and natural calamity.

  The freedom to produce, hold, move, distribute and supply will lead to harnessing economies of scale and attract private sector/foreign direct investment into the agriculture sector.

  It will help drive up investment in cold storages and modernization of the food supply chain.

  Significance:

  The announced amendment is expected to help both farmers and consumers while bringing in price stability.

  It will also create a competitive market environment and also prevent wastage of agri-produce that happens due to lack of storage facilities.

  It is considered as a step towards transformation of agriculture and raising farmers' income.

- **USTR's Probe into Digital Services Taxes**

  Recently, the office of the United States Trade Representative (USTR) has initiated investigations into taxes adopted or under consideration by 10 nations, including India, on revenues of American digital service companies like Netflix, Airbnb etc.

Such taxes are known as Digital Service Taxes.

Key Points

The Office of the United States Trade Representative (USTR):

It is responsible for developing and coordinating US international trade.

The Section 301 gives the USTR broad authority to investigate and respond to a foreign country's action which may be unfair or discriminatory as well as negatively affect US commerce.

Adopted through the 1974 Trade act, the Section allows the US President to impose tariffs or other curbs on foreign nations.

However, the law mandates consultations with trading partners.

Digital Services Taxes (DSTs):

These are the adopted taxes on revenues that certain companies generate from providing certain digital services. E.g. digital multinationals like Google, Amazon and Apple etc.

The Organisation for Economic Cooperation and Development (OECD) is currently hosting negotiations with over 130 countries that aim to adapt the international tax system. One goal is to address the tax challenges of the digitalization of the economy.

Some experts argue that a tax policy designed to target a single sector or activity is likely to be unfair and have complex consequences. The digital economy cannot be easily separated out from the rest of the global economy.

India's Tax on Digital Companies:

The US is probing the 2% Digital Services Tax (DST) that India adopted in March and which went into effect on April 1, 2020.

The tax applies only to non-resident companies with annual revenues over $267,000, and covers online sales of goods & services to persons in India.

Further, equalisation levy at 6% has been in force since 2016 on payment exceeding Rs. 1 lakh a year to a non-resident service provider for online advertisements.

This is applicable for e-commerce companies that are sourcing revenue from Indian customers without having tangible presence in the particular country.

- **TULIP: The Urban Learning Internship Program**

  The Ministry of Human Resource Development, the Ministry of Housing & Urban Affairs, and All India Council for Technical Education (AICTE) have jointly launched an online portal called The Urban Learning Internship Program (TULIP).

  Key Points

  Aim: The program aims to provide internship opportunities to 25,000 fresh graduates in all Urban Local Bodies (ULBs) and Smart Cities across the country.

Concept: TULIP has been conceived pursuant to the Budget 2020-21 announcement under the theme 'Aspirational India' which laid emphasis on changing the approach of education from 'doing by learning,' to 'learning by doing'.

Area of Work: The internship opportunities will be provided for 'Smart City' projects which range from positions in urban planning, water supply, waste management, slum improvement and digital governance among others.

Eligibility: Applicants must be Indian citizens who have completed their final year of college within the last 18 months and have a degree of B. Tech, B planning, B. Arch, BA, BSc, BCom, LLB.

Duration: Internship durations can range from eight weeks to one year.

Benefit: It would help enhance the value-to-market of India's graduates and help create a potential talent pool in diverse fields.

TULIP would also benefit ULBs and smart cities. It will lead to infusion of fresh ideas and energy with engagement of youth in co-creation of solutions for solving India's urban challenges.

The TULIP's launch is also an important stepping stone for fulfillment of MHRD and AICTE's goal of 1 crore successful internships by the year 2025.

- **Periodic Labour Force Survey 2018-19**

  The National Statistical Office (NSO) released the Periodic Labour Force Survey (PLFS) for July 2018 to June 2019.

  Key Points

  Unemployment Rate: India's unemployment rate fell to 5.8% during 2018-19 from 6.1% during the same period of 2017-18.

  The urban unemployment rate reduced to 7.7% from 7.8%.

  The rural unemployment reduced to 5% from 5.3%.

  Labour Force Participation Rate: The labour force participation rate rose to 37.5% during 2018-19 from 36.9% of 2017-18.

  Female Participation Rate: The female participation rate also improved going up to 18.6% in 2018-19 from 17.5% the year before.

  Worker Population Ratio: The worker population ratio also increased, to 35.3% as against 34.7% in the 2017-18.

  Issues Involved:

  Unemployment was a concern in 2019 and it worsened in 2019-20 due to Covid-19.

  According to the monthly Centre for Monitoring Indian Economy data, the unemployment rate in India shot up from 7.87% in June 2019 to 23.48% in May 2020.

Periodic Labour Force Survey (PLFS)

PLFS is India's first computer-based survey launched by the National Statistical Office (NSO) in 2017.

It has been constituted based on the recommendation of Amitabh Kundu.

PLFS has two fold objectives:

To estimate the key employment and unemployment indicators (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the Current Weekly Status (CWS).

To estimate employment and unemployment indicators in both usual status and CWS in both rural and urban areas annually.

Before PLFS the NSSO (previous name of NSO) used to bring the data related to employment and unemployment based on its quinquennial household socio-economic survey programme.

3.7 Social Stock Exchange

Recently, an expert panel constituted by the Securities and Exchange Board of India (SEBI) has recommended allowing non-profit organisations to directly list on Social Stock Exchanges (SSE).

Major Recommendations

Issuance of Bonds:

Allowing non-profit organisations to directly list through issuance of bonds in the form of zero coupon or zero principal bonds.

Zero-coupon bond is a debt security that does not pay interest but instead trades at a deep discount, drawing a profit at maturity, when the bond is redeemed for its full face value.

This would help to access funds from donors, philanthropic foundations and Corporate Social Responsibility (CSR) spenders as they will be encouraged to buy zero coupon bonds.

3.8 India's foreign exchange reserves cross half trillion dollars for the first time

India's central bank has been shoring up its foreign reserves for over a year and has surpassed South Korea and Russia as the third biggest holder of forex reserves only behind Japan and China.

Key Highlights:

- India's foreign exchange reserves have crossed the milestone $500 billion mark for the first time ever in the country's history. The foreign exchange reserves had risen to $8.2 billion in the week of June 5.

- As per the data released by the central bank on June 12, the healthy surge in the foreign exchange was largely on the back of capital raising rounds by Kotak Mahindra and Reliance as the foreign currency asset held by RBI rose $8.4 billion and stood at a record $463 billion in the reporting week.

- India's central bank has been shoring up its foreign reserves for over a year and has surpassed South Korea and Russia as the third biggest holder of forex reserves only behind Japan and China.

- Foreign currency assets that are expressed in US Dollars include the effect of appreciation or depreciation of non-US currencies such as pound, euro, and yen held in the reserves.

- The earlier decision of rating company S&P's to not downgrade India's sovereign rating and outlook has also been expected to improve the foreign fund flow from global investors.

- RBI's reserve management policy's prime objective is the safety of reserves and liquidity.

- As per the latest RBI data, other components of Indian foreign reserve such as its reserve held in gold declined by $329 million in the reporting week and stood at $32.352 billion.

- Central Bank's and SDR reserve positions at IMF stood at $4.2 billion and $1.4 billion respectively.

4. ENVIRONMENT

4.1 SCORPAENOSPSIS NEGLECTA

- In a major development, the researchers at the Central Marine Fisheries Research Institute (CMFRI) have found a rare fish from Sethukarai coast of Tamil Nadu in the Gulf of Mannar.
- The band-tail scorpionfish (Scorpaenopsis neglecta), a rare marine species well-known for the stinging venomous spines and the ability for changing colour, was found during an underwater exploratory survey of the seagrass ecosystem in the region.
- This is the first time this particular species was found live in the Indian waters.

About its ability to change colour

- This very rare fish has a handful of characteristics that may draw the attention of marine enthusiasts.
- It has the ability to change its colour and blend with its surrounding environment to escape from predators and while hunting its preys.
- It started changing its colour from the moment we disturbed it by touching a dead coral fragment.
- It was noticed that within four seconds, the skin of the fish changed from white to mottled black colour.

About the fish

- The fish is called 'scorpionfish' because its spines contain neurotoxic venom.
- When the spines pierce an individual, the venom gets injected immediately and eating this fish would lead to fatal death.
- A nocturnal feeder, the band-tail scorpion fish feeds during night time with an ability to attack and suck its prey at lightning speed.

4.2 AMERY ICE SHELF

How big is the D28 iceberg?

D28 iceberg
1,636 sq km

Greater London
1,500 sq km

Approximate scale
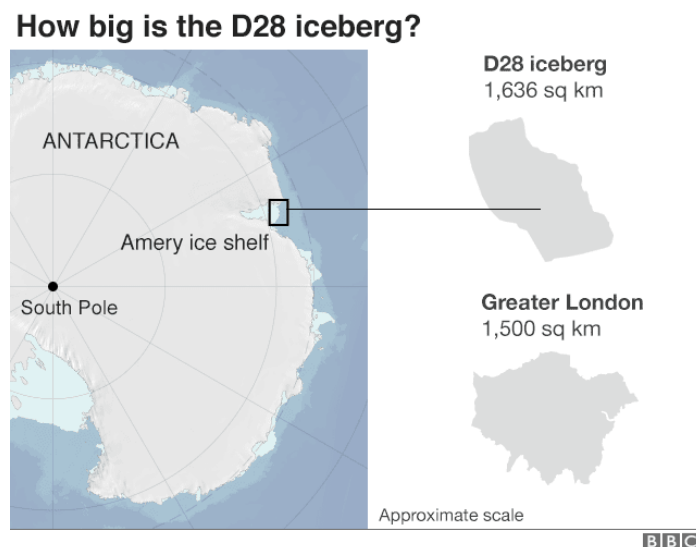
- The National Centre for Polar and Ocean Research (NCPOR) predicts that there would be a 24 per cent increase in the expansion of Ameri Ice Shelf (AIS) boundaries by 2021 and another 24 per cent expansion by 2026 from its 2016 positions.The prediction made by NCPOR is based on a 16-year-long satellite-based observation that covered an area of 60,000 sq. km across the AIS.
- Scientists feel that this study would help understand the ongoing changes in the ocean and atmospheric forces better.

About the Background

- The floating sheets of ice called the ice shelves play a multi-faceted role in maintaining the stability of a glacier.
- Ice shelves connect a glacier to the landmass.
- Because ice shelves already float in the ocean, they do not contribute directly to sea level rise when they break up.
- However, ice shelf collapse could contribute to sea level rise indirectly.
- Ice streams and glaciers constantly push on ice shelves, but the shelves eventually come up against coastal features such as islands and peninsulas, building pressure that slows their movement into the ocean.
- If an ice shelf collapses, the backpressure disappears.

About the study findings

- NCPOR carried out this study based on the satellite data collected from 2001 to 2016.
- It becomes clear from the study that the AIS is losing its stability owing to the impact of a downstream giant glacial drainage system over the past 19 years, thereby advancing the ice shelf boundaries.
- If this continues, it is entirely possible that in the next six years (2021 to 2026), the positions of the ice shelf would closely coincide with the actual boundary conditions.
- NCPOR observations also revealed a critical cooling of the sea surface temperature (SST), resulting in an advancement of the ice shelf by 88 per cent in the past 15 years.
- These changes would contribute in a major way to climate variability.
- In the background of the global warming scenario, the study reveals that the advancement in the predicted ice shelf extent closely corresponds with the actual extent.

Highlights

- The study clearly demonstrated the application of satellite observations and statistical techniques methods for the determination and validation; the reconstruction of the past; and the prediction of the future dynamism of ocean heat fluctuation and Antarctic Amery ice shelf mass shifting-extent.

- These are some of the ground-breaking methods crucial for monitoring and quantification of climate change effects and its consequences.
- The methods could be replicated elsewhere as they are necessary for the understanding of the response of global climate change, its monitoring for sustainable environmental management.
- Our scientists have done us proud again by contributing immensely to the understanding of the impact of climate change on the ice continents. Hats off to them.

4.3 WORLD ENVIRONMENT DAY

- World Environment Day is being observed on June 5, 2020.
- World Environment Day is the United Nations day for encouraging worldwide awareness and action to protect our environment.

About the day

- Every year on 5th of June it is observed.
- To mark the first day of The United Nations Conference on the Human Environment this was held in Stockholm, Sweden from June 5–16 in 1972.
- Every World Environment Day has a different host country, where the official celebrations take place.
- This year's host is Colombia in partnership with Germany.
- In 2020, the theme is biodiversity–a concern that is both urgent and existential.

4.4 AMBARNAYA RIVER

- Russia declared a state of emergency five days after a power plant fuel leak in its Arctic region caused 20,000 tonnes of diesel oil to escape into a local river, turning its surface crimson red.
- The Ambarnaya river, into which the oil has been discharged, is part of a network that flows into the environmentally sensitive Arctic Ocean.

About the leak

- The thermoelectric power plant at Norilsk is built on permafrost, which has weakened over the years owing to climate change.
- This caused the pillars that supported the plant's fuel tank to sink., leading to a loss of containment on May 29.
- Reports said that around 20,000 tonnes of diesel oil was released into the Ambarnaya river, which has since drifted 12 km on its surface.
- Norilsk Nickel, the Russian mining giant that owns the plant, said it had reported the leak in a "timely and proper" way and that the pillars had held the tank in its place "for 30 years without difficulty".

- The conglomerate, which is the world's leading nickel and palladium producer, has also been blamed for another leak in 2016, when pollutants from its plant leaked into another river in the region.
- As per an AP report, its factories have made Norilsk one of the most heavily polluted places on Earth.

About the Russian efforts

- The leak came to the notice of the Region's Governor, Alexander Uss.
- Uss told President Vladimir Putin during a televised videoconference that he became aware of the spill after "alarming information appeared in social media".
- Putin, who appeared irate, ordered a probe into the incident.
- Boom obstacles were placed in the river, but they were unable to contain the oil because of shallow waters.
- So far, three criminal proceedings have been launched, and the head of the power plant has been detained, the TASS report said.
- The state of emergency declared would bring in extra forces and federal resources for the clean-up efforts, the Moscow Times reported.

About the extent of damage

- Environmentalists have said the river would be difficult to clean, given its shallow waters and remote location, as well as the magnitude of the spill.
- A World Wildlife Fund speaking to the AFP news agency described this as the second-largest known oil leak in modern Russia's history in terms of volume.
- The Russian chapter of activist group Greenpeace said damages to the Arctic waterways could be at least 6 billion rubles (over \$76 million), and has compared the incident to Alaska's 1989 Exxon Valdez disaster.
- Its estimate does not include atmospheric damage due to greenhouse gases and soil pollution.

4.5 'NAGAR VAN' SCHEME IN ALL STATES

Union Minister Prakash Javadekar announced implementation of the 'Nagar van' scheme to develop 200 Urban Forests across the country in next five years with a renewed focus on people's participation and collaboration between Forest Department, Municipal bodies, NGOs, Corporates and local citizens.

About World Environment Day

- World Environment Day (WED) is celebrated on 5th June every year. Ministry of Environment, Forest & Climate Change celebrates WED focusing on the theme declared by the United Nations Environment Programme (UNEP) and organizes several events.
- This year's theme is 'Biodiversity'.

- In view of the prevalent situation due to COVID-19 pandemic the ministry held virtual celebrations of World Environment Day on this year's theme with focus on Nagar Van (Urban Forests).

About Smriti Van

The Smriti Van in Warje, Pune has been developed over the past few years by the state forest department, citizens of Pune, a number of corporate organisations and their charitable arms, with contributions from the PMC as well. Before becoming a pioneering urban forest, Warje hill was a barren land, dumped with garbage and full of encroachments.

About the scheme

- The scheme is aimed to develop 200 Urban Forests across the country in next five years with a renewed focus on people's participation and collaboration between the Forest Department, Municipal bodies, NGOs, Corporates and local citizens.

- These forests will work as lungs of the cities and will primarily be on the forest land in the City or any other vacant land offered by local urban local bodies.

- The scheme will be, in part, paid for by the CAMPA (Compensatory Afforestation Fund Act, 2016) funds. The forests were to come up either on existing forest land or on any other vacant land offered by urban local bodies.

4.6 'HEALTHY AND ENERGY EFFICIENT BUILDINGS' INITIATIVE
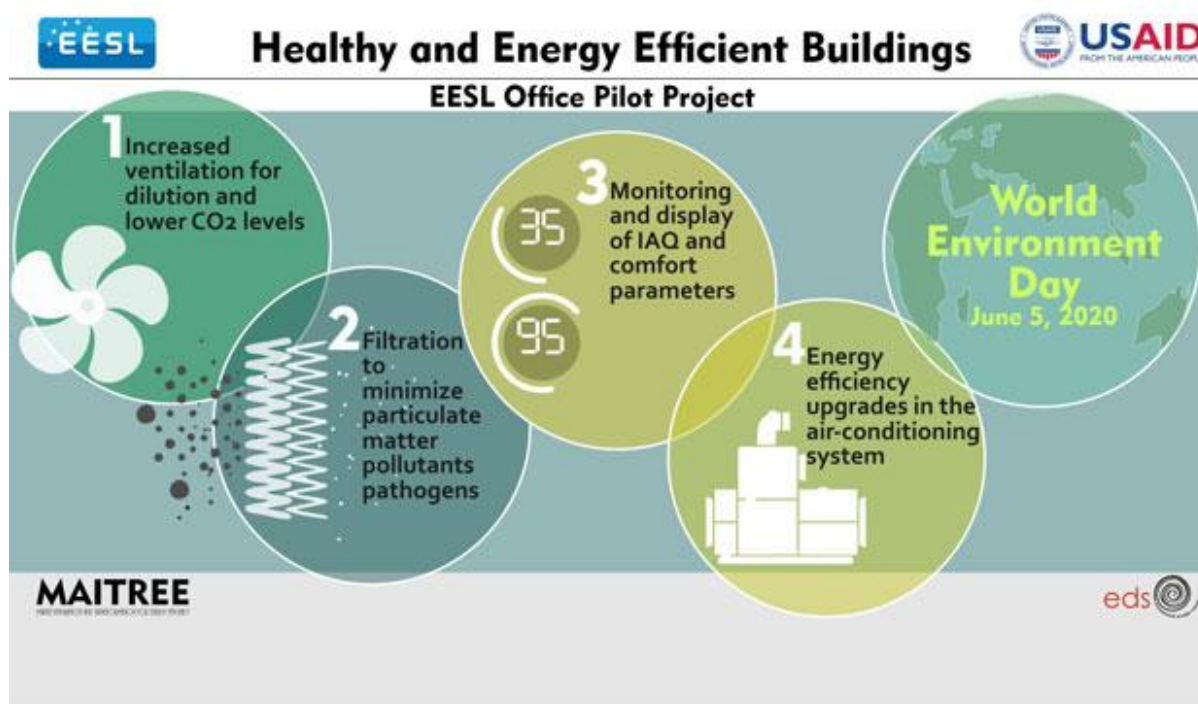
On occasion of World Environment Day, Energy Efficiency Services Limited (EESL), a joint venture of PSUs under Ministry of Power, in partnership with the U.S. Agency for International

Development's (USAID) MAITREE program, launched the "Healthy and Energy Efficient Buildings" initiative that will pioneer ways to make workplaces healthier and greener.

About the initiative

- Healthy and Energy Efficient Buildings Initiative, EESL has taken the leadership by being the first to implement this framework in its own offices.

- This initiative is addressing the challenges of retrofitting existing buildings and air conditioning systems so that they are both healthy and energy efficient.

- Poor air quality has been a concern in India for quite some time and has become more important in light of the COVID pandemic.

- As people return to their offices and public spaces, maintaining good indoor air quality is essential for occupant comfort, well-being, productivity and the overall public health.

- Most buildings in India are not equipped to establish and maintain healthy indoor air quality and need to be upgraded.

- Such retrofit measures, like increasing outside air and additional filtration in the air conditioning system, typically come at the cost of occupant comfort and increased energy use.

- Nor are there standardized approaches to retrofitting.

- The EESL office pilot will address this problem by developing specifications for future use in other buildings throughout the country, as well as aid in evaluating the effectiveness and cost benefits of various technologies and their short and long-term impacts on air quality, comfort, and energy use.

About EESL

- Energy Efficiency Services Limited (EESL), under the administration of Ministry of Power, Government of India, is working towards mainstreaming energy efficiency and is implementing the world's largest energy efficiency portfolio in the country.

- Driven by the mission of Enabling More – more transparency, more transformation, and more innovation, EESL aims to create market access for efficient and future-ready transformative solutions that create a win-win situation for every stakeholder.

4.7 INDIA'S FIRST ONLINE WASTE EXCHANGE PLATFORM

Adding value to waste
Chennai Corporation has launched Madras Waste Exchange, an online waste trading platform

The Indian wing of the People for the Ethical Treatment of Animals (PETA), which is known to be the premiere most organisation fighting for right of animals, has appreciated Andhra Pradesh CM YS Jagan Mohan Reddy for launching an online waste exchange platform that will help the authorities to monitor the movement of hazardous waste real time using the tools incorporated in the platform.

About the Background

Tweeting about this one of a kind initiative taken up by the AP Government, the official handle of PETA India said ,' Thank you @ysjagan , we are sure this will help animals too'.

About the platform

- Andhra Pradesh has a large number of industries falling under red and orange categories, which generate significant quantities of liquid waste, hazardous and non-hazardous solid waste and air pollutants.

- They also generate other wastes also like e-waste and many more, which need to be addressed.

- The waste management sector / the waste market is not adequately organised to cater the total quantity of the waste being generated. Hence, there is a requirement for appropriate system intervention to streamline, manage and scientifically dispose off the waste generated in the State.

- To resolve the existing insufficiency in managing the waste generated and making the waste management sector/ market more organised, it has been proposed by the government to set up A.P.

- Environment Management Corporation as a government company to handle industrial waste, from its generation until the end of its lifecycle.

- Accordingly, the EFS&T Dept, Government of Andhra Pradesh vide G.O. Ms. No. 39 dt: 05.12.2019 issued orders for formation of Andhra Pradesh Environment Management Corporation (APEMC).

- The APEMC will work in close coordination with Andhra Pradesh Pollution Control Board (APPCB), with a strong regulatory framework to handle the waste from cradle to grave.

- APPCB will consider and make necessary provisions for industries / organisations to hand over the waste generated by their units, which cannot be treated within their premises, to APEMC for management of waste, in accordance with Environmental Rules & Regulations.

- The Hon'ble Chief Minister of Andhra Pradesh Sri.Y.S. Jagan Mohan Reddy, launched the online waste exchange platform of AP Environment Management Corporation (APEMC) on the eve of "World Environment Day 2020" on 5th June 2020.

Highlights

- The Hon'ble Chief Minister of Andhra Pradesh Sri.Y.S. Jagan Mohan Reddy , who launched the poster of online waste exchange platform of AP Environment Management Corporation, also mentioned the salient features of the corporation viz.,India's 1st online waste exchange platform.

- A proactive initiative of Govt. of AP towards environment improvement 100% safe disposal of toxic wastes.

- Proper tracking, scrutiny and audit of the waste encouragement towards utilization of wastes such as co-processing.

- Promoting 6Rs – Reduce, Reuse, Recycle, Refurbish, Redesign & Remanufacture.

4.8 STATE OF INDIA'S ENVIRONMENT REPORT

- The COVID-19 outbreak has put 265 million people at risk of starvation. Almost 76 per cent of the world's informal work-force has been severely affected.

- India is lagging behind in meeting nine of the 17 Sustainable Development Goals.

About the Highlights

- Tamil Nadu, Maharashtra and Himachal Pradesh are some of our best governed states — based on their performance in 10 key sectors.

- India's climate commitments are more ambitious than that of many other countries, including China and the US.

- Statistics like these form the content of our annual State of India's Environment 2020 in Figures, a unique compendium of well-researched and closely analysed environmental data from across the country.

- On subjects ranging from COVID-19 and pandemics, Development in the states, Migration and Climate Change.

- To Air Pollution, Forests and Wildlife, Employment, Waste and Housing.

4.9 CORAL TRIANGLE DAY
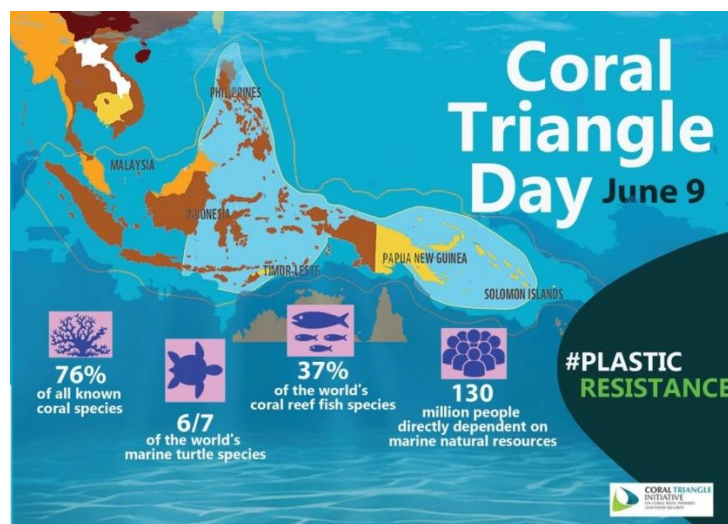
- The Coral Triangle Day was organized on June 9, to celebrate and raise awareness of ocean conservation and protection, particularly on the Coral Triangle, the world's epicenter of marine biodiversity.

- Planned as a publicly released event, the day is praised by people, associations, and foundation worried on the Coral Triangle.

- The Coral Triangle day was observed the first time on June 9, 2012, related to the World Oceans Day on June 8.

About Coral Triangle Day

- The Coral Triangle Day (held every June 9) is a gigantic celebration of the Coral Triangle, the world's epicenter of marine biodiversity, which envelops the oceans of 6 nations in the Asia-Pacific region: Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands, and Timor Leste.

- This celebration isn't select to these six countries however and incorporates different nations that profit by the Coral Triangle's rich marine resources.

- The event is praised in a few areas around the Coral Triangle region through various activities including but not restricted to: beach clean-ups; sustainable seafood dinners and exhibitions; bazaars; and beach parties, among others—all conveying the message of ocean conservation under the overall banner of "shared waters, shared solutions".

- The Coral Triangle Day is a yearly, publicly released event that unites people, associations, and foundations on one special day of the year to reveal insight into ocean conservation and the various approaches to secure and monitor the Coral Triangle.

About Coral Triangle

- The Coral Triangle, the world's epicenter of marine diversity, is one of the 3 mega ecological complexes on our planet, along with the Congo Basin and the Amazon Rainforest.

- It is a huge ocean territory that geographically spreads across 6 nations in Asia and the Pacific: Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor Leste (the "CT6" nations).

- The term "Coral Triangle" alludes to a region of the tropical marine waters that covers the selective economic zones of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and East Timor (Timor-Leste).

- The Coral Triangle covers under 2% of Earth's ocean territory, yet it has 76% of all known coral species, over 3,000 species of fish, and the best degree of mangrove forests in the world.

- It is sometimes alluded to as the "Amazon of the seas" since it is the center of global marine diversity simply like Amazon is the symbol of the world's rainforests.

- Unfortunately, the biodiversity of the Coral Triangle is imperiled because of environmental change, poor marine management, local dismissal for uncommon and undermined species, and a few different factors.

- Coral Triangle Day was set up by the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security to raise awareness of the significance of protecting the biological resources of the Coral Triangle.

4.10   ASIATIC LION

- The population of Asiatic Lions in Gujarat has witnessed a massive jump in the last five years, from 523 in 2015 to 674 in 2020.

- The growth rate is a jump of almost 29%.

Background

- The state forest department in a press statement confirmed the numbers.

- The statement read: "The last population estimation exercise was conducted in May 2015 which pegged the lion numbers at 523, a 27 per cent increase from the estimation of 2010. The population of Asiatic Lions has thus shown a steady increase with a population of 674 individuals with an increase rate of 28.87 per cent (one of the highest growth rate so far)..."

Highlights

- The population of the lions has spread over an area of 30000 sq. km in 2020 from 22000 sq. km in 2015, increasing the distribution area by 36%.

- The press note further said that multiple strategies had been implemented that has contributed to the success in conservation.

- The use of modern technology, wildlife health care, habitat management, increases in prey base and human-lion conflict mitigation to name a few of the strategies employed by the state department.

About Asiatic Lion

- Asiatic lions are present in protected areas and agro-pastoral landscape of Saurashtra covering at least nine districts in a sprawling expanse of over 30000 sq. km which is termed as the Asiatic Lion Landscape.

- The Gir forest is located in PM Modi's home state of Gujarat and is also known globally for housing Asiatic lions.

4.11   NATURE INDEX, 2020

Three of the autonomous institutions of the Department of Science & Technology, Government of India have found their place among top 30 Indian Institutions including universities, IITs, IISERs, and Research Institutions and Labs as per Nature Index 2020 ratings based on the research published in the top journals, a measure of research quality.

Highlights

- These are the Indian Association for the Cultivation of Science, Kolkata at 7th position, and Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore at 14th position and S. N. Bose National Centre for Basic Sciences, Kolkata at 30th position.

- Keeping out CSIR, which is a cluster of institutions, IACS is among the top three institutions in quality Chemistry Research in India.

- JNCASR ranks 4th among academic institutions in life sciences, 10th in Chemistry and Physical Sciences, 10th among Indian academic institutions, and 469th in the global ranking.

- Globally the top-rated Indian institutions in this list are Council of Scientific and Industrial Research (CSIR), a group of 39 institutions at the 160th position and Indian Institute of Science (IISc) Bangalore at the 184th position.

4.12   IMPORTING EXOTIC LIVE SPECIES

- Union Government has issued advisory to streamline the process for import and possession of exotic live species in India.

- Exotic live species are animal or plant species moved from their original range to a new one.

About the Background

- These species are introduced to a new location most often by people.

- Many citizens of the country have kept CITES (Convention of International Trade in Endangered Species) enlisted exotic animal species in their possession.

- However, there is no unified information system available of such stock of species at the State or Central level.

About the advisory

- The Environment Ministry has decided to collect stock information from the holders of such species through voluntary disclosure in next six months.

- The registration will be done for the stock of animals, new progeny, as well as for import and exchange.

- This will help in better management of the species and guide the holders about proper veterinary care, housing and other aspects of well-being of the species.

- The database of exotic animals will also help in control and management of zoonotic diseases on which guidance would be available from time to time to ensure safety of animals and humans.

- The declarer would not be required to produce any documentation in relation to the exotic live species if the same has been declared within six months of the date of issue of the advisory.

- For any declaration made after six months, the declarer shall be required to comply with the documentation requirement under the extant laws and regulations.

4.13   IFLOWS – MUMBAI

Maharashtra's Chief Minister Uddhav Thackeray and Union Minister for Health and Family Welfare, Science and Technology, Dr Harsh Vardhan launched an Integrated Flood Warning System called 'IFLOWS-MUMBAI'.

About the Background

- A joint initiative between the Ministry of Earth Sciences (MoES) and Brihanmumbai Municipal Corporation (BMC), the warning system will be able to relay alerts of possible flood-prone areas anywhere between six to 72 hours in advance.

- Mumbai is only the second City in the Country after Chennai to get this system.

- Similar systems are being developed for Bengaluru and Kolkata.

About IFLOWS – Mumbai

- IFLOWS is a monitoring and flood warning system that will be able to relay alerts of possible flood-prone areas anywhere between six to 72 hours in advance.

- The system can provide all information regarding possible flood-prone areas, likely height the floodwater could attain, location-wise problem areas across all 24 wards and calculate the vulnerability and risk of elements exposed to flood.

About its working

- The primary source for the system is the amount of rainfall, but with Mumbai being a coastal city, the system also factors in tidal waves and storm tides for its flood assessments.

- In the last two years, researchers have been conducting studies to provide real-time weather information by measuring the city's rainfall, how much water drained out, topography, land use, infrastructure development, population, lakes, creeks and data on river bathymetry of all rivers namely Mithi, Dahisar, Oshiwara, Poisar and Ulhas.

4.14   FIRST ESTIMATION EXERCISE OF INDIAN GAUR IN NILGIRIS IN RECENT YEARS

The first population estimation exercise of the Indian gaur carried out in the Nilgiris Forest Division in recent years, which was conducted in February of this year, has revealed that more than an estimated 2,000 Indian gaurs inhabit the entire division.

About the Background

- Worryingly, the exercise has also revealed that the majority of the animals in "conflict-prone" areas in the division live perilously close to human habitations due to habitat loss and fragmentation, exacerbating the probability of having problematic interactions with humans.

- According to statistics revealed by the Forest Department, 794 gaurs were directly sighted over a one-week period during the exercise.

- The direct sightings were by the Department staff and volunteers who were involved in the exercise.

- It was estimated that there were more than 2,000 Indian gaurs across the division, with an average of eight individuals per square kilometre.

About Gaur deaths

- The notion that more Indian gaur are being spotted within the towns due to a steady increase in their population over the last decade could also be misguided.

- Officials said that, on average, a total of 60 gaurs die each year in the Nilgiris Forest Division, many due to accidents related to living close to human habitations.

- This is the first population estimation exercise which has been conducted in the division in recent years.

About Indian Gaur

- It is one of the largest extant bovines.

- It is native to South and Southeast Asia and has been listed as Vulnerable on the IUCN Red List since 1986.

- The global population has been estimated at maximum 21,000 mature individuals by 2016.

- It declined by more than 70% during the last three generations, and is extinct in Sri Lanka and probably also in Bangladesh.

- In well-protected areas, it is stable and increasing.

4.15   GONDWANATHERIA

Chilean and Argentine researchers have unearthed teeth in far-flung Patagonia belonging to a mammal that lived 74 million years ago, the oldest such remains yet discovered in the South American country, the Chilean Antarctic Institute reported.

About the Background

Scientists uncovered the tiny teeth, which belonged to a species called Magallanodon baikashkenke, on a dig near Torres del Paine National Park, a remote area of Patagonia famous for its glacier-capped Andean spires and frigid ocean waters.

About the Highlights

- The small mammal would have lived in southern Patagonia during the late Cretaceous era, alongside dinosaurs, crocodiles, turtles and birds, according to an article published in the bulletin of the Natural History Museum of Chile.

- It is the southernmost record of Gondwanatheria, a group of long-extinct early mammals that coexisted with dinosaurs.

- Gondwanatheria remains from the Cretaceous era are extremely rare, particularly in this part of southern South America, according to the Chilean Antarctic Institute.

4.16   NEW FISH SPECIES DISCOVERED IN ARUNACHAL PRADESH

- A new species of fish has been discovered in Arunachal Pradesh.

- Dr. Keshav Kumar Jha, Associate Professor & Head, Department of Zoology, Jawaharlal Nehru College, Pasighat discovered a new fish species from genus Schizothorax.

About the fish

- The fish species is named as Schizothorax sikusirumensis.

- The name of this fish species has been derived from the name of the rivers where it was found.

- This fish was collected from the junction of River Siku and Sirum near Gakang area under Mebo circle of East Siang District.

- The fish inhabits the water logged area of torrential river drainage.

4.17   WORLD DAY TO COMBAT DESERTIFIVATION AND DROUGHT
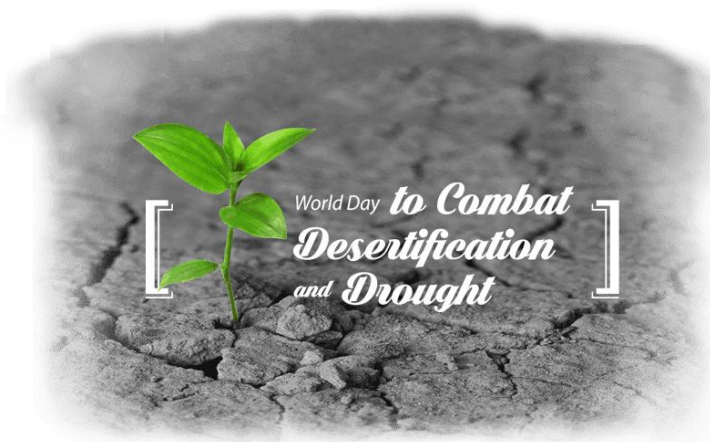
- The United Nations General Assembly acknowledged June 17 as the World Day to Combat Desertification and Drought.

- The day was officially declared by the UN General Assembly in the year December 1994 as "World Day to Combat Desertification and Drought" (The resolution A/RES/49/115).

About the Objective

- To promote public awareness of the issue

- To let people know that desertification and drought can be effectively tackled, that solutions are possible, and that key tools to this aim lay in strengthened community participation and cooperation at all levels.

- To strengthen implementation of the United Nations Convention to Combat Desertification in those countries experiencing serious drought and/or desertification, particularly in Africa.

- About the Highlights

- This conversion of land use is proceeding at a faster rate than at any other time in human history and has fast-tracked over the last 50 years.

- Scientists and other experts state that the evolution from one state to the next is so rapid and speedy, that the process is only evident or recognizable over very short phases.

- Each and every person on this earth needs to know that desertification, land degradation and drought (DLDD) all these three issues have a direct effect on their daily lives and that the whole world's daily actions can either contribute to or help fight DLDD.

- World Day to Combat Desertification and Drought 2020 Theme is "Food. Feed. Fibre"; which speaks the links between consumption and land.

- This year's observance is focused on changing public attitudes to the prominent driver of desertification and land degradation.

- As these issues are humanity's unyielding production and consumption.

4.18   PM CARES COLLECTS CRORES

KITTY FOR BATTLE CORONA

States	Total Covid cases	SDRF Allocation	NDRF Allocation
Maharashtra	186	1,803	3,431
Kerala	182	225*	—
Karnataka	76	336	3,196
Telangana	65	333	NA
UP	61	820	NA
Rajasthan	54	1340	1,165
All India	974	13,465	14,108

*SDRF had balance of Rs 2,107 cr   Source: MHA

Note: 1. Covid cases are actual numbers as on Mar 29; **2.** SDRF (State Disaster Relief Fund) and NDRF (National Disaster Relief Fund) figures are in Rs crore, allocated for 2019-20 (before Covid-19 crisis); **3.** SDRF funds have an accumulated balance of Rs 30,000 crore as on Feb 27; **4.** Centre has allocated Rs 29,000 crore to states in 2020-21 for disaster response and mitigation

- The Disaster Management Act of 2005 envisages public contributions to the NDRF, which, unlike PM CARES, is subject to CAG audit and RTI.
- But the government has yet to open a bank account for donations.
- Fifteen years after the National Disaster Response Fund (NDRF) was created, the government has finally begun the process of opening a bank account in to which public contributions for disaster relief can be deposited.

About the Background

- The move comes in the wake of queries to the Union home and finance ministries from RTI activist Lokesh Batra seeking information about the NDRF's bank account.
- Last week, the Supreme Court issued notice to the Centre on a petition seeking transfer of all donations received by PM CARES for the fight against COVID-19 – officially described as a national disaster – to the NDRF, which, as a government fund, is not just subject to audit by the Comptroller and Auditor General but would also unambiguously be subject to greater transparency under the Right to Information Act.

About PMNRF

- Section 46 (1) of the Disaster Management Act, 2005, provides for the constitution of an NDRF to meet any threatening disaster situation or disaster.
- According to the legislation, the Central government credits an amount to the fund every year, which is later used in disaster management and under Section 46 (1) (b) of the Act, any person or institution may donate to the fund for the purpose of disaster management.
- However, since there is no mechanism for the public to donate, no funds have been collected from the public.
- The PMNRF was constituted by Jawaharlal Nehru, the first Prime Minister of India, in 1948, to receive financial help from the public to help deal with disaster situations.
- This fund has no budgeted contribution and only collects donations from the public.
- The PMO insists it does not fall under the purview of the RTI – a contention under challenge in the Delhi high court – and is audited by an independent auditor.
- Set up on terms similar to the PMNRF, the functioning of the PM CARES fund is opaque.
- According to the PMO, since it is a public charitable trust and has been constituted on the basis of the prime minister's appeal and not any government order, it is not subject to the RTI.

4.19   HYACINTH MACAW FINDS HOME IN ALIPORE ZOO

- The Hyacinth macaw and the other birds rescued at the airport will find a new home at Alipore zoo.
- The Hyacinth macaw — a pair costs upwards of Rs 40 lakh, a little less than a BMW 3 Series — is the largest macaw species native to South America and is a prized possession of private collectors, a forest official said.

About the Background

- The bird, according to zoo officials, is a juvenile. It is in the zoo hospital and will remain there for at least 20 days, a zoo official said.
- Doctors are keeping a round-the-clock check on its health and keepers are ensuring it gets its favourite fruits (apples and grapes) and nuts.
- Since their beaks are quite hard they are fond of walnuts. They can break the tough shells easily.
- About the Highlights
- The bird, along with 21 other Macaws, had been rescued from the airport.
- The consignment had been smuggled into the country from Bangladesh and was headed to Bangalore.
- The bureau, along with the Directorate of Revenue Intelligence, had rescued the birds in a joint operation and arrested two men.
- The birds, including the Hyacinth Macaw, are dehydrated… we are giving a solution of water mixed with sugar and salt apart from fruits and nuts. We have taken all precautionary measures.
- They are a rare and exotic.
- People should not keep them as pets… they are trapped in the wild and few survive the trauma of it. It is also illegal to keep them in captivity.

5. SCIENCE & TECHNOLOGY

5.1 SpaceX Crew Dragon

- Recently, a spacecraft, Crew Dragon, built by SpaceX has successfully carried astronauts of National Aeronautics and Space Administration (NASA) at the International Space Station.

- SpaceX became the first private company to launch people (human spaceflight) into orbit, a feat achieved by the US, Russia & China.

Key Points

Crew Dragon:

- It is a part of the Dragon 2, a class of reusable spacecraft developed and manufactured by American aerospace manufacturer SpaceX.

- It is the fifth class of US spacecraft to take human beings into orbit, after the Mercury, Gemini, Apollo and Space Shuttle programs.

- The rocket, named Falcon 9, which carried the spaceship into the orbit, was also built by SpaceX.

- It is done under the Demo-2 Mission of NASA and SpaceX.

Significance of Private Participation:

- The landing by SpaceX flight is a culmination of more than decade-long efforts to enable private players to build and operate what essentially is a commercial taxi-service to space, and allow NASA to concentrate on deep space exploration, and work more vigorously towards taking humans to the moon, and Mars.

- The United States now plans to return to the Moon in 2024 under the Artemis mission, establishing a launching pad to Mars by 2030.

India and Private Space Companies:

- While there are many private companies operating in the space sector in the United States, their contribution is not much significant in India.

- Most of them collaborate with the Indian Space Research Organisation (ISRO), in building and fabricating the components that go into making rockets and satellites.

- However, launch services, including the building of rockets or launch vehicles are still a monopoly of government space agency, i.e. ISRO.

5.2 DRDO develops disinfection unit named "Ultra Swachh"

The Defence Research and Development Organisation (DRDO) has developed a disinfection unit named Ultra Swachh to disinfect a wide range of materials, including Personal Protective Equipment (PPEs), electronics items, fabrics, etc.

Key Points

- The system uses an advanced oxidative process (ozonation).

- Ozonation is a type of advanced oxidation process, involving the production of very reactive oxygen species able to attack a wide range of organic compounds and all microorganisms.

- Ozone is more effective than chlorine in destroying viruses and bacteria.

- The system is double layered with specialised Ozone sealant technology assuring trapping of ozone for the necessary disinfection cycle.

- It also has a catalytic converter to ensure environment friendly exhaust i.e only oxygen and water.

- A catalytic converter is a device used in exhaust systems to reduce emissions.

- The Ultra Swachh comes in two variants namely Ozonated Space and Trinetra Technology. Trinetra technology is the combination of Ozonated space and radical dispenser.

5.3 A3i: Unique Trait in Covid-19 in India

Recently, scientists from the Centre for Cellular and Molecular Biology and the Institute of Genomics and Integrative Biology of the Council of Scientific and Industrial Research (CSIR) laboratories have identified a coronavirus type (A3i) that may be the second most prevalent in India and may comprise 3.5% of the genomes globally.

Key Points

- The scientists analysed 213 genomes and found that 62% of them were A2a, making it the most dominant coronavirus clade in India.

- Clade: The coronavirus type or clade, is a cluster of SARS-CoV-2 viruses that share evolutionary similarities and are grouped together based on characteristic mutations or similarities in parts of their genomes. In layman terms, a clade can be understood as a strain of the virus.

- The newly identified A3i or Clade I/A3i comprised 41%, making it the second most common coronavirus type in India.

- The A3i clade stood out from other clades due to differences at four different places in its sequence.

- According to scientific analysis, the A3i clade mutates slowly compared to the A2a which is often disadvantageous for the virus.

- So far, there is no evidence of whether A3i is more virulent (extremely severe or harmful in its effects) and linked to more deaths.

- A3i is the predominant strain circulating in Tamil Nadu, Telangana, Maharashtra and Delhi.

- Significance of the Classification: Such classifications are useful in establishing whether certain strains are particularly virulent, spread more easily, how they are likely to evolve over time and whether some could be less vulnerable to certain kinds of vaccines.

- With the new clade, there are now 11 SARS-CoV-2 types identified globally with at least six of them identified in India.

- Previous studies have shown that while type O was the first ancestral family of the virus identified from China, it's the A2a type, which is the most dominant in the world because of a mutation in its genes that allow that coronavirus' spike to more efficiently infiltrate the lungs.
- The Indian Council of Medical Research (ICMR) has so far maintained that there are three principal variants in India of the SARS-CoV-2 virus: those that came from Wuhan, the USA, and Europe via air travellers.

5.4 CeNS develops low-cost catalyst for hydrogen generation from water

- Current AffairsCenter for Nano and Soft Matter Sciences (CeNS) scientist has discovered that a low cost and efficient way to generate hydrogen from water using Molybdenum dioxide as a catalyst.
- They have found that Molybdenum dioxide (MoO2) nanomaterials annealed in hydrogen atmosphere can act as efficient catalysts. Using this, Hydrogen can be generated from water and produces water on energy generation without any carbon footprint.

Highlights:

- MoO2 (Molybdenum dioxide) can replace the currently employed catalyst Pt, which is expensive and has limited resources.
- It can act as an efficient catalyst to reduce the energy input to bring about water splitting with great efficiency.
- Hydrogen can be generated by the Electrolytic splitting of water. But it requires energy input that can be brought down in the presence of a catalyst.
- The metal oxide nanomaterial is a cheaper alternative to the precious noble metal catalysts such as Platinum, presently employed in industry for water electrolysis.
- The catalyst is highly stable for a longer duration of reaction with sustained hydrogen evolution from water.
- About 80% efficient conversion of electrical energy into hydrogen has been achieved using this catalyst.

5.5 163348 (2002 NN4): A Near-Earth Asteroid

- Recently, the National Aeronautics and Space Administration (NASA) has announced that a giant asteroid called as 163348 (2002 NN4), is expected to pass Earth on 6th June 2020.
- However, it is approaching the Earth within the safe limit of distance.

Key Points

163348 (2002 NN4):

- It was discovered in July 2002 and is expected to approach the earth in June 2020.
- The asteroid is estimated to be between 250-570 meters in diameter.

- The asteroid is a Near-Earth Object and classified as a Potentially Hazardous Asteroid (PHA).

Near-Earth Objects (NEOs):

- NEOs are comets and asteroids pushed by the gravitational attraction of nearby planets into orbits which allow them to enter the Earth's neighbourhood.

- These objects are composed mostly of water ice with embedded dust particles.

- NEOs occasionally approach close to the Earth as they orbit the Sun.

- NASA's Center for Near-Earth Object Study (CNEOS) determines the times and distances of these objects, when their approach to the Earth is close, through the Asteroid Watch Widget.

Potentially Hazardous Asteroid (PHA):

- It means that an asteroid has the potential to make threatening close approaches to the Earth.

- Specifically, all asteroids with a Minimum Orbit Intersection Distance (MOID) of 0.05 AU (which is about 7,480,000 Km) or less and an Absolute Magnitude (H) of 22.0 (about 150 mt in diameter) or less are considered PHAs.

- Minimum Orbit Intersection Distance is a method for calculating the minimum distance between two almost overlapping elliptical orbits.

- The Astronomical Unit (AU) is the distance between the Earth and the Sun and is roughly 150 million km.

- The absolute magnitude is a measure of the star's luminosity i.e. the total amount of energy radiated by the star every second.

Chances of hitting the earth and related Concerns:

- According to NASA, the objects with large size pose a great risk to Earth due to the level of devastation and the impact they can cause.

- Less than half of the estimated 25,000 NEOs that are 140 metres or larger in size have been found to date.

- NASA's Near-Earth Object Observations Program finds, tracks and characterises over 90% of the predicted number of NEOs that are 140 metre or larger in size.

- However, no asteroid larger than 140 metre has a "significant" chance of hitting the Earth for the next 100 years.

5.6 Magnetocaloric Material for Cancer Treatment

- A rare-earth-based magnetocaloric material that can be effectively used for cancer treatment has been developed by the Scientists at the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), an autonomous R&D Centre of Department of Science and Technology (DST).

- The magnetocaloric materials developed by ARCI are being tested at SreeChitraTirunal Institute for Medical Sciences & Technology (SCTIMST).

BACKGROUND:

- Magnetocaloric effect (MCE) is a phenomenon where the application and removal of a magnetic field causes certain materials to get warmer and cooler, respectively. This effect normally occurs near its Curie temperature (Curie point. Curie point, also called Curie Temperature, temperature at which certain magnetic materials undergo a sharp change in their magnetic properties.) where the application of field makes the material to warm up and cools up when the field is removed.
- Magnetocaloric effect is utilized in magnetic refrigeration, which is an environmentally friendly technology to obtain cooling efficiency nearly 60 % compared to the conventional gas-compression refrigerators (40 %). However high magnetic fields of above 2 T are required.
- Magnetocaloric Materials are certain materials in which application and removal of a magnetic field causes the materials to become warmer or cooler.

5.7 Oral Squamous Cell Carcinoma

- An artificial intelligence (AI) based algorithms as an aid to rapid diagnosis and prediction of oral squamous cell carcinoma has been developed by the scientists.
- The work has been done by the scientists at the Institute of Advanced Study in Science and Technology (IASST), Guwahati, an autonomous institute of the Department of Science & Technology, Govt of India.

BACKGROUND:

- The study was conducted applying two approaches through the application of transfer learning using a pre-trained deep convolutional neural network (CNN).
- Convolutional networks were inspired by biological processes in that the connectivity pattern between neurons resembles the organization of the animal visual cortex.
- Individual cortical neurons respond to stimuli only in a restricted region of the visual field known as the receptive field.
- The receptive fields of different neurons partially overlap such that they cover the entire visual field.
- An indigenous dataset was developed by the scientists through collaborations to make for the unavailability of any benchmark oral cancer dataset for the study.
- Four candidate pre-trained models, namely Alexnet, VGG-16, VGG-19, and Resnet-50, were chosen to find the most suitable model for the classification problem, and a proposed CNN model developed to fit the problem.

- Although the highest classification accuracy of 92.15% was achieved by the Resnet-50 model, the experimental findings highlight that the proposed CNN model outperformed the transfer learning approaches displaying accuracy of 97.5%.
- ARCI, Mekins develop UVC-based multipurpose disinfection cabinet to contain surface contamination of Coronavirus
- International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) and MEKINS Industries have jointly developed a UVC-based Cabinet. The device will disinfect non-critical hospital items, laboratory wear, and PPEs in the research laboratories to prevent surface contamination of COVID-19.

Highlights:

- It can also be used to disinfect items exhibited to customers in commercial establishments and several domestic items.
- The invention comes amid the transmission through surface contamination is an unpredictable risk in which common utilities play a key role in spreading the coronavirus.
- The device consists of 4 UVC lamps of 30W on sides and 2 lamps of 15 W on top and bottom.
- It will give a flux sufficient to disinfect articles of various dimensions placed in shelves separated by metal grilled frames to allow sufficient light from all sides.
- For the safety consideration and to avoid direct exposure of UVC light to the user, the lamps switch on only when the door is locked.
- The irradiance intensity is measured at various points within the box to assure sufficient radiation to disinfect all the placed articles within 10 minutes.
- The partition frames in the cabinet are removable so that even bigger objects like lab coats, blazers, suits can be disinfected when required.

5.8 <u>Titan drifts away from Saturn 100 times faster than expected</u>

A new study stated that Saturn's largest moon Titan is now expanding from Saturn at a rate 100 times faster than scientists had previously predicted. This speed of drifting is about 4 inches every year.

Highlights:

- Titan was born close to the planet. But over the course of 4.5 billion years, Titan has migrated out to where it orbits currently, approximately 746,000 miles (1.2 million km) away from the planet.
- The reason for the moon to drift away from their host planets is because as the moon's orbit, their gravitational pull on the planet creates a temporary bulge on the planet. This will increase the energy exerted by the planet on its moon.
- Saturn has a total of 82 moons and the planet has the biggest moon 'Titan'.
- DIAT develops nano-technology based disinfectant spray to combat COVID-19

- The Defence Institute of Advanced Technology (DIAT), Pune has developed a nano-technology based disinfectant spray to combat the COVID-19 pandemic. The formulation has been named Ananya.

Ananya:

- Ananya disinfectant spray is effective in disinfecting all types of surfaces.

- The spray can be used on masks, Personal Protective Equipment (PPEs), hospital linens, and other likely contaminated surfaces like medical instruments, elevator buttons, doorknobs, corridors, and rooms.

- The material is developed by synthesizing silver nanoparticles and a commercially available drug, Ampicillin.

- Ananya has been tested by the Nuclear Magnetic Resonance Spectroscopy and Infrared Spectroscopy methods.

- The silver nano-particles has the ability to neutralize the outer protein and can rupture the membrane of the virus, thereby making it ineffective.

- The water-based spray will be effective for more than 24 hours.

- The spray adheres very effectively to fabric, plastic and metallic objects, and its toxicity to humans is negligible.

5.9 Nature Index 2020: Index of Scientific Research

- Recently, a journal of science i.e. the Nature Research, has released the Nature Index 2020.

- The Nature Index provides a database of high-quality research output and collaboration at the institutional, national and regional level of institutions from different countries.

Key Points

- The top three countries in the index are US, China and Germany respectively.

- Criteria for the Ranking

- Sectors: Academic and Corporate.

- Subjects: Chemistry, Earth and Environmental Science, Life Sciences, Physical Sciences.

- Journal Group: Nature and Science.

- The overall ranking of India is 12th in the index.

- Top 3 Ranking of Institutions from india:

- Council of Scientific and Industrial Research (CSIR)

- Indian Institute of Sciences (IISc)

- Tata Institute of Fundamental Research (TIFR)

5.10   Kerala Startup partners with SCTIMST to launch IoT based used mask disposal smart bin and UV light-based disinfection device

- Cochin-based startup VST Mobility Solutions has launched an automated mask disposal machine, named BIN-19, as part of efforts to develop products helping to combat the COVID-19 pandemic.
- The disposal device developed using Chitra UV based face mask disposal bin technology from the Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) was formally launched.
- VST Mobility Solutions also launched UV SPOT, a UV light-based multipurpose disinfector, to combat the COVID-19.

BIN-19:

- The Internet of Things (IoT)-based BIN-19 can be used to collect and disinfect Used Face-Mask.
- The device has been successfully tested under microbiological tests by SreeChitra Lab.
- The used masks will be dropped inside a container of the bin will be first disinfected by a process.
- The disinfected masks which are dropped in the BIN-19 will be transferred to another container inside the Bin.
- The person dropping the mask can sanitize their hands with the help of the automatic sanitizer dispenser attached to the Bin-19.
- The user does not need to touch/operate any switches in the Bin. The functions of the BIN-19 are automated in the hands-free equipment for the safety of users and health workers.

The IoT Features of BIN-19 are:

- Auto Sanitizer Dispenser
- Mobile Application to navigate/find Bin-19
- Web Portal for Status Alerts
- Power ON/OFF alerts
- Box open alerts

5.11   Global Partnership on Artificial Intelligence

India has joined the 'Global Partnership on Artificial Intelligence (GPAI)' as a founding member to support the responsible and human-centric development and use of Artificial Intelligence (AI).

Key Points

Objective: GPAI is an international and multi-stakeholder initiative to guide the responsible development and use of AI, based on human rights, inclusion, diversity, innovation, and economic growth.

Functions:

- Bridge the gap between theory and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities.

- An example would be looking at how AI could help societies respond to and recover from the Covid-19 crisis.
- Bring together leading experts from industry, civil society, governments, and academia to conduct research and pilot projects on AI.
- It will initially comprise four working groups focused on responsible AI, data governance, the future of work, and innovation and commercialisation.
- **Founding Members**: Australia, Canada, the European Union, France, Germany, India, Italy, Japan, the Republic of Korea, Mexico, New Zealand, Singapore, Slovenia, the United Kingdom and the United States.

Organization:

- GPAI will be supported by a Secretariat, to be hosted by Organization for Economic Cooperation and Development (OECD) in Paris, as well as by two Centers of Expertise- one each in Montreal (Canada) and Paris (France).
- GPAI will be able to take advantage of the OECD's expertise on AI policy and its leadership in setting out the first international standard for trustworthy AI – the OECD Principles on Artificial Intelligence.
- The OECD will also be a Permanent Observer to the GPAI's governing bodies.
- **Background**: Born out of the Canadian and French G7 Presidencies in 2018 and 2019, GPAI was officially proposed by France and Canada at the Biarritz Summit in August 2019.

5.12   Dexamethasone Drug

- Recently, scientists administering the World Health Organisation's RECOVERY trial have reported that dexamethasone reduced Covid-19 deaths in severe patients.
- Dexamethasone is a cheap and widely available steroid drug.

Key Points

Highlights of the Research:

- The drug was given either orally or through an IV (intravenous).
- After 28 days, it had reduced deaths by 35% in patients who needed treatment with breathing machines and by 20% in those only needing supplemental oxygen.
- The drug is not helpful for less ill patients and for those who do not need respiratory support.
- According to the estimates, this drug can prevent one death for every eight patients treated while on breathing machines and one for every 25 patients on extra oxygen alone.

Drug Mechanism:

- Multi-system Inflammatory State is a Covid-19 related illness that causes inflammation of the blood vessels leading to low blood pressure, affecting the entire body as it causes a build-up of fluid in the lungs and other organs.

- The inflammation can be fatal so steroids and other anti-inflammatory drugs are used to reduce it.

- Dexamethasone is not an anti-viral but works to modulate the immune response of the body when confronted by a viral infection such as Covid-19.

Benefits:

- The survival benefit is clear and large in severe patients.

- It is highly affordable, easy to make, can be scaled up quickly and only needs a small dosage.

- It is a cheaper option than tocilizumab, an injectable, which is also being tested.

5.13 I-Lab: Mobile Testing Facility

- Recently, the government has launched the Country's first mobile I-Lab (Infectious disease diagnostic Lab) for last mile Covid-19 testing access.

- It has been created by a team from the Andhra Pradesh MedTech Zone Limited (AMTZ) under the National Biopharma Mission.

Key Points

- The Department of Biotechnology (DBT - Ministry of Science & Technology) under the Covid-Command strategy has supported building of mobile testing labs (I-Labs) through AMTZ.

- The Lab belongs to the BioSafety Level (BSL-II) category.

- BSLs are ranked from one to four and are categorised on the basis of the organisms that the researchers are dealing with. The organisms include viruses, bacteria, fungi, parasites, etc.

- BSL-I is considered to be the least hazardous, while BSL-IV poses the maximum safety risk. Each level builds on the previous category, adding more layers of constraints and barriers.

- It will be deployed in interior, iaccessible parts of the country and has the capability to perform 25 RT-PCR tests a day, 300 ELISA tests a day and additional tests for TB, HIV as per CGHS (Central Government Health Scheme) rates.

- RT-PCR and ELISA tests have been approved by the Indian Council of Medical Research (ICMR) for Covid-19.

- CGHS provides comprehensive medical care to central government employees and pensioners enrolled under the scheme. Rates of different procedures are decided under the Scheme.

5.14 Annular Solar Eclipse

India will witness an annular solar eclipse on 21th June, 2020.

Key Points

- A solar eclipse occurs when the moon passes between the sun and the earth. When this happens, the moon blocks the light of the sun from reaching the earth. The shadow of the moon is then cast on the earth.
- There are three types of solar eclipses:
  - ➢ Partial solar eclipse: When the sun, moon and earth are not exactly lined up.
  - ➢ Total solar eclipse: When the sun, moon and earth must be in a direct line.
  - ➢ Annular solar eclipse: It is a particular type of total solar eclipse. It occurs when the sun, moon and earth are not only in a straight line but also in the same plane.
- The moon also must be farther away from the earth, which will allow it to not cover the disc of the sun completely, resulting in a narrow band of light around the dark colour of the moon causing the ring of fire to be visible.
- Therefore, it is also called the ring of fire eclipse.
- The distance between the earth and the moon at the moment of the eclipse can dictate the type of eclipse that will take place.
- The distance between the earth and the moon is always changing due to the egg-shaped elliptical orbit of the moon.

5.15 **Private Sector Participation in Space**

- Recently, the Union Cabinet has approved the creation of the Indian National Space Promotion and Authorization Centre (IN-SPACe) to provide a level playing field for private companies to use Indian space infrastructure.
- This is part of reforms aimed at giving a boost to private sector participation in the entire range of space activities.

Key points

- IN-SPACe: It will act as a single-point interface between Indian Space Research Organisation (ISRO), and everyone who wants to participate in space-related activities, or use India's space resources.
- It will also hand-hold, promote and guide the private industries in space activities through encouraging policies and a friendly regulatory environment.
- Indian National Space Promotion Board: It would be set up to strengthen the Department of Space and for the promotion of the private space entrepreneurs or non-government space entrepreneurs.
- Role of ISRO: The overall idea is to let ISRO concentrate on essential activities like research and development, planetary exploration, and strategic use of space, while freeing itself from ancillary or routine work which could easily be done by private industry.

- Demand Driven Model: By the support of New Space India Limited (NSIL), It would endeavour to reorient space activities from a 'supply driven' model to a 'demand driven' one, thereby ensuring optimum utilisation of the nation's space assets.
- The main objective of NSIL is to scale up industry participation in Indian space programmes in comparison to IN-SPACe which gives emphasis on the participation of the private sector.

Significance

- Level Playing Field for Private Companies: IN-SPACe will provide a level playing field for private companies to use Indian space infrastructure.
- Research and Development Activities: These reforms will allow ISRO to focus more on new technologies, exploration missions and human spaceflight programme.
- Some of the planetary exploration missions will also be opened up to the private sector through an 'announcement of opportunity' mechanism.
- Fruitful Dissemination of Space Technologies: Allowing industries and others like students, researchers or academic bodies greater access to space assets would lead to a much better utilisation of India space resources.
- Socio-economic use of Space Assets: The proposed body would attempt to enhance the activities, including access to space assets data and activities
- Global Technology Powerhouse: It will enable Indian Industry to be an important player in the global space economy. With this, there is an opportunity for large-scale employment in the technology sector and India becoming a Global technology powerhouse.

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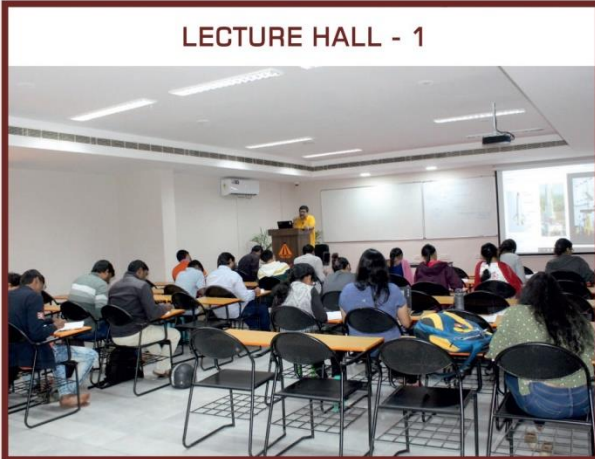
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