

Current Affairs Update (June28-July3)

National

Task force for Mission Karmayogi

Former Infosys CEO S D Shibu Lal has been appointed chairperson of a three-member task force formed to help the government in bringing major bureaucratic reforms through its ambitious “**Mission Karmayogi**”.

The task force has been constituted **to draw a clear road map for the guidance and operationalisation of the ‘Karmayogi Bharat’ and the constitution of a Special Purpose Vehicle (SPV).**

About Mission Karmayogi: The ‘National Programme for Civil Services Capacity Building – Mission Karmayogi’ was launched to effect a transformational shift from rule based training to role-based capacity development of all civil services in the country so as to enhance citizen experience for government services and improve availability of competent workforce.

SCO meet

National Security Advisor Ajit Doval has proposed **an action plan against Pakistan-based terror groups Lashkar-e-Taiba (LeT) and Jaish-e-Mohammad (JeM) as part of the Shanghai Cooperation Organisation (SCO) NSAs meet.**

Action Plan proposed:

1. Full implementation of UN resolutions and targeted sanctions against UN-designated terrorist individuals and entities.
2. Adoption of international standards to counter terror financing including an MOU between SCO and **Financial Action Task Force (FATF).**
3. Monitoring new technologies used by terrorists. This included use of drones and misuse of dark web, artificial intelligence, blockchain and social media.

SCO comprises eight member states, namely the Republic of India, the Republic of Kazakhstan, the People’s Republic of China, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan.



China launches first bullet train in Tibet, close to Indian border

- China has operationalised its **first fully electrified bullet train in the remote Himalayan region of Tibet.**
- It **connects the provincial capital Lhasa and Nyingchi**, a strategically located **Tibetan border town close to Arunachal Pradesh.**
- This line is a section of **the Sichuan-Tibet Railway.**
- The rail line crosses **the Brahmaputra river locally called Yarlung Zangbo** 16 times.

Indian Private Players allowed to build and operate rocket launch sites

- Government has allowed private companies to establish & operate rocket launch sites within and outside the country. However, it is subject to prior authorisation from government.
- Draft National Space Transportation Policy-2020 which was put forward by the Department of Space and IN-SPACe is the nodal agency responsible for overall approval.
- As per the policy, any orbital or sub-orbital rocket launch from Indian or overseas territory can be carried out only after authorisation from Indian National Space Promotion & Authorization Center (IN-SPACe).
- Mission can be launched from own or leased launch site or from mobile platforms like land, sea or air.

FAME scheme extended till 2024

- Initially FAME scheme was to be implemented for a period of three years from April 1, 2019. Now, it will be in force till March 31, 2024.
- Government has decided to extend adoption of electric vehicles 'Faster Adoption and Manufacturing of Electric Vehicles in India Phase II (FAME Phase II)' by 2 years.
- This scheme is a part of National Electric Mobility Mission Plan.

- It was launched in two phases. Phase 1 was started in 2015 & ended on 31st March, 2019. While, phase II was started from April 2019 and will end in 2024 (Earlier to end in 2022).
- Scheme is monitored by Department of Heavy Industries under Ministry of Heavy Industries and Public Enterprises.

WHAT IS FAME?

Faster Adoption and Manufacturing of Electric (Hybrid) Vehicles in India is a scheme under **National Electric Mobility Mission Plan (NEMMP)**

Target of NEMMP - 2020

- **6-7 million** Hybrid & Electric Vehicle sale by 2020
- **9500 million** litres of estimated cumulative fuel saving
- **2 million** tonnes reduction in pollution & green house gas emissions
- **65,000** Direct & **3,00,000** Indirect jobs



India Smart Cities Awards 2020

The **Union ministry of housing and urban affairs** has released the list of **India smart cities awards (ISCA) 2020**.

The awards were announced to commemorate six years of the central government's three initiatives to spur urban development:

1. Smart Cities Mission (SCM)
2. Atal Mission for Urban Rejuvenation and Urban Transformation (AMRUT)
3. Pradhan Mantri Awas Yojana-Urban (PMAY-U).

Performance of various States and cities:

1. Uttar Pradesh emerged on the top among all states, followed by Madhya Pradesh and Tamil Nadu.
2. Indore (Madhya Pradesh) and Surat (Gujarat) won the award jointly for their overall development.
3. Ahmedabad bagged the 'Smart Cities Leadership Award' and Chandigarh, the award for union territories, while Indore won the "Innovative Idea Award".

Attorney-General

- The Union government has extended the tenure of **Attorney-General** K.K. Venugopal by a year. He will continue as the government's top law officer till June 30, 2022.
- The Attorney General for India is the central government's **chief legal advisor, and its primary lawyer in the Supreme Court of India**. He is a **part of the Union Executive**.
- **Appointment and eligibility:** He is **appointed by the President of India under Article 76(1) of the Constitution and holds office during the pleasure of the President**

International Day against Drug Abuse and Illicit Trafficking 2021

- The day **June 26** was chosen by the UN General Assembly, on December 7, 1987, as **International Day against Drug Abuse and Illicit Trafficking**.
- **Objective:** To create awareness about issues related to drugs and seek international cooperation to combat its effects on health, society, and governance.
- **Theme and its significance:** This year, the theme is **'Share Facts On Drugs, Save Lives'**.

Statistics day

- Celebrated on **29th June every year**. Observed in recognition of the notable contributions made by Late **Professor Prasanta Chandra Mahalanobis** in the fields of statistics, statistical system and economic planning.
- **Theme:**The theme of Statistics Day, 2021 is **Sustainable Development Goal (SDG)– 2** (End Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture).

National Doctors' Day 2021

- Indian Medical Association (IMA) observed the National Doctors' Day on July 1 every year.
- This day is observed to honour birth and death anniversary Dr Bidhan Chandra Roy who was a great physician and second chief minister of West Bengal.

12-year-old Abhimanyu Mishra becomes Youngest Grandmaster

- **Abhimanyu Mishra** has become the youngest ever Grandmaster on June 30, 2021. He achieved this title at just 12 years, four months and 25 days.
- He leaved behind the record of Russian Grand Master **Sergey Karjakin**. Sergey had completed his GM title in 2002 at the age of 12 years and seven months.
- **Grandmaster title** was awarded to chess players by world chess organization, FIDE. Grandmaster is the highest title that a chess player can attain, apart from World Champion. This title is generally held for life once it is achieved. Title of Grandmaster, along with FIDE titles of International Master (IM) and FIDE Master (FM), is open to all players irrespective of gender.

International

Antarctic Treaty

23 June 2021- **60th anniversary of the entry into force of the Antarctic Treaty** (23 June 1961).

Significance of the treaty:

1. Negotiated during the middle of the Cold War by 12 countries with Antarctic interests, it remains **the only example of a single treaty that governs a whole continent.**
2. It is also the foundation of **a rules-based international order for a continent without a permanent population.**

But, the treaty was negotiated in a very different era and is it still relevant today?

While the Antarctic Treaty has been able to successfully respond to a range of challenges, circumstances are radically different in the 2020s compared to the 1950s.

1. Antarctica is much more accessible, partly due to technology but also climate change.
2. More countries now have substantive interests in the continent than the original 12.
3. Some global resources are becoming scarce, especially oil.
4. There is also uncertainty as to China's intentions in Antarctica. China joined the treaty in 1983 and became a consultative party in 1985.
5. This will inevitably result in increased attention being given to the potential for Antarctic mining to take place sometime in the future.

Therefore, Calls to revisit the prohibition on Antarctic mining would seem inevitable.

About the Antarctic Treaty:

Signed between 12 countries in Washington on 1st December 1959 for making the Antarctic Continent a demilitarized zone to be preserved for scientific research only.

- **The twelve original signatories** are Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Union of Soviet Socialist Republics, the UK and the US.
- The treaty **entered into force in 1961 and currently has 54 parties.**
- **Headquarters:** Buenos Aires, Argentina.

For the purposes of the treaty system, **Antarctica is defined as all of the land and ice shelves south of 60°S latitude.**

Cyber Capabilities and National Power Report

The report was recently released by **the International Institute for Strategic Studies (IISS)**. The report analyses the cyber ecosystem of each state and how it intersects with international security, economic competition and military affairs.

The report has divided the countries into three tiers of cyber power:

First Tier: States with world-leading strengths across all the categories in the methodology. The United States of America is the only country in this tier.

Second Tier: States that have world-leading strengths in some of the categories. Australia, Canada, China, France, Israel, Russia and the United Kingdom are in this tier.

Third Tier: States that have strengths or potential strengths in some of the categories but significant weaknesses in others. **India**, Indonesia, Iran, Japan, Malaysia, North Korea and Vietnam are in this tier.

Poson

- Also known as Poson Poya, it is an annual festival held by Sri Lankan Buddhists celebrating **the arrival of Buddhism in Sri Lanka in the 3rd century BC.**

Baihetan hydropower plant

- China operationalised the two units of giant Baihetan hydropower plant, which is the **largest hydro project under construction worldwide** on June 28, 2021.
- **Yangtze river** in southwest China generated electricity for the first time. It is the longest river in Asia and third-longest in world. This river is also the longest worldwide to flow entirely within one country. It originates from Jari Hill in Tanggula Mountains in Tibetan Plateau and flows for 6,300 km in east direction to drain into East China Sea. It is considered as sixth-largest river by discharge volume in world. The river drains one-fifth of China's land area.

Science-Tech & Environment

Agni P

Defence Research and Development Organisation (DRDO) successfully flight-tested a new generation nuclear-capable ballistic missile Agni P. Missile is also known as 'Agni Prime' Agni-Prime is the advanced version of Agni-1 missile.

It is a new generation advanced variant of Agni class missiles. It is a **canisterised missile** having a range of **1,000 and 2,000** kms. Missile can hit targets up to a range of 2000 kms. It is very short and light as compared to with other missiles in this class.

Shot in the arm

▶ Agni-P's range of 1,000–2,000 km is too short to reach targets in China's mainland, but can cover all of Pakistan's territory

▶ Being a canisterised missile, it can be transported easily and fired at very short notice

▶ It will replace the Prithvi, Agni-1 and Agni-2 missiles in India's arsenal that were built two decades ago with tech now considered obsolete

▶ It will enter service as a two-stage, solid propellant missile. Both stages will have composite rocket motors and guidance systems with electro-mechanical actuators

▶ Agni-P and Agni-5 originate from the Integrated Guided Missile Development Programme launched by then DRDO chief Dr APJ Abdul Kalam in the early 1980s

Dragon Man

- Researchers from China have claimed to have found an ancient human skull that could belong to **an altogether new species of humans**.
- The skull was found in **north-east China's Harbin city**.
- It has been dubbed the "Dragon Man" or Homo longi, a name that has been derived from **the Long Jiang or Dragon river** in the Heilongjiang province of China where the city of Harbin is located. They could be over 146,000 years old.

China certified malaria-free by WHO

- Following a 70-year effort, China has been awarded a malaria-free certification from WHO – a notable feat for a country that reported 30 million cases of the disease annually in the 1940s.
- China is the **first country in the WHO Western Pacific Region** to be awarded a malaria-free certification in more than 3 decades. Other countries in the region that have achieved this status include Australia (1981), Singapore (1982) and Brunei Darussalam (1987).
- Globally, **40 countries** and territories have been granted a malaria-free certification from WHO – including, most recently, El Salvador (2021), Algeria (2019), Argentina (2019), Paraguay (2018) and Uzbekistan (2018).

Goa: First Rabies-free state

- Goa has become the first Rabies-free state of India. According to Chief Minister, Pramod Sawant, state has not reported a single rabies case in last three years.
- As per WHO, **Rabies** is a vaccine-preventable viral disease that occurs in about 150 countries and territories. Dogs act as the source of majority of human rabies deaths. Dogs are responsible for contributing up to 99% of rabies transmissions to humans. In Asia and Africa regions, low awareness regarding the need of health care after dog bite takes lives of about 55000 people per year.
- India is endemic for rabies with the burden of 36% of world's deaths. 30-60% of reported rabies cases and deaths in India occur in children aged under 15 years because bite often go unrecognized and unreported.

Kadakhnath

- **Kadakhnath or Kali Masi** is a breed of chicken **originating from the Jhabua and Dhar districts of western Madhya Pradesh.**
- It received GI tag in 2017.
- It is popular for its black meat which is famous for its meat quality, texture, taste, and excellent medicinal values. It is also famous for its low cholesterol and high protein content.



Economics

Project Seabird

It is **the largest naval infrastructure project for India.**

- The project aims at creation of a naval base at Karwar on the west coast of India.

- Upon completion, the program will provide Indian Navy with its largest naval base on the west coast and also the largest naval base east of the Suez Canal.
- This would further bolster the operational readiness of the Armed Forces and help in augmenting trade, economy & humanitarian aid operations.

New Definition of Small and medium companies (SMC)

- Ministry of corporate affairs (MCA) has expanded the definition of small and medium sized companies (SMCs).
- As per expanded definition, Small & Medium Companies is an unlisted company, a bank, an insurance or a financial institution with sales up to Rs 250 crore and borrowings up to Rs 50 crore.
- Earlier limit for sales was Rs 50 crore and for borrowings was Rs 10 crore.
- Now, SMCs are permitted to avail number of exemptions under Company (Accounting Standards) Rules 2021. It will reduce complexity of regulatory filings for smaller firms.
- Banks, insurance companies, financial institutions, and listed companies cannot be classified as SMCs.

First voyage of Green Freight Corridor-2

- Ministry of Shipping launched the maiden voyage under Green Freight Corridor-2. Green Freight Corridor-2 is a coastal shipping service.
- Voyage was launched from Cochin port to Bepore and Azhikkal ports located in north Kerala.

First voyage service was launched in line with ministry's plans to improve connectivity and synergies between major & non-major ports by promoting coastal trading. This step is also aiming to

1. Create intermodal & sustainable customer solutions,
2. Improve use of waterways,
3. Cut road & rail traffic and
4. Cut logistical expenditures.

Current Affairs Update (July 4-10)

National

Bengal passes resolution to set up Council

The West Bengal Assembly has passed a resolution to set up a **Legislative Council** with a two-thirds majority.

Under **Article 169 of the constitution, Parliament may by law create or abolish the second chamber in a state** if the Legislative Assembly of that state passes a resolution to that effect by a special majority.

Strength of the house: As per **article 171 clause (1) of the Indian Constitution**, the total number of members in the legislative council of a state **shall not exceed one third of the total number of the members in the legislative Assembly** of that state and **the total number of members in the legislative council of a state shall in no case be less than 40.**

Presently six states; Uttar Pradesh, Bihar, Andhra Pradesh, Maharashtra, Telangana and Karnataka; have a Legislative Council.

What is Judicial Disqualification or Recusal?

Judicial disqualification, referred to as recusal, is the act of abstaining from participation in an official action such as a legal proceeding due to a **conflict of interest** of the presiding court official or administrative officer.

Grounds for Recusal:

1. The judge is biased in favour of one party, or against another, or that a reasonable objective observer would think he might be.
2. Interest in the subject matter, or relationship with someone who is interested in it.
3. Background or experience, such as the judge's prior work as a lawyer.
4. Personal knowledge about the parties or the facts of the case.
5. Ex parte communications with lawyers or non-lawyers.
6. Rulings, comments or conduct.

Draft anti-trafficking Bill

The Ministry of Women and Child Welfare has invited suggestions and comments for its **Trafficking in Persons (Prevention, Care and Rehabilitation) Bill, 2021**.

Highlights of the Bill:

1. **The bill proposes stringent punishments** for offenders, including hefty fines and seizing of their properties.
2. The Bill also extends beyond the protection of women and children as victims to now **include transgressors as well as any person who may be a victim of trafficking**.
3. The draft also does away with the provision that a victim necessarily needs to be transported from one place to another to be defined as a victim.
4. **Exploitation has been defined to include**, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation including pornography, any act of physical exploitation, forced labour or services, slavery or practices similar to slavery, servitude or forced removal of organs etc.

What are the constitutional & legislative provisions related to Trafficking in India?

1. Trafficking in Human Beings or Persons is prohibited under the Constitution of India under **Article 23 (1)**.
2. The **Immoral Traffic (Prevention) Act, 1956 (ITPA)** is the premier legislation for prevention of trafficking for commercial sexual exploitation.
3. **Criminal Law (amendment) Act 2013** has come into force wherein **Section 370 of the Indian Penal Code has been substituted with Section 370 and 370A IPC** which provide for comprehensive measures to counter the menace of human trafficking.

Ministry of Cooperation

- A new '**Ministry of Cooperation**' has been created for strengthening the cooperative movement in the country.
- A cooperative is **an autonomous association** of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically controlled. The need for profitability is balanced by the needs of the members and the wider interest of the community.

Roles/Functions of the new ministry:

1. Provide a separate administrative, legal and policy framework for strengthening the cooperative movement in the country.
2. Help deepen cooperatives as a “true people-based movement reaching up to the grassroots”.
3. Streamline processes for ease of doing business’ for cooperatives and enable development of multi-state cooperatives (MSCS).

Provisions of Indian Constitution related to Cooperatives:

- The **Constitution (97th Amendment) Act, 2011** added a new **Part IXB** right after Part IXA (Municipals) regarding the cooperatives working in India.
- The word “cooperatives” was added after “unions and associations” in **19(1)(c) under Part III of the Constitution**. This enables all the citizens to form cooperatives by giving it the status of fundamental right of citizens.
- A new **Article 43B** was added in the Directive Principles of State Policy (Part IV) regarding the “promotion of cooperative societies”.

BharatNet project

Union Cabinet has accorded approval for the revised implementation strategy of **BharatNet** through **Public-Private Partnership (PPP)** mode in 16 States of the country. The PPP model will leverage private sector efficiency for operation, maintenance, utilisation and revenue generation, and is expected to result in a faster rollout of BharatNet.

About BharatNet:

1. BharatNet Project was originally launched in 2011 as **the National Optical Fibre Network(NOFN)** and renamed as Bharat-Net in 2015.
2. It seeks **to provide connectivity to 2.5 lakh Gram Panchayats (GPs)** through optical fibre.
3. It is a flagship mission **implemented by Bharat Broadband Network Ltd. (BBNL)**.
4. The objective is **to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to rural India**.

The larger vision of the project is:

- To establish a highly scalable network infrastructure accessible on a non-discriminatory basis.
- To provide on demand, affordable broadband connectivity of 2 Mbps to 20 Mbps for all households and on demand capacity to all institutions.

- To realise the vision of Digital India, in partnership with States and the private sector.

Project BOLD

- **BOLD** stands for **Bamboo Oasis on Lands in Drought**.
- Launched by **Khadi and Village Industries Commission (KVIC)**.
- The initiative has been launched as part of KVIC's "**Khadi Bamboo Festival**" to celebrate 75 years of independence "Azadi ka Amrit Mahotsav".
- **Objectives:** To create bamboo-based green patches in arid and semi-arid land zones, To reduce desertification and provide livelihood and multi-disciplinary rural industry support.
- **Why Bamboo was chosen?** Bamboos grow very fast and in about three years' time, they could be harvested. Bamboos are also known for conserving water and reducing evaporation of water from the land surface, which is an important feature in arid and drought-prone regions.

SC's notice to Centre on Section 66A of IT Act

Supreme Court has issued a notice to Centre on use of Section 66A of IT Act which was scrapped in 2015. SC issued notice during the hearing of plea filed by PUCL (People's Union for Civil Liberties). The plea pointed that even after 7 years of law being struck down, about 745 cases are still pending and active before district courts in 11 states where accused persons are being prosecuted for offences in accordance with Section 66A of IT Act.

Section 66A of IT Act provides for punishment of a maximum of three years in jail and a fine on sending "offensive" messages through computer or any other communication device such as mobile phone or tablet. This section was used to punish online communication which is considered "offensive & menacing and "false to cause annoyance, inconvenience, insult, danger, obstruction, injury, hatred, criminal intimidation or ill will."

When did SC struck this provision?

SC had struck down this provision on March 24, 2015. SC noted the provision as "**vague and arbitrary**". Section 66A was dubbed as "draconian" as it allowed arrest of several innocent persons. It was declared unconstitutional in **Shreya Singhal v. Union of India case**. SC noted that Section 66A invades right of free speech under article 19(1) (a) of Constitution.

NIPUN Bharat Initiative

- Union government is set to launch a new scheme called "NIPUN Bharat Initiative" on July 5, 2021. It will be launched to improve numeracy, foundational reading, and understanding for early-stage students.
- NIPUN stands for "National Initiative for Proficiency in reading with Understanding and Numeracy".

- This scheme would provide an enabling environment in a bid to ensure universal acquisition of foundational literacy and numeracy.
- It will ensure that every child achieves desired learning competencies in reading, writing, and numeracy by end of Grade 3, by the year 2026-27.
- This initiative will be a part of school education programme, Samagra Shiksha.

Flag bearers at Tokyo Olympics from India

Boxer **M.C. Mary Kom** and men's hockey team skipper **Manpreet Singh** have been named for flag bearers at Tokyo Olympics from India. Wrestler **Bajrang Punia** will be flag bearer at closing ceremony on August 8, 2021.

Tokyo 2020 Mascots

Tokyo 2020 Olympic Games mascot



The name MIRAITOWA is based on the Japanese words "Mirai" (future) and "towa" (eternity) connected together. This name was chosen for the Olympic mascot to promote a future full of hope forever, in the hearts of all the people in the world.

Tokyo 2020 Paralympic Games mascot



The name SOMEITY comes from "Someiyoshino", a popular cherry blossom variety, and the phrase "so mighty". Someity has cherry blossom tactile sensors, and can show enormous mental and physical strength. The mascot represents Paralympic athletes who overcome obstacles and redefine the boundaries of possibility.

Mango diplomacy

- Prime Minister of Bangladesh, Sheikh Hasina, has gifted 2,600 kg of Haribhanga variety of mangoes to Indian Prime Minister, Narendra Modi.
- Mangoes are of "Haribhanga variety" which are grown in Rangpur region of Bangladesh.
- Haribhanga mangoes typically weigh 200 to 400 grams and are round in shape, extremely fleshy and fibreless.
- Mango diplomacy has been a tradition of politics in Indian subcontinent. Dignitaries like former Pakistan Presidents Zia-ul-Haq and Pervez Musharraf had also presented India with mangoes.

International

Grand Ethiopian Renaissance Dam

- Formerly known as **the Millennium Dam**, it is under construction in the Benishangul-Gumuz region of Ethiopia, on the Blue Nile River, which is located about 40km east of Sudan.
- After completion, **it'll be Africa's largest hydroelectric project.**

Istanbul Convention on violence against women

Turkey quits **Istanbul Convention on Violence against Women**. Turkey has received severe criticism from various quarters and has led to protests across the country. The country has withdrawn from the convention despite the alarmingly high rates of violence and femicide in the country. The country ranks 133 out of 156 countries in **the Global Gender Gap report 2021**.

What are the reasons for Turkey's withdrawal?

- It said the convention demeans traditional family structure, promotes divorces and encourages acceptance of LGBTQ in the society.
- Besides, it said, it has enough local laws to protect women's rights.

What is the Istanbul Convention?

- It is also called as **the Council of Europe Convention on preventing and combating violence against women and domestic violence**.
- The treaty is **the world's first binding instrument** to prevent and tackle violence against women.
- It is **the most comprehensive legal framework that exists to tackle violence against women and girls, covering** domestic violence, rape, sexual assault, female genital mutilation (FGM), so-called honour-based violence, and forced marriage.
- When a government ratifies the Convention, **they are legally bound to follow it.**

Science-Tech & Environment

Kappa and Lambda- Newest Sars-CoV-2 Variants

- Kappa and Lambda variants have been labelled as **Variants of Interest (VoI)** by WHO.
- **Kappa** was first detected in India and more than 3,500 of the close to 30,000 cumulative samples submitted by the country to **the GISAID initiative** are of this variant.
- **Lambda** is the newest VoI identified by the UN health agency. It was first identified in Peru in December last year and has so far been detected in samples from about 26 countries shared

with GISAID. The highest number of samples submitted is from Chile followed by the US. Peru is third on the list.

COVID-19

Comparing variants of concern

Like all viruses, the SARS-CoV-2 coronavirus **has been evolving since it first emerged in late 2019**. The WHO has identified four variants of concern and four variants of interest:

Variants of concern

Earliest documented sample:



Alpha
United Kingdom
September, 2020
Reported in: 173 countries



Beta
South Africa
May, 2020
Reported in: 122 countries



Gamma
Brazil
November, 2020
Reported in: 74 countries



Delta
India
October, 2020
Reported in: 104 countries

Variants of interest

Earliest documented sample:

Eta
Multiple countries
December, 2020

Iota
United States
November, 2020

Kappa
India
October, 2020

Lambda
Peru
December, 2020



Source: World Health Organization | Last updated July 6, 2021



Indrajaal

Hyderabad-based technology R&D firm Grene Robotics has designed and developed **India's first indigenous drone defence dome called "Indrajaal"**. The drone defence dome has the capability to autonomously protect an area of 1000-2000 sq km against the aerial threats by assessing and acting on aerial threats such as Unmanned Aerial Vehicles (UAVs), loitering munitions, and Low- Radar Cross Section (RCS) targets.

Anti-Methanogenic Feed Supplement: Harit Dhara

Indian Council of Agricultural Research (ICAR) has developed an anti-Methanogenic feed supplement 'Harit Dhara' (HD). This supplement **can cut down cattle methane emissions by 17-20% and can also result in higher milk production**.

Harit Dhara: It has been made from **tannin-rich plant-based sources**. Tropical plants containing tannins, bitter and astringent chemical compounds, are known to suppress or **remove protozoa from the rumen**.

Benefits:

- It **decreases the population of protozoa microbes in the rumen**, responsible for hydrogen production and making it available to the archaea (structure similar to bacteria) for reduction of CO₂ to methane.
- **Fermentation** after using this supplement will help produce more **propionic acid**, which provides more energy for lactose (milk sugar) production and body weight gain.

- **Reduces methane production:** An average lactating cow or buffalo in India emits around 200 litres of methane per day, while it is 85-95 litres for young growing heifers and 20-25 litres for adult sheep. Feeding Harit Dhara can reduce these by a fifth.

How and why is methane produced in cattle?

Methane is produced by animals having rumen. **Rumen** is the first of the four stomachs where the cattle eat plant material, cellulose, fibre, starch and sugars. These get fermented or broken down by microorganisms prior to further digestion and nutrient absorption.

Carbohydrate fermentation leads to production of CO₂ and hydrogen. These are used by microbes (Archaea) present in the rumen to produce methane.

Rajasthan to develop Tiger Corridor connecting Three Tiger Reserves

Rajasthan government has planned to develop a tiger corridor connecting Ranthambore tiger reserve, Ramgarh Vishdhari tiger reserve and Mukundra tiger reserve.

Economics

OECD/G20 Inclusive Framework tax deal

India has joined **the G20–OECD inclusive framework deal** that seeks **to reform international tax rules and ensure that multinational enterprises pay their fair share wherever they operate.** 130 countries and jurisdictions, representing more than 90% of global GDP, have signed the deal.

Two pillars of framework:

1. **Dealing with transnational and digital companies.** This pillar ensures that large multinational enterprises, including digital companies, pay tax where they operate and earn profits.
2. **Dealing with low-tax jurisdictions to address cross-border profit shifting and treaty shopping.** This pillar seeks to put a floor under competition among countries through a global minimum corporate tax rate, currently proposed at 15%.

Expected outcomes: If implemented, countries such as the Netherlands and Luxembourg that offer lower tax rates, and so-called tax havens such as Bahamas or British Virgin Islands, could lose their sheen.

Current Affairs Update (July 11-17)

National

India's first cryptogamic garden

Inaugurated recently in the Chakrata town of Dehradun, Uttarakhand. The garden will be housing nearly 50 species of lichens, ferns and fungi (collectively known as Cryptogamae). This site is chosen because of its low pollution levels and moist conditions which are conducive for the growth of these species.

What are cryptograms?

- Plant kingdom can be divided into two sub-kingdoms viz. Cryptogams and phanerogams.
- Cryptogams consist of seedless plants and plant-like organisms whereas phanerogams consist of seed-bearing plants.
- Phanerogams are further divided into two classes i.e. gymnosperms and angiosperms.
- The word "Cryptogamae" implies 'hidden reproduction', referring to the fact that they do not produce any reproductive structure, seed, or flower. A cryptogam is a plant that reproduces with the help of spores.

Bhutan adopts India's BHIM-UPI

Bhutan has become **the first country to adopt India's Unified Payment Interface (UPI) standards for its quick response (QR) code**. It is also **the second country after Singapore to have BHIM-UPI acceptance at merchant locations**. Bhutan will also become **the only country to both issue and accept RuPay cards as well as accept BHIM-UPI**.

BHIM: Bharat Interface for Money (BHIM) is India's digital payment application (app) that works through UPI, a system that powers multiple bank accounts into a single mobile application. Developed by National Payments Corporation of India (NPCI). Allows real time fund transfer. Launched in December, 2016.

UPI: Unified Payments Interface (UPI) is an instant real-time payment system, allowing users to transfer money on a real-time basis, across multiple bank accounts without revealing details of one's bank account to the other party.

Nepal, India sign deal for Lower Arun Hydropower project

Nepal has inked a USD 1.3 billion deal with Satluj Jal Vidyut Nigam (SJVN) of India to develop a 679-megawatt hydropower project in eastern Nepal. It is the single largest foreign investment project. This hydropower project will be developed under build, own, operate and transfer (**BOOT**) model.

Arun River: It is the largest trans-Himalayan River that passes through Nepal. River drains into Sapta Kosi river system. In Tibet, it is known as Men Qu in upper reaches and as Peng Qu for most of its course towards north of Himalayan crests.

Ladakh: 1st UT to achieve 100% first dose coverage

Ladakh has become first Union Territory to vaccinate all residents and guest population; comprising of migrant labourers, hotel workers and Nepalese citizens earning their livelihood in the territory; with first dose of Covid-19 jab.

Ladakh is bordered by Tibet Autonomous Region in east, Himachal Pradesh in south, Jammu & Kashmir and Gilgit-Baltistan in west while southwest corner of Xinjiang along the Karakoram Pass in north.

Kongu Nadu

Kongu Nadu is a commonly used name for part of the western Tamil Nadu region. It is neither a place with a PIN code nor a name given formally to any region. This place is referred in Tamil literature. to as one among five regions of ancient Tamil Nadu. Sangam literature also mentions of 'Kongu Nadu' in as a separate territory. In present day Tamil Nadu, this term is informally used to refer a region comprising of districts of Nilgiris, Tirupur, Coimbatore, Karur, Erode, Namakkal and Salem besides, Oddanchatram & Vedasandur in Dindigul district and Pappireddipatti in district of Dharmapuri.

How this name was derived? Name 'Kongu Nadu' is derived from Kongu Vellala Gounder that is an OBC community living across these districts.

International

Unity 22 mission

As part of the mission, the crew flew to **the edge of space** on July 11 on board the 'Unity' rocket ship developed by Virgin Galactic. This was the 22nd mission for **VSS Unity**. This was **Virgin Galactic's fourth crewed spaceflight**.

It was also **the first to carry a full crew of two pilots and four mission specialists in the cabin**, including Virgin Group Founder Richard Branson, who will be testing out the private astronaut experience.

Significance for India: Sirisha Bandla, an astronaut born in India, was a part of the crew.

- This is significant as she was **the third woman of Indian origin to go to space after Kalpana Chawla and Sunita Williams**.
- **Rakesh Sharma** is another Indian who went into space prior to Bandla.

Sher Bahadur Deuba

Supreme Court of Nepal has passed an order to appoint Nepali Congress President Sher Bahadur Deuba as prime minister Nepal. President Bidya Devi Bhandari had dissolved 275-member lower house on May 22, 2021 for second time in five months on the recommendation of Prime Minister Oli.

Euro 2020

Italy has won second European Championship trophy after **defeating England** by 3-2 in penalty shoot-out in final of Euros 2020 trophy at Wembley Stadium in London.

Wimbledon Tennis Championship Title 2021

Novak Djokovic has won his 6th Grand Slam Wimbledon Tennis Championship Title 2021. He is a Serbian professional tennis player, ranked as world No. 1 Association of Tennis Professionals (ATP). He has been No. 1 for record of 329 weeks. He has also finished as year-end No. 1 on Open Era joint record six occasions. As of now, he has won 20 Grand Slam men's singles titles and 85 ATP singles titles.

Science-Tech & Environment

Zika Virus

Alarmed by cases of Zika virus in neighbouring Kerala, Karnataka has issued guidelines to prevent the spread of the disease in the state.

Spread:The Zika virus is predominantly transmitted by infected mosquitoes from **the Aedes genus**, mainly **Aedes aegypti**. The Aedes mosquitoes also spread dengue, chikungunya and yellow fever. They usually bite during the daytime, mostly during the early morning or later afternoon.

Apart from the mosquitoes, **an infected person can also spread the virus**. This virus can be transmitted from a pregnant woman to the fetus, through sexual contact, transfusion of blood and blood products, and organ transplantation.

History: The virus was **first identified in Uganda in 1947 in monkeys**. It was later identified in humans in 1952 in Uganda and the United Republic of Tanzania.

Symptoms: fever, rash, conjunctivitis, muscle and joint pain, malaise, or headache.

Treatment: According to the World Health Organisation (WHO), the Zika virus has no treatment or vaccine. WHO advises the consumption of a lot of fluids along with pain and fever medicines for a speedy recovery.

What are flexible fuel vehicles (FFVs)?

An FFV is a modified version of vehicles that could **run both on gasoline and doped petrol with different levels of ethanol blends.**

- FFVs will allow vehicles to use all the blends and also run on unblended fuel.
- FFVs have compatible engines to run on more than 84 per cent ethanol blended petrol.

Benefits:

- FFVs are aimed at reducing the use of polluting fossil fuels and cutting down harmful emissions.
- Alternative fuel ethanol is Rs 60-62 per litre while petrol costs more than Rs 100 per litre in many parts of the country, so by using ethanol, Indians will save Rs 30-35 per litre.
- For India, FFVs will present a different advantage as they will allow vehicles to use different blends of ethanol mixed petrol available in different parts of the country.
- Also, these vehicles are a logical extension of **the Ethanol Blended Petrol (EBP) programme** launched by the Union Ministry of Petroleum and Natural Gas in January 2003.
- Since India has surplus produce of corn, sugar and wheat, the mandatory blending of ethanol programme will help farmers in realising higher incomes.
- For the overall Indian economy, higher usage of ethanol as an automobile fuel will help save import costs as the country meets more than 80 per cent of its crude oil requirements through imports.

Disadvantages/challenges of using FFVs:

1. **Customer acceptance** will be a major challenge since the cost of ownership and running cost are going to be very high compared with 100 per cent petrol vehicles.
2. **Running cost** (due to lower fuel efficiency) will be higher by more than 30 per cent when run with 100 per cent ethanol (E100).
3. **Flex Fuel Engines cost more** as ethanol has very different chemical properties than petrol. Ethanol has very low (40 per cent) Calorific value as compared to Gasoline, very High Latent heat of vaporization causing cooling of charge/combustion etc.
4. **Ethanol also acts as a solvent and could wipe out the protective oil film inside the engine** thereby could cause wear and tear.

UV-C technology

Ultraviolet-C or UV-C Disinfection Technology will soon be installed in Parliament for the “mitigation of airborne transmission of SARS-COV-2”.

About the UV-C air duct disinfection system:

- Developed by **CSIR-CSIO (Central Scientific Instruments Organisation)**.
- The system is designed to fit into any existing air-ducts and the virucidal dosages using UV-C intensity and residence time can be optimised according to the existing space.
- The virus is deactivated in any aerosol particles by the calibrated levels of UV-C light.
- It can be used in auditoriums, malls, educational Institutions, AC buses, and in railways.

UV radiation: UV radiation is the portion of the Electromagnetic spectrum between X-rays and visible light. The most common form of UV radiation is sunlight, which produces three main types of UV rays:

1. UVA.
2. UVB.
3. UVC.

UVA rays have the longest wavelengths, followed by UVB, and UVC rays which have the shortest wavelengths. While UVA and UVB rays are transmitted through the atmosphere, **all UVC and some UVB rays are absorbed by the Earth’s ozone layer**. So, most of the UV rays you come in contact with are UVA with a small amount of UVB.

How is it being used? UV radiations are normally used to kill microorganisms. Particularly, **UV-C, also known as Ultraviolet germicidal irradiation (UVGI)** is a disinfection method that uses short-wavelength ultraviolet light to kill or inactivate microorganisms by destroying their nucleic acids and disrupting their DNA, leaving them unable to perform vital cellular functions and stops their replication. UVGI is used in a variety of applications, such as food, air, and water disinfection.

New European climate law

The **European Union** has unveiled some of the world’s most ambitious proposals, titled “**Fit for 55**”, to reduce carbon emissions and wean its 27 members off fossil fuels. These measures are **a EU’s roadmap to achieve its target to reduce emissions by 55% by 2030, compared with 1990 levels**.

The roadmap includes: It takes **particular aim at transport**, both personal and commercial, across the block.

- Cars with combustion engines, for example, would not be produced within the bloc from 2035.

- Financial incentives would be offered to countries that replace traditional fuel with a sustainable alternative in aviation and maritime transportation.
- Minimum tax rate for petrol and gasoline fuels would be increased by significant margins, as would tax on kerosene.

Carbon border: The proposed carbon border would place tariffs on certain goods produced outside the bloc, depending on their carbon footprint, subjecting them to the same standards that already exist for goods produced within the EU. The plan is to discourage EU companies from importing cheaper materials from places where environmental standards are lower.

What is a conjugate vaccine?

The type of vaccine combining weak antigen with strong antigen as a carrier so that an immune system strongly response to a weak antigen, is called as conjugate vaccine. Such vaccines are used to prevent diseases by building an immune response to antigen (foreign part of virus or bacteria) recognised by immune system.

Why in news? Cuba has developed world's first conjugate Covid-19 vaccine Soberana 2 (Sovereign 2).

Bryum bharatiensis

- Scientists in India have discovered **a native moss species in Antarctica.**
- It has been **named Bryum bharatiensis – after India and India's Antarctic station Bharati.**
- This is **the first time a plant species has been discovered in the four decades of the Indian Antarctic mission.**

Himalayan yaks

The **National Research Centre on Yak (NRCY)** at Dirang in West Kameng district, Arunachal Pradesh, has tied up with the National Insurance Company Ltd. for insuring their livestock. The insurance policy would shield the yak owners against the risks posed by weather calamities, diseases, in-transit mishaps, surgical operations and strikes or riots.

According to the policy, the owners would have to get their yaks ear-tagged and provide a proper description in order to get their animals insured.

About Himalayan Yaks:

- Yak is accustomed to very cold temperatures and can up to minus 40 degrees.
- Two other prominent nomadic communities engaged in yak rearing are **Changpas and Dokpas in Ladakh, Sikkim and Himachal Pradesh.**
- Currently considered to be **Vulnerable by the IUCN.**

- Yak population in India is found in Union Territories of Ladakh and Jammu and Kashmir, Arunachal Pradesh, Sikkim, Himachal Pradesh, West Bengal and Uttarakhand.

ICESat-2

- American Space Agency, NASA's ICESat-2 discovered Antarctic Meltwater Lakes recently.
- **ICESat-2** stands for "Ice, Cloud, and land Elevation Satellite". It is a part of NASA's Earth Observing System for measuring ice sheet elevation and sea ice thickness.
- Glaciologist Helen Amanda Fricker had made an astonishing discovery in 2007 and found that, a whole hidden network of interconnected lake is found beneath thick Antarctic ice-shelves. She found that, these lakes actively fill and drain. Presence of meltwater beneath ice sheets was known, but such network of an active water system was a breakthrough.

dbGENVOC

- It is the world's first database of genomic variants of oral cancer.
- It is created by the DBT-National Institute of Biomedical Genomics (NIBMG), Kalyani an autonomous institute funded by the Department of Biotechnology, GOI.

What is a Bitcoin Hardware Wallet?

Hardware wallet is a special type of **cryptocurrency storage** which maintains and secures private crypto keys of users in hardware device. This wallet is known for providing **security** and utility when users interact with blockchains. It allows users to work on multiple blockchains simultaneously. This is translated as utility factor because users can manage Bitcoin, Ethereum & Alt. Coins, Lumens etc on a single device.

Cryptocurrency is not stored in the hardware of wallet itself. But it is stored in blockchains. Wallet allows users to access in a portable fashion. It is more like a credit card which can access account from any ATM or swiping platform.

Economics

UK-India Financial Markets Dialogue

UK-India Financial Markets Dialogue (FMD) held first virtual meeting on July 8, 2021 in order to strengthen bilateral financial connections. Government-to-government conversations took place during Dialogue in a bid to increase cooperation on four major themes:

1. Gujarat International Finance Tec (GIFT) City (Ahmedabad),
2. Banking and payments,
3. Insurance, and

4. Capital markets.

National Asset Reconstruction Company (NARC)

- The National Asset Reconstruction Company (NARC) has finally become a legal entity registered with the Registrar of Companies (RoC) Mumbai.
- NARC is also called as bad bank is finally here in India. It is considered as a one-stop solution for banking systems stressed assets menace.
- Under the first phase, 22 stressed accounts amounting to Rs 89,000 cr has been identified to transfer to NARC. With this, Rs 2 lakh cr worth of bad loans accounts will be transferred to newly incorporated bad bank.
- NARC was Incorporated on July 7, 2021. It has an authorised capital of Rs 100 cr and paid-up capital of Rs 74.6cr. Sixteen banks, 12 state-owned and 4 private banks will invest in NARCL.
- Canara Bank will be sole sponsor of NARL with 12% stake. SBI is going to be second-largest shareholder with 9.9%.

Khadi secures trademark registrations in 3 countries

Khadi and Village Industry Commission (KVIC) has secured trademark registration for its brand name “Khadi” in three countries viz., Mexico, Bhutan and United Arab Emirates (UAE).

KVIC has had trademark registrations in certain classes of word “Khadi” in five countries – United Kingdom, Germany, Australia, Russia and China besides European Union, till date.

KVIC is a **statutory body** established in April 1957. It was established during 2nd Five Year plan, under the ‘**Khadi and Village Industries Commission Act of 1956**’. It works under **Ministry of Micro, Small and Medium Enterprises**. KVIC seeks to “plan, promote, facilitate, organise and assist in establishing and developing khadi and village industries across rural areas in association with other agencies engaged in rural development. It is **headquartered in Mumbai**. It has its six zonal offices across Delhi, Bengaluru, Bhopal, Kolkata, Mumbai and Guwahati.

Current Affairs Update (July 18-25)

National

What is Pegasus?

It is a spyware tool developed by an Israeli firm, the NSO Group. Spyware spy on people through their phones.

Working: Pegasus works by sending an exploit link, and if the target user clicks on the link, the malware or the code that allows the surveillance is installed on the user's phone. Once Pegasus is installed, the attacker has complete access to the target user's phone.

- Pegasus can “send back the target's private data, including passwords, contact lists, calendar events, text messages, and live voice calls from popular mobile messaging apps”.
- The target's phone camera and microphone can be turned on to capture all activity in the phone's vicinity, expanding the scope of the surveillance.

Zero-click attack: A zero-click attack helps spyware like Pegasus gain control over a device without human interaction or human error.

- So all awareness about how to avoid a phishing attack or which links not to click are pointless if the target is the system itself.
- Most of these attacks exploit software which receive data even before it can determine whether what is coming in is trustworthy or not, like an email client.

The laws for surveillance in India

Communication surveillance in India takes place primarily under two laws:

1. The Telegraph Act, 1885.
2. The Information Technology Act, 2000.

What does the Telegraph Act say?

Basically, the Act deals with **interception of calls**. Under this law, **the government can intercept calls only in certain situations** — the interests of the sovereignty and integrity of India, the security of the state, friendly relations with foreign states or public order, or for preventing incitement to the commission of an offence.

- These are **the same restrictions imposed on free speech under Article 19(2) of the Constitution.**
- The law also states that **even this lawful interception cannot take place against journalists** except under few circumstances.

IT Act, 2000:

Under the IT Act, all electronic transmission of data can be intercepted.

- Apart from the restrictions provided in Section 5(2) of the Telegraph Act and Article 19(2) of the Constitution, **Section 69 the IT Act** adds another aspect that makes it broader — interception, monitoring and decryption of digital information “for the investigation of an offence”.
- Significantly, **it dispenses with the condition precedent set under the Telegraph Act that requires “the occurrence of public emergency of the interest of public safety”** which widens the ambit of powers under the law.

Why SC struck down section 66A?

The SC had noted that Section 66A arbitrarily, excessively and disproportionately invades the right of free speech, under **article 19(1) (a) of the Constitution**, and upsets the balance between such right and the reasonable restrictions that may be imposed on such right and the definition of offences under the provision was open-ended and undefined.

- The court also said that the provision used expressions “completely open-ended and undefined” and every expression used was “nebulous” in meaning.
- What may be offensive to one may not be offensive to another.
- What may cause annoyance or inconvenience to one may not cause annoyance or inconvenience to another.
- Even the expression ‘persistently’ is completely imprecise.

Section 66A had been dubbed as “draconian” for it allowed the arrest of several innocent persons, igniting a public outcry for its scrapping. This had led to **the Supreme Court striking it down as unconstitutional in March, 2015 in Shreya Singhal v. Union of India.**

Why in news? The **Ministry of Home Affairs (MHA)** has asked the States and Union Territories to immediately withdraw the cases registered under the repealed **Section 66A of the Information Technology Act**. This comes after the Supreme Court recently expressed shock that it was being invoked even six years after the apex court had struck it down.

Part of Constitution inserted by 97th amendment quashed

The Supreme Court on July 20 in a 2:1 majority verdict **upheld the validity of the 97th constitutional amendment** but struck down a **part inserted by it** which relates to **the Constitution and working of cooperative societies**.

Upholding the Gujarat High Court's 2013 decision striking down certain provisions of the 97th constitutional amendment, the Supreme Court held that **the Parliament cannot enact laws with regard to cooperative societies as it is a State subject**. Several intervenors have contended that the amendment made a **direct in-road into the exclusive domain of states to enact laws with regard to cooperatives**.

The 97th constitutional amendment:

- It dealt with issues related to effective management of co-operative societies in the country.
- It was passed by Parliament in December 2011 and had come into effect from February 15, 2012.
- It amended **Article 19(1)(c)** to give protection to the cooperatives and inserted **Article 43 B and Part IX B**, relating to them.

What was the rationale behind such move by the centre?

The Centre has stated that the amendment was enacted **to bring uniformity in the management of cooperative societies** and it did not take away the powers of states. But, the Supreme Court has now said that if the Centre wanted to achieve uniformity then the only way available was to take the recourse under **Article 252** of the Constitution which deals with the power of Parliament to legislate for two or more states by consent.

What next?

- The subject of cooperative societies fell in the state list and “belongs wholly and exclusively to the State legislatures to legislate upon” and any change would require the ratification by at least one-half of the state legislatures as per **Article 368(2) of the Constitution**.
- Now, **Part IXB of the Constitution** of India is operative only in so far as it concerns **multi-State co-operative societies** both within the various States and in the Union territories of India.

Mekedatu dam project

Location: Mekedatu, meaning **goat's leap**, is a deep gorge **situated at the confluence of the rivers Cauvery and its tributary Arkavathi**.

Why in news? The Centre has given its assurance that Karnataka will not be allowed to carry out any construction on **the Mokedatu dam project** on the Cauvery river until its Detailed Project Report (DPR) is approved by **the Cauvery Water Management Authority (CWMA)**. Also, there are differences between Karnataka and Tamil Nadu over the proposed project.

Issues surrounding Mokedatu project:

The project aims **to store and supply water for drinking purposes for the Bengaluru city**. Around **400 megawatts (MW) of power** is also proposed to be generated through the project. However, **Tamil Nadu** objected saying that the project would affect the flow of Cauvery water to Tamil Nadu. Tamil Nadu also argues that **the project is against the final order of the Cauvery Water Disputes Tribunal (CWDT)** in which the SC held that no state can claim exclusive ownership or assert rights to deprive other states of the waters of inter-state rivers.

India's assistance to Afghanistan: Key projects

No part of Afghanistan today is untouched by the 400-plus projects that India has undertaken in all 34 of Afghanistan's provinces.

1. **The 2011 India-Afghanistan Strategic Partnership Agreement** recommitted Indian assistance to help rebuild Afghanistan's infrastructure and institutions; education and technical assistance for capacity-building in many areas.
2. **SALMA DAM:** The 42MW Salma Dam in Herat province. The hydropower and irrigation project, completed against many odds and inaugurated in 2016, is known as **the Afghan-India Friendship Dam**.
3. **ZARANJ-DELARAM HIGHWAY:** The other high-profile project was the 218-km Zaranj-Delaram highway built by the Border Roads Organisation. Zaranj is located close to Afghanistan's border with Iran. The \$150-million highway goes along **the Khash Rud river** to Delaram to the northeast of Zaranj.
4. **PARLIAMENT:** The Afghan Parliament in Kabul was built by India at \$90 million. It was opened in 2015; Prime Minister Narendra Modi inaugurated the building.
5. **STOR PALACE:** In 2016, Afghan President Ashraf Ghani and Prime Minister Modi inaugurated the restored Stor Palace in Kabul, originally built in the late 19th century, and which was the setting for the 1919 Rawalpindi Agreement by which Afghanistan became an independent country.
6. India pledged \$1 million for another **Aga Khan heritage project**, the restoration of the Bala Hissar Fort south of Kabul, whose origins go back to the 6th century. Bala Hissar went on to become a significant Mughal fort, parts of it were rebuilt by Jahangir, and it was used as a residence by Shah Jahan.

7. Despite the denial of an overland route by Pakistan, **India-Afghanistan trade** has grown with the establishment in 2017 of an air freight corridor. In 2019-20, bilateral trade crossed \$1.3 billion.

The Drone Rules, 2021

- **Digital sky platform** shall be developed as a business-friendly single-window online system.
- **No flight permission required upto** 400 feet in green zones and upto 200 feet in the area between 8 and 12 km from the airport perimeter.
- **No pilot licence required for** micro drones (for non-commercial use), nano drone and for R&D organisations.
- **No restriction on drone operations by foreign-owned companies registered in India.**
- Import of drones and drone components to be regulated by DGFT.
- **No security clearance required** before any registration or licence issuance.
- **Coverage of drones under Drone Rules, 2021 increased from 300 kg to 500 kg.** This will cover drone taxis also.
- **Issuance of Certificate of Airworthiness** delegated to Quality Council of India and certification entities authorised by it.
- **Maximum penalty** under Drone Rules, 2021 reduced to INR 1 lakh. This shall, however, not apply to penalties in respect of violation of other laws.
- **Drone corridors** will be developed for cargo deliveries.
- **Drone promotion council** to be set up to facilitate a business-friendly regulatory regime.

Inland Vessels Bill, 2021

- The Bill was introduced Sarbananda Sonowal who is the newly appointed Ports, Shipping and Waterways Minister.
- This bill seeks to provide protection of life and cargo, safety of navigation and prevention of pollution.
- The Inland Vessels Bill will promote safe and economical transportation.
- This Bill has also been brought to bring in accountability and transparency of the administration of the inland water transportation, survey, strengthen procedures governing inland vessels their construction, manning and navigation and registration.
- At present, India has 4,000 kms of operational inland waterways in the country.

Historic Urban Landscape Project

- In the state of Madhya Pradesh, the cities of **Orchha and Gwalior** have been selected by **UNESCO** under its 'Historic Urban Landscape Project.'
- Six cities of South Asia, including Indian cities of Varanasi and Ajmer are already involved in this project. Gwalior and Orchha have been included as the 7th and 8th cities of South Asia.

- This project of UNESCO was started in the year 2011 with the primary aim of well-planned and all inclusive development of the fast-growing historical cities around the world, while keeping in mind to preserve the heritage and the culture.

International

First continent to complete collection of digital land use data

- **Africa has become the first continent** in the world to complete the collection of accurate, comprehensive and harmonised digital land use and land use change data under the **Africa Open DEAL initiative**.
- **DEAL** stands for Data for the Environment, Agriculture and Land Initiative.
- The data collection and analysis initiative is led by the Food and Agriculture Organization (FAO) and the African Union Commission (AUC).
- The data was analysed to highlight land use change over the past 20 years and the potential for restoration at the national level for every country in the African continent.

Liverpool removed from World Heritage status

- Liverpool was removed from the list of UNESCO World Heritage sites after being granted the title in 2004.
- Liverpool gained its World Heritage status in 2004, in recognition of its maritime history. In the 18th and 19th centuries, it was one of the world's major trading centres.
- Previously, only two sites have lost their heritage status: The **Arabian Oryx Sanctuary in Oman** in the year 2007, and the **Dresden Elbe Valley in Germany** in the year 2009. Sites are removed if they do not preserve and maintain the sites properly.

Brisbane to host 2032 Olympic Games

- Australia's Brisbane will be the host of the 2032 Olympics and Paralympics after receiving approval from the executive board of the International Olympic Committee (IOC).
- Starting this week, Tokyo is hosting 2020 Olympics; Paris will host the 2024 Games and the 2028 Summer Olympics will be hosted by Los Angeles.

New Motto of the Olympics

- On 20th July, 2021, "Faster, Higher, Stronger," the Olympic motto was updated to "Faster, Higher, Stronger – Together". This updating was done to show solidarity around the globe at the time of the Covid-19 pandemic.
- "Citius, Altius, Fortius, Communiter" is the latin version of the new motto.

Science-Tech & Environment

Monkeypox

Monkeypox is a rare but potentially serious viral illness which starts with flu-like illness & swelling of lymph nodes and progresses to a widespread rash on face & body. Most infections last 2-4 weeks.

Category: MPV is a double-stranded DNA & a zoonotic virus. It belongs to genus Orthopoxvirus in family Poxviridae. It is one among human Orthopoxviruses that includes variola, cowpox and vaccinia viruses. This virus causes disease similar to smallpox but with milder rash and lower death rate.

History: Virus was first identified in 1958 among crab-eating macaque monkeys by Preben von Magnus in Copenhagen, Denmark.

Carrier: Monkeypox virus is carried by animals including primates.

Transmission: The infection can be transmitted via direct contact and exchange of bodily secretions of monkeys. Monkeypox B virus is **the only identified old-world-monkey herpesvirus that displays severe pathogenicity in humans.**

Vaccine: Currently, there are no vaccines that can protect against B virus infection.

Recent case: Monkeypox was detected in a US resident, who recently travelled from Nigeria to US. As per laboratory testing at CDC; patient is infected with strain of monkeypox which is commonly found in parts of West Africa, including Nigeria.

Akash-NG

- New Generation Akash Missile (Akash-NG), a surface-to-air Missile has been successfully flight-tested Defence Research & Development Organisation (DRDO) from Integrated Test Range (ITR) off the coast of Odisha. Having a range of 80km Akash-NG has a better range compared to the original version which has a range of around 25 km.

Russia test-fires S-500 air defence missile systems

- Russia announced that the S-500 is the most advanced anti-missile system in the world and is expected to have a **range of 600km**. This missile system is also capable of countering attacks from the space.
- This missile system was test fired in the Kapustin Yar training ground and live fire exercises were conducted.
- Russia announced that it another successful test of its **Zircon hypersonic cruise** missile had been carried out. Zircon is a part of a new arsenal of weapons of Russia.

New Shephard, the rocket system

- It is a rocket system **meant to take tourists to space successfully.**
- The system is built by **Blue Origin.**
- New Shephard has been named after astronaut **Alan Shephard, the first American to go to space.**
- It **offers flights to space over 100 km above the Earth** and accommodation for payloads.
- The system is a fully reusable, vertical takeoff and vertical landing space vehicle.

Scientific objectives of the mission: It is a rocket system that has been designed to take astronauts and research payloads past **the Karman line** – the internationally recognised boundary of space.

Why in news? Amazon CEO Jeff Bezos back on earth after 10-min flight to space on **Blue Origin's New Shepard spacecraft.** He was accompanied by brother Mark Bezos, Wally Funk, and 18-year-old passenger Oliver Daemen.

Economics

Expected loss-based rating scale

- Security Exchange Board of India (SEBI) has introduced a new framework for “expected loss-based rating scale”.
- Under the new framework, credit rating agencies are required to provide expected loss-based ratings for projects and instruments which are associated with infrastructure sector.
- SEBI introduced expected loss-based rating, divided into a scale of seven levels, from lowest to highest expected loss.
- This new scale will be used by credit rating agencies to rate projects or instruments associated with infrastructure sector to start with.

Seven level of losses: Seven expected level of losses on new scale prescribed by SEBI include-

1. Lowest expected loss
2. Very low expected loss
3. Low expected loss
4. Moderate expected loss
5. High expected loss
6. Very high expected loss and

7. Highest expected loss.

Instruments rated 'EL 1' (Expected Loss) will be considered to have lowest expected loss while those rated 'EL 7' indicate highest expected loss.

India: 5th largest Forex reserve holder in the world

- India has surpassed Japan, China, Russia and Switzerland to become the world's fifth-largest foreign exchange reserve holder with \$608.99 billion. This was mentioned in the Lok Sabha on 20th July, 2021 by Pankaj Choudhary, MoS Finance.
- The Forex reserves are assets which are held by the central bank of a country and it mainly comprise of bonds, foreign currencies, gold, bank deposits, financial assets and special drawing rights.
- India's balance of payments has surplused in both the capital and current accounts in the year 2020-21 which largely contributed to the gains in the foreign exchange reserves of the country.
- India's present foreign exchange reserves are sufficient enough to provide a buffer against unforeseen external shocks and also to cover imports for more than 18 months.

Central bank digital currency (CBDC)

A **Central Bank Digital Currency (CBDC), or national digital currency**, is simply the digital form of a country's fiat currency. Instead of printing paper currency or minting coins, the central bank issues electronic tokens. This token value is backed by the full faith and credit of the government.

The Reserve Bank of India is likely to soon kick off pilot projects to assess the viability of using digital currency to make wholesale and retail payments to help calibrate its strategy for introducing a full-scale central bank digital currency (CBDC).

Need for:

- An official digital currency would reduce the cost of currency management while enabling real-time payments without any inter-bank settlement.
- India's fairly high currency-to-GDP ratio holds out another benefit of CBDC — to the extent large cash usage can be replaced by CBDC, the cost of printing, transporting and storing paper currency can be substantially reduced.
- The need for inter-bank settlement would disappear as it would be a central bank liability handed over from one person to another.

SC Garg Committee recommendations (2019):

- Ban anybody who mines, hold, transact or deal with cryptocurrencies in any form.
- It recommend a jail term of one to 10 years for exchange or trading in digital currency.

- It proposed a monetary penalty of up to three times the loss caused to the exchequer or gains made by the cryptocurrency user whichever is higher.
- However, the panel said that the government should keep an open mind on the potential issuance of cryptocurrencies by the Reserve Bank of India.

Challenges in rolling out National Digital Currency:

- Potential cybersecurity threat.
- Lack of digital literacy of population.
- Introduction of digital currency also creates various associated challenges in regulation, tracking investment and purchase, taxing individuals, etc.
- Threat to Privacy: The digital currency must collect certain basic information of an individual so that the person can prove that he's the holder of that digital currency.

'Stand Up India Scheme'

- Launched in 2016.
- It seeks to promote entrepreneurship at the grass-root level of economic empowerment and job creation.
- The offices of SIDBI and NABARD shall be designated Stand-Up Connect Centres (SUCC).
- Loans under the scheme are available for only Greenfield project.

The objective of the scheme is: To facilitate loans from Scheduled Commercial Banks (SCBs) of value between Rs 10 lakh and Rs 1 crore to atleast one SC or ST borrower and one woman borrower per bank branch for setting up green field enterprise in manufacturing, service or trading sector.

Why in news? The Government of India has extended the duration of 'Stand Up India Scheme' up to the year 2025.

Current Affairs Update (July 26-31)

National

Ramappa temple gets World Heritage tag

The 13th century **Ramappa temple in Palampet, Telangana**, was recently declared as a **UNESCO World Heritage Site** by the **World Heritage Committee (WHC)**. It is recognised by its sculptor Ramappa, who built it, or as **Rudreswara temple** since it was built under the supervision of Recherla Rudra, the commander. It took four decades to complete the temple which is dedicated to Lord Shiva.

Ramappa temple: Built by **Racherla Senapati Rudrayya**, a general of **Kakatiya king Ganapatideva**, in the 13th century. The foundation is built with the **“sandbox technique”**, the **flooring is granite** and the **pillars are basalt**. The lower part of the temple is red sandstone while the white gopuram is built with light bricks that reportedly float on water.



Dholavira Gets World Heritage Tag

- **Dholavira** in Gujarat has got the tag of a **UNESCO World Heritage Site**. It is a **Harappan-era city** sprawled over 100 hectares on **Khadir**, one of the islands in the Rann of Kutch. It has **two seasonal streams, Mansar and Manhar**.
- After Mohen-jo-Daro, Ganweriwala and Harappa in Pakistan and Rakhigarhi in Haryana of India, **Dholavira is the fifth largest metropolis of IVC**.
- **Remains of a copper smelter indicate Harappans, who lived in Dholavira, knew metallurgy**.
- It is now **the 40th treasure in India to be given UNESCO World Heritage tag**.
- It is **the first site of the ancient Indus Valley Civilisation (IVC) in India to get the tag**.

- Other than India, Italy, Spain, Germany, China and France have 40 or more World Heritage Sites.



The 'Right to be Forgotten'

The Right to be Forgotten falls under the purview of an individual's right to privacy. In 2017, the Right to Privacy was declared a fundamental right (under Article 21) by the Supreme Court in its landmark verdict (Puttuswamy case).

Right to privacy is also governed by the Personal Data Protection Bill that is yet to be passed by Parliament. The bill exclusively talks about the "Right to be Forgotten." Broadly, under the Right to be forgotten, users can de-link, limit, delete or correct the disclosure of their personal information held by data fiduciaries.

Why in news? Ashutosh Kaushik, a celebrity, has approached Delhi High Court seeking removal of his videos, photographs and articles from the internet. He has cited his "Right to be Forgotten".

Pradhan Mantri Jan Vikas Karyakaram (PMJVK)

The **Ministry of Minority Affairs** is implementing the **Pradhan Mantri Jan Vikas Karyakaram (PMJVK)**, in the identified **Minority Concentration Areas (MCAs)** of the country.

About the PMJVK: The erstwhile **Multi-sectoral Development Programme (MsDP)** has been restructured and renamed as Pradhan Mantri Jan Vikas Karyakram for effective implementation since 2018. It seeks to **provide better socio-economic infrastructure facilities to the minority communities.**

Special focus by earmarking funds:

1. 80% of the resources under the PMJVK would be earmarked for projects related to education, health and skill development.
2. 33 to 40% of resources under the PMJVK would be specifically allocated for women centric projects.

Beneficiaries of PMJVK: At present 6 (six) communities namely Muslims, Sikhs, Christians, Buddhists, Zoroastrians (Parsis) and Jains have been notified as Minority Communities.

Assam-Mizoram border dispute

During colonial times, **Mizoram was known as Lushai Hills**, a district of Assam. **Mizoram was carved out of Assam as a Union Territory in 1972** and by 1987, it became a full-fledged state. The two states have sparred over this 164.6 km long inter-state border over the past, sometimes leading to violent clashes.

The dispute stems from two notifications passed under British era:

1. First, notification of 1875, that differentiated Lushai Hills from the plains of Cachar.
2. Second, notification of 1933, that demarcates a boundary between Lushai Hills and Manipur.

What are the present claims?

- Mizoram claims that the land is theirs is based on an 1875 notification, which came from **the Bengal Eastern Frontier Regulation Act of 1873**.
- Assam for its part, claims that the land is theirs. It goes by a **1933 notification by the state government that demarcated the Lushai Hills**, which Mizoram was formerly known as, from the province of Manipur.

International

China's wolf warrior approach

China's assertive new diplomatic approach in the Xi Jinping era has come to be dubbed "wolf warrior diplomacy", marked by a muscular posture in pursuing China's interests.

"Wolf-warrior diplomacy," named after famous Chinese movies, describes offensives by Chinese diplomat to defend China's national interests, often in confrontational ways. It reinforces a presumed transition of Chinese diplomacy from conservative, passive, and low-key to assertive, proactive, and high-profile.

Instances:

- In last one year the Chinese foreign ministry has taken an increasingly strident tone against the United States, India, Australia, and other countries.
- In April last year, Chinese coastguard ship allegedly sank a Vietnamese fishing trawler near the Paracel Islands. When Vietnam protested, the Chinese foreign ministry responded by saying Vietnam's claims to the area are "illegal."
- Then, China announced the naming of 80 islands, reefs, seamounts, shoals, and ridges in the South China Sea, triggering angry protests from other claimants.
- China also tried to enter India at various places.

US counters China's sea claims

- In the backdrop of China's growing assertiveness in the hotly contested waters, the US has said that Beijing's expansive **claims in the South China Sea have "no basis in international law"**.
- The South China Sea is **an arm of western Pacific Ocean in Southeast Asia**. It is south of China, east & south of Vietnam, west of the Philippines and north of the island of Borneo.
- It is **connected by Taiwan Strait** with the East China Sea and by **Luzon Strait** with the Philippine Sea.

- **Bordering states & territories:** the People's Republic of China, the Republic of China (Taiwan), the Philippines, Malaysia, Brunei, Indonesia, Singapore and Vietnam.
- This sea holds tremendous strategic importance for its location as it is the connecting link between the Indian Ocean and the Pacific Ocean (**Strait of Malacca**).
- According to **the United Nations Conference on Trade And Development (UNCTAD)** one-third of the global shipping passes through it, carrying trillions of trade which makes it a significant geopolitical water body.

Contesting Claims Over Islands:

- The Paracel Islands are claimed by China, Taiwan and Vietnam.
- The Spratly Islands are claimed by China, Taiwan, Vietnam, Brunei and Philippines.
- The Scarborough Shoal is claimed by the Philippines, China and Taiwan

Four new sports in Tokyo Olympics

Four new sports have been introduced in the Tokyo Olympics. They are **karate, skateboarding, surfing and sport climbing**.

Science-Tech & Environment

China to activate world's first clean Nuclear Reactor

Scientist of the Chinese government has unveiled plans for an experimental nuclear reactor that does **not require water for cooling**. This reactor will run on **liquid thorium** instead of uranium and is expected to be safer than the traditional reactors. As molten salt, when exposed to air, cools and solidifies quickly thus insulating the thorium, causing any potential leak to spill very little radiation into the environment compared to the leaks from traditional reactors.

NISAR

The ISRO-NASA Joint Mission NISAR (**NASA-ISRO Synthetic Aperture Radar**) satellite, which aims to measure changes in the earth's surface globally using advanced radar images, is scheduled to be launched in early 2023.

NISAR is a joint Earth observation mission between ISRO and NASA, used for global observation of the entire earth, including the polar cryosphere and the Indian Ocean region. The main scientific goal of this mission is to improve understanding of the effects of climate change on the planet's changing ecosystems, terrestrial and coastal processes, land deformation, and the cryosphere.

What is Nauka?

- Nauka, meaning “science” in Russian, is **the biggest space laboratory Russia has launched to date**. Now, Nauka will serve as the country’s main research facility on the space station.
- It will replace **Pirs**, a Russian module on the International Space Station (ISS) used as a docking port for spacecraft and as a door for cosmonauts to go out on spacewalks.
- Nauka was launched from **the Baikonur Cosmodrome in Kazakhstan** on July 21 using a Proton rocket
- A space station is essentially **a large spacecraft that remains in low-earth orbit** for extended periods of time. **It is a result of cooperation between the five participating space agencies that run it: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada).**

Philippines approves genetically modified ‘Golden Rice’

- “Golden Rice” which is genetically modified has been given approval for commercial production by Philippines.
- International Rice Research Institute (IRRI) along with the Department of Agriculture-Philippine Rice Research Institute has spent two decades to develop the golden rice which is named so due to its bright yellow hue.
- This is the first kind of genetically modified rice which has been approved for commercial usage in the South and Southeast Asia region.
- Ordinary rice produces beta-carotene in the plant, but this is not found in the grain whereas golden rice will produce beta-carotene in the grain itself.

Agarwood

- The agarwood tree (*Aquilaria malaccensis*) oil is also known as **liquid gold**.
- A litre of agar oil costs Rs 5 lakh in the global market.
- IUCN has listed it under the **critically endangered** category.
- The agarwood tree is native to Northeast India, Bangladesh, Bhutan and parts of Southeast Asia.
- It is an evergreen tree that can grow to 40 metres.
- **Why in news?** Draft Tripura Agarwood Policy 2021 released. It seeks to promote the state’s agarwood business in a bid to develop a Rs 2000 crore economy in the state within 2025

INDRA 2021

- It is an Indo-Russia joint military Exercise.
- The 12th edition of the exercise will be held at **Volgograd**, Russia.
- The exercise will entail conduct of counter terror operations under the United Nations mandate by a joint force against international terror groups.
- The 12th edition of the military exercise **INDRA NAVY** was held in the **Baltic Sea**. It is a biennial bilateral maritime exercise that is conducted between the Indian Navy and Russian Navy.

International Tiger Day

- It is celebrated on **July 29** every year to raise awareness about the dwindling population of the endangered cat. It is the anniversary of **the agreement of Saint Petersburg Tiger Summit** in Russia in 2010.
- It was declared by representatives that **the tiger populated countries would make efforts to double the tiger population by the year 2022.**
- **The theme for the 2021 International Tiger Day** is “Their survival is in our hands”.
- India is the land of royal tigers and current tiger population stands at 2967 which is **70 per cent of the global tiger population.**
- **Madhya Pradesh has the highest number of tigers at 526**, closely followed by Karnataka (524) and Uttarakhand (442).

CA|TS accreditation

India's 14 Tiger Reserves have received the Global Conservation Assured | Tiger Standards (CA|TS) accreditation.

CA|TS is a conservation tool which is accepted globally. This tool sets best standards and practices to manage the tiger population of the world and encourages their assessments for benchmarking of progress. It is being implemented in around 125 sites in seven tiger range countries. India has the highest number of 94 sites, out of which assessment of 20 tiger reserves were completed this year. Currently, the country has 51 tiger reserves which are spread across 18 states.

The 14 tiger reserves are

- Orang, Manas and Kaziranga in Assam
- Kanha, Panna and Satpura in MP
- Pench in Maharashtra
- Valmiki Tiger Reserve in Bihar
- Dudhwa in UP
- Sunderbans in West Bengal
- Parambikulam in Kerala
- Bandipur Tiger Reserve of Karnataka
- Annamalai and Mudumalai Tiger Reserve in Tamil Nadu.



Economics

India in top 10 list of agri produce exporters

As per a report by World Trade Organization (WTO) on the trends in world agricultural trade in the past 25 years:

- India entered the top 10 list of the countries exporting agricultural produce in the year 2019.
- India and Mexico with 3.1% and 3.4% share in global Agri exports, respectively, replaced New Zealand (9th) and Malaysia (7th) as the largest exporters across the globe.
- India is also the third-largest cotton exporter (7.6%), and the fourth-largest importer (10%) in 2019. However, India lagged behind as a value-added contributor to world agri exports.
- The US, which topped the list in 1995 (22.2%), was overtaken by the European Union in 2019 (16.1%). China climbed from the sixth spot in 1995 (4%) to fourth in 2019 (5.4%).

Raja Mircha

- Raja Mircha, also known as Naga King Chilli, was exported to London from Nagaland. This the first time Raja Mirch is being exported from the state of Nagaland that too during the the Covid-19 pandemic along with a drought-like situation in Nagaland.
- In the year 2008 Raja Mircha received Geographical Indication certification.
- Raja Mirch is among the top five hottest chillies in the world based on Scoville Heat Units.