

Current Affairs Update (March 28-April 8)

National

AFSPA

AFSPA, which gives sweeping powers to the armed forces, has been **fully or partially withdrawn** from parts of three Northeast states — Assam, Nagaland and Manipur. Still, AFSPA remains in force in parts of these three states as well as in parts of Arunachal Pradesh and Jammu & Kashmir.

What does the AFSPA mean?

In simple terms, AFSPA gives **armed forces the power to maintain public order in “disturbed areas”**.

What is a “disturbed area” and who has the power to declare it?

A disturbed area is one which is declared by notification under **Section 3 of the AFSPA**. An area can be disturbed due to differences or disputes between members of different religious, racial, language or regional groups or castes or communities.

The Central Government, or the Governor of the State or administrator of the Union Territory can declare the whole or part of the State or Union Territory as a disturbed area.

Powers under AFSPA: AFSPA, which has been called draconian, gives sweeping powers to the armed forces. For example, it allows them to open fire, even causing death, against any person in contravention to the law or carrying arms and ammunition, and gives them powers to arrest individuals without warrants, on the basis of “**reasonable suspicion**”, and also search premises without warrants.

Why decision to withdraw AFSPA from parts of Northeast is significant

- **Will reduce alienation:** The Northeast has lived under the shadow of AFSPA for nearly 60 years, creating a feeling of alienation from the rest of the country.
- **Demilitarise the region:** The move is expected to help demilitarise the region; it will lift restrictions of movements through check points and frisking of residents.
- **Calm the resentment due to the recent killings in Nagaland:** The move covers some districts of Nagaland and Manipur that armed forces have red-flagged earlier. It will also help the Centre calm the anger over the Mon killings in Nagaland.

What has made AFSPA unpopular among the people?

- **Human rights violations by Army:** In Nagaland, 60 years of living under the AFSPA regime has had psychological consequences, trauma and alienation of the people. The use of force and AFSPA furthered the feeling of alienation of the Naga people, solidifying Naga nationalism.
- **Issue of Fake encounters:** In a writ petition filed in the Supreme Court in 2012, the families of victims of extra-judicial killings alleged 1,528 fake encounters had taken place in the state from May 1979 to May 2012. The Supreme Court set up a commission to **scrutinise six of these cases, and the commission found all six to be fake encounters.**
- **Poor checks and balances:** While the Act gives powers to security forces to open fire, this cannot be done without prior warning given to the suspect. It says the armed forces must act in cooperation with the district administration and not as an independent body. However, such procedure has rarely been followed.
- **Poor investigation:** Cases in Nagaland have not been investigated. In Manipur, with the Supreme Court has taken up the extra-judicial killings, the CBI has investigated 39 cases (94 killings) only.

Battle of Rezang La and the Ahir Regiment demand

Members of the **Ahir community** have been demanding an **Ahir Regiment in the Indian Army.**

The **Ahirwal region** includes the southern Haryana districts of Rewari, Mahendragarh, and Gurgaon, and is associated with Rao Tula Ram, the Ahir hero of the revolt of 1857. The community was brought into national limelight after the story of the bravery of the Ahir troops of Haryana in the **Battle of Rezang La** in 1962 was widely known. The region has traditionally contributed soldiers to the Indian Army in large numbers.

What's the demand?

Members of the community have long argued that the Ahirs deserve a full-fledged Infantry Regiment named after them, not just two battalions in the Kumaon Regiment and a fixed percentage in other regiments.

About Rezang La: Rezang La is a **mountain pass on the Line of Actual Control in Ladakh.** It is located between village of **Chushul and the Spanggur Lake** that stretches across both Indian and Chinese territories. It had also been the site of a heroic battle on 18 November 1962.

About the battle: Troops from the 13 Kumaon Regiment defeated several waves of the Chinese People's Liberation Army in 1962. Despite being heavily outnumbered, soldiers of the regiment fought to the last man standing, under freezing temperatures, and with limited ammunition.

The Army has rejected the demand for any new class or caste based regiment. It has said that while the older regiments based on castes and regions like the Dogra Regiment, Sikh Regiment, Rajput Regiment, and Punjab Regiment will continue, no new demands on the lines of an Ahir Regiment, Himachal Regiment, Kalinga Regiment, Gujarat Regiment or any tribal regiment would be entertained.

INS Valsura

- President Ram Nath Kovind recently presented the President's Colour to INS Valsura, the Navy's premier technological training establishment.
- The President's Colour is bestowed on a military unit in recognition of the exceptional service rendered to the nation, both in peace and in war.
- INS Valsura, is a premier technological training institution, of the Indian Navy based in Jamnagar, Gujarat.

What is CUET?

- The **University Grants Commission (UGC)** has announced that **admission into undergraduate courses in all centrally-funded universities** will henceforth be solely on the basis of a **Common University Entrance Test (CUET)**.
- The CUET will be a **computerised test to be conducted by the National Testing Agency (NTA)**.
- Following the exam, the NTA will prepare a merit list on the basis of which these universities will admit students.
- This entrance test is compulsory for all the central universities and may also be adopted by the state/private/deemed to be universities.
- The entrance exam will be offered in 13 languages.
- International students are exempted from CUET; their admissions will be carried out on the existing supernumerary basis.
- All 45 central universities will have to admit students on the basis of their scores on the test.
- Class 12 Board Exam marks will no longer be considered.

Mangaluru Kambala

The annual Mangaluru Kambala's fifth edition will be held on the grounds of Goldfinch City in Bangra Kulur on 26th and 27th March 2022. Kambala is a buffalo race held annually in Karnataka. This event is sponsored by the local Tuluva landlords in the Dakshina Kannada and Udupi districts. Kambala samithis organize these events. Annually, more than 45 races are held in the coastal region of coastal Karnataka.

Hindus can get minority status in some states: Centre to Supreme Court

A plea has been filed in the Supreme Court seeking **minority status for Hindus** in Mizoram, Nagaland, Manipur, Meghalaya, Arunachal Pradesh, Punjab, Lakshadweep, Ladakh, Kashmir etc.

What the plea seeks?

1. **Minority status for Hindus:** Hindus were a minority in 10 states as per the 2011 Census. Therefore, they are not able to avail the benefits of schemes meant for minorities.
2. **Scrap the National Commission for Minority Education Institution Act, 2004:** Section 2(f) of NCMEI Act confers power to the Centre to identify and notify minority communities in India. Therefore, it gives unbridled power to the Centre and is “manifestly arbitrary, irrational, and offending”.
3. **Violation of Fundamental Rights:** Denial of benefits to the “real” minorities and the “arbitrary and unreasonable” disbursements under schemes meant for them to the absolute majority infringe upon their fundamental rights (Articles 14 and 21).
4. **Citing Article 30 of the Constitution,** the plea said that minorities whether based on religion or language shall have the right to establish-administer educational institutions of their choice.

Special rights enjoyed by religious minority institutions are:

Under Art 30(1)(a), such institutions enjoy right to education as a Fundamental Right. In case the property is taken over by state, due compensation to be provided to establish institutions elsewhere.

Under Article 15(5), they are not considered for reservation.

Under Right to Education Act, they are not required to provide admission to children in the age group of 6-14 years upto 25% of enrolment reserved for economically backward section of society.

In St Stephens vs Delhi University case, 1992, SC ruled that these institutions can have 50% seats reserved for minorities.

The enforcement of Fundamental Duties debate

Benefits:

- Enforcement of Fundamental Duties upholds and protects sovereignty, unity and integrity of India.
- It also prepares citizens to defend the country and render national service when called upon to do so.
- It seeks to disseminate a sense of nationalism and to promote the spirit of patriotism to uphold the unity of India after the emergence of China as a superpower.

Criticism of FD:

- They are made non-justiciable in nature.

- Important duties such as tax-paying, family planning etc are not covered.
- Vague and ambiguous provisions which are difficult to be understood by a common man.
- Superfluous provisions since they would generally be followed even if they were not included.
- Inclusion as an appendage to the constitution reduces the value and intent behind FD.

Supreme Court's judgment in the Ranganath Mishra case – 2003:

The Court observed that fundamental duties should not only be enforced by legal sanctions but also by social sanctions. After all, **rights and duties were co-relative**.

Directions were issued to the Centre to consider and take appropriate steps expeditiously for the implementation of the recommendations of **Justice J. S. Verma Committee's report on the operationalisation of fundamental duties**.

Steps taken by the Government to spread awareness about cyber crimes

1. **Online cybercrime reporting portal** has been launched to enable complainants to report complaints pertaining to Child Pornography/Child Sexual Abuse Material, rape/gang rape imageries or sexually explicit content.
2. A scheme for establishment of **Indian Cyber Crime Coordination Centre (I4C)** has been established to handle issues related to cybercrime in the country in a comprehensive and coordinated manner.
3. Establishment of **National Critical Information Infrastructure Protection Centre (NCIIPC)** for protection of critical information infrastructure in the country.
4. All organizations providing digital services have been mandated to report cyber security incidents to **CERT-In** expeditiously.
5. **Cyber Swachhta Kendra** (Botnet Cleaning and Malware Analysis Centre) has been launched for providing detection of malicious programmes and free tools to remove such programmes.
6. **Formulation of Crisis Management Plan** for countering cyber attacks and cyber terrorism.

Hindu New Year festival

Ugadi festival marks the beginning of the **traditional New Year in India**. It is known by different names across the country:

- **Andhra Pradesh, Karnataka and Telangana:** Ugadi or Yugadi.
- **Maharashtra:** Gudi Padwa

- **Sindh:** Cheti Chand
- **Kashmir:** Navreh

The first day of the Hindu lunisolar calendar's month of **Chaitra** is celebrated as Ugadi. According to Hindu mythology, it is believed that **Lord Brahma** started the creation of the universe on **Ugadi**.

Vanniyars

- Vanniyars are **among the largest backward communities in Tamil Nadu**, with significant political influence.
- They have long campaigned for quota and because of their clout, they became the only community to be given a 10.5% quota within the MBC (Most Backward Class) quota that was cancelled by the Supreme Court, which called it "unconstitutional" and a violation of the right to equality.

FASTER (Fast and Secured Transmission of Electronic Records)

- **CJI N.V. Ramana** launches digital platform 'Fast and Secured Transmission of Electronic Records'
- The platform would be used by the court officials to **instantly to send e-copies of the orders** through a secured electronic communication channel to intended parties thus ensuring that judicial orders can be communicated quickly.
- Through the use of this software orders that were passed by the high courts (HC) and the Supreme Court (SC) will be **transmitted safely without any third-party interference**.
- Bail orders will be communicated via FASTER and for authentication purposes, it will have the digital signatures of the notified nodal officers of the SC as well as the Institutional digital signatures.
- In this manner, without much loss of time, bail orders would be received by all the concerned parties and quick necessary actions will be taken at their end.

International

What is Bucharest Nine?

The "Bucharest Nine" is a **group of nine NATO countries in Eastern Europe** that became part of the US-led military alliance after the end of the Cold War.

The B9 was founded on November 4, 2015, and takes its name from **Bucharest, the capital of Romania**. The group was created on the initiative of **Klaus Iohannis**, who has been President of Romania since 2014, and **Andrzej Duda**, who became President of Poland in August 2015.

Members: Romania, Poland, Hungary, Bulgaria, the Czech Republic, Slovakia, and the three Baltic republics of Estonia, Latvia, and Lithuania.



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All members of the B9 are part of the European Union (EU) and North Atlantic Treaty Organisation (NATO). All nine countries were once closely associated with the now dissolved Soviet Union, but later chose the path of democracy.

UAE golden visa

In 2019, **the United Arab Emirates (UAE)** implemented a **new system for long-term residence visas, thereby enabling foreigners to live, work and study in the UAE without the need of a national sponsor and with 100 per cent ownership of their business.**

The Golden Visa system essentially **offers long-term residency (5 and 10 years) to people belonging to the following groups:** investors, entrepreneurs, individuals with outstanding talents the likes of researchers, medical professionals and those within the scientific and knowledge fields, and remarkable students.

Indian Winners at the Grammy Awards 2022

At the 64th Annual Grammy Awards, two Indian musicians were among the winners. **Falu**, an Indian-American singer-songwriter won her maiden Grammy in the category of Best Children's Music Album. Composer **Ricky Kej** also won his second Grammy as he and Stewart Copeland won the award in the category of Best New Age Album.

Mes Aynak Site

Mes Aynak is a site that is located 40 km southeast of **Kabul, Afghanistan**. It is located in the Logar Province's barren region. This region contains the **largest copper deposit in Afghanistan**. Also, in this region, there are remains to be found of an ancient settlement that has 400 Buddha stupas, statues, and a monastery complex of 100 acres.

In 2007, the China Metallurgical Group (MCC) was granted a 30-year lease for the amount of USD 3 billion. This mine has been estimated by the afghan mining ministry to hold around six million tons of copper. The value of this mine is expected to be billions of dollars, and it will also generate economic activity for the country. But this mine threatens the archaeological remains of this site. In 2001, the Taliban had demolished Buddhist statues that were present on this site, but at present, they have had a change of heart and are willing to preserve this site as it contains copper, and are willing to strike a deal with China for economic benefits.

AUKUS: Collaboration on Hypersonic Weapons

Australia, Britain, and the United States will begin collaborating on increasing defence capacity and hypersonic missile strikes keeping in mind that their rivals China and Russia are advancing rapidly in cutting-edge defence technology.

Russia is currently the most advanced in the field of hypersonic missiles with China also increasing its capabilities. To counter this, the AUKUS has got together to increase its capabilities in this field.

A hypersonic missile is a type of weapon system that flies at the speed of Mach 5 and can be manoeuvred. The manoeuvrability capability of this missile is what separates it from a ballistic missile. A ballistic missile follows a set trajectory while hypersonic missiles can be manoeuvred to hit an intended target. This manoeuvrability capability of this missile makes it difficult to intercept and they can carry nuclear as well as conventional warheads.

Monster Missile Hwasong-17

- North Korea has test-fired an intercontinental ballistic missile (ICBM) named Hwasong-17. This missile is the biggest ICBM ever developed. This missile can potentially deliver a nuclear warhead to any United States location.
- This missile is being named a 'monster missile' by analysts.
- This missile is the world's largest liquid-fuelled ICBM. When fully fuelled, it has a total mass of around 80,000 to 1,10,000 kg.

Science-Tech & Environment

Lead poisoning

Recently, high levels of lead were found in the blood of thousands of children living around the Kabwe mine in Zambia.

How lead affects children?

1. Lead is a **potent neurotoxin** that causes **irreparable harm to children's brains**.
2. It is particularly **destructive to babies and children under the age of 5** as it damages their brain before they have had the opportunity to fully develop, causing them lifelong neurological, cognitive and physical impairment.
3. Childhood lead exposure has also been linked to **mental health and behavioural problems and an increase in crime and violence**.
4. Older children suffer severe consequences, including increased risk of kidney damage and cardiovascular diseases in later life.

GSAT 7 Satellite series

- They are advanced satellites **developed by the Indian Space Research Organisation (ISRO)** to meet the communication needs of the defence services.

- The **GSAT 7** satellite has a footprint of nearly 2,000 nautical miles in the Indian Ocean region.
- The **GSAT 7 (Rukmini)** is India's first military satellite. It provides a gamut of services for military communication needs, which includes low bit voice rate to high bit rate data facilities, including multi-band communications.
- The **GSAT 7A**, launched in 2018, helps in boosting the connectivity between the ground radar stations, airbases and the airborne early warning and control aircraft (AEW&C) of the IAF.
- **GSAT-7B satellite**, which recently got the acceptance of necessity from the Defence Ministry, will be a dedicated **satellite for the Indian Army**. The satellite would help the Indian Army enhance its surveillance in border areas.

Indian Antarctic Bill 2022

- The Ministry of Earth Sciences has piloted the Indian Antarctica Bill.
- This bill is expected to help fulfill the nation's obligations under the Convention on the Conservation of Antarctic Marine Living Resources of 1982, the Antarctic Treaty of 1959, and 1998s Treaty of the Protocol on Environmental Protection to the Antarctic.
- India's Antarctic program began in the year 1981 and since then 40 scientific expeditions have been completed.
- India has also built three bases on the continent.

India's base stations in Antarctica

As of now, India has two fully functioning base stations in Antarctica named **Maitri** which was established in 1988, and **Bharati** which was established in 2012. Another one named **Dakshin Gangotri** was established in 1983 but it is not functional currently.

Polar Science and Cryosphere (PACER) scheme

The **Polar Science and Cryosphere (PACER) scheme** has been approved for continuation during 2021-2026. Polar Science and Cryosphere Research (PACER) scheme **comprises the Antarctic program, Indian Arctic program, Southern Ocean program and Cryosphere and Climate program**. It is being implemented successfully through **National Centre for Polar and Ocean Research (NCPOR)**, an autonomous institute under the Ministry of Earth Sciences.

What is the cryosphere?

The cryosphere is the frozen water part of the Earth system. These are places on Earth that are so cold that water is frozen solid. These areas of snow or ice, which are subject to temperatures below 0°C 32°F for at least part of the year, **compose the cryosphere**. The term "cryosphere" comes from the Greek word, "krios," which means cold.

Ice and snow on land are one part of the cryosphere.

- This includes the largest parts of the cryosphere, the **continental ice sheets found in Greenland and Antarctica**, as well as ice caps, glaciers, and areas of snow and permafrost.
- When continental ice flows out from land and to the sea surface, we get shelf ice.

The other part of the cryosphere is ice that is found in water. This includes frozen parts of the ocean, such as waters surrounding Antarctica and the Arctic. It also includes frozen rivers and lakes, which mainly occur in polar areas.

Wildlife Conservation Bond

- The world's first wildlife bond has been issued by the World Bank, raising USD 150 million that will partly be used for the conservation of **South Africa's black rhinos**.
- The Wildlife Conservation Bond is the world's first-of-its-kind financial instrument that is outcome-based and will be channelling investments to conserve black rhino populations.
- International Bank for Reconstruction and Development of the World Bank has announced that the returns paid by the five-year bond will be determined by the rate of population growth of animals in two reserves of South Africa, the Great Fish River Nature Reserve and the Addo Elephant National Park.
- If this program is successful it could be expanded for the protection of black rhinos in Kenya along with other wildlife species like tigers, lions, orangutans, and gorillas.

COP-4 Minamata Convention on Mercury

In the Conference of Parties (COP-4) Minamata Convention on Mercury, the participating parties have agreed to expand the mercury-added products list that has been planned to be phased out. The COP-4 Minamata Convention on Mercury, took place in Bali, Indonesia from 21st to 25th March 2022.

Nine decisions were adopted at this convention. The implementation of national reporting, international cooperation, artisanal and small-scale gold mining (ASGM), technical assistance, capacity building, mercury waste thresholds, and releases of mercury are also on schedule.

The **"Bali Declaration on Combatting Global Illegal Trade of Mercury"** was also presented by the host nation. This political declaration of non-binding nature aims to develop practical tools and enhance international cooperation to share and monitor information, practices, and experiences to combat the illegal mercury trade.

In this convention, the phasing out of eight mercury-added products like cold cathode fluorescent lamps, compact fluorescent lamps, paper, photograph film, and propellant for satellites was listed. The dental amalgam phase-down has also benefitted substantially after two additional measures were added to protect the vulnerable populations against mercury use by dental practitioners in bulk form.

The 'Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Rights Act)'

The Act passed in 2006 grants legal recognition to the rights of traditional forest dwelling communities.

Rights under the Act:

Title rights – i.e. ownership – to land that is being farmed by tribals or forest dwellers as on 13 December 2005, subject to a maximum of 4 hectares; ownership is only for land that is actually being cultivated by the concerned family as on that date, meaning that no new lands are granted.

Use rights – to minor forest produce (also including ownership), to grazing areas, to pastoralist routes, etc.

Relief and development rights – to rehabilitation in case of illegal eviction or forced displacement; and to basic amenities, subject to restrictions for forest protection.

Forest management rights – to protect forests and wildlife.

Eligibility criteria:

According to Section 2(c) of Forest Rights Act (FRA), to qualify as **Forest Dwelling Scheduled Tribe (FDST)** and be **eligible for recognition of rights under FRA**, three conditions must be satisfied by the applicant/s, who could be “members or community”:

1. Must be a Scheduled Tribe in the area where the right is claimed; and
2. Primarily resided in forest or forests land prior to 13-12-2005; and
3. Depend on the forest or forests land for bonafide livelihood needs.

And to qualify as **Other Traditional Forest Dweller (OTFD)** and be eligible for recognition of rights under FRA, two conditions need to be fulfilled:

1. Primarily resided in forest or forests land for three generations (75 years) prior to 13-12-2005.
2. Depend on the forest or forests land for bonafide livelihood needs.

Process of recognition of rights:

1. The gram sabha, or village assembly, will initially pass a resolution recommending whose rights to which resources should be recognised.
2. This resolution is then screened and approved at the level of the sub-division (or taluka) and subsequently at the district level.

The screening committees consist of three government officials (Forest, Revenue and Tribal Welfare departments) and three elected members of the local body at that level. These committees also hear appeals

MoEFCC Order on Genome-edited Plants

- The Indian government has issued an order for the first time exempting certain types of crops that are genome-edited from the stringent regulations that are applicable in the country on genetically modified or GM crops. This order will give a boost to their development and research.
- The SDN1 and SDN2 genome-edited plants have been exempted by the ministry of environment and forest from Rules 7-11 of the Environment Protection Act (EPA) for the purpose of manufacturing, importing, or usage or exporting and storage of microorganisms that are hazardous or organisms or cells that are genetically engineered rules-1989.
- This order would help the government to notify and approve the guidelines related to genome-edited plants that are pending since 2020.
- The order will also incentivize the researchers and breeders to utilize the power of genome editing so that the farming community is developed further.
- Many countries have developed or approved the cultivation of fruits, vegetables, cereals, and oilseeds that have been developed through genome editing like GABA tomato or Gamma-aminobutyric acid, soybean, high oleic canola, etc.

Ecuador grants Legal Rights to Wild Animals

Ecuador, a South American country has become **the first country in the world to give legal rights to wild animals.**

'Varuna' Naval Exercise

The 20th edition of the bilateral naval exercise that is named 'Varuna' is being conducted by India and France in the Arabian Sea

Alopecia areata

Alopecia areata is a condition that causes sudden hair loss in patches. **The condition is developed after the immune system attacks the hair follicles,** resulting in hair loss, which cannot be observed easily. It mostly occurs in people who have a family history of auto-immune conditions, such as diabetes and thyroid.

Extra neutral alcohol (ENA)

- It is a byproduct of the sugar industry. Formed from molasses that are a residue of sugarcane processing.
- It is the primary raw material for making alcoholic beverages.
- It is colourless food-grade alcohol that does not have any impurities.

- It has a neutral smell and taste and typically contains over 95 per cent alcohol by volume.
- An essential ingredient in the manufacture of cosmetics and personal care products such as perfumes, toiletries, hair spray, etc.
- Utilized in the production of some lacquers, paints and ink for the printing industry, as well as in pharmaceutical products such as antiseptics, drugs, syrups, medicated sprays.

Economics

Export Preparedness Index 2021

NITI Aayog, in collaboration with the Institute of Competitiveness, has released the second edition of the Export Preparedness Index (EPI) 2021. The first Index was launched in August 2020.

The index ranked states on **four key parameters** – policy; business ecosystem; export ecosystem; export performance.

The index also took into consideration 11 sub-pillars — export promotion policy; institutional framework; business environment; infrastructure; transport connectivity; access to finance; export infrastructure; trade support; R&D infrastructure; export diversification; and growth orientation.

Performance of various states: Gujarat has topped NITI Aayog's Export Preparedness Index (EPI) 2021 for the second consecutive time. Maharashtra has been ranked second and Karnataka has been ranked third.

Shrinkflation

- Shrinkflation is the practice of reducing the size of a product while maintaining its sticker price.
- It is a **form of hidden inflation**.
- Raising the price per given amount is a strategy employed by companies, mainly in the food and beverage industries, to stealthily boost profit margins or maintain them in the face of rising input costs.
- Shrinkflation is also referred to as package downsizing in business and academic research.

Raising and Accelerating MSME Performance (RAMP)

The Union Cabinet approved a USD 808 million or Rs 6,062.45 crore, **World Bank assisted programme on "Raising and Accelerating MSME Performance" (RAMP)**. RAMP is a new scheme and would commence in FY 2022-23.

What is RAMP?

- "Raising and Accelerating MSME Performance" (RAMP) is a **World Bank assisted Central Sector Scheme**.

- **It has been launched to support various Resilience and Recovery Interventions of the Ministry of Micro, Small and Medium Enterprises (MoMSME).**
- **In addition to building the MoMSME's capacity** at the national level, the RAMP program will seek to scale up implementation capacity and MSME coverage in States.

Objective:

The programme aims at improving access to market and credit, strengthening institutions and governance at the Centre and State, improving Centre-State linkages and partnerships, addressing issues of delayed payments and greening of MSMEs.

RAMP will function as a:

1. **"Policy Provider"** through the enhanced capacity for evidence-based policy and program design, to enable the delivery of more effective and cost-efficient MSME interventions to improve competitiveness and business sustainability.
2. **"Knowledge Provider"** through bench-marking, sharing and demonstrating best practices/success stories by leveraging international experiences.
3. **"Technology Provider"** by providing access to high-end technology resulting in the digital and technological transformation of MSMEs through state of art Artificial Intelligence, Data Analytics, Internet of things (IoT), Machine Learning etc.

Credit default swap

- It is an example of a **credit derivative transaction** where **credit protection is bought and sold.**
- In a Credit Default Swap (CDS), **one party agrees to pay another party periodic fixed payments in exchange for receiving 'credit event protection',** in the form of a payment, **in the event that a third party or its obligations are subject to one or more pre-agreed adverse credit events over a pre-agreed time period.**
- **Typical credit events include** bankruptcy, failure to pay, obligation acceleration, restructuring, and repudiation/moratorium.

Mission Integrated Bio-refineries

- The mission has been launched keeping in mind India's commitment to a low-carbon future that can be achieved through "Mission Innovation" and centred on technological advancement.
- Also, through the usage of zero waste bio-refinery for the cost-effective production of biofuels that are sustainable and bio-based materials and chemicals, using interventions that are biotechnological low-carbon future can be achieved.



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- This mission will be uniting a result-oriented and dynamic partnership of international organizations, countries, academic institutions, the corporate sector, and civil society so that the innovation for chemicals, renewable fuels, and materials for achieving a low-carbon future can be accelerated. This mission will be looking to facilitate green energy in the country.

Current Affairs Update (April 9-16)

National

CAG's audit of UIDAI

CAG has presented its performance audit of Aadhaar's regulator, **Unique Identification Authority of India (UIDAI)**. It was carried out over a four-year period between FY2015 and FY2019. CAG's audit portrays an **unsatisfactory picture** of the systems and processes in UIDAI.

Issues highlighted by the Report:

- Issue of **duplicate Aadhaar**.
- **Lack of oversight of subcontractors:** Many failed to get their operations audited annually.
- UIDAI neither has granular data nor is it able to pinpoint the cause of failure.
- **No Documents for Proof of Residency:** UIDAI has not prescribed any specific proof/document or process for confirming whether an applicant has resided in India for the specified period.
- **Faulty Enrolment Process:** UIDAI appeared to have charged people for biometric updates when poor quality data was fed in during enrolment. UIDAI did not take responsibility for poor quality biometrics.
- **Bal Aadhar:** The audit was also critical of UIDAI's move to issue Aadhaar cards to children and newborns without biometrics under an initiative known as Bal Aadhaar. This needs to be reviewed because anyway after 5 years, a child has to apply for new regular Aadhar.
- Issues related to **data security**.

Recommendations:

1. Prescribe a Procedure for Self Declaration.
2. Tighten the Service Level Agreement (SLA) parameters of Biometric Service Providers (BSPs).
3. Explore Alternate Ways to Capture Uniqueness of Biometric Identity for Minor.
4. Proactive Steps to Identify and Fill the Missing Documents.
5. Frame a Suitable Data Archival Policy.

Baijayant Panda Committee

It is a committee constituted by the Ministry of Defence constituted a High Level Expert Committee for a comprehensive review of **National Cadet Corps (NCC)**.

Objectives of the Committee:

- Committee is to suggest measures to empower NCC cadets to contribute more effectively towards nation building.
- To propose ways for gainful engagement of NCC Alumni for betterment of the organization.
- To recommend best practices of similar international youth organisations for inclusion in NCC curriculum.

Ashwini Vaishnaw Committee

- The advisory committee for semiconductor manufacturing in India has been formed.
- The committee will be chaired by Ashwini Vaishnaw, minister of electronics and IT.
- The Committee shall steer the objectives in a structured, efficient, and strategic manner, and provide necessary guidance to the India Semiconductor Mission (ISM) executives.

The Weapons of Mass Destruction Amendment Bill, 2022

The bill was recently passed in Lok Sabha. **The Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act, passed in 2005**, only banned the manufacturing of weapons of mass destruction. The amendment bill is aimed at widening its ambit.

Need for the Amendment:

- **To focus on the financial bit of activities supporting WMDs.** There was an urgent need to have provision to ban financing for Weapons of Mass Destruction. The existing legislation was silent on this aspect.
- **To provide more teeth to government to act against terror funding.** The present bill empowers the Government to freeze, seize or attach funds or other financial assets or economic resources for preventing such financing.

Highlights of the Bill:

- **Prohibition on financing certain activities:** The Bill bars persons from financing any prohibited activity related to weapons of mass destruction and their delivery systems.
- It gives **more powers to the Central Government:** To prevent persons from financing such activities, the central government may freeze, seize or attach their funds, financial assets, or economic resources.
- It may also prohibit persons from making finances or related services available for the benefit of other persons in relation to any activity which is prohibited.

What are weapons of mass destruction?

These are weapons with the capacity to inflict death and destruction on such a massive scale and so indiscriminately that its very presence in the hands of a hostile power can be considered a grievous threat.

India's 2005 WMD Act defines Weapons of mass destruction as biological, chemical, or nuclear weapons. In the USA, WMD includes a nuclear, radiological, chemical, biological, or other device that is intended to harm a large number of people.

Centibillionaire's club

- Gautam Adani's net worth has reached \$100 billion. This makes the industrialist **the only Indian member of an exclusive global group called the centibillionaire's club.**
- The club refers to people whose net wealth is \$100 billion or above.
- **Founder of Amazon, Jeff Bezos**, increased his wealth to \$112 billion in 2017. He was referred to as **the world's first centibillionaire.**
- **Today, the club has 10 members**, with Musk on top and Bezos next, followed by Arnault, Gates, and Warren Buffett of Berkshire Hathaway. Adani is tenth on the list and \$3 billion below the person above him, Oracle's Larry Ellison — whose net wealth is \$103 billion.

Discovery of Megalithic Stone Jars in Assam

In the **Dima Hasao district of Assam**, a number of megalithic stone jars have been discovered. This discovery has highlighted the possible links that date back to the second millennium BC, between Southeast Asia and the Northeast region of India. The jars that were discovered in Assam were first sighted in the year 1929 by John Henry Hutton and James Philip Mills, British civil servants. The jars have not been scientifically dated yet but links could be drawn with the stone jars that were discovered in Indonesia and Laos. The jars that were found in the three sites have morphological and typological similarities.

International

India abstains from Human Rights Council vote to probe Russian actions

The **United Nations General Assembly** suspended Russia from **the Human Rights Council** during a meeting recently.

- Ninety-four members voted in favour while 24 voted against, and 58 abstained.

- India also abstained in the UNGA vote moved by the United States to suspend Russia over allegations that the country's soldiers tortured and killed civilians while retreating from Ukrainian towns in Bucha.

About UNHRC:

UNHRC was reconstituted from its predecessor organisation, **the UN Commission on Human Rights** to help overcome the “credibility deficit” of the previous organisation. **Headquartered** in Geneva, Switzerland.

Composition:

- The UNHRC has 47 members serving at any time with elections held to fill up seats every year, based on allocations to regions across the world to ensure geographical representation.
- Each elected member serves for a term of three years.
- Countries are disallowed from occupying a seat for more than two consecutive terms.

Functions:

- The UNHRC passes **non-binding resolutions on human rights issues** through a periodic review of all 193 UN member states called **the Universal Periodic Review (UPR)**.
- It oversees expert investigation of violations in specific countries (Special Procedures).

The process of removal of a country:

The UNGA can suspend any Council member that committed human rights violation during its membership term. A two-thirds majority vote is required by the General Assembly to suspend a member.

UN Reforms

The long-simmering debate over **UN reform** — and particularly over **the role of the Security Council**, which does not represent today's world and which failed to prevent Russia's invasion of Ukraine — has suddenly become acute.

Issue areas:

- **Veto powers:** The United Nations conferred disproportionate power on the five permanent, veto-wielding members of the Security Council. This allows them to protect their own interests while keeping a heavy hand in world affairs. Thus, since 2011, Moscow has exercised its Security Council veto some 15 times in votes regarding its ally Syria.

- The veto power guarantees that **permanent members can never be removed from the Council**, since the UN Charter's Article 6 allows the General Assembly to exclude a member only upon the recommendation of the Security Council.
- **Lack of international balance among Security Council members:** no African or Latin American country holds a permanent seat.

Reforms suggested:

1. **Enlargement of the Security Council:** adding both permanent and non-permanent members.
2. **The veto has to be a bit more disciplined:** The point of it should not be "to block progress" but to "force the five permanent members to sit down and arrive at a solution acceptable to all."
3. **Limit the use of veto** in cases of "mass crimes".
4. **Explanation:** Any nation casting a veto to explain it before the General Assembly.

What are 2+2 talks?

The 2+2 dialogue is **a format of meeting of the foreign and defence ministers of India and its allies** on strategic and security issues.

Significance:

A 2+2 ministerial dialogue enables the partners to better understand and appreciate each other's strategic concerns and sensitivities taking into account political factors on both sides, in order to build a stronger, more integrated strategic relationship in a rapidly changing global environment.

India's strategic 2+2 partners:

India has 2+2 dialogues with four key strategic partners: the US, Australia, Japan, and Russia. Besides Russia, the other three countries are also India's partners in the Quad. The US is India's oldest and most important 2+2 talks partner.

Host of 2026 Commonwealth Games

The **Victoria state of Australia** will be hosting the 2026 Commonwealth Games. **Birmingham**, England will be hosting the 2022 edition of the games from 28th July to 8th Aug. Earlier; South Africa was supposed to host this year's edition but was stripped of hosting rights due to a lack of progress in their preparations.

Science-Tech & Environment

Indian Tent Turtles

- The Indian tent turtle is listed in **Schedule –I of the Wild Life (Protection) Act, 1972** and is thereby provided the highest degree of protection.
- The **males are smaller than the females** in size and have longer and thicker tails.
- It is a species of turtle that is **native to India, Nepal and Bangladesh** and it is quite similar to the Indian roofed turtle.
- **IUCN**: Lower Risk/ least concern.

Recently, the Union Minister of Environment said in Parliament that there are no reports to indicate that the Indian tent turtle is on the verge of extinction due to illegal mining in the Narmada River.

What is coal gasification?

It is **the process of producing syngas**, a mixture consisting of carbon monoxide (CO), hydrogen (H₂), carbon dioxide (CO₂), natural gas (CH₄), and water vapour (H₂O).

During gasification, coal is blown with oxygen and steam while also being heated under high pressure. During the reaction, oxygen and water molecules oxidize the coal and produce syngas.

Benefits:

1. **Transporting gas is a lot cheaper** than transporting coal.
2. Help address local **pollution problems**.
3. Has **greater efficiency than conventional coal-burning** because it can effectively use the gases twice: the coal gases are first cleansed of impurities and fired in a turbine to generate electricity. The exhaust heat from the gas turbine can be captured and used to generate steam for a steam turbine-generator.

Concerns and challenges:

- Coal gasification is one of the **more water-intensive forms of energy production**.
- There are also **concerns about water contamination, land subsidence and disposing of waste water safely**.

State Energy and Climate Index

Recently, **the NITI Aayog** launched **the State Energy and Climate Index (SECI)**. It is the first index that aims to track the efforts made by states and UTs in the climate and energy sector.

State Energy and Climate Index:

- The States have been categorized based on size and geographical differences as larger and smaller States and UTs.
- The index is based on 2019-20 data.
- The states and UTs are categorized into three groups: Front Runners, Achievers, and Aspirants.

It ranks the states' performance on 6 parameters, namely:

1. DISCOM's Performance.
2. Access, Affordability and Reliability of Energy.
3. Clean Energy Initiatives.
4. Energy Efficiency.
5. Environmental Sustainability.
6. New Initiatives.

Performance of various states:

1. Gujarat, Kerala and Punjab have been ranked as the top three performers in the category of larger States, while Jharkhand, Madhya Pradesh and Chhattisgarh were the bottom three States.
2. Goa emerged as the top performer in the smaller States category followed by Tripura and Manipur.
3. Among UTs, Chandigarh, Delhi and Daman & Diu/Dadra & Nagar Haveli are the top performers.
4. Punjab was the best performer in discom performance, while Kerala topped in access, affordability and reliability category.
5. Haryana was the best performer in clean energy initiative among larger States and Tamil Nadu in the energy efficiency category.

HELINA

- Indigenously developed **helicopter launched Anti-Tank Guided Missile 'HELINA'** was successfully flight tested recently.
- The flight-test was jointly conducted by the teams of scientists from Defence Research and Development Organisation (DRDO), Indian Army and Indian Air Force (IAF).
- Helina has a maximum range of seven kilometers.

Enhanced Pinaka Mk-I Rocket System (EPRS)

- The **Enhanced Pinaka Mk-I Rocket System (EPRS)** was successfully test fired in the Pokhran range in Rajasthan.
- The EPRS is **the upgraded version of the Pinaka variant** that has been in service with the Indian Army for the last decade.
- The design and development has been carried out by **Pune-based DRDO (Defence Research and Development Organisation) laboratories – Armament Research and Development Establishment (ARDE) and High Energy Materials Research Laboratory (HEMRL)**.
- While the Mark-1 has a range of 38 km, **the enhanced version of Mark-1 tested in the last fortnight has a range of 45 km** with some key additional features.
- The Pinaka rocket system is a multi-barrel rocket system, which is **named after Lord Shiva's bow**.

International Day of Human Space Flight

On the 12th of April, the International Day of Human Space Flight is celebrated annually. This day is celebrated to commemorate humankind's beginning of the space era and also highlights the importance of space technology and science.

On 12th April 1961, the first human space flight was carried out by **Yuri Gagarin**, a citizen of the Soviet Union. On the Vostok 1 mission, he completed one orbit around the planet for over 108 minutes. The spacecraft on which he orbited was named **Vostok 3KA** and it was launched on a rocket named Vostok-K. The launch took place from the Baikonur Cosmodrome in Kazakhstan, USSR.

Economics

'Stand Up India Scheme'

- Launched in 2016.
- It seeks **to promote entrepreneurship at the grass-root level of economic empowerment and job creation**.
- **Aim:** To leverage the institutional credit structure to reach out to the underserved sector of people such as SCs, STs and Women Entrepreneurs.
- The offices of SIDBI and NABARD shall be designated Stand-Up Connect Centres (SUCC).
- Loans under the scheme are available for only Greenfield projects.

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 at least one **SC or ST borrower and one woman borrower** per bank branch for setting up green field enterprises in manufacturing, service or trading sector.

PM-DAKSH Yojana

- The scheme is being implemented by **the Ministry of Social Justice and Empowerment from the year 2020-21.**
- Under the scheme, eligible target groups are being provided skill development training programmes on up-skilling/reskilling, short term training programme, long term training programme and entrepreneurship development program (EDP).
- **Eligibility:** Marginalized persons of SC, OBC, Economically Backward Classes, **De-notified tribes**, Sanitation workers including waste pickers, manual scavengers, transgenders and other similar categories.

Significance and the need for the scheme:

1. Most of the persons of target group are having minimal economic assets; therefore, provision of training and enhancing their competencies is essential for economic empowerment/ upliftment of these marginalized target groups.
2. Many of the persons of target group belong to the category of rural artisans who have become marginalized owing to coming of better technologies in market.
3. There is also a need to empower the women amongst the target group, who, due to their overall domestic compulsions, cannot be involved in wage employment which normally involves long working hours and sometimes migration to other cities.

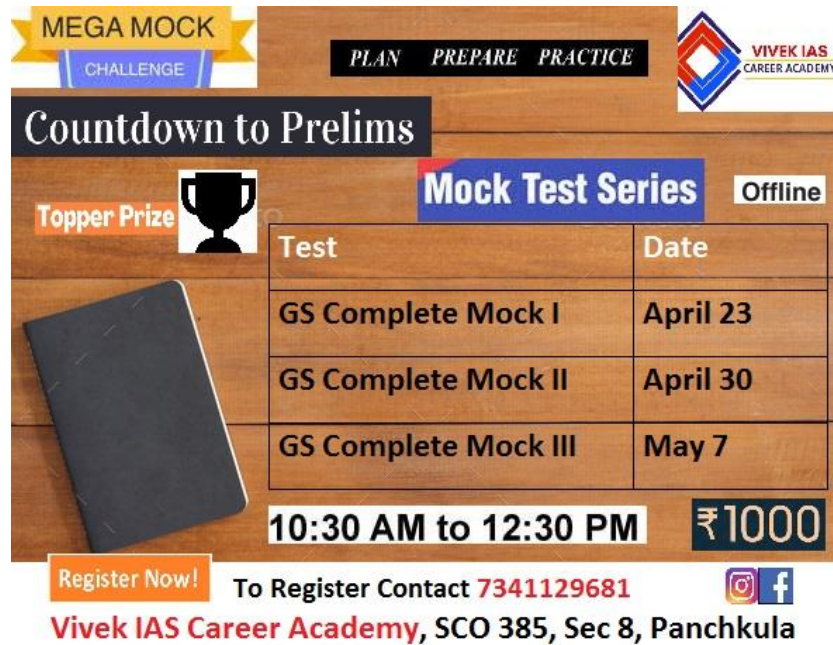
PM Poshan/midday meal scheme

- Midday meal scheme was **renamed PM Poshan Shakti Nirman or PM Poshan** in 2021.
- It was **launched on August 15 1995 as a centrally sponsored scheme.**
- **Coverage:** Initially, it was launched for students up to Class 5. In 2007, the UPA government expanded it to Class 8.
- The Scheme comes under **the Ministry of HRD.**
- It is guaranteed under the provisions of the National Food Security Act, 2013 (NFSA).

‘SVANidhi se Samridhi’ Program

The ‘SVANidhi se Samridhi’ program has been launched by the **Ministry of Housing and Urban Affairs (MoHUA)** in additional 126 cities across 14 States and UTs of India. Despite the COVID-19 pandemic-related challenges in 2020-21, this program was successful in providing social security benefits to lakhs of street vendors and their families across the country thus protecting them from the livelihoods risks.

The **Prime Minister Street Vendors AtmaNirbhar Nidhi** (PM SVANidhi) program was launched by MoHUA in June **2020**. Under this scheme, an **affordable working capital loan** is provided to the street vendors of the country. The scheme not only extends loans to the country's street vendors but also aims for their economic upliftment and holistic development. Up to **Rs 10 thousand rupees** is provided to the street vendors as a working capital loan for the facilitation of the resumption of their livelihoods that was affected due to the COVID-19 pandemic.




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Current Affairs Update (April 24-30)

National

Integrated Command and Control Centres

The government has announced that 80 of the 100 planned **Integrated Command and Control Centres** have been set up, with the rest to be completed by August 15.

What are ICCCs?

- The **Smart Cities Mission (SCM)** includes setting up **ICCCs for each city** as a vital step.
- They are designed to enable authorities to monitor the status of various amenities in real time.
- They are aimed at controlling and monitoring water and power supply, sanitation, traffic movement, integrated building management, city connectivity and Internet infrastructure.
- These centres will now also monitor various other parameters and are also linked to **the CCTNS (Crime and Criminal Tracking Networks and Systems) network** under the Ministry of Home Affairs (MHA).

Significance: The ICCC acts of a smart city acts as a “nerve centre” for operations management. It processes a complex and large pool of data sets at an aggregated level. For example, it is now the go-to source for integrated traffic management monitoring.

What is GO 111?

- The GO 111 order, issued by the government of erstwhile (undivided) Andhra Pradesh on March 8, 1996, prohibited the setting up of industries, residential colonies, hotels, etc in the catchment area of **the Osman Sagar and Himayat Sagar lakes** up to a radius of 10 km.
- The reservoirs were created by building dams on **the Musi (also known as Moosa or Muchkunda) river, a major tributary of the Krishna**, to protect Hyderabad from floods.
- The lakes came into being during the reign of the last nizam, **Osman Ali Khan (1911-48)**.

Why in the News?

Environmentalists and activists are criticising the Telangana government for withdrawing this order. They say this will destroy the fragile surrounding ecosystem.

Pradhan Mantri Jan-Aushadhi Yojana

- With a vision to provide quality medicines at an affordable rate for the common man especially the poor, Govt. has set a target to increase the number of **Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJKs)** to 10000 by March 2024.

- It is a campaign **launched by the Department of Pharmaceuticals of the Ministry of Chemicals and Fertilizers.**
- It seeks **to provide quality medicines at affordable prices** to the masses through special kendra's known as Pradhan Mantri Bhartiya Jan Aushadhi Kendra.
- Initially **launched in 2008**, the scheme was **rechristened in 2015.**

Lata Deenanath Mangeshkar Award

- **Prime Minister Narendra Modi is the first recipient of the Lata Deenanath Mangeshkar Award.**
- **Eligibility:** The Lata Deenanath Mangeshkar Puraskar will be given every year to an individual who has made "path-breaking, spectacular and exemplary" contribution to the nation, its people and society.
- **Master Deenanath Mangeshkar** is the singing legend's father.

National Panchayati Raj day

- Observed on **24th April every Year.** The **first National Panchayati Raj Day was celebrated in 2010.**
- It marks a defining moment in the history of decentralisation of power, with **the institutionalisation of Panchayati Raj, through the Constitution (73rd Amendment) Act, 1992** which came into force with effect from 24th April 1993.
- After the Constitution came into force, **Article 40** made a mention of panchayats and **Article 246** empowered the state legislature to legislate with respect to any subject relating to local self-government.

PIL against the lifetime status of 'Cabinet minister'

The BJP govt had honoured the veteran Congress leader – Pratapsingh Rane – for his 50 years as MLA by providing **the "lifetime status of the rank of Cabinet minister"**. Pratapsingh Rane is a six-time Chief Minister of Goa and a legislator for a full 50 years. A case in the HC now says this move violated **the 91st Amendment.**

Goa has a **12-member Cabinet**, and the conferment of Cabinet status on Rane results in the number of Cabinet ranks rising to 13, which exceeds the ceiling mandated by the Constitution. **There are 40 seats in the unicameral Goa Assembly.**

The Constitution (91st Amendment) Act, 2003 inserted clause 1A in Article 164, which says "the total number of Ministers, including the Chief Minister, in the Council of Ministers in a State **shall not exceed fifteen per cent of the total number of members of the Legislative Assembly of that State** provided that the number of Ministers, including the Chief Minister in a State shall not be less than twelve".

Governor's powers to appoint VCs of state universities

Tamil Nadu has passed two Bills proposing to take away the Governor's powers to appoint VCs of state universities.

Highlights of the Bill:

- The Bills stress that **"every appointment of the Vice-Chancellor shall be made by the Government from out of a panel of three names"** recommended by a search-cum-selection committee.
- **Removal:** The Bills also seek to empower the state government to have the final word on the removal of VCs, if needed.
- **Procedure:** Removal will be carried out based on inquiries by a retired High Court judge or a bureaucrat who has served at least as a Chief Secretary.

Reasons behind the enactment of these legislations:

Chief Minister MK Stalin said the Bills were required as **the Governor was disregarding the state government's opinion on the appointments of VCs.**

The elected governments have repeatedly accused **the Governors of acting at the behest of the Centre on various subjects**, including education.

Which other states have enacted such similar legislations?

Maharashtra and West Bengal

India's First 'Carbon-neutral Panchayat'

Palli village located in the Samba district of Jammu has become India's first panchayat to become carbon neutral, fully solar energy powered, and all its records have been digitized which will help in receiving all benefits of Central schemes easily.

Palli has played a major step towards the Glasgow goal of making the country carbon-neutral. Palli will now be looked at as a model panchayat, and this will motivate the other panchayats in Jammu and Kashmir, and India to become carbon-neutral.

International

China-Pakistan Economic Corridor (CPEC)

Pakistan's new government has initiated a process to abolish **the China-Pakistan Economic Corridor Authority**, with the planning minister saying it was a "redundant organization" that wasted resources and thwarted speedy implementation of the ambitious regional connectivity programme.

Background:

CPEC Authority established through an ordinance in 2019 was aimed at accelerating the pace of CPEC-related activities, finding new drivers of growth, unlocking the potential of interlinked production networks and global value chains through regional and global connectivity.

About CPEC:

- Launched in 2015, the CPEC is the flagship project of the multi-billion-dollar **Belt and Road Initiative (BRI)**, a pet project of Chinese President Xi Jinping, aimed at enhancing Beijing's influence around the world through China-funded infrastructure projects.
- The 3,000 km-long China–Pakistan Economic Corridor (CPEC) **consists of highways, railways, and pipelines.**
- CPEC eventually aims at **linking the city of Gwadar in South Western Pakistan to China's North Western region Xinjiang** through a vast network of highways and railways.
- The proposed project will be financed by heavily-subsidised loans, that will be disbursed to the Government of Pakistan by Chinese banks.

'India Out' campaign

- **Maldives** has issued a decree **banning the 'India Out' campaign.**
- Opposition parties and a section of the media in the Maldives have been engaged in renewed efforts to whip up anti-India sentiments.
- In this regard, "India Out" slogan was first used on social media platforms last year.
- This campaign alleged that the cooperation between the governments of the two countries is undermining the national security and sovereignty of the Maldives.

Re-election of French President

Marine Le Pen has been defeated by **Emmanuel Macron** to be re-elected as the President of France. Macron is the first French sitting president in the past 20 years to have been re-elected. Macron received 51.5 percent of the votes while Le Pen received 41.5 percent.

Dispute over Kuril Islands

Japan has said that four islands near the **Kamchatka Peninsula** have been illegally occupied by Russia. The Japanese call these islands 'the Northern Territories' while Russia calls them 'Kurils.' The islands stretch north across the **Pacific Ocean** from Japan's Hokkaido to Russia's Kamchatka Peninsula's southernmost tip.

For the first time in around 20 years Japan has called the islands to have been **illegally occupied**. This term was last used in 2003 by the foreign ministry of Japan.

This dispute dates back to the end of the **Second World War** when the Soviet Union, a part of the allied forces, won the war against the Axis powers of Japan, Italy, and Germany. Russia believes that since they won the Second World War the ownership of the islands is theirs as Japan lost the territory due to its loss in the war. Japan argues that the Japanese travelled to these islands in the 16th century which is nearly 200 years before the arrival of the Russians and hence, the islands are rightfully theirs. After the end of the Second World War, Japan signed the **1951 San Francisco Peace Treaty** with the Allied Forces where Japan renounced all right, claim, and title to the Kuril Islands. This did not solve the issue as Russia was not a part of this treaty and the government of Japan has never recognised the four islands occupied by Russia as part of the Kuril chain.

Science-Tech & Environment

INSACOG

- The Indian SARS-CoV-2 Genomics Consortium (INSACOG) is jointly initiated by the Union Ministry of Health and Family Welfare, and Department of Biotechnology (DBT) with Council for Scientific & Industrial Research (CSIR) and Indian Council of Medical Research (ICMR).
- It is a consortium of 28 National Laboratories to monitor the genomic variations in the SARS-CoV-2.
- It carries out whole genome sequencing of SARS-CoV-2 virus across the nation, aiding in understanding the spread and evolution of the virus.
- INSACOG also aims to focus on sequencing of clinical samples to understand the disease dynamics and severity.

Vagsheer

- Vagsheer, **the sixth submarine** of the **P75 project of the Indian Navy** was launched recently.
- It is the last of the Scorpene class submarines made under the P75 project.
- **Under P75**, INS Kalvari, INS Khanderi, INS Karanj and INS Vela have been commissioned. Sea trials are on for Vagir.
- **Vagsheer is named after the sand fish**, a deep sea predator of the Indian Ocean. **The first submarine Vagsheer**, from Russia, was commissioned into the Indian Navy on December 26, 1974, and was decommissioned on April 30, 1997.

Indian-Brazil Alliance for Bioenergy and Biofuels

Brazil and India have agreed to work towards the development of an Indian- Brazil Alliance for Bioenergy and Biofuels and will also be establishing a virtual India-Brazil Centre of Excellence on Ethanol. Under this, the aspects prioritised were

- technical aspects of E20 blends as vehicle use in current fleets

- technical aspects of higher ethanol blends use in flex-fuel vehicles
- flex-fuel technologies like two-stroke and four-stroke engines
- implementation of biodiesel
- biogas or biomethane incentives and policies
- efficient power and heat generation in ethanol and sugar plants

Capture of 'Solar Eclipse on Mars'

- The Perseverance Mars rover of NASA has captured a video of an eclipse on Phobos, one of the two moons of Mars.
- The video captured by the Perseverance rover is the highest-frame-rate observation and the most zoomed-in of a solar eclipse that has been captured from the Martian surface.
- This Martian eclipse has provided the scientists with a new perspective regarding the subtle shifts in the orbits of the moons. The moon Phobos is inching very slowly towards Mars and they will collide millions of years from now.

Invasive species threatens wildlife habitats of Western Ghats

- **Senna spectabilis** is an invasive species found mostly in the forest areas of the **Nilgiri Biosphere Reserve (NBR)**.
- The invasive species has now **spread through the most iconic wildlife habitats of the Western Ghats**, destroying habitats of elephants, deer, gaur and tigers by pushing out native flora.
- **The allelopathic traits** of the species prevent other plants from growing under it. Allelopathy is a biological phenomenon by which an organism produces one or more biochemicals that influence the germination, growth, survival, and reproduction of other organisms.
- **This drastically affects primary productivity at the ground level.** The forest floor is almost bare under the invasive species. Grasses and herbs get completely wiped out and herbivores are deprived of their forage.
- **The carrying capacity of forests** to feed wildlife is drastically declining under the invasion, which accelerates man-animal conflict further.
- Invasive alien species are plants, animals, pathogens and other organisms that are non-native to an ecosystem, and which may cause economic or environmental harm or adversely affect human health. In particular, they impact adversely upon biodiversity, including decline or elimination of native species – through competition, predation, or transmission of pathogens – and the disruption of local ecosystems and ecosystem functions.

Carbon Pricing Approach

Pennsylvania has become the first major fossil fuel-producing state in the US to adopt a carbon pricing policy to address climate change. It joins 11 states where coal, oil and natural gas power plants must buy credits for every ton of carbon dioxide they emit.

What is the Carbon Pricing Approach?

Carbon pricing is an instrument that captures **the external costs of greenhouse gas(GHG) emissions and ties them to their sources** through a price usually in the form of a price on the carbon dioxide (CO₂) emitted.

These GHG emissions include the costs of emissions that the public pays for, such as damage to crops, health care costs from heatwaves and droughts, and loss of property from flooding and sea-level rise.

A price on carbon helps shift the burden for the damage from GHG emissions back to those who are responsible for it and who can avoid it.

There are two main types of carbon pricing namely:

Emission Trading System : It is a system where emitters can trade emission units to meet their emission targets.

Carbon Tax: It directly sets a price on carbon by defining a tax rate on greenhouse gas emissions or – more commonly – on the carbon content of fossil fuels.

Different approaches adopted by countries to address climate change:

Social Cost of Carbon: The United States has adopted a less direct approach known as the Social Cost of Carbon. This approach calculates future climate damages to justify tougher restrictions on polluting industries.

Carbon Pricing approach: On the other hand, countries like Canada have adopted a Carbon Pricing approach. For example, Canada imposes fuel charges on individuals and also makes big polluters pay for emissions. It's one of 27 nations with some kind of carbon tax.

Differences:

- **The social cost of carbon** attempts to capture the value of all climate damage, centuries into the future.
- **Carbon pricing** reflects how much companies are willing to pay today for a limited amount of emission credits offered at auction.

In other words, the social cost of carbon guides policy, while carbon pricing represents policy in practice.

Significance of Carbon Pricing:

1. Putting a price on carbon helps to incorporate climate risks into the cost of doing business.

2. Emitting carbon becomes more expensive, and consumers and producers seek ways to use technologies and products that generate less of it.
3. The market then operates as an efficient means to cut emissions, fostering a shift to a clean energy economy and driving innovation in low-carbon technologies.
4. Complementary renewable energy and energy efficiency policies are also critical to cost-effectively drive down emissions.

Issues related to Carbon Pricing:

- Carbon prices now exist in 46 countries, covering about 22 percent of the carbon pollution that humans release each year. But these policies are riddled with loopholes.
- Big carbon polluters like fossil fuel companies, electric utilities, automakers, petrochemical companies, and other heavy industries, have used their structural power to receive policy exemptions.
- According to the World Bank, countries need policies between \$40 to \$80 per tonne to meet the Paris Agreement targets. Yet half of the world's carbon prices are less than \$10 per tonne.
- Some researchers suggested that it limits innovations. But there is no strong evidence that carbon pricing has rapidly induced the innovation we need in new, cleaner technologies.

River Ranching Programme

Over 10,000 fish fingerlings of Indian major carps — catla, rohu and mrigal — were released in the Ganga at Sangam nose under the ranching programme organised by **ICAR-Central Inland Fisheries Research Institute (CIFRI)**, Prayagraj, recently. The exercise has been undertaken for conservation and promotion of fish species that are becoming extinct in the Ganga.

Nationwide River Ranching Programme was launched in Uttar Pradesh in 2021. River Ranching is a form of aquaculture in which a population of a fish species (such as salmon) is held in captivity for the first stage of their lives. They are then released, and later harvested as adults when they return from the sea to their freshwater birthplace to spawn.

River ranching programme was introduced as special activity under **the 'Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme** to augment and enhance fish production and productivity by expanding, intensifying, diversifying and utilizing land & water productively

What is gravitational lensing? How does it work?

- Gravitational lensing is an effect of Einstein's theory of general relativity – simply put, **mass bends light**.

- The gravitational field of a massive object will extend far into space, and cause light rays passing close to that object (and thus through its gravitational field) to be bent and refocused somewhere else.
- The more massive the object, the stronger its gravitational field and hence the greater the bending of light rays – just like using denser materials to make optical lenses results in a greater amount of refraction.

Benefits:

- Gravitational lensing is useful to cosmologists because it is directly sensitive to the amount and distribution of dark matter.
- Lensing can help astronomers work out exactly how much dark matter there is in the Universe as a whole and also how it is distributed.
- Lensing has also been used to help verify the existence of dark matter itself.

Economics

What are SPACs?

- **An SPAC, or a blank-cheque company**, is an entity specifically set up with the objective of acquiring a firm in a particular sector.
- An SPAC aims to raise money in **an initial public offering (IPO)** without any operations or revenues.
- The money that is raised from the public is kept in **an escrow account**, which can be accessed while making the acquisition.
- **If the acquisition is not made within two years of the IPO**, the SPAC is delisted and the money is returned to the investors.

Why are they attractive?

While SPACs are essentially shell companies, a key factor that makes them attractive to investors are **the people who sponsor them**. Globally, prominent names have participated in SPACs.

Associated concerns:

- In March last year, the US Securities and Exchange Commission (SEC) issued an investor alert on SPACs, cautioning investors “not to make investment decisions related to SPACs based solely on celebrity involvement”.
- There may be lesser returns for retail investors post-merger.
- Certain clauses could potentially prevent investors from getting their monies back.

What are digital banking units?

A digital banking unit is a specialised fixed point business unit or hub housing certain minimum digital infrastructure for delivering digital banking products and services as well as servicing existing financial products and services digitally in self-service mode at any time.

Who will set up these DBUs?

Commercial banks (other than regional rural banks, payment banks and local area banks) with past digital banking experience are permitted to open DBUs in tier 1 to tier 6 centres, unless otherwise specifically restricted, without having the need to take permission from the RBI in each case.

What are the services that will be provided by these units?

As per the RBI, each DBU must offer certain minimum digital banking products and services. Such products should be on both liabilities and assets side of the balance sheet of the digital banking segment. The services include savings bank accounts under various schemes, current accounts, fixed deposits and recurring deposit accounts, digital kit for customers, mobile banking, Internet banking, debit cards, credit cards, and mass transit system cards etc.

What are the benefits of DBUs?

1. Digital banking units will help banks themselves which are now looking to reduce physical footprint with fewer brick and mortar branches, with a 'light' banking approach.
2. The move will open up the rural market for service providers besides providing a boost to credit flow.
3. Such units will also be cheaper to establish than a new branch, and can provide better customer experience aided by technology.
4. The units can also be branded as new-age banks that can help provide personalised finance management tools to new consumers, branded better.
5. Digi banking units also require lesser staff, with cheaper maintenance due to technological tools and hence can be high-yield units for the parent bank.
6. If not anything, more such units can encourage more financial literacy and a favourable outlook towards digital banking – which is the need of the hour.

Why in news? Finance Minister Nirmala Sitharaman has reiterated her Budget announcement on setting up **75 digital banking units in 75 districts of the country** this year. This is to take forward the government's agenda of digital financial inclusion.