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A JOURNAL ON RURAL DEVELOPMENT
Nutrition
August 2023

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DR MANSUKH MANDAVIYA
Azadi Ka Amrit Mahotsav
G KISHAN REDDY
Sports Binding the Nation Together
ANURAG SINGH THAKUR
AZADI KA AMRIT MAHOTSAV
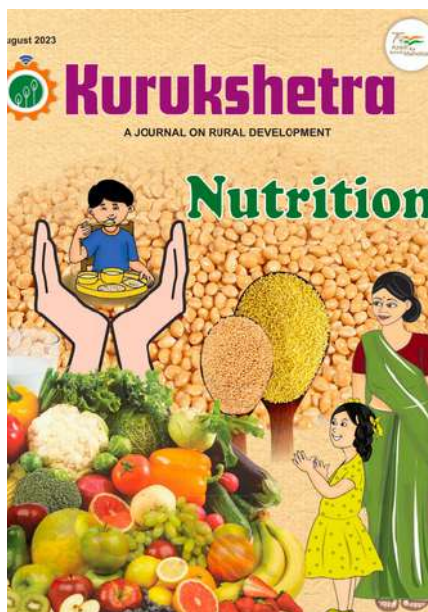
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Contents

Schemes

1) Agriculture Infrastructure Fund

About	• Launched as a **Central Sector Scheme in 2020.** • **Medium - long term debt financing facility for investment in viable projects for post-harvest management infrastructure and community farming assets** through interest subvention and credit guarantee.
Aim	• Bringing farmers & agribusinesses together with newer partnership models emerging for the **creation of distributed infra** near farm-gate in a hub & spoke model.
Features	• Under the scheme, **all loans up to a limit of ₹ 2 crores** under this financing facility will have **interest subvention of 3% per annum.** • **Credit guarantee coverage** will be available for eligible borrowers from this financing facility under **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme** for **loans up to ₹ 2 crores.** ○ *Launched in 2000, CGTMSE makes available collateral-free credit to the micro and small enterprise sector. The corpus of CGTMSE is being contributed by the Government of India and SIDBI in the ratio of 4:1 respectively.*
Eligible beneficiaries	• **Private investment and investment by farmers' collectives like Primary Agricultural Credit Society (PACS), National/ State level federations of Cooperatives, Farmer Producer Organizations (FPOs), federations of FPOs & SHGs and investment by Agricultural Produce Market Committees (APMCs) & State Agencies etc.** in agriculture infrastructure.
Benefits	• Assets created will enable farmers to get **greater value for their produce** as they will be able to store and sell at higher prices, reduce wastage, and increase processing and value addition.
Duration	• From **2020-21 to 2032-33.**
Why in News?	• A new campaign named 'BHARAT' (Banks Heralding Accelerated Rural & Agriculture Transformation) has been launched by the Government under AIF Scheme to create a competitive spirit among the Banks and lending institutions to mobilize agriculture infrastructure projects and loans at a faster pace.

2) SVAMITVA

About	• **SVAMITVA** (Survey of villages and mapping with improvised technology in village areas) is a **central sector scheme** that aims to provide rural people with the **right to document their residential properties** so that they can use their property for economic purposes. • The scheme is for **surveying the land parcels in rural inhabited areas using Drone technology.**
Nodal ministry	• It is a collaborative effort of the **Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India.** It was launched in **2021**.
Objectives	• **Creation of accurate land records** for rural planning and reduce property related disputes. • To bring **financial stability** to the citizens in rural India by enabling them to use their property as a financial asset for taking loans and other financial benefits. • **Determination of property tax,** which would accrue to the Gram Panchayats directly in States where it is devolved or else, add to the State exchequer. • Creation of **survey infrastructure** and **GIS maps** that can be leveraged by any department for their use. • To support the preparation of a better-quality **Gram Panchayat Development Plan (GPDP)** by making use of GIS maps.
Why in News?	• SVAMITVA Scheme of Ministry of Panchayati Raj has been conferred with the National Award for e-Governance 2023 of the Government of India.

3) Pradhan Mantri Jan Dhan Yojana (PMJDY)

About	• Launched in 2014 to bring universal access to banking facilities with **at least one basic banking account for 'every adult', financial literacy, access to credit, insurance and pension facility.**
Aim	• To bring about **comprehensive financial inclusion** in the country.
	• Under the scheme, a **basic savings bank deposit (BSBD) account** can be opened in any bank branch or Business Correspondent (Bank Mitra) outlet, by persons not having any other account.

Features	• There is **no requirement to maintain any minimum balance** in PMJDY accounts. • **Interest** is earned on the deposit in PMJDY accounts. • **Rupay Debit card** is provided to PMJDY account holders. • **Accident Insurance Cover of Rs.2 lakh** is available with RuPay card issued to the PMJDY account holders. • An **overdraft (OD) facility up to Rs. 10,000** to eligible account holders is available. • PMJDY accounts are eligible for Direct Benefit Transfer (DBT), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Atal Pension Yojana (APY), Micro Units Development & Refinance Agency Bank (MUDRA) scheme.
Why in News?	• The number of bank accounts under the PM Jan Dhan Yojana (PMJDY) has crossed **50 crore** with total deposits exceeding ₹2 lakh crore. • The deposits in these accounts have more than doubled over the past 52 months from ₹96,107 crore in March 2019. • **Women made up 56% of the account holders**, and **67% of the accounts were in rural and semi-urban areas.**

Initiatives

1) Tele-law 2.0

What is Tele-law service?

- Tele-law is a service that uses **video conferencing facilities and telephone services** to **connect lawyers to litigants who need legal advice.**
- This service aims to reach out to the needy, especially the marginalized and disadvantaged.
- The project connects citizens with lawyers through communications and information technology with the help of **Para-Legal Volunteers** stationed at identified **Common Service Centers or CSCs.**

Role of Para Legal Volunteer

- Para Legal Volunteer (PLV) is the **first point of contact between rural citizens and lawyers** providing legal aid through CSC.
- They are **not lawyers, but have basic understanding of the legal process.** They hear the grievances of citizens and offer appropriate support/suggestions for legal aid. They also help the citizens understand legal issues and advice given by lawyers.
- A trained PLV is available in a CSC for minimum ten days in a month under the Scheme.

THE PROCESS OF TELE-LAW SERVICES

6. Tele-consultation by expert
7. Receipt by lawyer
8. Case closed
1. Para Legal Volunteer
2. Citizen
3. CSC Centre
4. Registration of Case+ schedule appointment for consultation + payment receipt
5. Citizens arrives at specific data and time for consultation

Benefits

- Tele Law service enables anyone to seek legal advice without wasting precious time and money.
- The service is **free of cost for all citizens.**

- The Tele-law website can be accessed at http://tele-law.in and is available in 22 official languages.
- For easy and direct access **Tele-Law Mobile Application** (both Android and IoS) has also been launched in 2021 and it is presently

available in 22 scheduled languages.

Jurisdiction

- Legal matters in which advice can be taken through Tele-Law service :-
    - Dowry, family dispute, divorce, protection from domestic violence.
    - Sexual harassment, sexual abuse, eve teasing at the workplace.
    - Maintenance of women, children and senior citizens.
    - Rights regarding property and land.
    - Equal wages for males and females.
    - Maternity benefits and prevention of foeticide.
    - Prohibition of child marriage, protection of children from sexual assault, prevention of child labour and implementing right to education.
    - Arrest – (F.I.R)/ process of registering the First Information Report.
    - Atrocities against scheduled castes/ scheduled tribes and their rehabilitation.

Why in News?

- The Department of Justice, Ministry of Law & Justice has launched the **Tele-Law 2.0 initiative**.
- The renewed scheme **integrates the legal advice service** under tele-law with **legal representation services under the Nyaya Bandhu (Pro Bono) programme.**
- This would enable the common citizens to **access legal advice, legal assistance and legal representation** through a single registration and single gateway of tele-law.
- Several cases in which tele-law centres help people get pre-

litigation advice end up in courts. Lawyers who are part of the Nyaya Bandhu scheme can take up for free cases of those willing to contest their claims in courts.

About Nyaya Bandhu scheme

- The Nyaya Bandhu (Pro Bono Legal Services) is the Government of India's primary initiative to establish a framework for **dispensation of pro bono** (free of charge) **legal services across the country.**
- Under the programme, practicing advocates, interested in undertaking legal pro bono work, are connected, via mobile technology, with eligible marginalised beneficiaries, after due scrutiny for delivery of pro bono legal services.

Related Information
What is a CSC?

- Common Service Centres (CSCs) are shops/Kiosks that **deliver various government services online** like public utility services, social welfare schemes, healthcare, financial, education and agriculture services, apart from a host of B2C services to citizens in rural and remote areas of the country.
- CSC is one of the mission mode projects **under the Digital India Programme** run by the Ministry of Electronics and Information Technology (MeitY).

Objectives

- CSCs have been trying to **bridge the gaps in digital literacy and skills of rural citizens** through a range of literacy initiatives focused on digital, financial and legal literacy and e-learning and skill development courses.
- Under the **CSC 2.0 scheme** initiated by the Ministry of Electronics & IT in 2015, **at least one CSC is to be rolled out in**

each and every 2.5 lakh Gram Panchayats across the country.

Village Level Entrepreneur

- The CSC operator, also known as Village Level Entrepreneur (VLE), is the key stakeholder.
- The essence of the CSC scheme is that it is managed and operated by a local person whose acceptability is higher within the community she/he serves.
- The success of the Scheme depends largely on his ability, zeal and passion for setting up a sustainable social enterprise within the existing constraints of rural India.

Implementation

- **CSC e-Governance Services India Limited,** a Special Purpose Vehicle set up by the Ministry of Electronics & IT, oversee implementation of the CSC scheme.

2) BharatNet
About

- BharatNet is a project of national importance which aims to **connect all 2.5 lakh gram panchayats through optical fibre.** It was launched in 2011.
- The project is implemented by **Bharat Broadband Network Ltd (BBNL)**, an arm of state-owned BSNL.
- The entire project is being funded by **Universal Service Obligation Fund (USOF)**.
- The objective is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to rural India.
- In 2021, the Union Cabinet accorded in principle approval for **extending BharatNet to cover all inhabited villages** in the States and UTs.
  - *It should be noted that a gram panchayat may consist of one or more villages,*

depending on their population.

Why in News?

- The Union Cabinet has approved a **last-mile broadband connectivity plan for 6.4 lakh villages** across the country under the BharatNet project with an outlay of Rs 1.39 lakh crore.
- Around 1.94 lakh villages have been connected under the BharatNet project at present, and the balance is likely to be connected in two and a half years.
- The improved execution model will make use of **village-level entrepreneurs**, employing them as partners with full responsibility to take the connection to homes in their villages, as well as for maintenance.
- The entrepreneurs will be compensated under a **revenue sharing model**. The project has an **employment potential of 2.5 lakh jobs.**

3) National Centre for Good Governance
About NCGG

- The National Centre for Good Governance (NCGG) was set up in 2014 by the Government of India as an **apex–level autonomous institution** under the **Ministry of Personnel, Public Grievances and Pensions.**
- The Centre traces its origin to the **National Institute of Administrative Research (NIAR),** which was set up in 1995 by the Lal Bahadur Shastri National Academy of Administration (LBSNAA), the Government of India's topmost training institute for civil services. NIAR was **subsequently rechristened and subsumed into NCGG.**

- NCGG deals with a **gamut of governance issues** from local, state to national levels, across all sectors.
- The Centre is mandated to **work in the areas** of governance, policy reforms, capacity building and training of civil servants and technocrats of India and other developing countries. It also works as a **think tank.**
- Since its inception, the Centre has been extensively working in areas such as primary and elementary education, decentralized planning at district and block levels, capacity building of Panchayat Raj Institutions (PRIs), participatory models of learning and action, rural development, cooperatives, and public sector management, etc.
- In addition, it focuses on issues related to good governance, social accountability, water, sanitation and hygiene (WASH), among other sectors.
- The affairs of the NCGG are managed under the overall superintendence and direction of the **Governing Body**, which is **headed by the Cabinet Secretary.**

Why in News?
- The National Centre for Good Governance organised a Capacity Building Programme (CBP) for civil servants of Maldives in partnership with the Ministry of External Affairs.

4) Strategic Crude Oil Reserves
What are SPRs?
- Strategic Petroleum Reserves (SPR) are **huge stockpiles of crude oil** stored in the **underground rock caverns** (considered safest for storage of Hydrocarbons) to tackle emergency situations and allow a country to tide over short-term supply disruptions.

- They represent a **defence against any event of downfall in future oil production**, including physical or economic actions which disrupt any part of the production process from exploration and development through refining.
- **India**, the world's third-largest consumer of crude, **depends on imports for more than 85% of its requirement** — and SPR could help ensure energy security and availability during global supply shocks and other emergencies.

Current Status
- In India, Strategic Petroleum Reserves are maintained by **Indian Strategic Petroleum Reserves Limited,** a Special Purpose Vehicle - wholly owned subsidiary of **Oil Industry Development Board** under the **Ministry of Petroleum & Natural Gas.**
- Strategic crude oil storages are situated at **Mangalore (Karnataka), Visakhapatnam (Andhra Pradesh) and Padur (Karnataka)** as per Phase I of India's SPR programme.
- They have fuel storage of a total 5.33 MMT (Million Metric Tonnes) and all the storage facilities have been filled with crude oil. The total capacity is estimated to provide for about **9.5 days of crude oil requirement.**
- In addition, Oil Marketing Companies (OMCs) in the country have storage facilities for crude oil and petroleum products for **64.5 days**, thus the current total national capacity for storage of crude oil and petroleum products currently is **74 days.** The **global practice** is to maintain strategic reserves of **at least 90 days of oil imports.**

Phase 2
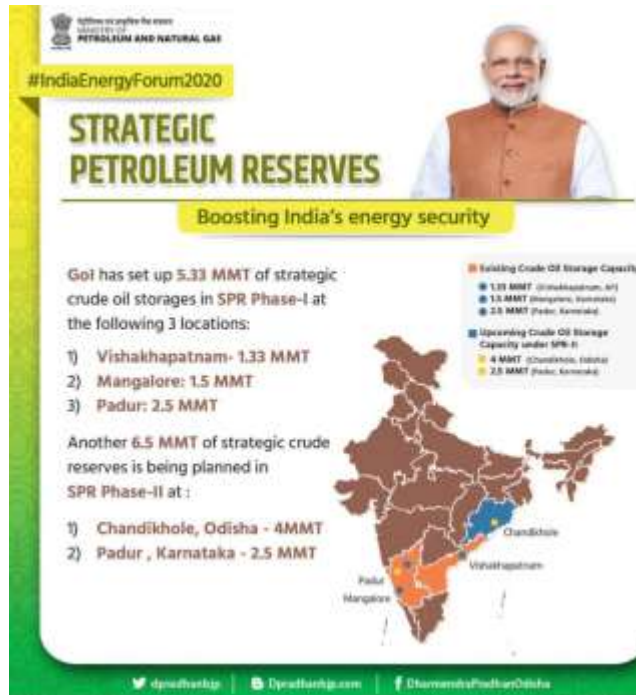
- In 2021, under the second phase of the Petroleum Reserves programme, the government approved the setting up of two additional commercial-cum-strategic facilities with a total storage capacity of **6.5 MMT** underground storage at **Chandikhol in Odisha** (4 MMT) and **Padur** (2.5 MMT), on Public-private partnership (PPP) Mode.
- This would raise India's strategic reserve capacity to **11.83 MMT,** and in times of crisis, India can manage its oil requirement for a specific time period.

Why in News?

- India and Saudi Arabia have signed a Memorandum of Understanding on cooperation in the field of Strategic Petroleum Reserves.

5) PM SHRI Schools

About

- Last year, the Central Government launched a new initiative - **PM SHRI Schools (PM ScHools for Rising India).**

- This is a new **centrally sponsored scheme for upgradation and development of more than 14500 Schools across the country** by strengthening the selected existing schools from amongst schools managed by Central Government/ State/ UT Government/ local bodies.
- PM SHRI Schools will showcase all components of the **National Education Policy 2020** and act as **exemplar schools** and also offer **mentorship to other schools** in their vicinity.
  - o *Refer Pulse May 2023 Digest edition: "STARS Project" topic - for details about National Education Policy.*

Objectives

- The aim of these schools will not only be **qualitative teaching, learning and cognitive development**, but also **creating holistic and well-rounded individuals** equipped with key 21st century skills.
- **Pedagogy** adopted in these schools will be more experiential, holistic, integrated, play/toy-based (particularly, in the foundational years) inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible and enjoyable.
- These schools will be equipped with **modern infrastructure** including labs, smart classrooms, libraries, sports equipment, art room etc. which is inclusive and accessible.
- These schools shall also be developed as **green schools** with water conservation, waste recycling, energy-efficient infrastructure and integration of organic lifestyle in curriculum.

Why in News?

- In the first phase of selection of PM SHRI Schools, a total of 6207 schools were selected from 27 States/UTs in which more than 35 lakh students are getting benefitted.

Environment

1) Urban Vegetated Canopies

What are Urban vegetated canopies?

- Vegetated canopies are **tensioned sail-like structures** that are anchored to the **facades** (*front exterior face or elevation of a building*) of **buildings.**
- They **mimic natural canopies** found in forests.
- It aims at **incorporating greenery,** such as plants, vines, or other vegetation, **on the exterior surfaces of structures within urban areas.**
- This approach, often referred to as "**green facades**" or **"vertical greening",** aims to **integrate vegetation into the built environment.**

Types of urban vegetated canopies

- **Green roofs** involve growing vegetation on rooftops of buildings. They provide insulation, reduce stormwater runoff, improve air quality, and create green spaces in densely populated areas.
- **Living walls** are vertical structures covered with vegetation, often attached to the exterior or interior walls of buildings. They can be soil-based, hydroponic, or aeroponic systems supporting a variety of plant species.
- **Green screens** are vertical panels covered with climbing plants or vines. They provide visual screening, reduce noise, and improve air quality.

Benefits of Urban vegetated canopies

- Greenery on buildings can act as a **natural insulator, reducing heat absorption** and **lowering indoor temperatures**, thereby **reducing the urban heat island effect.**
  - *An urban heat island means that an urban area is significantly warmer than its surrounding rural areas due to human activities. Urban heat islands occur when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat.*
- Plants and vegetation can help **filter pollutants** from the air, and help in **improving air quality.**
- They can help **manage stormwater** by absorbing and retaining rainwater, reducing runoff and alleviating strain on drainage systems.
- Vegetated canopies can provide **habitat** for birds, insects, and other wildlife, which can help to boost biodiversity in urban areas.

Why in News?

- Spain has been exploring innovative solutions such as Urban vegetated canopies to strengthen resilience towards climate change.

2) India announces definition of Green Hydrogen

Hydrogen

- Hydrogen is a **colourless, odourless, tasteless, non-toxic and highly combustible gaseous substance**. It is also the **lightest, simplest and most abundant member** of the family of chemical elements in the universe.
- Hydrogen is a **clean fuel** and an efficient energy carrier. It is

emerging as an important source of energy since it has **zero carbon content** in contrast to hydrocarbons which have net carbon content between 75 and 85 per cent. When burnt, Hydrogen produces **water as a by-product** and is, therefore, **environmentally benign.**

- It has **huge potential in the transportation sector as a direct replacement to fossil fuels,** as it is possible to store hydrogen on-board.

How is Hydrogen Generated?

- Hydrogen (H_2) is one of the most abundant elements available on earth. However, it is **not found in elemental form.**
- The richest source of hydrogen is **water**. Hydrogen is also found in **organic compounds and fossil fuels** like petroleum, natural gas, coal and biomass.
- Hydrogen for commercial use is produced from **catalytic steam reforming of natural gas, naphtha and other hydrocarbons, partial oxidation of hydrocarbons, gasification of coal and electrolysis of water.**
- The energy industry refers to different "types" of hydrogen to differentiate how it is produced.

What is Green Hydrogen?

- Green hydrogen is produced through **electrolysis using renewable sources of energy** such as solar, wind or hydel power. It is produced by splitting water into hydrogen and oxygen using renewable electricity.
- That makes green hydrogen the **cleanest option** – hydrogen from renewable energy sources **without CO2 as a by-product.**
- In addition to this, the **Indian Institute of Science (IISc)** has developed an innovative

technology to produce hydrogen from **biomass.**

- The process consists of **two steps.** In the first step, biomass is converted into **syngas** – a hydrogen-rich fuel gas mixture – in a novel reactor using oxygen and steam. In the second step, pure hydrogen is generated from syngas using an **indigenously developed low-pressure gas separation unit.**

Other Types of Hydrogen

- Hydrogen can be **'grey', 'brown', 'Turquoise' and 'blue'** too.
  - The vast majority of industrial hydrogen is currently produced from natural gas through a conventional process known as **steam methane reforming (SMR).** The standard SMR process produces what is known as **Grey Hydrogen** and has the **major disadvantage of releasing large quantities of by-product CO2** into the atmosphere - the main culprit for climate change.
  - Grey hydrogen has increasingly been produced also from **coal**, with significantly higher CO2 emissions per unit of hydrogen produced so much that it is often called **brown or black hydrogen** instead of grey.
  - **Blue hydrogen**, too, is produced using electricity generated by burning **methane or coal** but with **technologies to prevent the carbon released** in the process from entering the atmosphere;
  - **Turquoise hydrogen** is made using a process called

methane pyrolysis to produce hydrogen and **solid carbon.** As a result, there is no requirement for carbon capture and storage (CCS) and the carbon can even be used in other applications. Where the electricity driving the pyrolysis is renewable, the process is **zero-carbon**.

Color	**GREY** HYDROGEN	**BLUE** HYDROGEN	**TURQUOISE** HYDROGEN*	**GREEN** HYDROGEN
Process	SMR or gasification	SMR or gasification with carbon capture (85-95%)	Pyrolysis	Electrolysis
Source	Methane or coal	Methane or coal	Methane	Renewable electricity

Note: SMR = steam methane reforming.
* Turquoise hydrogen is an emerging decarbonisation option.

Why in News?

- In a significant move for the progress of the **National Green Hydrogen Mission,** the **Ministry of New and Renewable Energy (MNRE)** has notified the **Green Hydrogen Standard for India**.
- The standard outlines the **emission thresholds that must be met in order for hydrogen produced to be classified as 'Green'**, i.e., from renewable sources.
- The scope of the definition encompasses **both electrolysis-based and biomass-based hydrogen production methods.**
- The Ministry has decided to define Green Hydrogen as having a well-to-gate emission (i.e., including water treatment, electrolysis, gas purification, drying and compression of hydrogen) of **not more than 2 kg CO2 equivalent / kg H2.**
- The notification also specifies that the **Bureau of Energy Efficiency (BEE)** shall be the Nodal Authority for accreditation of agencies for the monitoring, verification and certification for Green Hydrogen production projects.
  - *BEE is a statutory body under the Ministry of Power established under provisions of the Energy Conservation Act 2001 to promote efficient use of energy and its conservation.*

Related Information
National Green Hydrogen Mission

- Earlier this year, the Union Cabinet approved the National Green Hydrogen Mission to **promote green hydrogen** in a bid to **cut emissions** and **become a major exporter** in the field.
- The overarching objective of the Mission is to **make India the Global Hub for production, usage and export of Green Hydrogen and its derivatives.**
- The Mission will **build capabilities to produce at least 5 Million Metric Tonne (MMT) of Green Hydrogen per annum by 2030**, with potential to reach 10

MMT per annum with growth of export markets.

- Innovative models to source Green Hydrogen through use of **decentralized renewable energy generation** such as rooftop solar and small/micro hydel plants will also be explored.
- Under the **Strategic Interventions for Green Hydrogen Transition Programme (SIGHT),** two distinct financial incentive mechanisms – targeting **domestic manufacturing of electrolysers** and **production of Green Hydrogen** – will be provided under the Mission.
- Regions capable of supporting large scale production and/or utilization of Hydrogen will be identified and developed as **Green Hydrogen Hubs.**
- An **enabling policy framework** will be developed to support establishment of the Green Hydrogen ecosystem. A **robust Standards and Regulations framework** will also be developed.
- Further, a public-private partnership framework for R&D **(Strategic Hydrogen Innovation Partnership – SHIP)** will be facilitated under the Mission.
- A **coordinated skill development programme** will also be undertaken under the Mission.
- The **Ministry of New & Renewable Energy** will be responsible for overall coordination and implementation of the Mission.

Mission Components
- The Mission strategy accordingly comprises interventions for:
  - **demand creation** by making Green Hydrogen produced in India competitive for exports and through domestic consumption.
  - **addressing supply side constraints** through an incentive framework, and
  - **building an enabling ecosystem** to support scaling and development.

Expected Benefits
- The targets by 2030 are likely to bring in **over Rs. 8 lakh crore investments** and create **over 6 lakh jobs.**
- Nearly **50 MMT per annum of CO2 emissions are expected to be averted** by 2030.
- This will contribute to India's aim to become **Aatmanirbhar (self-reliant) through clean energy** and **achieve net-zero carbon emissions by 2070.**

3) GRAP & AQI
What is the Graded Response Action Plan?
- The GRAP is a **step-by-step plan to counter Delhi-NCR region's deteriorating air quality.**
- It was formulated by the **Environmental Pollution Prevention and Control Authority (EPCA)** jointly with the Delhi government in 2017.
- The plan is **incremental and adaptable**, which means the preventive measures will be updated and escalated according to changes in the AQI.
- **Stage 1** of GRAP is activated when the **Air Quality Index (AQI)** is in the **'poor' category (201 to 300),** Stage 2 is when it's in the **'Very poor' category (301-400), Stage 3** is when the AQI is the **'Severe' category (401-450)** and finally **Stage 4** is when it rises to the **'Severe +' category (more than 450).**

Changes in GRAP

- The **Commission for Air Quality Management (CAQM)** was established in 2021 replacing the Environment Pollution (Prevention and Control) Authority.
  - *Refer Pulse July Digest for more details about CAQM.*
- The **Commission has been implementing the GRAP** since 2021.
- While previously, measures were introduced after pollution concentrations reached a certain level, at present, measures are **pre-emptively introduced** and will kick in based on forecasts in an attempt to prevent the air quality from deteriorating further.
- For this, the CAQM relies on **air quality and meteorological forecasts** by the Indian Institute of Tropical Meteorology (IITM) and the India Meteorological Department (IMD).
- The older version of the GRAP was enforced **based only on the concentration of PM2.5 and PM10.** This year, GRAP is being enforced based on the **AQI**, which takes other pollutants also into account, such as **ozone, carbon and oxides of nitrogen.**

About Air Quality Index

- AQI is a **number**, which is a **measure of air quality**. The **higher the AQI, the worse the air.**
- The **colour-coded AQI index** was launched in India in **2014**, and it helps the public and the government understand the condition of the air and what subsequent measures are to be taken to combat the situation, based on its severity.

AQI Category   Associated Health Impact

AQI Category	Associated Health Impact
Good (0 to 50)	Minimal impact
Satisfactory (51 to 100)	May cause minor breathing discomfort to sensitive people
Moderately Polluted (101 to 200)	May cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with heart disease, children and older adults
Poor (201 to 300)	May cause breathing discomfort to people on prolonged exposure and discomfort to people with heart disease
Very Poor (301 to 400)	May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases
Severe (401 to 500)	May cause respiratory effects even on healthy people and serious health impacts on people with lung/heart diseases. The health impacts may be experienced even during light physical activity

- There are **six categories of AQI**, namely **'Good'** (0-50), **'Satisfactory'** (51-100), **'Moderately polluted'** (101-200), **'Poor'** (201-300), **'Very Poor'** (301-400), and **'Severe'** (401-500).

- The pollutants measured include **PM 10, PM 2.5, Nitrogen Dioxide, Ozone, Carbon, etc.**

What is the impact of these pollutants?

- Among the more harmful pollutants are those of a **smaller**

size, such as **particulate matter (PM) 2.5,** which is an atmospheric particulate matter of diameter smaller than 2.5 micrometres.

- It causes **respiratory problems and reduces visibility.** The particles can only be detected with the help of an electron microscope because they are so small.
- Due to their size, the PM 2.5 particles can **easily bypass the nose and throat and can easily enter the circulatory system.** The particles can also lead to **chronic diseases** such as asthma, heart attack, bronchitis and other respiratory problems.

Why in News?
- Delhi records its lowest average Air Quality Index (AQI) during July 2023 compared to the corresponding period of the last 4 years from 2019.
- The monthly average AQI for Delhi during this period also remained in 'Satisfactory' AQI category i.e., 83.71.
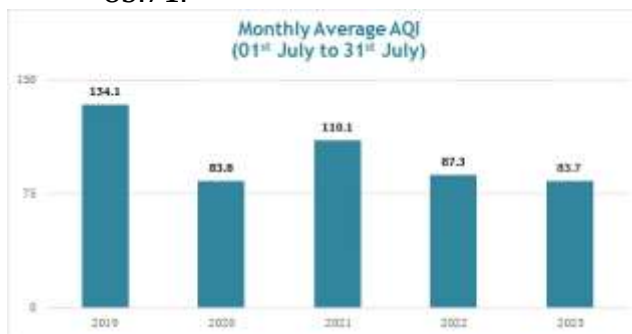
4) Cloudbursts
What is a cloudburst?
- Cloudbursts are **short-duration, intense rainfall events over a small area.**
- According to the India Meteorological Department (IMD), it is a weather phenomenon with **unexpected precipitation exceeding 100mm/h over a geographical region of approximately 20-30 square km.**

Characteristics
- Cloudburst events are often associated with **cumulonimbus clouds** that cause thunderstorms and occasionally due to **monsoon wind surges and other weather phenomena.** Cumulonimbus clouds can grow up to 12-15 km in height through the entire troposphere (occasionally up to 21 km) and can hold huge amounts of water.
- In India, cloudbursts often occur during the **monsoon season**, when the **southwesterly monsoon winds** bring in copious amounts of moisture inland. The moist air that converges over land gets lifted as they encounter the hills. The moist air reaches an altitude and gets saturated, and the water starts condensing out of the air forming clouds.
- This is how clouds usually form, but such an orographic lifting together with a strong moisture convergence can lead to **intense cumulonimbus clouds** taking in huge volumes of moisture that is dumped during cloudbursts.
- Tall cumulonimbus clouds can develop in about half an hour as the moisture updraft happens rapidly, at a pace of 60 to 120 km/hr. A single-cell cloud may last for an hour and dump all the rain in the last 20 to 30 minutes, while some of these clouds merge to form multi-cell storms and last for several hours.

Cloudburst prone areas in India
- Cloudbursts occur mostly over the **rugged terrains over the Himalayas, the Western Ghats, and northeastern hill States of India.** The heavy spells of rain on the fragile steep slopes trigger landslides, debris flows, and flash floods, causing large-scale

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destruction and loss of people and property.

- Recent cloudbursts that caused significant devastation occurred over the Himalayan foothills in Himachal Pradesh (in the year 2003), Ladakh (2010), and Uttarakhand (2013). Cloudbursts were reported from the northeastern States and Western Ghats States during the 2022 monsoon season.

- Monitoring stations on the ground can hardly capture the cloudburst characteristics due to their **highly localised and short occurrence.** Hence, most of these events **go unreported** due to the **lack of monitoring mechanisms in the region, weakening our ability to understand these events in complete perspective.**

- **Strong monsoon wind surges along the coast** can also result in cloudbursts, as in the case of Mumbai (2005) and Chennai (2015).

- **Coastal cities** are particularly vulnerable to cloudbursts since the flash floods make the conventional stormwater and flood management policies in these cities dysfunctional.

Detecting cloudbursts

- While **satellites** are extensively useful in detecting large-scale monsoon weather systems, the **resolution of the precipitation radars** of these satellites can be **much smaller** than the area of individual cloudburst events, and hence they **go undetected**. Weather forecast models also face a similar challenge in simulating the clouds at a high resolution.

- The skillful forecasting of rainfall in **hilly regions** remains challenging due to the uncertainties in the interaction between the moisture convergence and the hilly terrain, the cloud microphysics, and the heating-cooling mechanisms at different atmospheric levels.

- The IMD's forecasts, and in general, the weather prediction scenario, have advanced such that widespread extreme rains can be predicted two-three days in advance. Cyclones can be predicted about one week in advance. However, **cloudburst forecasts still remain elusive.**

Measures Required

- **Short term measure: Multiple doppler weather radars** can be used to monitor moving cloud droplets and help to provide **nowcasts** (forecasts for the next three hours). This can be a quick measure for providing warnings, but radars are **expensive**, and installing them across the country may not be practically feasible.

- **Long term term measure: Mapping the cloudburst-prone regions** using automatic rain gauges. If cloudburst-prone regions are co-located with landslide-prone regions, these locations can be **designated as hazardous.** The risk at these locations would be huge, and people should be moved, and construction and mining in nearby regions should be restricted as that can aggravate the landslides and flash flood impacts.

Why in News?

- Intense rain and cloudbursts wreaked havoc on Himachal Pradesh, resulting in multiple landslides that claimed at least 50 lives across the hill state.

5) National Disaster Management Authority

About NDMA

- The National Disaster Management Authority (NDMA) is a **statutory**

body constituted under the **Disaster Management Act 2005,** with the **Prime Minister of India** as its Chairman, a Vice Chairman with the status of Cabinet Minister, and eight members with the status of Ministers of State.

- The Disaster Management Act also has statutory provisions for the constitution of the **National Disaster Response Force** for the purpose of specialized response to natural and man-made disasters.
- The NDMA is the **apex statutory body for disaster management in India.** It is under the **control of the Ministry of Home Affairs (MHA).**

National Disaster Management Plan

- The National Disaster Management Plan (NDMP) provides a framework and direction to the government agencies for all phases of the disaster management cycle. The plan is prepared by the National Disaster Management Authority.
- The NDMP has been aligned broadly with the goals and priorities set out in the **Sendai Framework for Disaster Risk Reduction.**

About SDRF

- State Disaster Response Fund (SDRF) is constituted under the **Disaster Management Act 2005.**
- It is a primary fund available with the **State Government for responses to notified disasters.**
- The **Central Government contributes 75% of SDRF allocation for general category** States/UTs and **90% for special category States** (North Eastern States, Sikkim, Uttarakhand, Himachal Pradesh and Jammu & Kashmir).
- The annual Central contribution is released in two equal installments as per the **recommendation of the Finance Commission.**

- SDRF shall be used only for meeting the expenditure for providing **immediate relief to the victims.**
- The accounts of the SDRF shall be audited annually by **Comptroller & Auditor General of India (CAG).**
- **Disasters covered under SDRF:** Cyclone, Drought, Earthquake, Floods, Tsunami, Hailstorm, Landslide, Avalanche, Cloud burst, Pest attack, Frost and Cold wave.

Local Disaster

- State Government may use up to **10% of the funds** available under SDRF for providing immediate relief to the victims of the natural disaster that day considered to be "**Disaster" within the local contacts** in the State and which is not included in the notified list of disaster of the Ministry of Home Affairs.

About NDRF

- The National Disaster Response Fund (NDRF), constituted under the **Disaster Management Act, 2005**, **supplements SDRF** of a State, in case of a disaster of severe nature, provided adequate funds are not available in SDRF.

Why in News?

- The National Disaster Management Authority (NDMA) has started testing the emergency cell broadcast technology developed by **C-DOT** that will alert people at the time of natural disaster.
- The sample test message with the title, 'Emergency alert: Severe', was sent to subscribers on various mobile networks recently.
  - *The Centre for Development of Telematics (C-DOT) is the Telecom Technology development centre of the Government of India. It was established in 1984.*
  - *It is a registered 'public funded research institution'*

with the Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology.

Related Information

Sendai Framework for Disaster Risk Reduction 2015-2030

- The Sendai Framework is a **15-year, voluntary, non-binding agreement** which recognizes that the State has the primary role to reduce disaster risk, but that responsibility should be shared with other stakeholders including local governments, the private sector, the scientific community and NGOs.
- It lists **priority areas for action** such as:
    o understanding disaster risk,
    o strengthening disaster risk governance to manage disaster risk,
    o investing in disaster risk reduction for resilience and
    o enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.
- It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries over the next 15 years (2015-2030).
- The Framework was adopted at the **Third UN World Conference on Disaster Risk Reduction** in Sendai, Japan, in 2015. **India** is a signatory to the agreement.

6) United Nations Development Programme

About UNDP

- As the **United Nations lead agency on international development,** the United Nations Development Programme (UNDP) works in 170 countries and territories to **eradicate poverty and reduce inequality.**
- UNDP was established in **1966** by the General Assembly of the United Nations.
- UNDP's work is concentrated in **three focus areas:**
    o **sustainable development,**
    o **democratic governance and peace building, and**
    o **climate and disaster resilience.**
- In order to achieve its mandate, UNDP relies entirely on **voluntary contributions** from UN Member States, multilateral organizations, private sector and other sources.

Why in News?

- NITI Aayog and the United Nations Development Programme (UNDP) have signed a Memorandum of Understanding (MoU) to cooperate in various areas to help progress India's sustainable development goals (SDGs).

About SDGs

- The **Sustainable Development Goals (SDGs)** are a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere.
- The **17 Goals** were **adopted by all UN Member States in 2015**, as part of the **2030 Agenda for Sustainable Development** which set out a 15-year plan to achieve the Goals.

- Through the pledge to **Leave No One Behind,** countries have committed to fast-track progress for those furthest behind first.
- Today, progress is being made in many places, but, overall, action to meet the Goals is not yet advancing at the speed or scale required.

Flora & Fauna

1) Clouded leopard

About Clouded leopards

- The clouded leopard is a **medium-sized wild cat native to Southeast Asia.**
- It is known for its beautiful coat, which is pale yellow to ochre with distinctive cloud-like patterns and irregular spots.
- Despite their name, clouded leopards are **not actually a kind of leopard, but are completely separate from the genus** that includes lions, tigers, leopards and jaguars.

Distribution

- In India, it is primarily found in the **northeastern states of Assam, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Meghalaya, Tripura and Sikkim**. They are also reported in **West Bengal.**
- They inhabit a variety of forest types, including **evergreen, semi-evergreen, and mixed deciduous forests.**
- These leopards are known for their **arboreal (tree-dwelling)** abilities and are excellent climbers.

Protection status

- IUCN Red List: **Vulnerable**
- CITES: **Appendix I**
- Wildlife Protection Act: **Schedule I.**

Threats

- **Poaching** poses a severe threat to clouded leopard populations due to the demand for their skin, bones, and other body parts in the illegal wildlife trade.
- Reduction in **natural prey populations** due to hunting or habitat loss forces clouded leopards to turn to alternative food sources, including domestic livestock. This can lead to **conflicts with humans.**
- **Roads** that cut through their habitats can result in **accidental deaths** through vehicle collisions.

Why in News?

- International Clouded Leopard Day was celebrated on 4th August.

Agriculture

1) Price Stabilization Fund

About

- The Price Stabilization Fund (PSF) was set up in 2014-15 to help **regulate the price volatility of important agri-horticultural commodities** like onion, potatoes, etc.
- Such goods will be procured directly from farmers or farmers' organisations at the farm gate/mandi, and made available to consumers at a **more affordable price.**
- **Losses sustained, if any, between the Centre and the states must be shared in the operations.**
- The PSF scheme also provides for the advancement of **interest-free loans** to State Governments/Union Territories (UTs) and Central Agencies to finance their working capital and other expenses, which they may incur in the procurement and distribution of such commodities.
- Apart from domestic procurement from farmers/wholesale mandis, **import** may also be undertaken with support from the Fund.

Mechanism

- **Small Farmers Agribusiness Consortium (SFAC)**, a society promoted by the Ministry of Agriculture and Farmers' Welfare for linking agriculture to private enterprises, investment, and technology, maintains the PSF as a central corpus fund.
- The actual use of the fund depends on the willingness of the governments of the state/union territories to use such loans for these purposes.
- The actual identification of the time in which assistance is needed and the implementation of the price support measures are left to the states.

Why in News?

- To check the current increase in prices of tomatoes and make them available to consumers at affordable prices, the Government has started procuring tomatoes under the price stabilization fund.
- It is making them available at a highly subsidized rate to consumers.

Economy

1) Startup India initiative

About the Initiative

- The Startup India initiative of the Government of India envisages **building a robust Start-up ecosystem** in the country for nurturing innovation and providing opportunities to budding entrepreneurs.
- Since the launch of the initiative, Startup India has rolled out several programs with the objective of supporting entrepreneurs, and **transforming India into a country of job creators instead of job seekers.**

Why in News?

- Since the launch of the Startup India initiative in 2016, the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, has recognised 98,119 entities as startups.

What is a DPIIT-recognized startup?

- An entity shall be considered a "Startup" –
    1. If it's incorporated as **either Private Limited Company or Registered Partnership Firm or Limited Liability Partnership.** A sole proprietorship or a public limited company is not eligible as startup.
    2. If it is **up to 10 years** from the date of its incorporation/registration.
    3. If its **turnover** for any of the financial years has **not exceeded INR 100 crore**
    4. If it is **working towards** innovation, development or improvement of products or processes or services, or if it is a scalable business model with a high potential of employment generation or wealth creation.
    5. **Should not have been formed by splitting up or reconstruction** of a business already in existence.

2) Geographical Indication

About GI Tag

- A geographical indication (GI) is a sign used on products that have a **specific geographical origin** and possess qualities or a reputation that are due to that origin. In order to function as a GI, a sign must identify a product as originating in a given place.
- It is used for **agricultural, natural and manufactured goods**. **Darjeeling tea** became the first GI tagged product in India.
- The registration of GI is valid for **10 years** after which it needs to be renewed.
- It should be noted that registration of a product is **not compulsory.**
    - Registration affords **better legal protection** to facilitate an action for infringement;
    - The registered proprietor and authorised users can **initiate infringement actions;**
    - The authorised users can exercise the **exclusive right to use the geographical indication.**

Legislations

- In India, GI is given under the **Geographical Indications of Goods (Registration and Protection) Act, 1999**.
- The Act is administered by the **Controller General of Patents, Designs & TradeMarks, GI (CGPDTM-India)** under the

Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry.

- India enacted its GI legislation to comply with India's obligations under the **Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement.**
- GI is a **collective intellectual property right** and is thus owned by all the producers within the defined GI territory unlike intellectual properties like patent and trademark which are owned by an individual or a business entity.

Benefits of registration of Geographical Indications

- It confers **legal protection** to Geographical Indications in India
- **Prevents unauthorised use** of a Registered Geographical Indication by others
- It provides legal protection to Indian Geographical Indications which in turn **boost exports.**
- It **promotes economic prosperity** of producers of goods produced in a geographical territory.

Why in News?

- Seven products from across India were given the Geographical Indication (GI) tag recently.

3) Udyam Portal

About the Portal

- Udyam is an online system for **registering micro, small and medium enterprises.** It was launched by the **Ministry of Micro, Small & Medium Enterprises (MSME)** in 2020.
- Any person can avail a **free Udyam registration** for their enterprise through a fully digital and paperless process based on self-declaration.
- Udyam registration is a **prerequisite for availing the**

benefits of several schemes or programmes of the Ministry of Micro, Small & Medium Enterprises.

- An e-certificate called the **"Udyam Registration Certificate"** is issued online on completion of the registration process. This certificate has a **dynamic QR Code** through which the web page of the registration portal and details about the enterprise can be accessed.
- **Aadhaar, PAN and GST numbers** are required for registration. Udyam Registration Number is a **permanent identification number,** and there will be no need for renewal of Registration.

Why in News?

- The Ministry of MSME celebrated the landmark of 1 crore registrations on its Udyam Portal.
- Following the adoption of the **revised definition** of MSMEs in 2020, the Udyam Registration Portal was launched on 1st July, 2020.

MSME Definition in India

- In 2020, the government changed the basic definition of MSME and also **end the difference between the manufacturing and services sector**.
- Till then, MSMEs were categorised based only on the investment in machinery or equipment. The new classification has **raised the investment limit** and included **annual turnover** as an additional criteria.
  - o Accordingly, units having investment less than Rs 1 crore and turnover less than Rs 5 crore will be called **Micro units.**
  - o Investment between Rs 1 and Rs 10 crore and turnover of Rs 5 crore to Rs

50 crore will be categorised as **Small Enterprises.**

o Units having investment between Rs 10 crore but up to Rs 50 crore and turnover between Rs 50 crore and Rs 250 crore will now be known as **Medium Enterprises.**

4) Special Economic Zones
About SEZ

- A Special Economic Zone (SEZ) is a geographical region that has **economic laws that are more liberal** than a country's domestic economic laws.
- The main objectives of the SEZ Scheme is
    o generation of additional economic activity,
    o promotion of exports of goods and services,
    o promotion of investment from domestic and foreign sources,
    o creation of employment opportunities along with the development of infrastructure facilities.
- **Financial incentives** are granted to those setting up SEZs and cover a wider gamut of benefits for investors across taxation, customs, labour regulations, etc.
- Each Zone is headed by a **Development Commissioner** and is administered as per the **SEZ Act, 2005 and SEZ Rules, 2006.**
- It should be noted that **all Goods and services supplied by SEZ units to Domestic Tariff Area** (whole of India but does not include the areas of the SEZ) are **treated as imports** into India and subject to all procedures and rules applicable in case of normal imports into India.

Salient Features

- The salient features of the SEZ scheme are:-
    o A **designated duty free enclave to be treated as a territory outside the customs territory of India** for the purpose of authorised operations in the SEZ;
    o **No licence required for import;**
    o **Manufacturing or service** activities allowed;
    o The Unit shall achieve **Positive Net Foreign Exchange** to be calculated cumulatively for a **period of five years** from the commencement of production;
    o **Domestic sales are subject to full customs duty and import policy in force;**
    o SEZ units will have freedom for subcontracting;
    o No routine examination by customs authorities of export/import cargo;
    o SEZ Developers /Co-Developers and Units enjoy tax benefits as prescribed in the SEZs Act, 2005.

Why in News?

- The Parliament's Standing Committee on Commerce has noted that none of the five approved Special Economic Zones (SEZs) in the North-eastern region, approved between 2007 and 2021, have become operational yet.
- Stressing that the North-Eastern States have not benefitted from SEZs like the rest of the country, where **270 operational zones** have **generated exports of ₹79.62 lakh crore** since 2005, the panel has called for expediting work on

getting the approved zones off the ground.

5) National Investment and Infrastructure Fund

About NIIF

- National Investment and Infrastructure Fund (NIIF) is an **Indian-government backed entity** established in **2016** to **provide long-term capital to the country's infrastructure sector.**
- The NIIF aims to maximize the economic impact mainly through **infrastructure development** in commercially viable projects such as greenfield and brownfield, including stalled projects.
- The Indian government has **49 per cent** stake in NIIF with the **rest held by foreign and domestic investors.**
- NIIF got registered with SEBI as an **Alternative Investment Fund (AIF).**
  - *AIFs are private funds which are otherwise not coming under the jurisdiction of any regulatory agency in India. In India, AIFs are regulated by the Securities and Exchange Board of India (Alternative Investment Funds) Regulations, 2012.*
- The Governing Council of NIIF is chaired by the **Union Finance Minister.**
- NIIF currently manages three funds each with its distinctive investment mandate.
  - **Master Fund**
    - It primarily invests in operating assets in core infrastructure sectors such as transportation and energy.
  - **Fund of Funds**
    - This fund invests in funds managed by fund managers in infrastructure and associated sectors. Sectors of focus include Green Infrastructure, Mid-Income & Affordable Housing, Infrastructure services and allied sectors.
  - **Strategic Fund**
    - This fund is aimed at growth and development-stage investments in large scale projects/companies in a broad range of sectors of economic and commercial importance, which are likely to benefit from India's growth trajectory over the medium- to long-term.

Why in News?

- The National Investment and Infrastructure Fund is planning to launch its second fund-of-funds (FoF) to raise $1 billion.

6) GST Council

About	• It is a **constitutional body** under **Article 279A** of the amended Constitution. • The Council was introduced by the **Constitution (One Hundred and First Amendment) Act, 2016.**
Aim	• To make recommendations to the Union and State Government on issues related to Goods and Service Tax.
Chairman and members	• The GST Council is chaired by the **Union Finance Minister** and other members are the **Union State Minister of Revenue or Finance and Ministers in-charge of Finance or Taxation of all the States.**

Functions	• The Goods and Services Tax Council shall make recommendations to the Union and the States on—
	  ○ the **taxes, cesses and surcharges** levied by the Union, the States and the local bodies which may be subsumed in the goods and services tax;
	  ○ the goods and services that may be **subjected to, or exempted** from the goods and services tax;
	  ○ the **threshold limit of turnover** below which goods and services may be exempted from goods and services tax;
	  ○ the **rates including floor rates with bands** of goods and services tax;
	  ○ the date on which the goods and services tax be levied on **petroleum crude, high speed diesel, motor spirit (commonly known as petrol), natural gas and aviation turbine fuel.**

Quorum	• **One-half** of the total number of Members of the Goods and Services Tax Council shall constitute the quorum at its meetings.

Voting share	• Every decision of the Goods and Services Tax Council shall be taken at a meeting, by a majority of **not less than three-fourths** of the weighted votes of the members present and voting, in accordance with the following principles, namely: —
	  ○ the vote of the **Central Government** shall have a weightage of **one-third** of the total votes cast, and
	  ○ the votes of all the **State Governments** taken together shall have a weightage of **two-thirds** of the total votes cast, in that meeting.
	• No act or proceedings of the Goods and Services Tax Council shall be invalid merely by reason of—
	  ○ any vacancy in, or any defect in, the constitution of the

	Council; or ○ any defect in the appointment of a person as a Member of the Council; or ○ any procedural irregularity of the Council not affecting the merits of the case.
Dispute adjudication	• The Goods and Services Tax Council shall establish a mechanism to adjudicate any dispute ○ between the Government of India and one or more States; or ○ between the Government of India and any State or States on one side and one or more other States on the other side; or ○ between two or more States, arising out of the recommendations of the Council or implementation thereof.
Why in News?	• The 51st Meeting of the GST Council was held recently.

Organisations

1) Amazon Cooperation Treaty Organization

Amazon Rainforest

- It is the **largest rainforest** in the world and is located in **South America.**
- **Nearly 60 percent** of the Amazon rainforest is located in **Brazil.**
- Despite covering only around **1% of the planet's surface,** the Amazon rainforest is **home to an estimated 10% of the world's known species**, including diverse plant, animal, insect, and microbial life.
- The Amazon rainforest plays a **critical role in climate regulation** by absorbing and storing vast amounts of carbon dioxide, helping to mitigate climate change. It is often referred to as **'Lungs of the Planet'.**

- The **Amazon River** which runs through the Amazon rainforest is the **world's second longest river** after the **Nile**. It is also the **world's largest by water volume.**

Threats in Amazon

- **Illegal activities**, such as **logging** and **land encroachment**, contribute to deforestation and habitat loss in the Amazon.
- **Changing climate patterns**, including extreme weather events and longer dry seasons, are affecting the health of the rainforest , making it more susceptible to **fires** and **drought.**
- **Roads, dams, and other infrastructure projects** fragment habitats and open up previously inaccessible areas for exploitation.

Amazon Cooperation Treaty Organization

- The Amazon Cooperation Treaty Organization (ACTO) is an **intergovernmental organization** formed by the **eight Amazonian countries: Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela.** It was created in **1995.**
- The **Amazon Cooperation Treaty** signed in 1978 gave rise to the ACTO to promote the **harmonious development of the Amazonian territories** in such a way that the joint actions of the Amazonian countries produce equitable and mutually beneficial results in achieving the sustainable development of the Amazon Region.

Why in News?

- Leaders and Ministers of the ACTO signed a **declaration** at the end of their recent Amazon summit in **Belém, Brazil.**
- The **Belém Declaration** lays out plans to drive economic development in their countries while preventing the Amazon's ongoing demise from reaching a point of no return.
- The declaration promotes **sustainable use of biodiversity resources** in the Amazon.

- The declaration **recognises Indigenous knowledge as a condition for biodiversity conservation** and calls for ensuring full and effective participation of Indigenous Peoples in decision-making and public policy formulation processes.

2) International Court of Justice
About ICJ

- The ICJ is the **principal judicial organ of the United Nations (UN).** It was established in **1945** by the Charter of the United Nations and began work in 1946.
- The court is the **successor to the Permanent Court of International Justice (PCIJ),** which was brought into being through, and by, the League of Nations, and which held its inaugural sitting at the Peace Palace in The Hague, Netherlands, in 1922.
- After World War II, the League of Nations and PCIJ were replaced by the **United Nations and ICJ respectively.**

Seat and role

- Like the PCIJ, the ICJ is based at the **Peace Palace in The Hague.** It is the **only one of the six principal organs of the UN that is not located in New York City.** (The other five organs are the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, and the Secretariat.)
- The ICJ's role is to **settle**, in accordance with international law, **legal disputes submitted to it** by States and to give **advisory opinions on legal questions** referred to it by authorized United Nations organs and specialized agencies.
- **English and French** are the ICJ's official languages.

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- **All members of the UN are automatically parties to the ICJ statute, but this does not automatically give the ICJ jurisdiction over disputes involving them.** The ICJ gets jurisdiction **only if both parties consent to it.**
- The judgment of the ICJ is **final and technically binding** on the parties to a case. There is **no provision of appeal**; it can at the most, be subject to **interpretation** or, upon the discovery of a new fact, **revision.**
- However, the ICJ has **no way to ensure compliance of its orders**, and its authority is derived from the willingness of countries to abide by them.

Judges of the court

- The ICJ has **15 judges who are elected to nine-year terms by the UN General Assembly and Security Council, which vote simultaneously but separately.** To be elected, a candidate must receive a majority of the votes in both bodies, a requirement that sometimes necessitates multiple rounds of voting.
- A **third of the court is elected every three years.** Judges are **eligible for re-election.**

Who may submit cases to the Court?

- **Only States** are eligible to appear before the Court in contentious cases. At present, this essentially means the 193 Member States of the United Nations.
- The Court has **no jurisdiction to deal with applications from individuals, non-governmental organizations, corporations or any other private entity.**

Why in News?

- The United Kingdom, Canada, Sweden and Ukraine launched a case against Iran at the

International Court of Justice over the downing of a Ukrainian passenger jet and the deaths of all 176 passengers and crew.

Related Information
International Criminal Court

- The International Criminal Court (ICC) is a permanent judicial body established by the **Rome Statute** of the International Criminal Court (1998).
- It is an **independent judicial body distinct from the UN.**

- ICC **investigates and tries individuals** charged with the gravest crimes of concern to the international community: genocide, war crimes, crimes against humanity and the crime of aggression.
- The ICC was established as a **court of last resort** to prosecute the most heinous offenses in cases where national courts fail to act.
- It is headquartered in **The Hague, Netherlands.**

Members of the International Criminal Court

- Party
- Signed but never ratified
- Nonsignatory
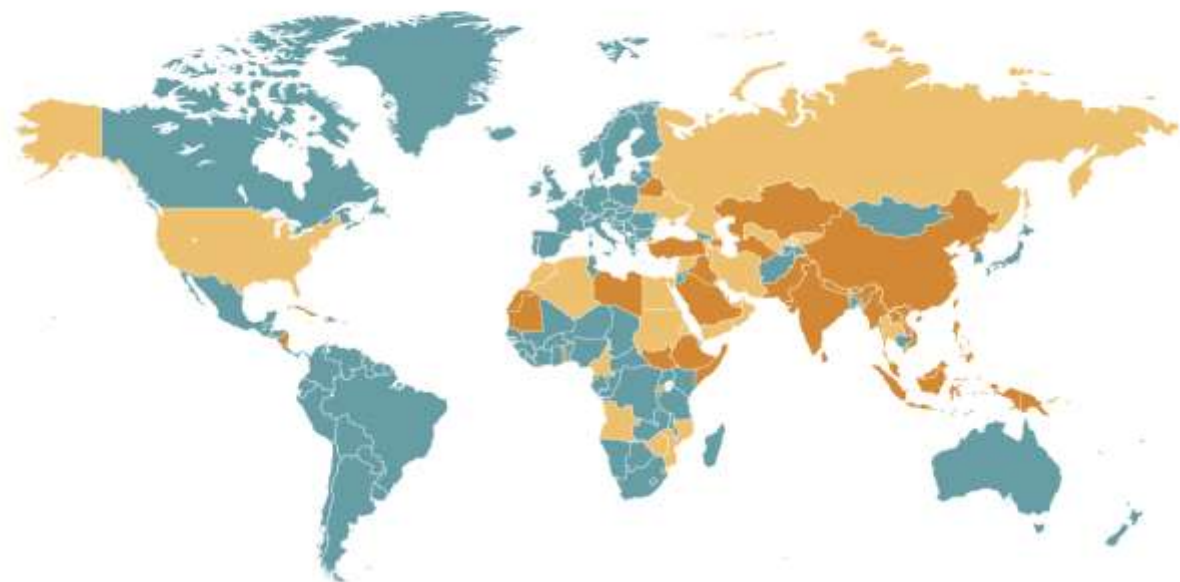
Membership

- Only those who ratified (123 countries) the Rome Statute are parties to ICC.
- Prominent countries that are not members include China, **India**, Iraq, Libya, Yemen, Qatar and Israel.
- The USA and Russia had signed the treaty but did not ratify it.

3) BRICS Expansion
About BRICS

- BRICS brings together five major emerging economies- **China, Brazil, Russia, India and South Africa**. These 5 countries host 41% of the world population, contributing 31% of the world GDP and over 16% share in world trade.
- The grouping was formalised during the first meeting of **BRIC** (Brazil, Russia, India and China) Foreign Ministers on the margins of the UNGA meet in New York in September 2006.
- **South Africa** was added to the grouping in 2011 creating "BRICS".
- BRICS cooperation is aimed at complementing and strengthening existing bilateral and multilateral relations among member countries.

- The **Chairship of the forum is rotated annually** among the members, in accordance with the acronym B-R-I-C-S.
- Cooperation among members is predicated on three levels or "tracks" of interaction, namely:
  - **Track I:** Formal diplomatic engagement between the national governments
  - **Track II:** Engagement through government-affiliated institutions, e.g. state-owned enterprises and business councils
  - **Track III:** Civil society and "people-to-people" engagement.

Significant developments of BRICS

New Development Bank

- The New Development Bank (NDB) was established by the **BRICS countries.** It formally came into existence at the Ufa Summit (Russia) in **2015.**
- It was established with the objective of **financing infrastructure and sustainable development projects** in BRICS and other emerging economies and developing countries, complementing the efforts of multilateral and regional financial institutions toward global growth and development.
- In 2018, the NDB received **observer status** in the UN General Assembly.
- The Bank's membership is **open to members of the United Nations.**

Contingency Reserve

- The BRICS Contingent Reserve Arrangement (CRA) is a framework for the provision of support through liquidity and precautionary instruments in response to actual or potential short-term balance of payments pressures.

Why in News?

- In a landmark decision, members of the BRICS declared expansion of the grouping by welcoming six new countries into the fold.
- During the 15th BRICS summit in Johannesburg, the grouping had invited six new members — **Iran, Saudi Arabia and the United Arab Emirates (UAE)** from West Asia; **Egypt and Ethiopia** from Africa, and **Argentina** from Latin America Argentina, Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates — to join as full members from January 1 next year.

ECONOMY

BRICS admits six new members

Argentina, Egypt, Ethiopia, Iran, Saudi Arabia and the UAE are set to join the core group of Brazil, Russia, India, China and South Africa. These 11 countries have a combined population of 3.7 billion.

The expansion of the group is part of its plan to build dominance and reshape global governance into "multipolar" world order that puts voices of the Global South at the centre of the world agenda.

Source: brics2023.gov.za | August 24, 2023

Implications of the expansion

- The expansion presents an enlarged BRICS as a **way for the global south to have a stronger voice in world affairs.**
- **BRICS challenges this West-led world order:** it promotes intra-BRICS economic and political cooperation, builds institutions outside western control, and agitates robustly for wide-ranging reforms to accommodate the presence and interests of emerging economies.
- The recent expansion of BRICS's membership has shaped a grouping that is **aligned in terms of global**

perceptions and interests, and collectively provides considerable economic clout to the enlarged conclave.

- With the proposed expansion, BRICS will have **46% of world population**, while its share of the **global GDP** will go from 31.5% in PPP terms to **37%**, far ahead of the GDP of 30.7% of the G-7.

Science and Technology

1) Blue Supermoon

What is a Supermoon?

- A "supermoon" occurs when a **full moon coincides** with the **Moon's closest approach to Earth in its elliptical orbit,** a point known as **perigee.**
- When that happens, it appears **slightly brighter and larger** than a regular full moon.
- Supermoons are **generally seen every three or four months.**

What is the Blue Moon?

- Blue Moon is the **second full moon in a calendar month.** Usually months have only one full moon, but occasionally a second one sneaks in.
- Full moons are separated by 29.5 days, while most months are 30 or 31 days long; so it is possible to fit two full moons in a single month.
- This happens **every two and a half years, on average.**

What is a Blue Supermoon?

- A **supermoon coinciding with a blue moon** i.e. Blue supermoon is a much rarer occurrence.
- Blue supermoons occur **once every 10 years or so.**

Why in News?

- A rare celestial event - Blue Supermoon - was observed recently.

2) Space Junk

What is space junk?

- Space junk, or space debris, is **any piece of machinery or debris left by humans in space.**
- It can refer to big objects such as dead satellites that have failed or been left in orbit at the end of their mission.
- It can also refer to smaller things, like bits of debris or paint flecks that have fallen off a rocket.

What is Kessler Syndrome?

- This is a concept suggested by NASA scientist Donald Kessler in 1978, which states that if there is too much space junk in orbit, it might cause a chain reaction in which more and more objects crash, creating additional space junk in the process, until Earth's orbit becomes useless — a **Domino Effect.**
- For the previous two decades, 12 fragmentation incidents have occurred per year.

India's measures against space debris

1. Space Situational Awareness (SSA):

- SSA deals with the **comprehensive knowledge** of the space environment, assessment of any threats to space activities and the implementation of necessary mitigation measures to safeguard the space assets.
- SSA plays a crucial role in **ensuring safe and sustainable space activities** complying with domestic and international guidelines, standards and other norms.

2. Project NETRA (Network for space object Tracking and Analysis):

- Under the **Network for Space Objects Tracking and Analysis (NETRA) project, ISRO** is building up its orbital debris tracking capability by putting up **many**

observational facilities: connected radars, telescopes, data processing units and a control centre.

- They can spot, track and catalogue objects as small as 10 cm, up to a range of 3,400 km and equal to a space orbit of around 2,000 km.
- The initiative would provide India with its **own space situational awareness capabilities,** which is used to **predict dangers to Indian satellites from debris.**

3. International Space Debris Coordination Centre:

- India hosts the International Space Debris Coordination Centre (ISDCC) in **Bengaluru**, which serves as a hub for sharing information and coordinating efforts related to space debris research and mitigation.

4. Space Debris Removal Technology:

- ISRO has been researching and developing technologies for space debris removal. One such technology is the **Electrodynamic Debris Eliminator (EDDE),** which aims to capture and deorbit space debris using an **electrodynamic tether system.** This technology is being explored as a potential solution to actively remove debris from space.

5. Space Debris Mitigation Guidelines:

- **ISRO** has formulated Space Debris Mitigation Guidelines that **outline best practices and procedures to reduce the generation of space debris** during the launch and operation of satellites.
- These guidelines include measures such as designing satellites to minimize debris generation, adopting end-of-life disposal strategies, and promoting space situational awareness.

Why in News?

- A large object found on the shores of western Australia recently has been confirmed to be the debris of an ISRO rocket.

What could be done?

- After a spacecraft's mission is over, it can be moved to a more secure orbit. That is, a high-altitude **"graveyard orbit"** over low-Earth space.
- Carrying out **'collision avoidance manoeuvres'** to avoid space debris.
- A recent study proposes using **powerful laser pulses from a high-efficiency fiber laser** to shoot down the debris. The pulses would knock objects into the Earth's atmosphere, where they would burn up.
- **Reusable spacecraft** can be developed.
- Creating **spaceships that can endure the harsh conditions** of space without dissolving.

3) Aditya-L1 launch
Regions of Sun

- The Sun can be split into two regions: **Interior and Atmosphere.**
- The **interior** is a **sphere** with radius R = 7x108m. There are three main parts to the Sun's interior:
    - The **core** is at the **centre**. It is the **hottest region**, where the **nuclear fusion** reactions that power the Sun occur.
    - The **radiative (or radiation) zone** - Its name is derived from the way energy is carried outward through this layer, carried by photons as thermal radiation.
    - The **convective (or convection) zone** - It is also

named after the dominant mode of energy flow in this layer; heat moves upward via roiling convection.

Corona
Chromosphere (~1500 km)
Photosphere (~500 km)
Convection Zone (~200 000 km)
Radiative Zone (~300 000 km)
Core (~200 000 km)

Prominence
Sunspot
Solar Flare

1 392 000 km
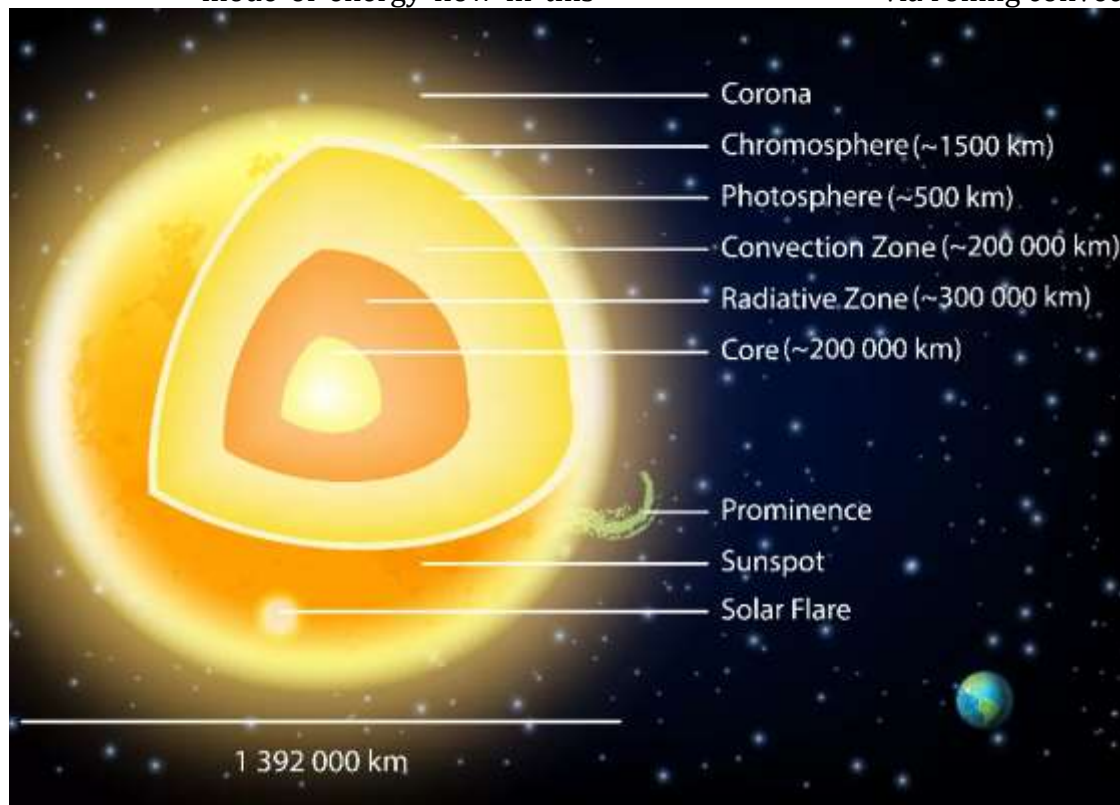
- The **atmosphere** lies on top and has the following layers (from innermost to outermost):
  - o The **photosphere** is about 300 km thick. Most of the **Sun's visible light** that we see originates from this region. It is the boundary between the Sun's interior and the solar atmosphere.
  - o The **chromosphere** is about 2000 km thick. We only see this layer and the other outer layers during an eclipse. It is the lower **region of the solar atmosphere.**
  - o The **corona** is the upper **region of the solar atmosphere.** The upper corona gradually turns into the **solar wind**, a flow of plasma that moves outward through our solar system into interstellar space. The solar wind is, in a sense, just an extension of the Sun's atmosphere that engulfs all of the planets.

The puzzle of the solar atmosphere

1 000 000 °C Corona

10 000 °C Upper Chromosphere
4 000 °C Lower Chromosphere
6 000 °C Photosphere
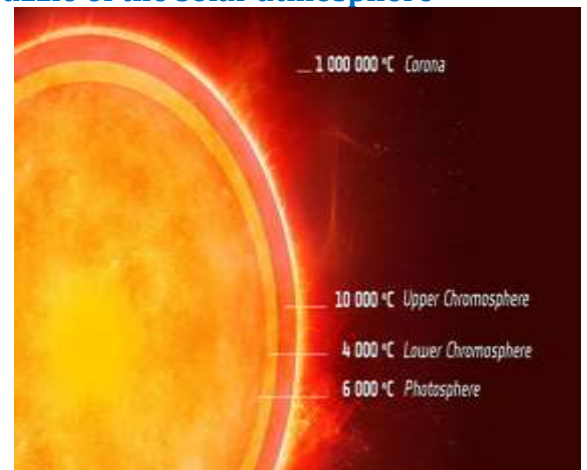
- The temperature at the **core** of the Sun is nearly **15 million degrees Celsius**, while that at its surface layer, **photosphere**, is merely **5,700 degrees C**.
- The natural thing to expect is that still further outwards, in its atmosphere, known as the corona, the temperatures would be

comparable to that at the surface (photosphere).

- However, the **temperature of the corona is much higher.**
- Temperature starts increasing outside the photosphere, reaching a value of about **one million degrees or more in the corona.**

Eruptions of the Sun

- Another puzzle is a set of questions about the mechanisms of eruptions of the Sun, such as **solar flares** and **coronal mass ejections.** These are driven by **magnetic reconnections** happening in the Sun's corona.
  - o Solar flares are an **explosion of energy** caused by tangling, crossing or reorganizing of magnetic field lines near **sunspots** (darker and cooler spots). Solar flares release a lot of radiation into space. If a solar flare is very intense, the radiation it releases **can interfere with our radio communications here on Earth.**
  - o A coronal mass ejection (CME) is a significant **release of plasma and magnetic field** from the Sun's corona. It is a type of **solar eruption** that propels a massive amount of charged particles, primarily electrons and protons, into space at high speeds. The energy released during a CME can be equivalent to millions of hydrogen bombs exploding simultaneously.
  - o Magnetic reconnection is a process where **oppositely directed magnetic field lines connect** and some of the magnetic energy is **converted to heat energy and also kinetic energy**

which leads to the generation of heating, solar flares, solar jets, etc.

Sunspots

- Sunspots are areas that **appear dark** on the surface of the Sun. They appear dark because they are **cooler** than other parts of the Sun's surface.
- They are relatively cooler because they form in **areas where magnetic fields are particularly strong.** These magnetic fields are so strong that they keep some of the heat within the Sun from reaching the surface.

Why in News?

- ISRO has successfully launched the country's **first space mission to study the sun, Aditya-L1.**
- The **Polar Satellite Launch Vehicle (PSLV),** in its 59th flight with the Aditya-L1 onboard, took off from the Satish Dhawan Space Centre in Sriharikota.
- The Aditya L1 spacecraft will stay in Earth's orbit for sixteen days. After four months of journey, the satellite will be placed on the **L1 point** in the halo orbit around the Sun.
- Aditya-L1 has a mission life of **five years.**

What are the science objectives of Aditya-L1?

- The Aditya-L1 will **observe the Sun from a close distance,** and try to **obtain information about its atmosphere and magnetic field.** It is equipped with **seven payloads.**
- The main objective of the mission is to get a **deeper understanding of the star closest to us, and how its radiation, heat, flow of particles, and magnetic fields affects us.**
- The payloads on the mission will study the **chromosphere and corona.** They will also study

coronal mass ejection (CME). The magnetic field of the corona and the drivers of the space weather will also be studied.

- Importantly, it might provide clues to scientists about a **long-standing mystery:** why the corona of the Sun is a million degree C hot, when the temperature on the surface of the Sun is just about 5,700 degree C.
- It will also help scientists understand the reasons behind acceleration of particles on the Sun, which leads to **solar winds.**

Why study the Sun from space?

- The Sun is the **nearest star** to us and therefore can be studied in much greater detail than others. Studying the Sun can also help us **understand more about other stars.**
- While the Sun supports all life on Earth, it also has **various explosive phenomena**. These can damage our satellites and communication systems. Studying the Sun may help in providing early warnings for such events.
- The various thermal and magnetic phenomena on the Sun are of extreme nature. Thus, the Sun provides a good natural laboratory to understand them, which cannot be directly studied in the lab.
- It is important to study the Sun from space because the Earth's atmosphere and the magnetic field act as **protective shields** that block out harmful radiations, such as UV light. This means studying the Sun from the Earth can't provide a complete picture.

Related Information
Lagrange points

- Lagrange points are positions in space where **objects sent there tend to stay put.** At Lagrange points, the **gravitational pull of two large masses** (like the Sun and the Earth) **precisely equals the centripetal force required for a small object to move with them.**
- These points in space can be used by spacecraft to reduce fuel consumption needed to remain in position.
- There are **five such points** in the **Sun-Earth system** and they are denoted as **L1, L2, L3, L4 and L5.**
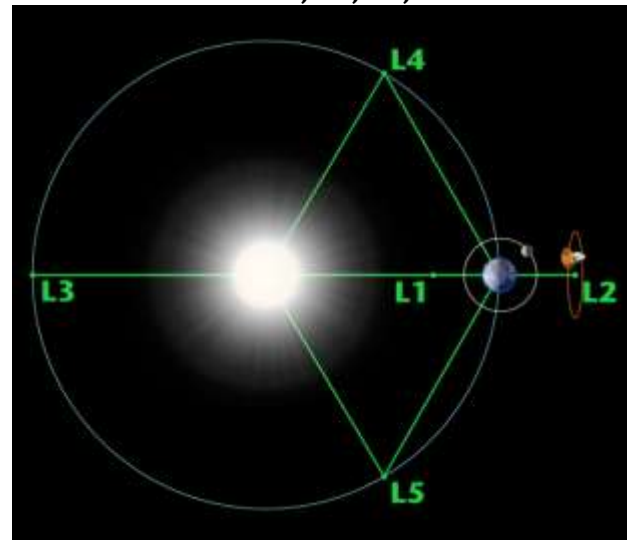
- Of the five Lagrange points, **three are unstable and two are stable.**
  - The **unstable Lagrange points** - labeled **L1, L2 and L3** - lie along the line connecting the two large masses.
  - The **stable Lagrange points** - labeled **L4 and L5** - form the apex of two equilateral triangles that have the large masses at their vertices. L4 leads the orbit of earth and L5 follows.

Significance of every lagrange points

- **L1 point** of the Earth-Sun system affords an **uninterrupted view of the sun**.
- **L2 point** is **ideal for astronomy** because a spacecraft is close enough to readily communicate with Earth, can keep Sun, Earth and Moon behind the spacecraft for

solar power and (with appropriate shielding) provides a clear view of deep space for our telescopes.

- o The L1 and L2 points are unstable on a time scale of approximately 23 days, which requires satellites orbiting these positions to undergo **regular course and attitude corrections.**
- **L4 and L5 points** are home to **stable orbits**. Objects found orbiting at the L4 and L5 points are often called **Trojans.**
- Significance of the L3 point is still **unknown** because it stands behind the sun.

4) Chandrayaan-3

Chandrayaan 1

- The Chandrayaan-1 mission was the **first Indian lunar probe** under the Chandrayaan programme.
- It was launched by the **Indian Space Research Organisation (ISRO)** aboard **PSLV C-11** in 2008, and operated until 2009.
- The mission included **an orbiter and an impactor.**
- Chandrayaan-1 played a **crucial role in the discovery of water molecules on the Moon.**

Chandrayaan 2

- **ISRO** launched Chandrayaan 2, a mission comprising an **orbiter** and **a soft lander carrying a rover**, in 2019.
- The primary objective of Chandrayaan 2 is to **demonstrate the ability to soft- land on the lunar surface** and **operate a robotic rover on the surface**.
- It was launched on **GSLV Mk-III** and reached the lunar orbit in August 2019. The **lander and rover** were set to land on the far side of the Moon after being separated from the orbiter. However, the missions did not go as

planned when the combination **crash-landed on the surface of the Moon.**
- While the lander and rover were lost in the accident, the **orbiter continues operating in the lunar orbit** to date providing key observations of the surface.

Findings

- Chandrayaan-2 has **mapped an abundance of sodium on the moon** for the first time using its **large area X-ray spectrometer, CLASS**.
- Using far more sensitive instruments, Chandrayaan-2 **found unique signatures of both hydroxyl and water molecules. This is the most precise information about the presence of H2O molecules on the Moon till date.**
- Chandrayaan-2 found **signatures of water at all latitudes**, although its abundance varies from place to place.
- Chandrayaan-2 has also **mapped nearly 95% of the lunar surface in X-rays for the first time.**

Why in News?

- India has made history as its **Chandrayaan-3 mission becomes the first to land in the lunar south-pole region.**
- ISRO confirmed that the **Vikram lander from Chandrayaan-3** successfully touched down in the Moon's southern polar region as planned.
- The lander module of Chandrayaan-3 comprises **Vikram lander and Rover Pragyan.** The six-wheeled lander and rover module is configured with payloads that would provide data to the scientific community on the properties of lunar soil and rocks, including chemical and elemental compositions.

- With this, India joins an elite club of countries to achieve a **soft landing on the Moon,** after **the US, the former Soviet Union and China.**
  - *Soft landing simply means landing at a gentle, controlled speed to not sustain damage to a spacecraft.*
- Doing so showcases a spacecraft's **technical capabilities.** All of the previous spacecraft to the Moon have landed in the region near the **Moon's equator,** firstly because it is easier and safer here. The terrain and temperature are more conducive for a long and sustained operation of instruments.
- The **polar regions** of the Moon, however, are different. Many parts lie in a completely dark region without sunlight, and temperatures can go below 230 degrees Celsius. This creates **difficulty in the operation of instruments.**

What happened?
- ISRO launched the Chandrayaan-3 mission onboard **LVM3-M4 rocket** from the Satish Dhawan Space Centre in July 2023 to achieve **India's first soft landing on another celestial body.**
- Chandrayaan-3 is a **follow-on mission to Chandrayaan-2.**
- The mission's **three objectives** were to
  - demonstrate a **safe and soft landing on the lunar surface**,
  - to demonstrate a **Rover roving on the Moon** and
  - to **conduct in-situ scientific experiments.**
- Notably, Chandrayaan-2 which also attempted to soft-land in this region in 2019, was unsuccessful - its lander and rover were destroyed, though its orbiter survived.

Why did Chandrayaan 3 choose to land on the Lunar south pole?
- Lunar south-pole as a landing site is mainly driven by the fact that the **region hosts water in the form of ice.**
- Water on the moon is of **pure scientific value.** It can be used as a **record of geological activity** on the moon, such as lunar volcanoes, and even act as an asteroid strike tracker.
- While water has been detected across the surface of the moon, the **majority of water ice signals come from the poles.**

Why is the lunar south pole important?
- At the moon's south pole, **sunlight strikes at a different angle, casting long shadows over the lunar craters.** Some of these craters are **permanently shadowed**, with sunlight never reaching the bottom, and could therefore have **ancient pockets of ice hidden for billions of years.**
- Previously, lunar orbiters — including India's previous two Moon orbiters (Chandrayaan-1 and Chandrayaan-2) — have detected **hydroxyl (OH) and water traces** on the Moon.
- Water in long-term space exploration is a **critical resource,** synonymous to striking gold in space. This makes the south pole a **strategic spot,** as lunar water could provide fuel, oxygen and drinking water, making it a

potential site for lunar mining and even future human settlements.

5) NavIC

Indian Regional Navigation Satellite System (IRNSS) - NavIC

- IRNSS is an independent **regional navigation satellite system** developed by the **Indian Space Research Organization (ISRO).**
- In 2016, with the last launch of the constellation's satellite, IRNSS was renamed **Navigation Indian Constellation (NAVIC).**

Why was NavIC developed?

- NavIC was developed partly because **access to foreign government-controlled global navigation satellite systems is not guaranteed** in hostile situations, as happened to the Indian military in 1999 when the United States denied the Indian request for Global Positioning System (GPS) data Kargil region.
- India could have had access to vital information had the US shared its GPS. Therefore, the Indian Government approved the project in 2013.

Range of NavIC

- It is designed to provide accurate position information service to users in India as well as the region extending up to **1500 km from its boundary**, which is its **primary service area.**
- Beyond that lies an **Extended Service Area**, that can extend up to the edges of the area enclosed by the rectangle imagined by latitudes 30 degrees South and 50 degrees North, and longitudes 30 degrees East and 130 degrees East.
- IRNSS will provide **two types of services**, namely, **Standard Positioning Service (SPS)** which is provided to all the users and **Restricted Service (RS)**, which is

an encrypted service provided only to the authorised users.
- The space segment consists of the IRNSS **constellation of eight satellites** (with one being a replacement). Three satellites are located in the **geostationary orbit** and the remaining four are located in **geosynchronous orbits.**
- NavIC is considered to be at par with US-based GPS, Russia's Glonass and Galileo developed by Europe. As far as the accuracy is concerned, the system is designed to provide an **absolute position accuracy of fewer than 10 metres** on the Indian landmass and **less than 20 metres in the Indian Ocean.**

Applications

- Applications of IRNSS include:
  - Terrestrial, Aerial and Marine Navigation
  - Disaster Management
  - Vehicle tracking and fleet management
  - Integration with mobile phones
  - Precise Timing
  - Mapping and Geodetic data capture
  - Terrestrial navigation aid for hikers and travellers
  - Visual and voice navigation for drivers
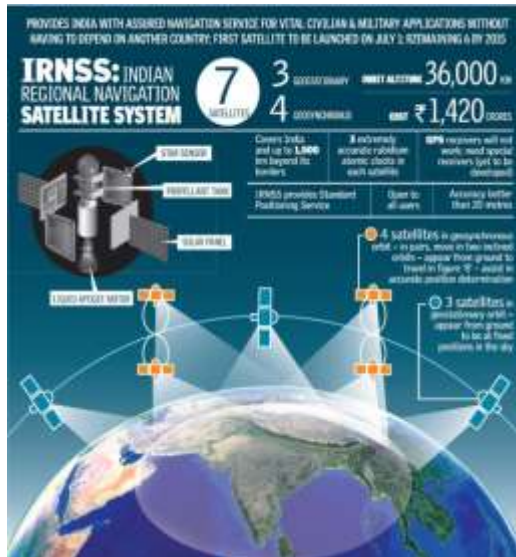
Other Similar Systems

- Four **global Global Navigation Satellite System (GNSS) systems – GPS (US), GLONASS (Russia), Galileo (EU), BeiDou (China).**
- Two regional systems – **QZSS (Japan) and NavIC (India).**

Why in News?

- The Department of Space has announced that NavIC will soon be integrated into Aadhaar enrolment kits. Currently the Aadhaar enrolment kits that are used to collect and verify personal details are linked to GPS.
- The **National Disaster Management Agency (NDMA)** is already utilising NavIC as an alert dissemination system for major natural disasters like landslips, earthquakes, floods, and avalanches.
- The **Indian National Centre for Ocean Information System (INCOIS)** relies on it to broadcast cyclones, high waves, and tsunamis alert messages to fishermen venturing into the deep sea.

6) Lymphatic filariasis
About

- Lymphatic filariasis, commonly known as **elephantiasis**, is a **neglected tropical disease**.

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- It is a **parasitic disease** caused by microscopic, thread-like **worms**. The adult worms only live in the human lymph system. The lymph system maintains the body's fluid balance and fights infections.
- Lymphatic filariasis is **spread from person to person by Culex mosquitoes.**
- People with the disease can suffer from lymphedema and elephantiasis and in men, swelling of the scrotum, called hydrocele.
- Lymphatic filariasis is a leading cause of permanent disability worldwide.
- These patients are not only physically disabled, but suffer mental, social and financial losses contributing to stigma and poverty.
- Lymphatic filariasis can be eliminated by stopping the spread of infection through **preventive chemotherapy** with safe medicine combinations repeated annually.

Why in News?

- The Ministry of Health and Family Welfare launched the second phase of the annual Nationwide Mass Drug Administration initiative for Lymphatic Filariasis.
- It will cover 81 districts in nine endemic States. This includes Assam, Bihar, Chhattisgarh, Jharkhand, Karnataka, Maharashtra, Odisha, Telangana, and Uttar Pradesh.
- India is committed to **eliminate Lymphatic Filariasis by 2027**, three years ahead of the global target through mission mode.

Related Information
What are NTDs?

- Neglected tropical diseases (NTDs) are a **diverse group of communicable diseases** that prevail in **tropical and subtropical conditions** in more than 140 countries.

- NTDs are caused by a **variety of pathogens** including viruses, bacteria, parasites, fungi and toxins.
- They are called "neglected" because they generally afflict the world's poor and historically have not received as much attention as other diseases.
- NTD includes Dengue, Blinding trachoma, Human dog-mediated rabies, Leprosy (Hansen disease), Endemic treponematoses (yaws), Human African trypanosomiasis (sleeping sickness), Leishmaniasis, Lymphatic filariasis, etc.

Control of NTDs

- Most can be controlled or even eliminated through **mass administration of safe and effective medicines or other effective interventions.**
- **Controlling the vectors** (e.g., mosquitoes, black flies) that transmit these diseases and improving basic water, sanitation, and hygiene are highly effective strategies against these NTDs
- The **World Health Organization** has **recommended five interventions** to overcome Neglected Tropical Diseases. These are: preventive chemotherapy; innovative and intensified disease management; vector ecology and management; veterinary public health services; and provision of safe water, sanitation and hygiene.

Reports and Indices

1) National Multidimensional Poverty Index

What's in the news?

- **NITI Aayog** has released its **"National Multidimensional Poverty Index: A Progress Review 2023".**

About the Report

- **NITI Aayog is the nodal agency for the National MPI**, ranking States and UTs based on their performance while the **global MPI Report** is jointly published by the **Oxford Poverty and Human Development Initiative (OPHI)** and the **United Nations Development Programme (UNDP).**
- The report is prepared based on the **latest National Family Health Survey [NFHS-5 (2019-21)]** and is the second edition of the National MPI.
- Like the global MPI, India's national MPI has **three equally weighted dimensions – Health, Education, and Standard of living** – which are represented by **12 indicators.**
  - The health dimension includes indicators such as **nutrition and maternal health.** The education dimension captures **school attendance and years of schooling,** while the standard of living includes broad indicators such as **sanitation, drinking water, housing, and assets.**

Indicators and their weights

- The national MPI is a **vital indicator in measuring the progress towards Sustainable Development Goals,** which include **reducing the proportion of people living in poverty by half in all its dimensions (SDG 1.2).**
- The report provides multidimensional poverty estimates for the 36 States and Union Territories and 707 Administrative Districts.

Highlights of the Report

Highlights: MPI Progress Report 2023

Steep decline in **Poverty Headcount Ratio**

24.85% — 2015-16
14.96% — 2019-21

135 million (13.5 crore) people escaped multidimensional poverty between 2015-16 and 2019-21

India on track to achieve **SDG Target 1.2** (reducing multi-dimensional poverty by at least half) much ahead of 2030

All **12 indicators have shown improvement** suggesting that impact of Government interventions is increasingly visible on ground

Fastest decline in percentage of multidimensional poor in rural areas from

32.59% — 2015-16
19.28% — 2019-21

Reduction in the incidence of poverty in urban areas
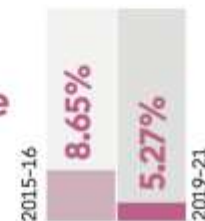
8.65% — 2015-16
5.27% — 2019-21

The **Intensity of poverty,** which measures the average deprivation among the people living in multidimensional poverty improved from about

47.14% — 2015-16
44.39% — 2019-21
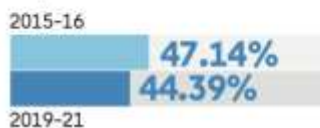
UP, Bihar, MP, Odisha and Rajasthan recorded steepest decline in number of **MPI poor**

Improvement in **nutrition, years of schooling, sanitation, and cooking fuel** played a significant role in reducing the MPI value

- India has registered a **significant decline of 9.89 percentage points** in the number of **multidimensionally poor**, from 24.85% in 2015-16 to **14.96%** in 2019-2021.
- About **13.5 crore people came out of multidimensional poverty** during the period.
- **Rural areas witnessed the fastest decline in poverty** from 32.59% to **19.28%,** primarily due to decrease in the number of multidimensionally poor in States such as Bihar, Uttar Pradesh, Madhya Pradesh, Odisha, and Rajasthan.
- **Delhi, Kerala, Goa and Tamil Nadu** have the least number of people facing multidimensional poverty along with the Union Territories. **Bihar, Jharkhand, Meghalaya, Uttar Pradesh and Madhya Pradesh** top the chart where the percentage of total population who are multidimensionally poor is high.
- **Multidimensional poverty in urban areas**, during the same

period, saw a **decrease** from 8.65% to **5.27%.**

- **Uttar Pradesh** registered the largest decline in the number of poor with 3.43 crore people escaping multidimensional poverty.
- Between 2015-16 and 2019-21, the **MPI value has nearly halved from 0.117 to 0.066** and the **intensity of poverty** (which measures the average deprivation among the people living in multidimensional poverty) **has reduced from 47% to 44%.**

Challenges that still exist

- India still has a **large number of people in absolute terms with multidimensional poverty.**
- There are also **regional differences,** which could lead to **socio-political tensions.**
- While it's encouraging that more people are coming out of multidimensional poverty with the given parameters, it is not enough. For example,

  o The index captures years of schooling, but it is well known that the **quality of education** in the majority of Indian schools is far from the level desired.
  o Another major aspect that has impeded India's development is the **lack of quality jobs for its rising workforce.**

Way Forward

- Along with strengthening the provision of public goods, the policy focus should be on **improving job prospects.**
- States with a higher proportion of **people living in rural areas will have to work more to improve the standard of living.** Bihar, for instance, has seen the sharpest decline but still has about 34 per cent of the population classified as multidimensionally poor. The number for Kerala is 0.55 per cent.

Polity

1) Mines and Mineral Bill 2023

What's in the news?

- The Mines and Minerals (Development and Regulation) Amendment Bill, 2023 was passed by the Parliament recently. The Bill amends the **Mines and Minerals (Development and Regulation) Act, 1957.**
- The Act **regulates the mining sector.** For regulation, the Act **classifies mining-related activities** into: (i) **reconnaissance**, which involves a preliminary survey to determine mineral resources, (ii) **prospecting**, which includes exploring, locating, or proving mineral deposits, and (iii) **mining**, the commercial activity of extraction of minerals.

Highlights of the Mines and Minerals Amendment Bill, 2023

Reconnaissance to include sub-surface activities:

- The 1957 Act defines reconnaissance operations as operations undertaken for preliminary prospecting. The Act **prohibits pitting, trenching, drilling, and sub-surface excavation as part of reconnaissance.**
- The amendment Bill **allows these prohibited activities.**

Exploration licence for specified minerals:

- The amendment Bill introduces an **exploration licence**, which will authorise either reconnaissance or prospecting, or both activities for specified minerals.
- The exploration licence will be issued for **29 minerals specified in the Seventh Schedule.** These include gold, silver, copper, cobalt, nickel, lead, potash, and rock phosphate.

- These also include **six minerals classified as atomic minerals** under the 1957 Act: (i) beryl and beryllium, (ii) lithium, (iii) niobium, (iv) titanium, (v) tantallium, and (vi) zirconium. The Bill **declassifies them as atomic minerals.**
- Unlike other minerals, the prospecting and mining of atomic minerals is **reserved for government entities** under the parent Act, which prevented it from being auctioned to and mined by private companies.
- Upon removal of these minerals from the list of atomic minerals, exploration and mining of these minerals will be **open to the private sector.**

Auction for exploration licence:

- The exploration licence will be granted by the **state government** through **competitive bidding.** The **central government** will prescribe details such as manner of auction, terms and conditions, and bidding parameters for exploration licence through rules.

Validity of exploration licence:

- The exploration licence will be **issued for five years.** A licencee may **request** for **extension of up to two years** by making an application to the state government.

Maximum area in which activities are permitted:

- Under the original Act, a prospecting licence allows activities in an area up to 25 square kilometres, and a single reconnaissance permit allows activities in an area up to 5,000 square kilometres.
- The amendment Bill allows activities under a **single**

exploration licence in an area up to **1,000 square kilometres.**

Submission of geological reports:

- **Within three months** of the completion of operations or expiry of the exploration licence, the licencee must submit a **geological report regarding findings.**

Incentive for exploration licencee:

- If the **resources are proven** after exploration, the state government must conduct an **auction for mining lease within six months** of the submission of the report by the exploration licencee.
- The licencee will receive a **share in the auction value** of the mining lease for the mineral prospected by them. The share will be prescribed by the central government.
- If the state government **does not complete the auction** of mining lease within the specified period, the **state government will pay to the exploration licencee** an amount prescribed by the central government.

Auction of certain minerals by the central government:

- Under the original Act, **auction of concessions** is undertaken by the **state governments, except in certain specified cases.**
- The Bill adds that **auction for composite licence and mining lease for specified critical and strategic minerals** will be conducted by the **central government.** These minerals include lithium, cobalt, nickel, phosphate, potash, tin, phosphate, and potash. However, concessions will still be granted by the state government.

2) Digital Personal Data Protection Bill, 2023

Introduction

- President Droupadi Murmu has granted assent to the Digital Personal Data Protection Bill, 2023 (DPDP Bill) after it was passed by both Houses of Parliament.

Highlights of the Bill

Applicability:

- The Bill applies to the **processing of digital personal data within India** where such data is:
  o collected online, or
  o collected offline and is digitised.
- It will also apply to the **processing of personal data outside India if it is for offering goods or services in India.**
- **Personal data** is defined as **any data about an individual** who is **identifiable** by or in relation to such data.
- **Processing** has been defined as wholly or partially automated operation or set of operations performed on digital personal data. It includes collection, storage, use, and sharing.

Consent:

- **Personal data may be processed only for a lawful purpose** after obtaining the **consent** of the individual.
- A **notice** must be given before seeking consent. The notice should contain details about the personal data to be collected and the purpose of processing.
- Consent may be **withdrawn at any point in time.**
- **Consent will not be required for 'legitimate uses'** including:
  o specified purpose for which data has been provided by an individual voluntarily,
  o provision of benefit or service by the government,

- o medical emergency, and
- o employment.
- For individuals **below 18 years of age**, consent will be provided by the **parent or the legal guardian.**

Rights and duties of data principal:
- An individual whose data is being processed (**data principal**), will have the **right** to:
  - o obtain information about processing,
  - o seek correction and **erasure of personal data,**
  - o nominate another person to exercise rights in the event of death or incapacity, and
  - o grievance redressal.
- Data principals will have certain **duties**.
- They must not:
  - o register a false or frivolous complaint, and
  - o furnish any false particulars or impersonate another person in specified cases.
- Violation of duties will be punishable with a penalty of up to Rs 10,000.

Obligations of data fiduciaries:
- The **data fiduciary** (persons, companies and government entities who process data), must:
  - o make reasonable efforts to ensure the accuracy and completeness of data,
  - o build reasonable security safeguards to prevent a data breach,
  - o inform the Data Protection Board of India and affected persons in the event of a breach, and
  - o **erase personal data** as soon as the purpose has been met and retention is not necessary for legal purposes (**storage limitation**).

- In case of **government entities**, **storage limitation and the right of the data principal to erasure will not apply.**

Transfer of personal data outside India:
- The Bill **allows transfer of personal data outside India, except to countries restricted by the central government** through notification.

Exemptions:
- Rights of the data principal and obligations of data fiduciaries (**except data security**) will not apply in specified cases.
- These include:
  - o prevention and investigation of offences, and
  - o enforcement of legal rights or claims.
- The **central government** may, by notification, **exempt certain activities** from the application of the Bill. These include:
  - o processing by government entities in the interest of the security of the state and public order, and
  - o research, archiving, or statistical purposes.

Data Protection Board of India:
- The central government will establish the Data Protection Board of India.
- Key functions of the Board include:
  - o monitoring compliance and imposing penalties,
  - o directing data fiduciaries to take necessary measures in the event of a data breach, and
  - o hearing grievances made by affected persons.
- Board members will be appointed for **two years** and will be **eligible for re-appointment.**

- The **central government** will prescribe details such as the number of members of the Board and the selection process.
- **Appeals** against the decisions of the Board will lie with **Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT).**
  - TDSAT was established in 2000 as a **statutory body** to adjudicate disputes and dispose of appeals to protect the interests of service providers and consumers of the **telecom sector.**
  - At present, the Tribunal exercises jurisdiction over **Telecom, Broadcasting, IT and Airport tariff matters** under the TRAI Act, 1997, the Information Technology Act, 2008 and the Airport Economic Regulatory Authority of India Act, 2008.
  - The Tribunal consists of a **Chairperson** and **two Members** appointed by the **Central Government**. The Chairperson should be or should have been a **Judge of the Supreme Court or the Chief Justice of a High Court.**

Penalties:

- The schedule to the Bill specifies penalties for various offences such as up to: (i) Rs 200 crore for non-fulfilment of obligations for children, and (ii) Rs 250 crore for failure to take security measures to prevent data breaches.
- Penalties will be imposed by the **Board** after conducting an inquiry.

Key Issues and Analysis

- Exemptions to data processing by the State on grounds such as national security may lead to **data collection, processing, and retention beyond what is necessary.** This **may violate the fundamental right to privacy.**
- The Bill **does not regulate risks of harms arising from processing of personal data.**
- The Bill allows **transfer of personal data outside India**, except to countries notified by the central government. This mechanism **may not ensure adequate evaluation of data protection standards** in the countries where transfer of personal data is allowed.
- The members of the Data Protection Board of India will be appointed for **two years** and will be eligible for re-appointment. The short term with scope for re-appointment may **affect the independent functioning of the Board.**

3) National Capital Territory of Delhi (Amendment) Bill 2023
Context

- President Droupadi Murmu has granted assent to the Government of National Capital Territory of Delhi (Amendment) Bill 2023. The Bill amended the Government of National Capital Territory of Delhi Act 1991.

Highlights of the Bill
NCCSA:

- The bill establishes the **National Capital Civil Services Authority (NCCSA)** which will make **recommendations to the Lt Governor,** who is appointed by the Union government.
- The NCCSA will include the **Chief Minister** who will serve as the **chairperson**, the **Principal Home Secretary** of Delhi, who will serve as the member secretary and the **Chief Secretary**

of Delhi, who will serve as **member**.

- Both the principal home secretary and chief secretary will be **appointed by the central government.**

Powers of NCCSA:

- The NCCSA will make **recommendations** to the Lt Governor on **matters related to transfers and postings, vigilance, disciplinary proceedings and prosecution sanctions of civil servants of Group A of All India Services (except Indian Police Service) and DANICS** (Delhi, Andaman and Nicobar, Lakshadweep, Daman and Diu and Dadra and Nagar Haveli (Civil) Services).
- The decisions of the body will be based on a **majority**, and therefore creates the possibility for the Union government appointed members to overrule the decisions of the chief minister.
- The LG will have the power to **approve** the recommendations of the NCCSA or ask for a **reconsideration**. The **LG's decision will also prevail over the NCCSA if there is a difference of opinion.**

Other Important Provisions

- The bill also empowers the LG to **exercise his "sole discretion" on several matters.** The matters that are at the LG's sole discretion include matters outside the legislative competence of the Delhi Legislative Assembly but which have been delegated to the LG, or matters where he is required by a law to act in his discretion or exercise any judicial or quasi-judicial functions.
- The law also **curtails the elected government's powers to issue orders on important matters** by

giving the final word to the LG on matters relating to those affecting peace and tranquility in Delhi, matters affecting Delhi government's relations with the Central government, or any state government, the Supreme Court of India or the High Court of Delhi and such other authorities, summoning, prorogation and dissolution of the Legislative Assembly, among others.

- The bill also **allows department secretaries to take matters to the LG, chief minister and chief secretary** without consulting the concerned minister.
- The bill states that the power to appoint authorities, boards, commissions, statutory bodies, or office bearers will be with the **President** for any law of Parliament, and with the **LG** for any law of Delhi legislature.

Criticisms

- Conferring powers over the transfer and posting of officers to the Authority may **break the triple chain of accountability** that links the civil services, ministers, the legislature and citizens. This may **violate the principle of parliamentary democracy,** which is a part of the basic structure doctrine.
- The LG has been granted sole discretion in several matters including when the Legislative Assembly will convene. This implies that the **Chief Minister may be unable to convene a session needed for essential government business.**
- Department secretaries will bring certain matters directly to the LG, Chief Minister and the Chief Secretary, without consulting the concerned minister. This may go **against the collective**

responsibility of the Cabinet, as the concerned ministers cannot provide his inputs.

- The Bill replaces an **ordinance** promulgated by the Centre brought in May, **overriding an order by the apex court** which ruled that **only Delhi's elected government has authority over civil servants.**

- The court also ruled that except for issues linked to land, police and public order, the lieutenant governor has **"no independent decision-making powers" under the Constitution.**

4) Mediation Bill, 2021
Context
- The Parliament has passed the Mediation Bill, 2021, which aims to **reduce the burden on courts** by encouraging warring parties to resolve their own disputes with the assistance of **trained mediators and mediations** facilitated by authorised mediation institutions.
  - Nearly 70 thousand cases are pending in the Supreme Court, 60 lakh cases are pending in High Courts and four crore cases are pending in District and Subordinate courts.

Highlights of the Bill
Pre-litigation mediation:
- **Parties must attempt to settle civil or commercial disputes by mediation before approaching any court or certain tribunals.**

Disputes not fit for mediation:
- The Bill contains a list of disputes which are not fit for mediation. These include disputes: (i) relating to claims against minors or persons of unsound mind, (ii) involving criminal prosecution, and (iii) affecting the rights of third

parties. The **central government** may amend this list.

Applicability:
- The Bill will apply to mediations conducted in India:
  - involving only domestic parties,
  - involving at least one foreign party and relating to a commercial dispute (i.e., international mediation), and
  - if the mediation agreement states that mediation will be as per this Bill.
- If the central or state government is a party, the Bill will apply to:
  - commercial disputes, and
  - other disputes as notified.

Mediation process:
- Mediation proceedings will be **confidential**, and **must be completed within 180 days** (may be extended by **180 days** by the parties).
- A party may **withdraw** from mediation **after two sessions.**

Mediators:
- Mediators may be appointed by:
  - the **parties** by agreement, or
  - a **mediation service provider** (an institution administering mediation).
- They must disclose any conflict of interest that may raise doubts on their independence. Parties may then choose to replace the mediator.

Mediation Council of India:
- The **central government** will establish the Mediation Council of India.
- The Council will consist of a **chairperson**, **two full-time members** (with experience in mediation or Alternate Dispute Resolution), **three ex-officio members** (including the Law

Secretary, and the Expenditure Secretary), and a **part-time member** from an industry body.

- Functions of the Council include: (i) **registration** of mediators, and (ii) **recognising** mediation service providers and mediation institutes (which train, educate, and certify mediators).

Mediated settlement agreement:

- Agreements resulting from mediation (other than community mediation) will be **final, binding, and enforceable in the same manner as court judgments.**
- They may be **challenged on grounds of:** (i) fraud, (ii) corruption, (iii) impersonation, or (iv) relating to disputes not fit for mediation.

Community mediation:

- Community mediation may be attempted to **resolve disputes likely to affect the peace and harmony amongst residents of a locality.**
- It will be conducted by a **panel of three mediators** (may include persons of standing in the community, and representatives of resident welfare associations).

Will it enable ease of doing business?

- The bill augurs well for **trade and industry,** as it allows the **settlement of commercial disputes.**
- One of the salient features of the bill is the introduction of a **mediation council,** which will not only **promote mediation** across the country, but will also **train mediators.** This will ensure that mediators are able to handle complex commercial disputes arising out of business dealings.
- According to the bill, the **entire process of mediation should be completed in 180 days** and therefore mediation gives businesses an easier and faster way to resolve their disputes as compared to court litigation, which takes years to complete.

Criticisms

- The Bill makes **participation in pre-litigation mediation mandatory.** The question is whether it is appropriate to mandate parties to attempt pre-litigation mediation. On one hand, this could lead to more out of court settlements and **reduce the pendency in courts.** On the other hand, mandating mediation **goes against its voluntary nature.**
- The **Mediation Council,** established to regulate the profession of mediators, **may not have representation of practising mediators with adequate experience.** This is unlike other professional regulators such as the Bar Council of India.
- The Bill **applies to international mediations only if they are conducted in India.** It does not provide for enforcement of settlement agreements resulting from international mediation conducted outside India.

International Relations

1) Serbia-Kosovo Conflict

What's in the news?

- The **European Union** *(Refer Pulse June 2023 Digest edition)* has summoned the leaders of Serbia and Kosovo for emergency talks to try to bring an end to a series of violent clashes near their border.

What are the roots of the conflict?

- Both **Kosovo and Serbia lie in the Balkans,** a region of Europe made up of countries that were once a part of the erstwhile **Republic of Yugoslavia.**
- Kosovo is a small, **landlocked nation** that has a population of about two million people. It borders **Albania, North Macedonia, Montenegro and Serbia.**

- Kosovo is a **former province of Serbia** but **unilaterally declared Independence** in 2008. It is recognised as a country by about 100 nations including the U.S. and a number of EU-member countries.
- **Serbia**, however, **does not recognise Kosovo's sovereignty** and continues to consider it as a part of itself despite having no administrative control over it.
- While Serbia challenged Kosovo's actions before the **International Court of Justice (ICJ),** the ICJ was of the opinion that Kosovo's declaration was not against international law.

2) India and Northern Sea Route

What is NSR?

- The Northern Sea Route (NSR), or the Northeast Passage (NEP), **connects the eastern and western parts of the Arctic Ocean.**
- While the **Suez Canal route** (depicted in blue in the image below) between Europe and Asia has a distance of **21,000 kilometers,** the NSR (in red) has a distance of **13,000 kilometres,** reducing the to and fro sailing time from one month to less than two weeks between Europe and Asia.
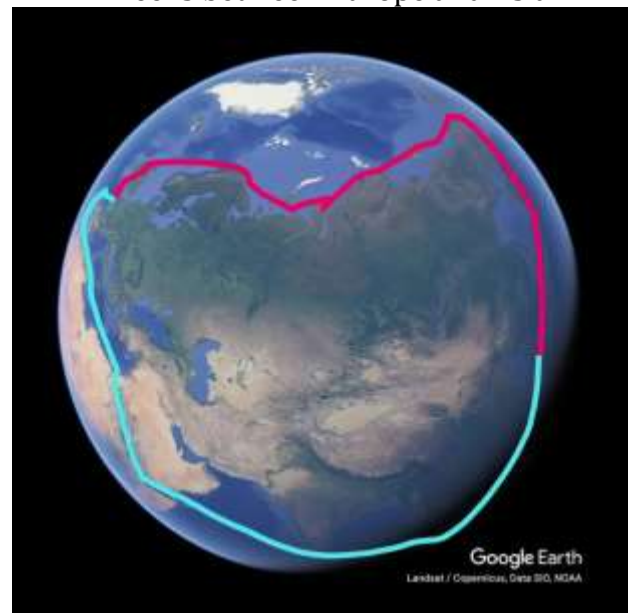
- The **2021 blockage of the Suez Canal,** which forms part of the widely-used maritime route involving Europe and Asia, has led to greater attention on the NSR.

- With most of the NSR abutting its northern landmass, **Russia** has played a major role in its development. It approved a US$29 billion development plan for the NSR in 2022, effective till 2035.
- Heavily dependent on the Suez Canal route for its critical energy and rare minerals imports, **China**, too, has emerged as an active player in the NSR's development.

Why in News?

- **Murmansk**, popularly called the capital of the Arctic region and the beginning point of the Northern Sea Route, is witnessing the rising trend of Indian involvement in cargo traffic.
- India has been showing greater interest regarding the NSR for a variety of reasons.

Why is the Arctic region significant to India?

- The **vulnerability of the Arctic region**, which is above the Arctic Circle and includes the Arctic Ocean with the North Pole at its centre, to unprecedented changes in the climate may have an **impact on India** in terms of **economic security, water security and sustainability.**
- The region also constitutes the **largest unexplored prospective area for hydrocarbons remaining** on the earth. It is estimated that the region may hold **over 40 percent of the current global reserves of oil and gas.**

There may also be significant reserves of **coal, zinc and silver.**

- However, the government's **Arctic Policy of 2022** mentions that the country's approach to economic development of the region is guided by UN Sustainable Development Goals.

How old is India's engagement with the Arctic?

- India's engagement with the Arctic can be traced to the signing of the **Svalbard Treaty** in 1920 in Paris and India is undertaking several scientific studies and research in the Arctic region.
- Apart from setting up a research station, **Himadri**, at Ny-Ålesund, Svalbard, in 2008, the country

launched its **inaugural multi-sensor moored observatory** and **northernmost atmospheric laboratory** in 2014 and 2016 respectively.

- In 2013, India became an **observer-state** of the **Arctic Council** along with five others including China.

Art & Culture

1) Kalbelia Dance

About

- Kalbelia dance is a traditional folk dance and an integral part of the cultural heritage of the **Kalbelia tribe,** a **nomadic community residing in Rajasthan.**
- It is recognized as an **intangible cultural heritage by UNESCO.**
- The Kalbelia dance is characterized by its rhythmic and lively movements, resembling the **serpentine motions** of a **snake**.
- The dance is accompanied by **traditional Kalbelia music**, primarily performed with traditional instruments like the **pungi** (a wind instrument), **dufli** (a tambourine), and **khuralio** (a percussion instrument).
- It reflects the harmony between humans and nature, incorporating elements of **folklore, legends, and rituals.**

Why in news?

- Kalbelia dance was recently showcased in the **National Folk and Tribal Art Festival.**

UNESCO List of Intangible Cultural Heritage of Humanity

- According to UNESCO, cultural heritage does not end at monuments and collections of objects, but also includes **traditions or living expressions** inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.
- UNESCO established its **Lists of Intangible Cultural Heritage** with the aim of ensuring better protection of such important intangible cultural heritages worldwide and the awareness of their significance.
- The list was **established in 2008 when the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage took effect.**

Intangible Cultural Heritage elements from India

- The following 14 traditional-cultural elements of India have been added into this list:
  - Tradition of Vedic chanting
  - Ramlila, the traditional performance of the Ramayana
  - Kutiyattam, Sanskrit theatre
  - Ramman, religious festival and ritual theatre of the Garhwal Himalayas
  - Mudiyettu, ritual theatre and dance drama of Kerala
  - Kalbelia folk songs and dances of Rajasthan
  - Chhau dance of Eastern India
  - Buddhist chanting of Ladakh
  - Sankirtana, ritual singing, drumming and dancing of Manipur
  - Traditional brass and copper craft of utensil making

among the Thatheras of Jandiala Guru, Punjab
- o Yoga
- o Nawrouz
- o Kumbh Mela
- o Durga Puja in Kolkata.

2) Sree Narayana Guru
About Sree Narayana Guru

- **Sree Narayana Guru** was born in 1856 C.E. in Thiruvananthapuram, **Kerala**.
- He became one of the greatest **proponents and re-evaluators of Advaita Vedanta,** the principle of **non-duality** put forward by **Adi Shankara.**
- He is considered among the greatest **social reformers** and **philosophers**.
- He led a **reform movement in Kerala** by **rejecting the caste system** and promoting new **values of spiritual freedom, social equality** and **upliftment of the downtrodden.**
- The Guru worked hard as a social educationist and **condemned discrimination in the name of caste, creed and religion.**
- The Guru also led the **'Vaikom Satyagraha'** protest movement against caste discrimination, untouchability, and inequality.
- The First Social Organization in Kerala - **Sree Narayana Darma Paripalana (SNDP) Yogam** - was formed with the guidance of Guru to **uplift the socially backward classes.**
- His famous words **"one caste, one religion and one god for mankind"** worked as a fresh wave in the socio-cultural realm of Kerala.
- In his renowned work **Atmopadesa Satakam,** which consists of one hundred verses of

self-instruction, the Guru proposes his philosophy of **egalitarianism.**

Why in News?
- The 169th birth anniversary of Sree Narayana Guru was observed recently.

3) ASI's Adopt a Heritage 2.0
About ASI

- The Archaeological Survey of India is the premier organization for the **archaeological research and protection of the cultural heritage** of the nation.
- It is an attached office under the **Ministry of Culture.**
- Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI.
- Besides, it regulates all archaeological activities in the country as per the provisions of the **Ancient Monuments and Archaeological Sites and Remains Act, 1958**. It also regulates the **Antiquities and Art Treasure Act, 1972.**

History
- Archaeological and historical pursuits in India started with the efforts of **Sir William Jones**, who put together a group of antiquarians to form the **Asiatic Society** in **1784 in Calcutta.**
- The Archaeological Survey of India was eventually formed in **1861** by a statute passed into law by **Viceroy Lord Canning** with **Alexander Cunningham** as the first Archaeological Surveyor.

Why in News?
- The Archaeological Survey of India has launched the **'Adopt a Heritage 2.0' programme,** which seeks to **invite corporate stakeholders to enhance amenities at monuments** by

utilising their Corporate Social Responsibility (CSR) funds.
- Under this programme, ASI invites corporate stakeholders who will undertake the responsibility of developing, providing, and maintaining amenities that cover hygiene, accessibility, safety, and knowledge dissemination categories.
- The programme is a revamped version of the earlier scheme launched in 2017.

Related Information
What is CSR?
- Corporate Social Responsibility (CSR) is a business philosophy that dictates that companies around the globe should deviate from the narrow path of chasing only financial gains and wealth buildup and embark on a **journey of sustainable development.**

- It includes community welfare, ethical corporate conduct, climate action, defending the socio-economic rights of marginalised sections of society, among other aspects.

CSR in India
- **India is the first country** in the world to make CSR **mandatory**, following an amendment to The Company Act, 2013 in 2014.
- Any company that has a **net worth of at least Rs 500 crore, a turnover of Rs 1,000 crore or a net profit of Rs 5 crore** is obliged to spend **2% of its average profits** over the last three years on CSR.
- Businesses can invest their profits in areas such as education, poverty, gender equality, and hunger as part of their CSR compliance, as regulated by the law.

Defence

1) Malabar Exercise

About the Exercise

- The Malabar exercise started in 1992 as a bilateral drill between the **Indian Navy and the U.S. Navy** in the Indian Ocean.
- **Japan** became a permanent member of the exercise in 2015.
- Following India's invitation, **Australia** participated in the Malabar exercise in 2020, which effectively made it a drill by all four member nations of the **Quad.**

Why is it significant?

- The four democracies in the Indo-Pacific hope the exercise can act as a **counterweight to Chinese military and political influence** in the region.
- India, which is locked in a military stand-off on the disputed land border with China, hopes the exercise will contain what it sees as Beijing's intrusion into its territory.

Why in News?

- The 27th edition of Exercise MALABAR, concluded on the East Coast of Australia off Sydney recently.
- The exercise saw participation of Ships, Submarines and aircraft from the Indian Navy (IN), Royal Australian Navy (RAN), Japan Maritime Self Defence Force (JMSDF) and the US Navy (USN).