FORTUNE
Prelims Precise

JULY 2023

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History & Culture

Meri Maati Mera Desh Campaign

» The Prime Minister announced the Meri Maati Mera Desh Campaign in order to **honour the martyred bravehearts of the country** in the run up to **Independence day.**

• This campaign culminates in the event of **'Azadi Ka Amrit Mahotsav'** celebration of 75 years of Indian Independence.

Under this campaign, several programs will be organised across the country such as;

☛ **Dedication of Shilaphalakam (Memorial): Shilaphalakam** with the names of **those who have made supreme sacrifice** shall be erected locally at panchayats/villages as well as urban sites.

☛ **Panch Pran Pledge:** At the memorial site, people will take a solemn **pledge covering the Panch Pran of the Prime Minister,** affirming their **commitment to the country.**

☛ **Vasudha Vandhan:** Panchayats/villages/ urban local bodies will **replenish mother earth by planting 75 saplings of indigenous species** and develop the **Amrit Vatika.**

☛ **Veeron Ka Vandan:** Felicitation ceremonies for honouring the **freedom fighters** and the families of deceased freedom fighters.

☛ **Rashtragaan:** Hoisting **national flag** and singing of **Rashtragaan.**

☛ **Amrit Kalash Yatra:** **'Amrit Vatika'** will be built near the **National War Memorial** by fusing the **soil and saplings that would arrive in 7500 urns** from every corner of the country.

Ker Puja

» On the occasion of Ker Puja, the Prime Minister wished for joy, harmony, health and prosperity for the citizens of Tripura.

• **Ker Puja** is a **centuries old tribal custom in Tripura** and is celebrated **two weeks after Kharachi Puja** (observed on the 8th day of the new moon in July or August every year).

• The literal meaning of **Ker** is **boundary or specified area** from where **no one is allowed to enter or come out for two and a half days during the celebration.**

• During the festival which is **sponsored by the State government, entrances to Agartala are closed to create a protected area**, and people are not allowed to light fires, dance, sing or even wear shoes.

Namda Craft

» The **Union Minister of State for Skill Development and Entrepreneurship** flagged off the first batch of Namda Art products for export to the United Kingdom (UK).

• **Namda craft** is a **traditional Kashmiri craft of creating felted carpets using sheep wool and hand embroidery.**

• It originated in the **16th century** and was introduced by a **Sufi saint** named **Shah-e-Hamdan.**

• Due to **low availability of raw material, lack of skilled manpower and marketing techniques**, the **export** of the craft has **declined almost 100% between 1998 and 2008.**

• The Namda craft is being successfully revived under the **Skill India project under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY).**

Tankai Method

» The **Ministry of Culture** and the **Indian Navy** have signed a Memorandum of Understanding (MoU) to revive the Tankai Method (stitched ship building method).

- Tankai Method is a **2000-year-old** technique of shipbuilding, where ships are constructed by **stitching wooden planks together rather than using nails.**

- It offers **flexibility and durability**, making them **less susceptible** to damage from shoals and sandbars.

- The **arrival of European ships had led to a shift in shipbuilding techniques**, but the art of stitching ships has survived in a few coastal regions of India, as it was used for small local fishing boats.

- The stitched ship project was launched under the MoU to **leverage the expertise of the remaining traditional shipwrights in India** and showcase their exceptional craftsmanship.

Lambani Art

» At the **third G20 culture working group (CWG) meeting in Hampi,** a Guinness world record was created for the **'largest display of Lambani items'** with a total of 1755 items.

- Lambani embroidery is a vibrant and intricate form of **textile decoration** practised in several villages of **Karnataka.**

- It is characterised by **colourful threads, mirror work,** and a rich arrangement of **stitch patterns.**

- It is upheld by the skilled women of the **Lambani community.**

- Lambani craft tradition involves **skillfully stitching together small pieces of discarded fabric** to create **a beautiful fabric.**

Lambani Community

✸ Lambanis, also called **Lambadis or Banjaras** were nomadic tribes who came from **Afghanistan to Rajasthan** and have now spread themselves across **Karnataka, Andhra Pradesh, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra.**

Hul Diwas

» Jharkhand celebrates **June 30 as 'Hul Diwas'**, commemorating the sacrifice of Adivasis in their fight against British colonial authorities.

- The beginning of the **Santhal rebellion is commemorated annually** by declaring **June 30 as "Hul Diwas".**

- The literal meaning of **'Hul' – is revolution** which began in **1855** was led by two brothers **Sidhu and Kanhu.**

- It was an organised war against colonialism led **by the Santals**, standing against the oppression by the British and their collaborators such as Zamindars, the police.

- The British **relocated the Santhals to the forested area of Damin-i-Koh**, dislodging the indigenous Pahariya community, as part of their revenue collection strategy.

- However, **the Santhals faced severe colonial oppression**, including exploitative moneylenders and the police leading to the rebellion.

Bal Gangadhar Tilak
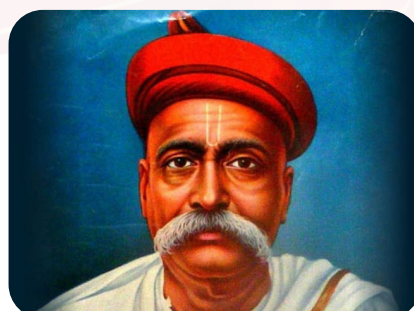
» Prime Minister Narendra Modi paid his tributes to Bal Gangadhar Tilak on his birth anniversary.

- **Birth:** July 23, 1856.

- **Birthplace:** Ratnagiri (now in Maharashtra state), India.

- **Death:** August 1, 1920, in Mumbai.

- He was a scholar, mathematician, philosopher, and ardent nationalist who defied British.

- He was also known as **Lokmanya Tilak.**

- He famously declared **"Swaraj is my birthright, and I shall have it"**.

- The British Government termed him the **"Father of Indian Unrest".**

Important Institutions Started by Tilak:-

- ✩ **Deccan Education Society (1884):** He was the founder of the Deccan Education Society along with his associate **Gopal Ganesh Agarkar** .

- ✩ **Fergusson College (1885):** He was one of the founders of the Fergusson College in Pune.

- **Kesari (Marathi)** and **Mahratta (English)** were newspapers started by him.

Mihir Bhoj

» There is a row in Haryana over the unveiling of a statue related to Mihir Bhoj. The **Gurjar community** in Haryana's Kaithal had planned to unveil a statue of Mihir Bhoj, calling him a **GurjarPratihar Samrat (king)**.The Rajput community members objected to this.

- **Mihir Bhoj (c. 836-885 CE)** was a successful and ambitious ruler of the ninth century belonging to **Gurjara - Prathiharas.**

- Gurjara-Pratiharas in the 9th century, ruled over a vast empire, from **Kashmir to Gujarat.**

- Mihir Bhoj was successful in **conquering areas of Deccan and Malwa** too.

- In the tripartite struggle between Gurjara-Pratiharas, Palas and Rashtrakutas for Kannauj **Mihir Bhoj was, by and large, the most successful.**

Dharma Chakra Day

» Recently, at the **Dharma Chakra Day (July 3rd)** the President highlighted the importance of Buddha's teachings.

- **Dharma Chakra Day** is celebrated to **commemorate Buddha's first teaching** after attaining enlightenment.

- It is observed **on the full moon day of Asadha** in the Indian sun calendar.

- It is also observed as **Guru Purnima**, a day to **honour spiritual teachers, by both Buddhists and Hindus**.

- Dharma Chakra Day is organized by the **Ministry of Culture** in partnership with the **International Buddhist Federation (IBF).**

The dharma chakra or **wheel of dharma** is a symbol used in Indian religions such as **Hinduism, Jainism, and Buddhism**.

In Buddhism it is used to represent the **Buddha's Dharma or Buddha's teaching and order**.

Alluri Sitarama Raju

» Recently, the President of India attended the closing ceremony of the **125th Birth Anniversary** of Alluri Sitarama Raju.

- He was an Indian revolutionary who fought against the **British colonial rule in India.**

- He led a **guerrilla campaign in the Eastern Ghats region** against the British rule (**Madras Forest Act of 1882**) as they restricted the free movement of **Adivasis**

in their forest habitats and prevented them from practising **Podu** (shifting cultivation).

- He led the **Rampa Rebellion/Manyam Rebellion of 1922.**

- In 1924, Raju was publicly executed, marking an end to the Rampa Rebellion.

- He was called "**Manyam Veerudu**" (Hero of the Jungle) by local villagers for his heroic exploits.

Bharat Mandapam

» Recently, **Prime Minister Narendra Modi** inaugurated the **Bharat Mandapam** at Pragati Maidan in New Delhi.

- The Bharat Mandapam is the **International Exhibition-cum-Convention Centre (IECC)** complex which will showcase and promote India as a **global business destination.**

- The IECC complex is India's largest **MICE (Meetings, Incentives, Conferences and Exhibitions) destination.**

- The term 'Bharat Mandapam' is derived from **Lord Basaveshwara's idea of Anubhav Mandapam,** which was a pavilion for public ceremonies.

Architecture of Bharat Mandapam

- The shape of the building is derived from the **Shankha (conch shell)**

- The different walls and facades of the centre depict several elements of **India's traditional art and culture** including;

- **Surya Shakti:** Highlights India's efforts in harnessing solar energy

- **Zero to ISRO:** Celebrating India's achievements in space.

- **Pancha Mahabhuta:** Signifies the building blocks of universal foundation- Aakash (sky), Vayu (Air), Jal (Water) and Prithvi (Earth).

Polity & Governance

Panchayat Development Index (PDI)

» Report on the Panchayat Development Index was released by the **Union Minister of State for Panchayati Raj** at the **National Workshop on Panchayat Development Index.**

- PDI will play a pivotal role in the process of **quantified evaluation** and mechanism for **computation of the composite score** on **9 themes of Localisation of Sustainable Development Goals (LSDGs)** such as poverty free and enhanced livelihood village, water sufficient village and socially secured panchayat among others.

- Primary objective is to **promote competitive spirit among the Panchayats** and catalyse the **process of LSDGs through Panchayati Raj Institutions** for **attaining LSDGs by 2030.**

- The **Ministry of Panchayati Raj** has been incentivizing best performing Panchayats through **National Panchayat Awards.**

Ladakh Autonomous Hill Development Councils (LAHDC)

» The **National Conference (NC)** and Congress announced a pre-poll alliance for the coming **Ladakh Autonomous Hill Development Council, Kargil** elections.

- LAHDC is an **autonomous district council** created under the **Ladakh Autonomous Hill Development Council Act of 1995.**

- **The council for Leh district (LAHDC Leh)** was formed in **1995** and for **Kargil district (LAHDC Kargil)** was formed in **2003**.

- The creation of the Autonomous Hill Development Councils represented an important step towards **recognising the unique identity and aspiration of the people of the region.**

- The council has **30 members of which 26 are directly elected and 4 are appointed** to represent **women and minority communities.**

- It is led by a **Chief Executive Councillor who leads an executive committee of 5 members.**
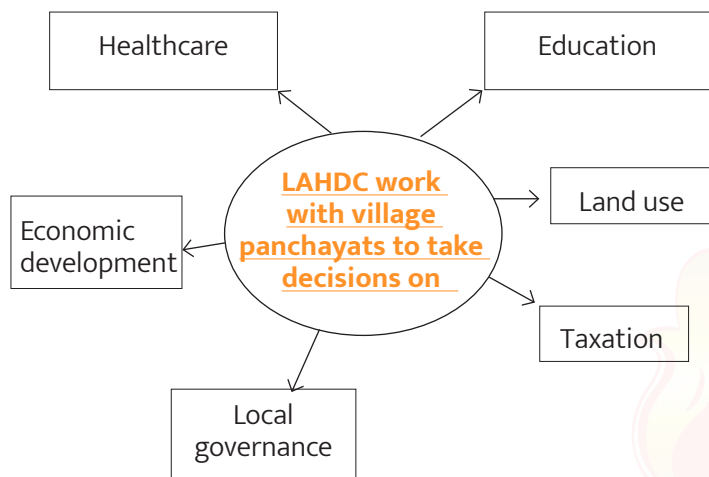
- These decisions are **reviewed at the block headquarters in the presence of Chief Executive Councillor.**

Uniform Civil Code (UCC)

» The **22nd Law Commission of India (LCI)** sought suggestions from various stakeholders on a **Uniform Civil Code (UCC).**

- The **UCC** is a **proposition to replace the personal** laws which are based on the scriptures and customs of different religious communities in India with a **common set of laws governing every citizen.**

- It is mentioned in **Article 44** of the Indian constitution, which is part of the **Directive Principles of State Policy.**

- The only state in India that has a form of uniform Civil Code is **Goa**, which retained its common family law known as the **Goa Civil Code** after it was liberated from **Portuguese rule.**

- However, **Catholics** in Goa have certain privileges regarding marriage registration, solemnization and dissolution. **Hindus** are allowed a certain type of polygamy. There are **gender and religious inconsistencies** in divorce too. The Goa civil code also invokes **God** and the former King of Portugal while the Indian constitution is secular.

Enforcement Directorate (ED)

» Recently, the Supreme Court said that the third **extension to Sanjay Kumar Mishra's tenure** as the Enforcement Directorate (ED) chief was illegal and in violation of its judgment in 2021.

- It is a **multi-disciplinary organization** mandated with investigation of offences of **money laundering** and violations of **foreign exchange laws.**

- It was established in 1956 as '**Enforcement Unit**' and in 1957, the unit was renamed to ED.

- Headquarters: **New Delhi**

- It is under the administrative control of the **Department of Revenue, Ministry of Finance.**

- ED Director is appointed by the **central government** on the recommendation of a committee, chaired by the **Central Vigilance Commissioner** and members includes **Vigilance Commissioners, Home Secretary, Secretary DOPT and Revenue Secretary.**

Association of World Election Bodies (A-WEB)

» Recently, the **Chief Election Commissioner of India** attended the **11th meeting** of the executive board of the Association of World Election Bodies (A-WEB) at Cartagena, Columbia.

• Association of World Election Bodies (A-WEB) founded in **2013**, is the world's **largest international organisation in the field of election management.**

• It consists of **121 Election Management Bodies** (EMBs) from **111 countries.**

• It aims **foster efficiency and effectiveness** in conducting free, fair, transparent and **participative elections worldwide**.

• It is composed of the **General Assembly, the Executive Board, the Oversight & Audit**

• **Committee** and the **Secretariat in Seoul (Republic of Korea).**

Pradhan Mantri Shram Yogi Maan Dhaan (PM-SYM)

» The government's pension scheme for unorganised workers :**Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM)** saw the exit of about 21% subscribers in less than six months, raising questions on the viability of the scheme.

• PM-SYM is a **voluntary and contributory pension scheme** for ensuring old age protection for Unorganised Workers.

• It is a **central sector scheme** administered by the **Ministry of Labour and Employment** and implemented through **Life Insurance Corporation of India** and **CSC eGovernance Services India Limited (CSC SPV).**

• Each subscriber under the PM-SYM, shall **receive minimum assured pension** of **Rs 3000/- per month after** attaining the **age of 60 years.**

• The subscriber's **contributions to PM-SYM** shall be **made through 'auto-debit' facility** from his/ her savings bank account/ Jan- Dhan account.

• The subscriber is required to contribute the prescribed **contribution amount from the age of joining PM-SYM till the age of 60 years.**

Pronab Sen Committee

» The Government of India recently appointed a panel under the **chairmanship of Pronab Sen, former Chief Statistician of India**, to **review** the **methodology of the National Statistical Organisation (NSO).**

• The **Ministry of Statistics and Programme Implementation (MoSPI)** has formed a new **Standing Committee on Statistics(SCoS)** to advise on official data generated by NSO.

• This panel will **replace the Standing Committee on Economic Statistics (SCES)** that was **formed in 2019 to advise on economic data.**

• The new panel will **help finalise survey results**, the **National Statistical Commission (NSC) will have the ultimate authority to approve the publication** of those results.

Scheme for Expansion and Modernization of Fire Services in the States

» The **Ministry of Home Affairs** has introduced the **"Scheme for Expansion and Modernization of Fire Services in the States"** with a significant allocation of **Rs. 5,000 Crore.**

• The **primary goal** of the scheme is to **expand and modernise fire services** in the States by **enhancing preparedness and capacity-building components** of the National Disaster Response Fund **(NDRF).**

• For project proposals under the scheme, State Governments need to **contribute 25%** of the total cost, except for the North-Eastern and Himalayan (NEH) States, which will contribute **10%** from their budgetary resources.

• In addition, an amount of **Rs. 500 crore,** out of the total outlay, is available to incentivize the States for adoption of **legal and infrastructure-based reforms.**

• Fire Service is a **State subject** and has been included as a **Municipal function in the XII Schedule** of the Constitution of India under **Article 243 (W).** The Central Government does not maintain any data related to fire accidents/ incidents in States centrally.

Protection of Plant Varieties and Farmers' Rights Authority

» The Delhi High Court recently upheld an order by the Protection of Plant Varieties and Farmers' Rights Authority (PPVFRA), revoking the intellectual property protection granted to PepsiCo India Holdings Pvt. Ltd with respect to a **potato variety (FL-2027)** developed by it.

• PPVFRA is a **statutory body** under the provisions of The **Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001**. It was established in 2005.

• It works under the **Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare**.

The functions of the authority include:

♣ Registration of new plant varieties, **essentially derived varieties (EDV)**, extant varieties;

♣ **Developing DUS** (Distinctiveness, Uniformity and Stability) test guidelines for new plant species;

♣ Developing characterization and documentation of varieties registered;

♣ **Compulsory cataloguing** facilities for all variety of plants;

♣ Documentation, indexing and cataloguing of **farmers' varieties**;

♣ Recognizing and **rewarding farmers**, community of farmers, particularly tribal and rural community engaged in c**onservation and improvement**;

♣ **Preservation of plant genetic resources** of economic plants and their wild relatives;

♣ **Maintenance of the National Register** of **Plant Varieties** and **Maintenance of National Gene Bank**.

Right to Silence

» Recently, the Supreme Court (SC) mentioned that, all accused have 'Right to silence' and **investigators cannot force them to speak up or admit guilt.** SC emphasised that the Constitution accords every person a **right against self-incrimination.**

• The **right to silence** means that if someone is accused of a crime, they have the right to remain silent and not answer questions or provide information **that could be used against them in a court of law.**

• It is based on the **fundamental principle** that no person can be compelled to be a witness against themselves.

• **Article 20:** It grants protection against arbitrary and excessive punishment to an accused person, whether citizen or foreigner or legal person like a company or a corporation. It contains three provisions in that direction:

♦ No ex-post-facto law, No double jeopardy, No self-incrimination.

♦ No self-incrimination: No person accused of any offense shall be compelled to be a witness against himself.

• **Article 20(3):** It states that "no person accused of any offence shall be compelled to be a witness against himself."

♦ The protection of this clause is limited **only to criminal proceedings.**

♦ It **does not apply to a witness** as the witness is not being accused of a crime.

♦ Protection under Article 20(3) is **not available to a perso**n who is being interrogated under the **Customs Act, 1962, or Foreign Exchange Management Act, 1999,** since the person is **not "accused of an offence."**

Various Supreme Court Rulings related to Right to Silence:

☞ **The State of Bombay versus Kathi Kalu Oghad (1961):** The Supreme Court ruled that obtaining **photographs, fingerprints, signatures, and thumb impressions would not violate the right against self-incrimination** of an accused.

☞ **Selvi v State of Karnataka (2010):** The Supreme Court held that a **narco analysis test without the consent of the accused would amount to violation of the right against self-incrimination.**

☞ **Ritesh Sinha versus State of Uttar Pradesh (2019):** The Supreme Court in its ruling broadened the **parameters of handwriting samples to include voice samples**, adding that this **would not violate the right against self-incrimination.**

National e-Governance Service Delivery Assessment (NeSDA) portal

» Recently, the **Department of Administrative Reforms and Public Grievances** launched the third edition of the NeSDA portal.

• NeSDA framework, launched in August 2018 with an objective to measure the depth and effectiveness of existing **e-Governance service delivery mechanisms**.

• This framework is based on the **Online Service Index (OSI) of the UN eGovernment Survey**.

• The framework covers six sectors, **Finance, Labour & Employment, Education, Local Government & Utilities, Social Welfare (including Agriculture & Health) and Environment (including Fire) sectors.**

• The department undertakes NeSDA study **biennially** and it assesses States, Union Territories (UTs).

• NeSDA helps governments to improve their delivery of **citizen centric services and shares best practices** across the country.

Advance Authorisation Scheme

» Recently, the **Directorate General of Foreign Trade (DGFT)** implemented the Advance Authorisation Scheme under the Foreign Trade Policy.

• Under this scheme, exporters can import raw materials, components, intermediates and consumables **without paying any customs duty, integrated tax or compensation cess**, subject to the condition that they export the finished goods within a specified period.

• Its primary objective is to **promote exports and reduce the cost of production** for exporters.

• It is based on **input-output norms** that specify the quantity and quality of inputs required for a given quantity and quality of output. The input-output norms are fixed by **Sector-specific Norms Committees**, which are expert bodies constituted by the DGFT.

• The Advance Authorization is **valid for 12 months** from the date of issue of such Authorization.

Economy

BHARAT Campaign

» Recently, **the Ministry of Agriculture & Farmers Welfare** launched a new campaign for banks under the **Agriculture Infrastructure Fund** titled **BHARAT (Banks Heralding Accelerated Rural & Agriculture Transformation).**

• BHARAT (Banks Heralding Accelerated Rural & Agriculture Transformation) campaign is a **one month-long Campaign** with a target of Rs 7200 crore.

• It aims to **get active involvement and support of members of commercial Banks** in the public and private sector, Regional Rural Banks, Small Finance Banks, NBFCs and select cooperative Banks in promoting the **Scheme of Agriculture Infrastructure Fund.**

A World of Debt Report

» The United Nations Secretary-General presented the report **"A world of debt, a growing burden to global prosperity".**

• Released by the **United Nations Conference on Trade and Development (UNCTAD),** the report aims to **provide a comprehensive platform to understand the issues of public debt in developing countries.**

Key findings

↪ Some **3.3 billion people**-almost half of humanity-**lives in countries that spend more on debt interest payments** than on education or health.

↪ In **2022**, **global public debt reached a record $92 trillion** with developing countries shouldering a disproportionate amount.

↪ India is shouldering a **debt burden of $2.8 trillion**.

↪ **Developing countries rely more on private creditors now,** making credit more expensive and debt restructuring more complex.

Global Minimum Tax

» The **US, India and about 140 other nations** are close to reaching an agreement on the overhauling of global tax norms to ensure that multinationals pay taxes wherever they operate.

• Global Minimum Tax is a global agreement announced by the **Organization of Economic Cooperation and Development (OECD)**.

• Its primary objective is to assure that big companies pay a **minimum tax rate of 15%**.

• It also aims to minimise the chances of **avoiding taxation**.

• It attempts to limit tax competition by introducing a globally uniform tax rate.

• It will cover firms with global sales above **20 billion Euros ($23 billion) and profit margins above 10%**.

Urea Gold

» Prime Minister recently launched "Urea Gold", a new variety of Urea, during an event in Rajasthan's Sikar.

• Urea Gold is a new variety of **Urea coated with Sulphur**.

• It is being introduced to address the **Sulphur deficiency** in soil and save input costs for the farmers.

• Urea Gold **surpasses the existing Neem-coated urea** in terms of both **economic viability and efficiency.**

• Sulphur-coated urea facilitates a **gradual release of nitrogen**, thereby enhancing its availability and uptake by crops.

• The inclusion of humic acid in Urea Gold further extends its lifespan as a fertiliser**.**

• Studies show that **15kg of urea gold** provides **comparable benefits to that of 20 kg of conventional urea.**

Gig Economy

» The **Standing Committee on Labour, Textiles, and Skill Development** has asked the **Ministry of Labour and Employment** to formulate and implement welfare schemes for Gig workers in the country.

• Gig economy is a **free market system** in which **companies hire or contract workers for a short period.**

• A **gig worker** is a person who performs **work or participates in work arrangements** and earns from such activities, **outside of the traditional employer-employee relationship.**

Major Steps Taken by Government of India for Gig Workers

☞ The **Code on Social Security, 2020** which envisages framing of suitable social security schemes for gig workers and platform workers.

☞ The **e-Shram portal** launched in 2021 for registration and creation of a **Comprehensive National Database of Unorganized Workers including gig workers and platform workers.**

Pradhan Mantri Gram Sadak Yojana (PMGSY)

» **The Standing Committee on Rural Development and Panchayati Raj** reported on the poor quality of construction of roads under the **Pradhan mantri Gram Sadak Yojana.**

• The PMGSY was launched in **2000**, with an objective to **provide all-weather road connectivity** to eligible **unconnected habitations** throughout the nation.

• The **Phase II (PMGSY-II)** and **Phase III (PMGSY-III)** was launched in **2013** and **2019** respectively and in **2016, Road Connectivity Project for Left Wing Extremism Affected Areas (RCPLWEA)** was launched as a **separate vehicle under the PMGSY.**

• **Eligibility: Unconnected habitations** with a population of up to 500(Census 2001) in **plain area** and 250 and above in **Special category States**, **Desert Areas** and **88 selected Backward Districts**.

Special Category States: **States of North East, Jammu, and Kashmir, Himachal Pradesh, Uttarakhand**.

National Dairy Development Board (NDDB)

» The **International Symposium on Sustainable Livestock Transformation** under the **Agriculture Working Group (AWG) of G20** was held on the **National Dairy Development Board (NDDB)** campus in Anand.

• The NDDB was founded in **1965** to replace exploitation with empowerment, tradition with modernity, stagnation with growth and **transforming dairying into an instrument for rural development.**

• It was **initially registered as a society** under Societies Act 1860 and later **merged with the erstwhile Indian Dairy Corporation** and declared an **institution of national importance by the NDDB Act of 1987.**

• The mission of **making dairying a vehicle to a better future for milk producers** was achieved with thrust and direction with the launching of **Operation Flood** in **1970.**

Goods and Services Tax (GST)

» The GST council recently imposed a **GST of 28% on online gaming, horse racing and casinos.**

• It covers both the **Games of Skill** (outcome depends on the player's expertise, practice and experience) and **Game of Chance** (outcome is decided by randomised events).

• GST is a **comprehensive** (subsumed almost all the indirect taxes except a few state taxes.), **multistage** (imposed at every step in the production process), **destination-based** (collected from point of consumption and not point of origin) **tax.**

• To introduce the GST, the **101st Amendment Act was passed in 2016. As per the Act, the Central Government has enacted Central GST (CGST) Act** and every **State Government has enacted State GST (SGST) Act** in their respective States.

• **GST Council** is a **constitutional body** constituted by the **President** as per the **Article 279A(1)** of the Constitution and is responsible for **providing recommendations to both the Union and State governments in matters of GST.**

Agriculture Infrastructure Fund

» Agriculture Infrastructure Fund is a Central Sector Scheme launched in 2020 to provide a **medium - long term debt financing facility** for investment for post-harvest management Infrastructure and community farming assets.

• The duration of the Scheme shall be **from FY2020 to FY2032 (10 years).**

• All loans under this financing facility will have **interest subvention of 3% per annum** up to **a limit of Rs. 2 crores.**

• This **subvention will be available** for a maximum **period of seven years.**

Financial Stability Board (FSB)

» The Financial Stability Board (FSB) has come out with a 9-point recommendation for regulating crypto assets as asked by the G20 countries.

• The Financial Stability Board is **an international body** that monitors and makes recommendations about the global financial system.

• It was established after **the G20 London summit** in April 2009 as a **successor to the Financial Stability Forum** with a broadened mandate to promote financial stability.

• It is headquartered in **Basel, Switzerland and includes all G20 major economies**.

Global Regulatory Framework for Crypto-asset Activities

☞ The FSB was asked by G20 to suggest a regulatory framework.

☞ It is based on the principle of 'same activity, same risk, same regulation' and provides a strong basis for ensuring that crypto-asset activities and stablecoins are subject to consistent and comprehensive regulation.

☞ The recommendations emphasised ensuring adequate safeguarding of client assets, addressing risks associated with conflicts of interest, and strengthening cross-border cooperation.

Bhoomi Samman Award

» Recently, the **President of India** presented the **"Bhoomi Samman" 2023** at a function organised by the Union Ministry of Rural Development in New Delhi.

• The "Bhoomi Samman" is a **prestigious award scheme** launched by the **Union Ministry of Rural Development to recognize and incentivize** the achievements of states and districts in the implementation of the **Digital India Land Records Modernization Programme (DILRMP).**

• It is **presented by the President of India** to the **state secretaries and district collectors** along with their teams.

• The **Digital India Land Records Modernization Programme (DILRMP)** is a major initiative by the **Government of India to modernize and digitize the land records** in the country.

• It is a **central sector scheme** and receives **100% funding from the center.**

Resource Efficiency Circular Economy Industry Coalition (RECEIC)

» Recently, the Union **Minister of Environment Forest and Climate Change** launched the RECEIC.

• It was launched on the sidelines of the **4th G20 Environment and Climate Sustainability Working Group (ECSWG)** and Environment and Climate Ministers meeting in Chennai.

The objectives of RECEIC includes –

1. To facilitate and foster greater company-to-company collaboration,

2. To build advanced capabilities across sectors and value chains,

3. To bring learnings from diverse and global experiences of the coalition members,

4. To unlock on-ground private sector action to enhance resource efficiency

5. To accelerate the circular economy transition.

• The coalition is structured around the three guiding pillars of **partnerships for impact, technology cooperation and finance for scale.**

Windfall Tax

» Recently, the union government reimposed a windfall tax on **domestic petroleum crude.**

• It refers to the tax levied by the government on certain industries when they experience an **unexpected rise in profits** due to certain external conditions.

• These **external economic conditions** arise from sudden geopolitical disruptions like war, natural disasters leading to unusual spikes in demand or supply interruptions.

Corporate Debt Market Development Fund (CDMDF)

» Recently, the **Union Finance Minister** launched the Corporate Debt Market Development Fund.

• It is a new initiative by the union government to **boost liquidity and confidence** in the corporate bond market.

• CDMDF, an **alternative investment fund**, is a backstop facility for **investment-grade corporate debt securities.**

  (A **backstop** is a financial arrangement that creates a secondary source of funds in case the primary source is not enough to meet current needs**).**

• The fund has **Rs 33,000-crore backstop facility for Mutual Funds**, Rs 30,000 crore will come from the government, Rs 3,000 crore will be contributed by the Asset Management Companies.

• Contributions to the fund can be done by the **specified debt-oriented mutual fund** schemes and **asset management companies of mutual funds**.

• This fund is guaranteed by the **National Credit Guarantee Trust Company (NCGTC)** and the backstop facility will be managed by **SBI Mutual Fund.**

• CDMDF is launched as a **close-ended scheme** with an initial tenure of **15 years.**

• The **Securities and Exchange Board of India (SEBI)** has also released a framework outlining the guidelines and regulations for its operation.

National Multidimensional Poverty Index

Indicators and their weights

- Health (1/3)
  - Nutrition — 1/6
  - Child & Adolescent Mortality — 1/12
  - Maternal Health — 1/12
- Education (1/3)
  - Years of Schooling — 1/6
  - School Attendance — 1/6
- Standard of Living (1/3)
  - Cooking Fuel — 1/21
  - Sanitation — 1/21
  - Drinking Water — 1/21
  - Housing — 1/21
  - Electricity — 1/21
  - Assets — 1/21
  - Bank Account — 1/21
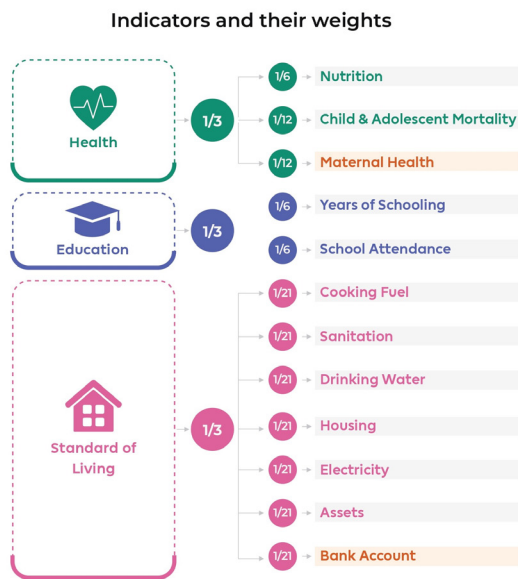
» The NITI Aayog released the **'National Multidimensional Poverty Index: A Progress Review 2023'.**

• With its **first edition released in 2021**, the project is aimed at **deconstructing the Global MPI** and **creating a globally aligned and yet customised India based MPI.**

• It seeks to draw up comprehensive **Reform Action Plans** with the larger goal of improving **India's position in the Global MPI rankings.**

• **NITI Aayog is the nodal agency** for the National MPI, ranking States and UTs based on their performance.

Key highlights:

⌕ India has registered **a decline in the number of multidimensionally poo**r from **24.85% in 2015-16 to 14.96% in 2019-2021.**

⌕ In absolute terms, **~13.5 crore Indians escaped poverty** during the five-year time period.

⌕ **One in seven Indians is multidimensionally poor.**

Local Currency Settlement (LCS) system

» **India and UAE** recently signed a historic Memorandum of Understanding on **Local Currency Settlement (LCS) system.**

• The agreement was signed between the **Reserve Bank of India and the Central Bank of the UAE.**

• The LCS system between India and UAE allows for the use of the **Indian Rupee** and **UAE Dirham in bilateral trade.** It is **India's first-ever LCS arrangement.**

• It will enable the **use of surplus balances** in local currencies for investment in various local currency assets, such as corporate bonds, government securities, and equity markets, creating **new avenues for growth and collaboration**, thereby potentially **increasing investments and remittances.**

eSARAS Mobile App

» The **Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM)** has launched the **eSARAS mobile app**.

• It is an **e-commerce mobile app** which could be used for **effective marketing** of the products made by women in self-help groups (SHGs).

• The app aims to provide a **platform for the marketing of authentic handicrafts** and handlooms. The initiative aims to **promote local products**(spirit of Vocal for Local **) and enhance livelihood** opportunities for SHG members.

International Relations

Maputo Protocol

» As per recent reports, the Maputo Protocol contributed towards Africa's progress in gender equality.

• The Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, better known as the **Maputo Protocol, is an international human rights instrument** established by the African Union.

• The Protocol requires the African States **to eliminate all forms of discrimination and violence against women in Africa and to promote equality between men and women**.

• It was adopted by the **African Union in Maputo, Mozambique, in 2003** and came into **effect in 2005**.

• Of the **55 member states, 44 have ratified** or acceded to the Protocol.

World Cities Cultural Forum

» Recently, **Bengaluru** has become the **first Indian city to become part of the World Cities Culture Forum (WCCF)**.

• It is a **global network of cities** that share **research and intelligence, and explore the role of culture in future prosperity.**

• The network currently has **40 cities spanning six continents**.

• **Prioritizing culture in urban planning**, the Forum fosters **cultural exchange, creating equitable, prosperous, and sustainable communities**.

• **World cities culture summit** hosted on a **rotating basis** by city partners, an unprecedented gathering of city leaders sharing ideas and knowledge about culture's role in public policy in a world city context.

International Maritime Organisation (IMO)

» India has presented its candidature under **Category B** to the **IMO Council** Elections for the **biennium 2024-25** at its Assembly in **London.**

• IMO Council has **40 countries in 3 Categories**. **Category A** is made up of **10 countries** with the greatest interest in providing **international shipping services**.

• **Category B** of IMO includes **10 Member States** with the **largest interest in international seaborne trade.**

• **Category C** has **20 countries** that have a special interest in **maritime navigation and transport**.

• Later in December 2023, **India was re-elected to the IMO Council with the highest tally.**

• IMO is the **United Nations specialised agency** with **responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships.**

• It was established by a **UN convention** on **6th March 1948** and met for the first time in **January 1959**.

• IMO currently has **175 Member States** and **3 Associated Members** (Faroes, Hong Kong and Macao). **India joined IMO in 1959.**

Structure of IMO

☞ **Secretary General:** IMO is led by the Secretary General, appointed for a maximum of **two terms, each lasting 4 years.**

☞ **IMO Assembly:** Consists of **all Member States** and is the **highest governing body of the organisation.**

☞ **IMO Council:** Elected by the Assembly for terms of **two years and acts as the Executive organ of IMO.**

IMO Greenhouse Gas Strategy

» Recently, Maritime countries upgraded their **Greenhouse House Gas (GHG) emissions strategy to reach net zero "by or around" 2050** at the UN International Maritime Organization (IMO) summit held in London.

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- **International Maritime Organization** is the **United Nations specialised agency with responsibility** for the **safety and security of shipping and the prevention** of marine and atmospheric **pollution** by ships.

- It is **headquartered in London**, currently with **175 members including India.**

- The **aim of the 2023 IMO Greenhouse Gas Strategy** is to **limit the global temperature increase to well below 2 degrees Celsius**, as outlined in the 2015 Paris Agreement, by reducing greenhouse gas (GHG) emissions from ships.

- It also aims to **reduce total annual GHG emissions from international shipping by at least 20% by 2030** (striving for 30% reduction) compared to 2008, and **reducing total annual GHG emissions by at least 70% by 2040** (striving for 80% reduction) compared to 2008.

U.S.–India Strategic Clean Energy Partnership (SCEP)

» India and the US emphasised on the need for joint action and collaboration to navigate the global energy transition during the Ministerial meeting of the **U.S.-India Strategic Clean Energy Partnership (SCEP).**

- The meeting welcomed the launch of the **U.S.-India New and Emerging Renewable Energy Technologies Action Platform (RETAP)** to accelerate development of key technologies to advance common clean energy goals.

- The SCEP was launched in accordance with the **U.S.-India Climate and Clean Energy Agenda 2030 Partnership** announced by both countries at the **Leaders Summit on Climate** held in **2021.**

- It advances **energy security and innovation** with greater emphasis on **electrification and decarbonization of processes and end uses**; **scaling up emerging clean energy technologies; finding solutions for hard-to-decarbonize sectors** etc.

- It was earlier established as the **Strategic Energy Partnership** in **2018** and had **replaced the U.S.-India Energy Dialogue**, the previous intergovernmental engagement for energy cooperation.

Global Crisis Response Group (GCRG)

» India has joined the **Champions Group of the Global Crisis Response Group**, following an invitation from the UN Secretary General.

- The GCRG was set up by the **UN Secretary General** in **March 2022.**

- The **32 member group** ensures **high level political leadership** to get ahead of the immense **interconnected challenges of food security, energy and financing** and **implement a coordinated global response to the ongoing crises.**

- The GCRG is **overseen by the Champions Group** composed of the Head of State/Head of Governments of **Bangladesh, Barbados, Denmark, Germany, Indonesia and Senegal.**

Clean Energy Ministerial and Mission Innovation

» India hosted the **4th Clean Energy Ministerial and 8th Mission Innovation (CEM-14/MI-8) meeting.**

- The theme for CEM-14 / MI-8 was **"Advancing Clean Energy Together"** and the discussions focused on the **Green Powered Future Mission (GPFM)**, aiming to integrate **100% variable renewable energy worldwide.**

- The CEM is a **high-level global forum** that **brings together a community of the world's largest and leading countries, companies and international experts** to **accelerate clean energy transitions.**

- Mission Innovation is a **global initiative of 23 countries and the European Commission** to **accelerate the clean energy revolution** and progress towards the **Paris Agreement goals and pathways to net zero.**

Mekong–Ganga Cooperation (MGC)

» External Affairs Minister S. Jaishankar co-chaired the 12th Mekong-Ganga Cooperation (MGC) meeting in Bangkok along with his Laos counterpart.

- Mekong-Ganga Cooperation (MGC) was launched in **2000 at Vientiane, Lao PDR,** as an **indicator of the cultural and commercial linkages** among the member countries of the MGC down the centuries.

- Both the **Ganga and the Mekong are civilizational rivers**, and the MGC initiative aims to facilitate closer contacts among the people inhabiting these two major river basins.

- It is an initiative by **six countries for cooperation** in tourism, culture, education, as well as transport and communications.

- The members include **India** and five ASEAN countries : **Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam.**

- The MGC meetings are **co-chaired alternately every year between India and one of the 5 Mekong countries.**

SaNGRAH Portal

» Safe Food for Nations – Global Food Regulatory Authorities Handbook (SaNGRAH) portal was launched by FSSAI in a Global Food Regulatory Summit 2023.

- The "**SaNGRAH – Safe food for Nations – Global Food Regulatory Authorities Handbook" portal** provides information about the **Food Regulatory Authorities of various countries across the world** and their mandate.

- It is available in **English, Hindi, Gujarati, Marathi, Tamil, Telugu, Kannada, Malayalam** for the benefit of Indian exporters.

- It also includes testing facilities, **contact details for food authorities and weblinks to access Food Act/ Regulations/ Standards at one platform.**

- Working on the principle of "**Vasudhaiva Kutumbakam**", the portal content is also available in **several foreign languages** for **easy access by overseas exporters** and **manufacturers**.

South Asia Regional Anti-Doping Organization (SARADO)

» Recently, the **National Anti-Doping Agency, India (NADA India)** signed a Memorandum of Understanding (MoU) with South Asia Regional Anti-Doping Organization (SARADO) in New Delhi.

- South Asia Regional Anti-Doping Organization (SARADO) was formed in 2007 in the **South Asian Anti-Doping Program Project Development Meeting** held in **Maldives**.

- The member countries include: **Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka.**

- It aims to coordinate efforts among South Asia RADO member nations to combat doping in sports in all of its manifestations.

National Anti-Doping Agency, India

- The **National Anti-Doping Agency** was established as a registered society under the **Societies Registration Act of 1860.**

- It was **founded by the Indian government** with the intention of **serving as India's autonomous anti-doping organisation** with a **focus on drug-free sports.**

- The main responsibilities of NADA include implementing the Anti-Doping Code into action, organising a drug testing programme with all involved parties and advancing anti-doping research,etc.

World Anti-Doping Agency (WADA)

- The **World Anti-Doping Agency (WADA) is a global and independent organisation** that was established in **1999.**

- It is **aimed at the mission of promoting, coordinating, and supervising** the **war against doping in sports** in all of its manifestations.

- The **World Anti-Doping Code (Code),** a document that **unifies anti-doping regulations across all sports and nations**, was created and put into effect under the coordination of WADA.

Asia Pacific Cultural Heritage Award

» Recently, the heritage **Byculla Railway station** which has been restored to its original glory, received the UNESCO award.

- The **UNESCO Asia-Pacific Awards for Cultural Heritage Conservation** is supported by a **partnership between UNESCO and Ng Teng Fong Charitable Foundation** since 2021.

- It is to acknowledge **the role and contribution of cultural heritage to sustainable development** within the broader framework of the **UN 2030 Agenda.**

- It has been recognizing the **achievement of the private sector and public-private initiatives** in successfully **conserving or restoring structures,** places and properties of heritage value in the region.

<u>**Byculla Railway Station**</u>

- Byculla Railway Station is a **railway station on the Central line** of the **Mumbai Suburban Railway**.

- It is considered to be one of the oldest railway stations that is **still in operation** since **1853**.

- The first train of the country passed through Byculla station almost one-and-a-half centuries ago.

- It has been **restored to its original Gothic heritage** and architectural glory.

BIMSTEC

- » The **first-ever Foreign Ministers' meeting** of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) was held in Bangkok, Thailand.

- India was represented by **External Affairs Minister S Jaishankar**.

- BIMSTEC It is an **economic bloc** that came into being in **June 1997** through the **Bangkok Declaration**.

  - ↪ BIMSTEC was **initially formed** with **four member states**- Bangladesh, India, Sri Lanka and Thailand.

  - ↪ **Nepal became an observer state in 1998** and became **full-time member** of the bloc **along with Bhutan in February 2004**.


- Its aim is to **counter the onslaught of globalisation by accelerating regional growth through mutual cooperation by utilising regional resources and geographical advantages**.

- Around **22% of the world's population live** in the seven countries around the Bay of Bengal, with a combined GDP close to **$2.7 trillion**.

- A **fourth of the world's traded goods** cross the bay every year.

Neighbourhood first policy

- » **External affairs ministry** has announced that India extended **308 lines of credit** to **partner countries** amounting to **$32.02 billion** over the years as part of its development assistance program under India's 'Neighbourhood First' policy.

- The concept of the Neighbourhood First Policy came into being in **2008**. It was conceived to **bolster relations with certain priority countries** such as **Afghanistan, Bangladesh, Maldives, Myanmar, Nepal, Pakistan and Sri Lanka**.

- Under its 'Neighbourhood First' policy, **India is committed to developing friendly and mutually beneficial relations with all its neighbours**.

  - 🖎 **India is an active development partner** and is involved in several projects in these countries.

Shanghai Cooperation Organization (SCO)

» Recently, **India chaired** the Shanghai Cooperation Organization (SCO) virtual Summit.

- SCO is an intergovernmental international organization founded in Shanghai in 2001 by the leaders of **China, Kazakhstan, Russia, Tajikistan,Uzbekistan and Kyrgyzstan.**

- **India and Pakistan** became permanent members in 2017.

- Currently it has **9 member states : India, Kazakhstan, China, Kyrgyzstan, Russia, Pakistan, Tajikistan, Uzbekistan and Iran; 3 observers : Afghanistan, Belarus, and Mongolia.**

- The Organisation has two permanent bodies — **the Secretariat in Beijing (China) and the Regional Anti-Terrorist Structure (RATS) in Tashkent.**

- The official working language of the SCO Secretariat is **Russian and Chinese.**
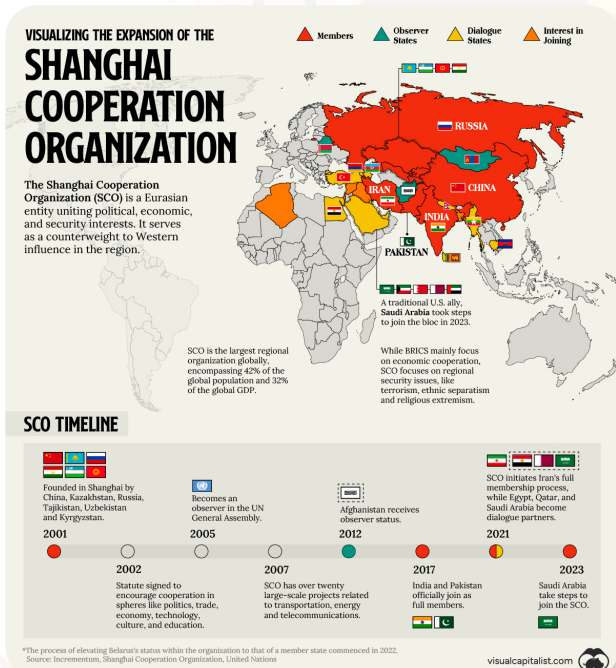
Solar Technology and Application Resource Centres (STAR –C) initiative

- India is considering expanding its solar STAR-C to a number of **Pacific Island countries.**

- It is an initiative, run by the **International Solar Alliance(ISA)** in partnership with the **United Nations Industrial Development Organisation (UNIDO).**

- It aims to create a **strong network of institutional capacities** within ISA member states to enhance quality infrastructure for the uptake of solar energy products and services.
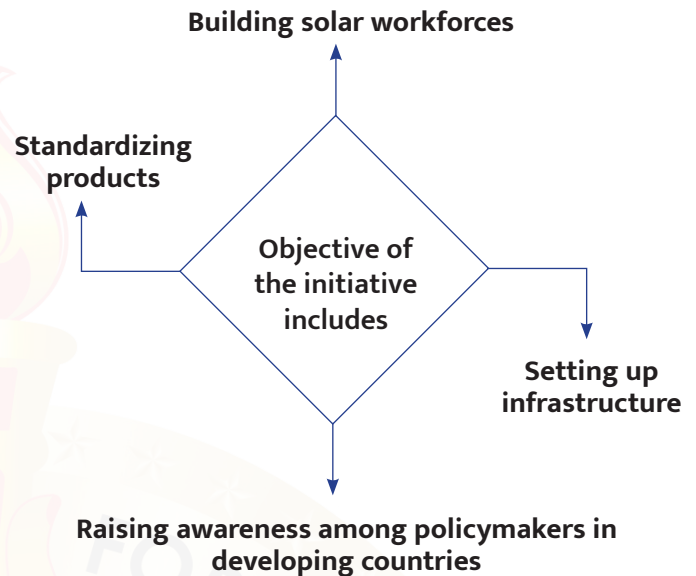
Multilateral Development Banks (MDBs)

» Recently, a **G20 expert panel** has recommended that Multilateral Development Banks (MDBs), should shift their approach from funding individual projects to focusing on **sector-specific programs and long-term transformation.**

- MDBs are **international institutions** comprising developed and developing countries.

- They offer **financing and technical assistance** for various projects in areas like transportation, energy, urban infrastructure, and waste management.

- Developed countries contribute to MDB lending, while **developing nations borrow from them for development projects.**

- MDBs include the **World Bank Group, the Asian Development Bank, the African Development Bank, the Inter-American Development Bank, etc.**

Environment & Ecology

Chemical Communication

» As per a recent study, **Climate change** is impacting chemical communication in the animal world, with significant consequences for **ecosystems and human well-being**.

• Chemical signals, known as **infochemicals**, play a crucial role in interactions between organisms and regulate ecological processes.

• Climate change is **altering the production of these chemicals**, such as **pheromones, affecting various species** and disrupting vital functions and behaviours.

☞ Warming temperatures decay the pheromones used by some ant species, making it difficult for them to follow trails.

☞ Rising CO_2 levels in water affect the evasion abilities of water fleas, while coral reef damselfish lose their ability to recognize predators.

India Climate Energy Dashboard (ICED)

» **NITI Aayog** released the **India Climate Energy Dashboard (ICED) 3.0.**

• **ICED** is **NITI Aayog's flagship initiative** developed in association with **Vasudha Foundation.**

• The ICED is the country's **one-stop platform** for near real-time data on the **energy sector, climate and related economic datasets** based on government published sources.

• It is a **user-friendly platform** that aims to bring together **comprehensive and time series data from 2005 onwards** to provide **single window access** for all datasets required for **climate and energy related modelling assessments and research.**

• The dashboard offers **more than 500 parameters, over 2000 infographics and a number of interactive visualisations**, allowing users to gain a holistic understanding of India's energy sector.

Chennai High Level Principles

• The **G20 Environment and Climate Sustainability Working Group (ECSWG)** and Environment and Climate ministers meeting recently adopted a series of **"Chennai High-Level Principles"** for a **sustainable and resilient blue economy.**

• The principles shall serve as a guiding framework globally to drive the transition to a sustainable and resilient blue economy.

The 9 key principles that have been adopted on the blue economy are as follows:

➲ Addressing Coastal and Marine Pollution

➲ **Sustainable Exploitation**

➲ **Illegal Activities**.

➲ Protection and Restoration of Coastal and Marine Ecosystems

➲ Harnessing Low and Zero Greenhouse Gas (GHG) Emissions

➲ Research on Ocean-Based Carbon Dioxide Removal and Sequestration

➲ Promoting Social and Inter-Generational Equity and Gender Equality

➲ **Acknowledging Ocean-Climate Interlinkages**: This principle emphasizes the recognition of links between the ocean and climate, encouraging ocean-based economies to understand the opportunities for climate change mitigation and adaptation through sustainable ocean-based actions.

➲ **Support for the Global '30 by 30' Goal:** The principle reiterates the G20's commitment to the global **'30 by 30' goal**, which aims to ensure that at least 30 percent of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, and at least 30 percent of terrestrial and inland water areas, and of marine and coastal areas, are effectively conserved and managed by 2030.

Graded Response Action Plan (GRAP)

» Recently, the **Commission for Air Quality Management (CAQM)** has directed **NCR (National Capital Region)** states to adopt **a standard list of approved fuels** to reduce **air pollution.**

- GRAP is a set of **anti-air pollution measures** followed in the capital and its vicinity.

- GRAP classifies the **air quality in the Delhi-NCR** under **four different stages:**

  1. Stage 1 - "poor" (AQI 201-300)

  2. Stage 2 - "very poor" (AQI 301-400)

  3. Stage 3 - "severe" (AQI 401-450)

  4. Stage 4 - "severe plus" (AQI above 450).

- The Plan was notified by the **Ministry of Environment, Forests & Climate Change in 2017** based on the Supreme Court's order in the matter of **M. C. Mehta vs. Union of India (2016)** regarding **air quality in the National Capital Region of Delhi.**

- **Commission for Air Quality Management** is the statutory mechanism that coordinate and oversee diverse efforts to improve air quality in **Delhi, Punjab, Haryana, Rajasthan and UP.**


Graded Response Action Plan (GRAP) will come into effect in Delhi from Oct 15
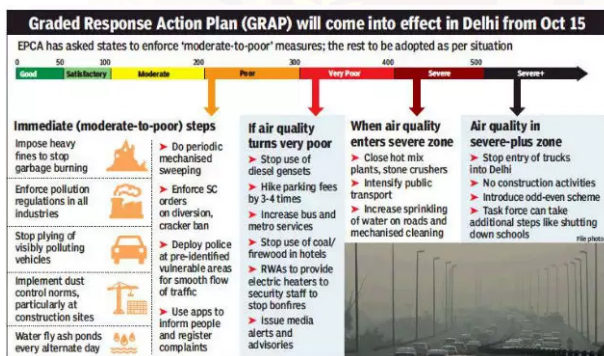
Electric Freight Accelerator for Sustainable Transport – India (e-FAST)

» Recently, some prominent manufacturing companies and logistics service providers in India have come together to express a demand for **7,750 electric freight vehicles by 2030.**

- e-FAST platform aims to raise awareness on **freight electrification**, with the help of on-ground demonstration pilots and evidence-based research.

- It was launched in 2022 by **NITI Aayog**, in collaboration with **World Resources Institute (WRI).**

- It also has the support from the **World Economic Forum.**

Cryptobiosis
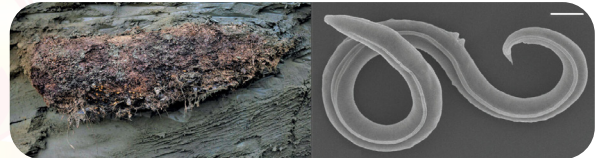
» Researchers have successfully revived a **roundworm** that had been **frozen for an astonishing 46000 years.**

- The worm, discovered 40 metres below the **Siberian permafrost,** is of a previously unknown species and survived in a **dormant state known as Cryptobiosis.**

- Cryptobiosis is a **state of an organism** when it shows **no visible signs of life and when its metabolic activity becomes hardly measurable or comes reversible to a standstill.**

- Organisms in a cryptobiosis state can endure extreme conditions such as the **complete absence of water or oxygen, high temperatures, freezing or extremely salty environments.**

Floral and faunal database

» Recently, the **Union Minister for Environment, Forest and Climate Change** added 664 animal species to its faunal database.

- The **faunal discoveries** are compiled in a publication by **Zoological Survey of India** titled Animal Discoveries - New Species and New Records 2023,

- The **floral discoveries** are contained in Plant Discoveries 2022 published by the **Botanical Survey of India (BSI).**

- **Kerala** recorded the highest number of new discoveries, contributing 14.6% of the total, followed by **Karnataka** (13.2%) and **Tamil Nadu** (12.6%).

Diversity for Restoration (D4R) Tool

» Recently, researchers from **Ashoka Trust for Research in Ecology and the Environment (ATREE)**, have devised a **Diversity for Restoration (D4R) tool** that enables appropriate agroforestry and aids systematic ecosystem restoration in India.

• **Diversity for Restoration (D4R) tool** is devised by the **Bioversity International** (a research for development organisation).

• It is developed with information on **237 socio-economically important native trees** from the **Western Ghats**.

• The team from **Ashoka Trust for Research in Ecology and the Environment (ATREE)**, with the help of Bioversity International, modified it to **promote restoration programmes in India.**

• The tool **informs the user whether the tree species offers timber, fruit, manure** or other **commercial benefits.**

• The tool could **also identify windbreakers** - the trees can act as a barrier against high winds.

• This tool is already being used in countries such as **Malaysia, Ethiopia, Columbia, Peru, Burkina Faso, Cameroon** etc.

Carbon Credit Trading Scheme (CCTS)

• The **Ministry of Power** has launched the Carbon Credit Trading Scheme to address the issue of greenhouse gas (GHG) emissions and mitigation of climate change in the country.

• The Carbon Credit Trading Scheme is a new initiative by the Ministry of Power involving the **issuance and trading of carbon credits** to meet emission targets.

• The **carbon credit certificates will be issued by the Bureau of Energy Efficiency (BEE)** to entities that surpass their assigned emission reduction targets.

• The **Ministry of Environment, Forest, and Climate Change** sets the **emission intensity targets for obligated entities,** upon the **recommendation of the Ministry of Power.**

• A **National Steering Committee**, chaired by the **Power Secretary and comprising representatives from various ministries** will oversee the governance and oversight of the carbon market.

Geography

Global Assessment Report on Disaster Risk Reduction (GAR)

» The UN Global Assessment Report on Disaster Risk Reduction (GAR) 2023 was released.

• It is the **flagship report of the United Nations on worldwide efforts to reduce disaster risk** and published by the **UN Office for Disaster Risk Reduction (UNDRR).**

Key highlights of the Report

✍ The GAR 2023 calls for **resilience to be the foundation of efforts to achieve the SDGs** and **investing in resilience and adaptation** can avoid costs of hazard impacts and save lives and resources.

✍ It calls for ensuring a balance between **people (social resilience), planet (environmental resilience) and prosperity (economic resilience).**

✍ An estimated **80 million full-time jobs will be lost if the world surpasses 1.5°C of warming,** pushing ever greater numbers of people into poverty.

✍ It presents a new analysis of **mapping hazards and disasters** such as drought and sea level rise, showing a dramatic rise, with **effects on global food security, employment and education.**

Source: Adapted from (IPBES, 2021)

Ozone and UV Bulletin 2023

» After 7 years of interruption, the **World Meteorological Organisation (WMO)/Global Atmosphere Watch (GAW) Ozone and UV Bulletin 2023** was released.

• The bulletin underscores the **criticality of monitoring and preserving the ozone layer** while shedding light on the advancements made in its recovery.

Key highlights

👉 The **Montreal Protocol** and its amendments have successfully **phased out up to 99% of the production and consumption of controlled Ozone Depleting Substances (ODSs).**

👉 The progress in **ozone layer recovery is hindered by climate change,** which also impacts the climate of the lower atmosphere.

👉 The eruption of the **Hunga Tonga-Hunga Ha'apai volcano** in January 2022 **elevated the water vapour content in the stratosphere,** leading to decreased ozone levels in the lower stratosphere of the southern hemisphere.

The **World Meteorological Organization (WMO)** is a **specialised agency of the United Nations** that focuses on facilitating international cooperation in **meteorology, climatology, hydrology, and related fields**.

The **Global Atmosphere Watch (GAW) Programme of WMO** focuses on building a **single coordinated global understanding of atmospheric composition, its change**, and helps to improve the understanding of **interactions between the atmosphere, the oceans and the biosphere**.

Earthquake swarm

» Recently, **Iceland** experienced an earthquake swarm.

• It is a sequence of **small earthquakes** with **no identifiable mainshock**.

• They are usually **short-lived**, but they can continue for days, weeks, or sometimes even months.

• They often recur at the same locations.

• Swarms are observed in **volcanic environments, hydrothermal systems, and other active geothermal areas.**

• When seismic energy piles up inside the Earth and is released in small amounts from certain points, a series of earthquakes can occur which can cause an earthquake swarm.

Shelf Clouds

» A video circulating on social media that showcases a captivating shelf cloud formation during the monsoon in Haridwar.

• Shelf Clouds, also known as **Arcus Clouds** are **low-hanging clouds** that appear to be **attached to the front of a storm**.

• It is often **dark and ominous** and it can give the impression that the storm is moving in quickly.

• These clouds are sometimes **seen beneath cumulonimbus clouds that cause intense rain.**

• These are **formed when a thunderstorm pushes a gust of wind** ahead of it.

• This gust of wind can be so strong that it lifts the warm, moist air in front of it. As the warm air rises, it **cools and condenses into a cloud**, which becomes the **shelf cloud**.

Solar maximum and Solar Minimum

SOLAR **MINIMUM**   SOLAR **MAXIMUM**
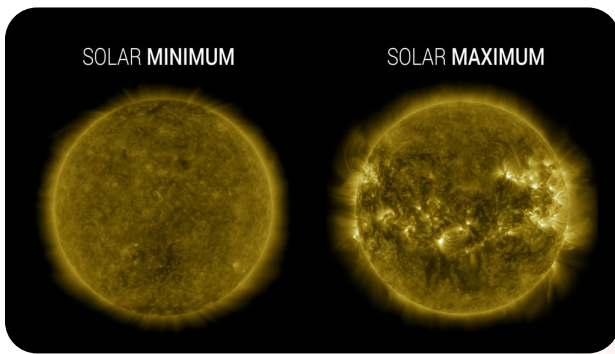
» It has been recently reported that the sun is expected to reach "solar maximum" in the next two years.

- The sun goes through a **natural solar cycle** approximately **every 11 years**. The cycle is marked by the **increase and decrease of sunspots** -- visible as dark blemishes on the sun's surface, or photosphere.

- The greatest number of sunspots in any given solar cycle is designated as **"solar maximum"**. The lowest number is **"solar minimum"**.

- Increased solar activity can **cause extreme space weather events**, including **solar flares** and eruptions.

- It can also **disrupt radio communications and the power grid** and have serious health **consequences for astronauts**.

Batagaika Crater

» Recent studies show that the Batagaika Crater can be a warning sign for the Earth.

- The Batagaika crater, the **world's largest permafrost crater**, spanning a **length of 1km**, located in **Eastern Russia**.

- It is also called as **"gateway to the underworld,"** by some locals in Russia's Sakha Republic.

- As per the study, the soil beneath the slump contains **dangerous amounts of organic carbon** that will be released into the atmosphere as the permafrost thaws, further fueling the planet's warming.

- It began to form after the surrounding forest was cleared in the 1960s and the permafrost underground began to melt, causing the land to sink.

Science & Technology

Chandrayaan–3

» Chandrayaan-3 was successfully launched from the **Satish Dhawan Space Center (SDSC)** in Sriharikota.

• Chandrayaan-3 is a **follow-on mission to Chandrayaan-2** that was launched using the **Launch Vehicle Mark-III (LVM3)** rocket system.

Objectives of Chandrayaan-3

✈ To demonstrate **safe and soft landing on the Lunar surface.**

✈ To demonstrate **Rover roving on the moon.**

✈ To **conduct in-situ scientific experiments.**

• It consists of an indigenous **Lander module (LM), Propulsion module (PM) and a Rover** with an objective of developing and demonstrating new technologies required for Interplanetary missions;

• **Propulsion Module:** It has **Spectro-polarimetry of Habitable Planet Earth (SHAPE) payload** to study the spectral and polarimetric measurements of earth from lunar orbit.
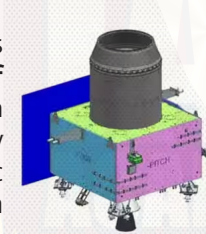
• **Lander Module:** Have 4 payloads;

◑ **Radio Anatomy of Moon Bound Hypersensitive ionosphere and Atmosphere (RAMBHA):** To measure the near surface plasma (ions and electrons) density and its changes with time.
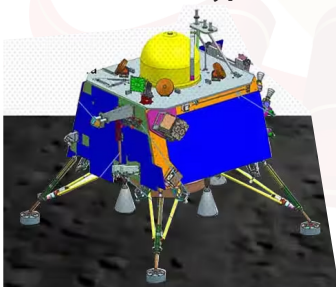
◑ **Chandra's Surface Thermophysical Experiment (ChaSTE):** To carry out the measurements of thermal properties of the lunar surface near the polar region.

◑ **Instrument for Lunar Seismic Activity (ILSA):** To measure seismicity around the landing site.

◑ **Langmuir Probe (LP):** To estimate the plasma density and its variations.

• **Rover Module** is called **Pragyan:**

◑ **Alpha Particle X-Ray Spectrometer (APXS):** To derive chemical composition and infer mineralogical composition to further enhance our understanding of lunar surface
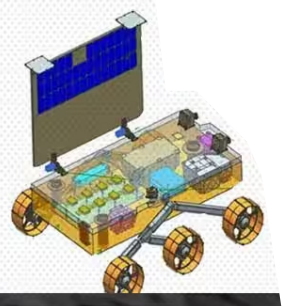
◑ **Laser Induced Breakdown Spectroscope (LIBS):** To determine the elemental composition of the lunar soil and rocks around the lunar landing site.

• The Chandrayaan-3 scripted history by successfully landing on the lunar surface on **August 23**. With the **Lander accomplishing a 'soft landing' on the Moon's south pole, India becomes the only country to have ever done so.**

Dark patterns

» Recently, the **Ministry of Consumer Affairs, Food and Public Distribution**, Government of India, has established a **17-member task force** to develop guidelines for consumer protection to address **the issue of Dark Patterns.**

• A dark pattern is a **user interface that has been crafted to trick or manipulate users into making choices** that are detrimental to their interest.

• The term **'Dark Patterns'** was coined by user experience designer **Harry Brignull in 2010.**

• It encompasses various manipulative practices such as drip pricing, disguised advertising, bait and click, choice manipulation, false urgency, and privacy concerns.

• These **deceptive practices prompt the users to buy a particular product** or a **service** even when they do not give their exclusive consent.

Light Combat Aircraft (LCA)

» The Indian Air Force (IAF) decided to place orders for around 100 additional **Light Combat Aircraft (LCA) Tejas Mark-1A** fighter jets from **Hindustan Aeronautics Limited (HAL).**

• The LCA is the **lightest, smallest and tailless multi-role supersonic fighter aircraft with air to air refueling capability** (transferring aviation fuel from one aircraft to another).

• The **LCA programme** was started by the Government of India in **1984** to replace the ageing **Mig 21 fighter planes. Later, in 2003** it was named officially as **Tejas** by former Prime Minister **Atal Bihari Vajpayee.**

• The government established the **Aeronautical Development Agency (ADA)** under the **Department of Defence Research and Development** to manage the LCA programme.

• It is designed by **ADA** and manufactured by the **Hindustan Aeronautics Limited (HAL).**

Light Combat Aircraft MK1A (LCA-MK1A)

◣ **LCA-MK1A** is the most advanced version of LCA with a **higher thrust engine.**

◣ It is a **supersonic fighter** at all altitudes for air combat with a **payload of 3500 kg** and is best suited for **offensive air support.**

Light Combat Aircraft MK2 (LCA-MK2)

◣ It is an advanced version of **LCA-MK1A,** capable of integrating all indigenous weapon systems and a number of foreign armaments, to be introduced by **2025-26.**

◣ It will have a **mission endurance of 120 minutes** and will be equipped with **standoff weapon systems.**

Perseverance Mars Rover

» NASA's Perseverance Mars Rover has found **potential signatures for organic molecules on the planet**, which could be evidence for the presence of key building blocks of life there

• NASA's Perseverance is a car sized **Mars rover** which was launched on **July 30, 2020** on an **Atlas V-541 rocket** and landed on the surface of Mars on **February 18, 2021.**

• Landed on the **Jezero Crater**, which has a **high potential for hosting biosignatures of past microbial life**, the rover aims to **look for signs of life on the red planet.**

• It has on board a host of scientific instruments such as the **Scanning Habitable Environments with Raman & Luminescence for Organics and Chemicals (SHERLOC)** and **Planetary Instrument for X-ray Lithochemistry (PIXL)** etc.

• The **Mars Sample Return Program,** a partnership between **NASA and the European Space Agency (ESA)**, will **return samples to earth and it is the first mission to launch from the surface of another planet.**

Bharat 6G Alliance (B6GA)

» The **Bharat 6G Alliance** was inaugurated by **the Union Minister of Communications, Electronics & Information Technology**, on the occasion of the **Digital Communication Innovation Square (DCIS) Awards Ceremony.**

• Bharat 6G Alliance (B6GA) is a **collaborative platform which aims to achieve universal and affordable connectivity**, promote indigenous technology, and establish **India as a global leader in the telecom sector.**

• It also **brings together Indian startups, companies, and the manufacturing ecosystem to establish consortia** that drive the design, development and deployment of 6G technologies in India.

• To support the **advancement of 6G technology**, the government has allocated a grant of **240.51 crores through the Telecom Technology Development Fund scheme.**

Telecom Technology Development Fund

☞ **The Telecom Technology Development Fund** was **launched in 2022.**

- Under **this 5% of annual collections from Universal Service Obligation Fund (USOF) will be available for TTDF Scheme** for funding research & development of technologies, products, and services.

Digital Communication Innovation Square (DCIS) Awards

- The DCIS Awards are an **initiative of the DoT to recognize and support startups, micro, small and medium enterprises (MSMEs), individuals and academic institutions** that have developed innovative solutions in the field of digital communication.

- The awards are given under **four categories: Telecom Products, Telecom Services, Telecom Applications and Telecom Research.**

100 Microsites Project

- » Recently, the **National Health Authority (NHA)** has announced 100 Microsites projects for accelerated adoption of **Ayushman Bharat Digital Mission (ABDM)** across the country.

- The Microsites projects will cover **geographical regions** where focused outreach efforts would be made to **onboard small and medium scale private healthcare providers.**

- These **Microsites would be majorly implemented by State Mission Directors of ABDM** while the **financial resources and overall guidance** would be provided by **NHA.**

- Any **State/UT can choose to implement any of the following categories of Microsites** as per the regional priorities.

  - **Category A Microsite**: A microsite which consists of **at least 1000 facilities**, inclusive of all types of health facilities, as mentioned above

  - **Category B Microsite**: A microsite which consists of **at least 500 facilities but less than 1000 facilities**, inclusive of all types of health facilities, as mentioned above.

Bhashini Platform

- » The Prime Minister recently pitched for sharing India's AI-based language platform, Bhashini, with SCO member countries to remove language barriers within the international grouping.

- **Digital India BHASHINI**, is India's **Artificial Intelligence (AI)-led language translation platform**.

- It seeks to **enable easy access to the internet and digital services in Indian languages**, including voice-based access, and help the creation of content in Indian languages.

- It aims to make **Artificial Intelligence and Natural Language Processing (NLP) resources available in the public domain**.

- This online platform also has a **separate 'Bhasadaan' section** which allows individuals to **contribute to multiple crowdsourcing initiatives,** and it is also accessible via respective Android and iOS apps.

Candida Auris

- » Recently, live cultures of Candida auris have been found in hospitalised stray dogs in Delhi.

- Candida auris (C. auris) is a **type of yeast** that can **cause severe illness and spreads easily among patients** in healthcare facilities.

- It is **often resistant to antifungal treatments** making the first and second line of anti fungal medicines ineffective.

- **Half of the patients infected usually die within 90 days** and there is **no particular medicine available for treatment**.

- The **person affected could be unaware about the infection** as there are **practicaly no symptoms** as the fungus primarily targets individuals who frequently visit hospitals and are of poor health. **Symptoms include sepsis, fever, aches and fatigue which are common with other diseases**.

Non Sugar Sweeteners (NSS)

- » The **World Health Organization (WHO)** has recently updated their guidelines, advising against the use of non-sugar sweeteners (NSS) for weight management and lowering the risk of non-communicable diseases (NCDs).

- Non-sugar sweeteners, also referred to as **sugar substitutes or artificial sweeteners**, are substances utilised in place of traditional sugar to provide sweetness in food and drinks.

- Non-sugar sweeteners can be mainly categorised into **two types:** artificial sweeteners and natural sweeteners.

- **Artificial Sweeteners** are chemically constructed compounds that bring sweetness without the calorie content of traditional sugar. **For Ex:** cyclamate, neotame etc.

- **Natural Sweeteners** are sourced from plants and serve as alternatives to sugar. **For Ex**: Yacon syrup and agave nectar.

Neutrino Particles

» The **IceCube Neutrino Observatory** has achieved a significant scientific breakthrough by producing an **image of the Milky Way** using neutrinos.

IceCube Neutrino Observatory

☞ The IceCube Neutrino Observatory, located at **South Pole** is a unique detector encompassing a cubic kilometre of Antarctic ice with over **5,000 light sensors**.

☞ It **detects high-energy neutrinos**, which possess energies millions to billions of times higher than those produced by stellar fusion reactions.

Nuetrinos

☞ Neutrinos are **fundamental particles in the Standard Model of particle physics**.

☞ They belong to the family of elementary particles called **leptons**, which also includes **electrons and muons**.

☞ Neutrinos have **extremely low mass**, and they **interact very weakly** with **matter**, making them **challenging to detect**.

Non-Fungible Tokens

» Google recently said it will allow developers to offer games on the Play Store where players can buy, sell and earn tokenized digital assets—like non fungible tokens.

- NFTs are **unique cryptographic tokens** that exist **on a blockchain and cannot be replicated.**

- It can **represent digital or real-world items** like artwork, photograph, song, video, real estate, individuals' identities, property rights, and more.

- The term **'non-fungible' simply means that each token is different as opposed to a fungible currency such as money** (a ten-rupee note can be exchanged for another and so on).

- **NFTs can be traded and exchanged for money, cryptocurrencies, or other NFTs**—it all depends on the value the market and owners have placed on them.

Naegleria Fowleri

» A 15-year-old boy in Kerala recently died due to a rare infection caused by Naegleria fowleri, or "brain-eating amoeba".

- **Naegleria fowleri** is **an amoeba (single-celled** living organism) that **lives in soil and warm freshwater, such as lakes**, rivers, and hot springs.

- It is commonly called the **"brain-eating amoeba".**

- **It is a heat-loving (thermophilic) organism**, meaning it thrives in heat and likes warm water.

- It grows **best at high temperatures up to 115°F (46°C)** and can survive for short periods at even higher temperatures.

- It infects people when **water containing the amoeba enters the body through the nose.**

- The **amoeba then travels up the nose to the brain**, where it destroys the brain tissue and causes a devastating infection called **primary amebic meningoencephalitis (PAM).**

- PAM is a very serious infection of the **central nervous system that's almost always fatal.** The fatality rate is **higher than 97% even with treatment.**

Zombie Drug

» Recently, Zombie drug, a dangerous drug causing **flesh-eating wounds and deaths**, has infiltrated the US market.

- **Xylazine**, or as it is ominously known on the streets, **"tranq"**, **"tranq dope"**, or **"zombie drug"**, is a substance that has been ratified by the country's F**ood and Drug Administration (FDA)** for veterinary purposes.

- Xylazine is a **pharmaceutical drug** used for sedation, anesthesia, muscle relaxation, and analgesia in animals like horses, cattle, and other non-human mammals hence the name "tranq".

- The drug is known for its **sedative-like effects**, which can result in extreme drowsiness and respiratory depression. This leads to instances of people being unable to stand or maintain balance.

- The term **"zombie"** is attributed as one of the side effects is **formation of raw flesh eating wounds on skin**, which can spread quickly if left unattended or in case of overdose.

- The **tranquillisation effects of Xylazine** can render users completely unconscious, especially at high doses.

- An overdose of Xylazine can render the user unresponsive to **naloxone, or Narcan**—the most commonly used treatment for **reversing overdoses**.

Brucellosis disease

- A seven-year-old girl from Kerala was recently affected by the contagious Brucellosis disease mostly found in cattle breeds.

- Brucellosis is a **bacterial infection that spreads from animals to people.**

- It is **caused by various Brucella species, which mainly infect cattle**, swine, goats, sheep and dogs.

- Worldwide, **Brucella melitensis is the most prevalent species causing human brucellosis**.

- **It is found globally** and is a reportable disease in most countries. It **affects people of all ages** and both sexes.

- **Most commonly,** people are infected by **eating raw or unpasteurized dairy products.**

- It causes **flu-like symptoms, including fever, weakness, malaise and weight loss.**

Sagar Sampark

» Recently, the **Union Minister of Ports, Shipping and Waterways** inaugurated the indigenous Differential Global Navigation Satellite System (DGNSS) 'SAGAR SAMPARK.

- It is an indigenous **Differential Global Navigation Satellite System (DGNSS)**.

- The Differential Global Navigation Satellite System is a **terrestrial based enhancement system** which corrects the errors and inaccuracies in the Global Navigation Satellite System (GNSS) allowing for **more accurate positioning information.**

- It is now able to transmit corrections of GPS and GLONASS.

- It will assist the Director General of Lighthouses and Lightships (DGLL) to provide **radio aids to ships for marine navigation.**

Blue Sky Project

- The **Ministry of New and Renewable Energy (MNRE)** has published the draft of the Blue Sky Projects.

- Blue Sky projects will aim to develop the **capabilities of the Indian R&D sector within an array of subjects**, such as the development of reversible Solid Oxide Electrolysers (SOECs) and Solid Oxide Fuel Cells (SOFCs).

- It has a **long-term horizon of 0–15 years** with a focus on establishing global IP and competitive advantage for the Indian industry.

- It emphasises **more efficient and cost-effective fuel cells and upscaling to higher capacities** and simultaneous vendor development to make critical components of fuel cells (such as catalysts and membranes) available within **India would make the fuel cells really affordable.**

Miscellaneous

INDIAai

» The **INDIAai and Meta India** (the Indian arm of social media giant **Meta**, formerly **Facebook**) signed a memorandum of understanding (MoU) to establish a **framework for collaboration and cooperation in the field of artificial intelligence (AI) and emerging technologies.**

• The INDIAai is the **National Artificial Intelligence Portal of India** which was launched on **28th May 2020**.

• It is a **knowledge portal, research organisation and an ecosystem building initiative** which **stands to unite and promote collaborations** with various entities in **India's AI ecosystem.**

• It is a **joint venture** of the **Ministry of Electronics and Information**. Technology **(MeitY), National e-Governance Division (NeGD) and National Association of Software and Service Companies (NASSCOM).**

• The portal serves as a **central hub** for AI related news, learnings, articles, events, activities etc in India and beyond.

ULLAS Initiative

» Recently, the **Union Minister of Education** launched the logo, slogan-Jan Jan Sakshar and mobile application of ULLAS in New Delhi.

• The **Understanding Lifelong Learning for All in Society (ULLAS)** initiative is poised to revolutionise education and literacy across the nation.

• It **imparts basic education**, digital and financial literacy and critical **life skills to citizens aged 15 and above** who lost the opportunity to go to school. It is being implemented through volunteerism.

• For this purpose **ULLAS app** was launched which is a user-friendly and interactive **app available both on android and ios.**

• It will serve as a digital gateway for learners to engage in **diverse learning resources through the DIKSHA portal of NCERT.**

eDAR Project

» All states and UTs have started using electronic detailed accident report (eDAR) application for recording road crashes and over seven lakh accidents have been registered on this platform.

• The **Integrated Road Accident Database (iRAD) / e-Detailed Accident Report (eDAR)** Project is an initiative of the **Ministry of Road Transport and Highways** (MoRTH), Government of India and is funded by **World Bank.**

• The project aims to develop an **Integrated Road Accident Database (iRAD), to enrich the accident databases** from every part of the country.

• The project would **generate various types of insights by analyzing the collected road accident data** across the country through implementation of data analytics techniques.

Performance Grading Index

» Recently, the **Union Ministry of Education** released report on Performance Grading Index 2.0 for States/UTs for the year 2021-22

• It was first released for the year 2017-18 and so far it has been released up to the year 2020-21.

• It assesses the performance of the school education system at the State/UT level by creating an index for comprehensive analysis.

• **Aim of PGI 2.0:** To propel States & UTs towards undertaking multi-pronged interventions to bring education outcomes covering all dimensions.

• The PGI 2.0 structure comprises 1000 **points across 73 indicators** grouped into **2 categories :- Outcomes & Governance Management (GM).**

These categories are further divided into 6 domains:

☞ Learning Outcomes (LO),

☞ Access (A),

☞ Infrastructure & Facilities (IF),

☞ Equity (E),

☞ Governance Process (GP)

☞ Teachers Education and Training (TE&T).

- PGI 2.0 for 2021-22 classified the States/UTs into ten grades viz., highest achievable Grade is **Daksh**, which is for State/UT scoring more than 940 points out of a total of 1000 points.

- The lowest grade is **Akanshi-3** which is for score up to 460

Export Preparedness Index

- NITI Aayog released the **3rd edition of the report titled Export Preparedness Index (EPI) 2022** for States/UTs of India.

India's Merchandise Exports in USD Billion

2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
276	304	330	313	292	422
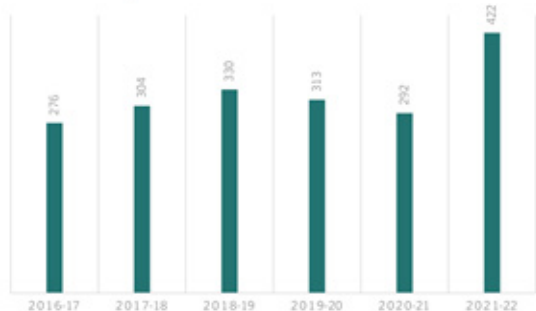
The EPI 2022 Report evaluates the performance of the states across **4 pillars**
- Policy
- Business Ecosystem
- Export Ecosystem
- Export Performance

- These 4 pillars are further based on **10 sub-pillars** including **institutional framework, business environment and R&D infrastructure.**

- The states have been classified into **two stages based on their geographical area** into **Major and Minor/Small States**. With each category, they have been segregated according to their **geographical outreach;**

  - ☞ Major states into Coastal and Landlocked states

  - ☞ Minor States into Himalayan states and Union Territory/Small states

Key highlights of EPI 2022

- ✐ **Tamil Nadu** has topped in the **overall ranking** followed by **Maharashtra and Karnataka.**

- ✐ Among **Himalayan states**, **Uttarakhand** has ranked at the top position followed by **Himachal Pradesh and Manipur.**

- ✐ **Haryana** topped the chart among the **landlocked regions.**

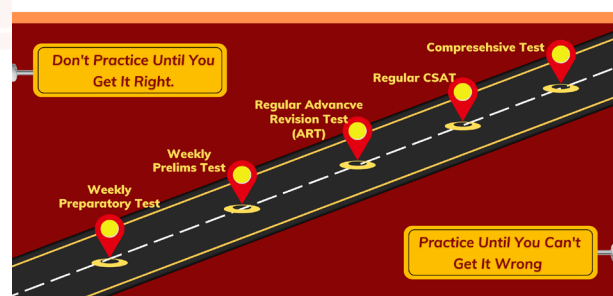- ✐ In the category of **UTs/small states**, **Goa** was ranked first.

Places in News

Takeshima Island

» Recently, **Japan lodged a protest with South Korea** over military drills it conducted on disputed Takeshima islands.

- **Takeshima Island** is situated in the middle **of the Sea of Japan.**

- It is lying almost equidistant between the Korean Peninsula and Japan.

- It is called Dokdo in South Korea and **Takeshima** in Japan.

- It has also been known as the **Liancourt Rocks**, named by French whalers after their ship in 1849.

Duqm Port

» Recently, **India's National Security Adviser** visited Oman's Duqm port where the Indian Navy has strategic access to facilitate its presence in the Indian Ocean Region.

- **The Port of Duqm** is strategically important for **India's maritime strategy** in the Indian Ocean.

- It offers India access to the Gulf of Oman, the Red Sea, the Indian Ocean, and the Arabian Sea.

- This location is significant as it allows India to counter China's expanding presence in the region.

Ubinas Volcano
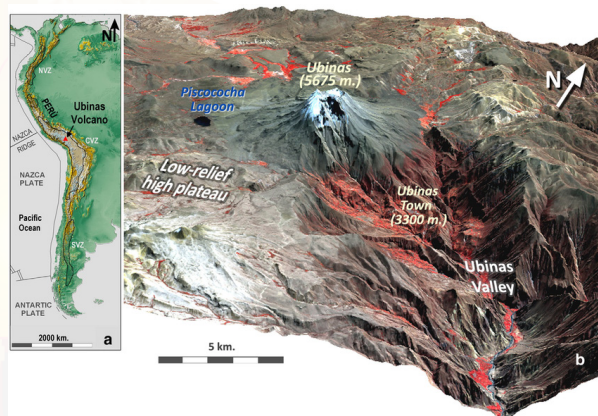
» Peru recently announced a state of emergency in the Moquegua region due to the ongoing activity of the **Ubinas volcano**.

- Ubinas is a **stratovolcano located** in the **Central Volcanic Zone of the Andes.**

- It is the **most active volcano in Peru**, with more than 26 eruptive episodes recorded in the last 500 years, **forming part of the "Ring of Fire"**

Rudragiri Hillock

» A fascinating combination of prehistoric rock paintings from the **Mesolithic period** and exquisite artwork from the **Kakatiya dynasty** were discovered in the Rudragiri hillock.

- Rudragiri hillock, located in the Guntur district of **Andhra Pradesh,** boasts a **celebrated historical past and remarkable archaeological monuments.**

- Rudragiri, nestled amidst the Eastern Ghats, **features five naturally formed rock shelters at its foothills,** facing westward That served as living quarters for people during the **Mesolithic age around 5000 BCE** and they bear **witness to the luminous rock paintings of that era.**

Coco Islands
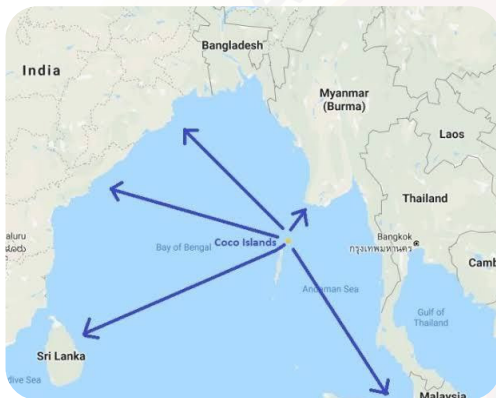
» Recent reports of suspicious infrastructure upgrades were reported at Myanmar's Coco Islands, a strategic area near India.

- Coco Islands are a **small group of islands located in the Bay of Bengal.**

- **The Great Coco Island**, the largest in the group lies **55 km from India's strategic Andaman and Nicobar Islands.**

- It is **geologically an extended division of the Arakan Mountains or Rakhine Mountains**, submerges as a chain of islands in the Bay of Bengal for a long stretch and emerges again in the form of the Andaman and Nicobar Islands.

Solomon Islands

» Recently, the Prime Minister of the Solomon Islands met Chinese leader Xi Jinping in Beijing.

- Solomon Islands is a **sovereign country** consisting of six major islands and over 900 smaller islands in **Oceania**.

- It lies between **Papua New Guinea and Vanuatu**.

- More than **90% of the islanders are ethnic Melanesians.**

- Once a British protectorate, the Solomon Islands achieved independence as a republic **in 1978**.

Orkney Islands

Species in News

» An iconic Orkney Islands is looking at ways to split off from the U.K. and potentially become a self-governing territory of Norway.

- The Orkney Islands are an **archipelago** Of 70 islands in which roughly 20 are inhabited, roughly 10 miles off the **north coast of Scotland.**

- The islands have been inhabited since prehistoric times and are home to numerous archaeological sites, including **Neolithic stone circles, chambered tombs** (such as Maeshowe).

- The four monuments that make up the Heart of Neolithic Orkney are unquestionably among the most important **Neolithic sites** in Western Europe.

- **Heart of Neolithic Orkney** is designated as a **UNESCO world Heritage site**.
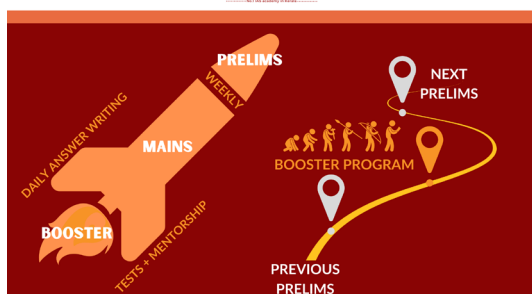
Sturgeon Species

- **August's full moon** is traditionally known as the "**sturgeon moon**" because of the **abundance of that fish in the Great Lakes in August hundreds of years ago**.

- Sturgeon is the **common name for the 28 species of fish** belonging to the family **Acipenseridae.**

- Almost **two-thirds of sturgeon species are now critically endangered** on the IUCN Red List, making it the **world's most threatened group of species.**

Gambusia Affinis (G Affinis)

- Andhra Pradesh released Gambusia fish into the state's water bodies to combat mosquito-borne diseases like malaria and dengue.

- The **Gambusia Affinis (Western Mosquitofish)** is a small live-bearing fish native to the **waters of the eastern and southern United States.**

- Gambusia have been a **part of mosquito-control strategies for over a century** in various parts of the world, including India.

- However, the release of these invasive alien fish species has raised concerns about the **potential harm that will be sustained by native species** that abound in the freshwater bodies.

Hoolock Gibbon

- Hoolock Gibbon is the **only ape found in India**. It is native to eastern **Bangladesh, Northeast India, Myanmar, and Southwest China.**

- These animals are **known to live in tropical evergreen forests** and are commonly found near rivers.

- They are **omnivorous** and survive by eating fruits, insects, and leaves.

- It is categorised into :

Western Hoolock Gibbon
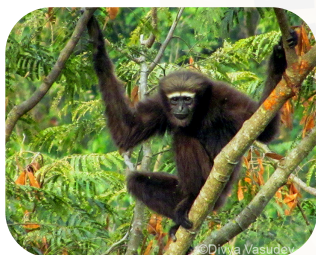
- It is listed as **Endangered** in the **IUCN Red list**.

- It has a much wider range, as it is found in all the states of the north-east, restricted between the **south of the Brahmaputra river and east of the Dibang river.**

Eastern Hoolock Gibbon
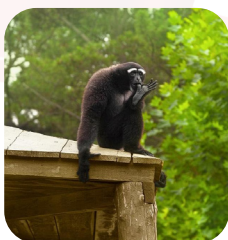
- It inhabits specific pockets of **Arunachal Pradesh and Assam** in India, and southern China and north-feast Myanmar.

- It is listed as **Vulnerable in the IUCN Red list.**

Cicada

» Recently, a 'foreign' cicada that is commonly found in several parts of South India has assumed an Indian identity.

- Cicadas are **hemipteran insects** known for their loud, complex and species-specific acoustic signals or songs.

- The **generic diversity of cicadas in India and Bangladesh** ranks the highest in the world, followed by **China**.

- Most cicadas are canopy dwellers and are found in natural forests with large trees.

- The insect species that has now **been named as Purana cheeveeda** (after its Malayalam name Cheeveedu).

Gucchi Mushrooms

» Unpredictable weather patterns, early springs, and above-average temperatures have left gucchi mushroom hunters in distress.

- **Gucchi mushroom, also known as morel, is a** species of fungus in the family Morchellaceae of the Ascomycota.

- They are pale yellow in colour with large pits and ridges on the surface of the cap, raised on a large white stem.

- It cannot be cultivated commercially and **grow in conifer forests** across temperature regions, and the foothills in **Himachal Pradesh, Uttaranchal, and Jammu and Kashmir.**

- It is known to be one of the **most expensive mushrooms.**

- **They are rich in potassium, vitamins, copper and** further **rich in antioxidants** that prevent health issues.

Indian Grey Hornbill

» Recently, the Indian Grey Hornbill was cited for the first time in Puducherry

• Conservation Status: **Least Concern**

• It is a common hornbill found on the **Indian subcontinent.**

• It is commonly sighted in pairs.

• These birds are **known to be arboreal,**e., spend most of their time on tall trees, but may descend for food and to collect mud pellets for nesting.

• **Distribution:** Indian subcontinent; found from north-east Pakistan and south Nepal east to north-west Bangladesh and south throughout most of India except in Assam.

• It has **grey feathers all over the body** with a **light grey or dull white belly.**

Gharials

» Recently, the Phoenix Herpetological Society based in Arizona has applied for permission from the U.S. Fish and Wildlife Service to import six gharials and another equal number of mugger crocodiles from Tamil Nadu.

• Gharial is a **fresh-water crocodile** which lives in deep fast-flowing rivers.

Conversation status

• **IUCN:** Critically endangered.

• **Wildlife (Protection) Act, 1972:** Schedule I

• **CITES**: Appendix I

• Compared to alligators and crocodiles, a Gharial has a **very long and narrow snout** (instead of a broad snout).

• Globally Gharial is found **only in India and Nepal.**

• In India their major population occurs in three **tributaries of the Ganga River**: the **Chambal** and the **Girwa Rivers** in India and the **Rapti-Naryani River in Nepal.**

Ludwigia Peruviana

» Recently, wildlife scientists said that Ludwigia Peruviana, an **invasive weed** threatening the elephant habitats and foraging areas in Valparai, Tamil Nadu.

• Ludwigia Peruviana is popularly called primrose willow, Ludwigia Peruviana, is a **native of Central and South America.**

• Its flower is **pale yellowish in colour** and the plant grows to a height of about **12 feet**.

• It is an **aquatic plant,** which is now challenging the existence of local vegetation in various swampy areas around the world.

• It is among **the 22 priority invasive plants in Tamil Nadu.**

Salsola Oppositifolia Desfontania

» Recently, a team of researchers from Gandhinagar-based Gujarat Ecological Education and Research (GEER) Foundation has discovered a **new plant species called Salsola Oppositifolia Desfontani.**

• It is a **perennial shrub** that grows in saline, arid to semi-arid environments.

• It is a succulent shrub that can grow one to **two metres tall and have a smooth, cylindrical, woody base**.

- It is rarely prostrate and unlike other species of Salsola, **does not have any hairs.**

- As the name oppositifolia suggests, the **leaves of this plant grow opposite each other in the stem.**

- It is a **halophyte plant** -a plant adapted to growing in saline conditions.

- It is the **sixth species of Salsola genus to be discovered in India.**

- Plants of the Salsola genus hav**e salty juice stored in their leaves.**

- They are used as a **raw material** for **manufacturing soda ash** and are known to have **pharmacological properties al**so.

Silver cockscomb

» The **Soliga tribal community** uses silver cockscomb, which is often considered to be a weed but has been discovered to have advantages.

- Silver Cockscomb refered to as **anne soppu** is a **short-lived 50-60 cm-tall plan**t considered as a weed, that bears simple, spirally arranged leaves around the stem with pinkish or silky white flowers.

- It g**rows well even on fallow land and in drought-like conditi**ons.

- Soligas use it as a **nutritious leafy green vegetable,** as it is high in nutrients such as **beta-carotene and folic acids, a**nd have vitamin E, calcium and iron.

- It is f**requently used in traditional Chinese and Indian medicine** for **treating eye diseases and ulcers.**

- **Soligas are indigenous tribal communities of Karnataka. They are the first tribal community living inside the core area of a tiger reserve in India to get their forest rights officially recognised by a court of law.**