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— Disclaimer —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

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An Institute for Civil Services

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WE DO!

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RAJEEV CHOUDHARY

GAURAV BANSAL

MANOJ K. JHA

SIDDHARTH MITTAL

RAJNISH JINDAL

SHIVLAL GUPTA

ANURAG PATHAK

PRAVEEN KUMAR

RAJVARDHAN

SOURABH MISHRA

SMRITI RAO

ABHISHIEKH SAXENA

VIRAJ C. RANE

THE MOST EXPERIENCED & SEASONED
SUBJECT EXPERT

Section A [MAINS]

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ICSSR TO STUDY SOCIO-ECONOMIC IMPACT OF CENTRE'S SCHEMES

Context: In a view to Indianise methodologies to study country' societies, the Indian Council of Social Science Research (ICSSR) is going to study the socio-economic impact of center's schemes on society.

Key-highlights:

❋ ICSSR has invited research award proposals to study the impact of various schemes and public policy initiatives of the Union government.

❋ Around **500 researchers** will get funding for the studies **based on field work** focused on a specific geographical region.

❋ The ICSSR also plans to develop "**Indianised research methodology tools**" to study the country's social and economic changes.

❋ The **schemes and policy initiatives** for empirical research include the **PM Ujjwala Yojana, PM Awas Yojana, Deendayal Antyodaya Yojana, PM Krishi Sinchai Yojana, PM Fasal Bima Yojana, PM Kisan Samman Nidhi, Year of Millet 2023, Ayushman Bharat, Jan Aushadhi Yojana, Swachh Bharat Abhiyan, and Make-in-India** among others.

What is Social research?

❋ Social research refers to the **study of individuals** and societies and is often used to identify regularly occurring social patterns in social life.

❋ It can be defined as the systematic understanding of social facts or phenomena. It is used to gather information on the social world, in order to come up with a course of action or simply to develop new knowledge.

How it is helpful?

❋ Social research helps to acquire knowledge of human society. The dynamic nature of society makes it challenging to understand to move towards progress and welfare. Social research enables us to analyze social behavior, understand the causes, and accelerate its evolution.

❋ Social research expands our knowledge to drive discovery and innovation. It contributes to the growth and development of a nation or the entire human society.

Why there is a need for Indianised way of socio-economic analysis?

❋ To study the **socio-economic realities of specific communities** of the country, the paradigms so far used primarily originated from the U.S. or Europe.

❋ **Same yardsticks** cannot be applied to study communities of various regions.

❋ India has its own **intellectual and philosophical traditions** which have social concepts and analytical frameworks in them.

What are tools to assess the research data?

❋ An academic research tool is a software or platform that helps **researchers organize, analyze, and manage the** various components of their research projects**.**

❋ Some examples of academic research tools include **reference management software, data visualization software, and survey design tools.**

Significance of social research:

❋ **Can predict social behavior**: Social research helps us understand different people and societies. Information gathered from the research can help us predict the behaviour of certain individuals or groups.

❋ **Helps expand or rectify current knowledge:** Social research adds to the knowledge we currently have. It can also be used to test or very old social fact or beliefs and how it impacts on people's life.

❋ **Provides an understanding of social life**: Social research is used to gather information on social phenomena. It provides us with an understanding of the life of different social groups.

❋ **Structural changes:** The data collected can be used to bring planned structural changes to social life. It can help you understand the current needs people have and develop an action plan to meet those needs.

❋ **Precipitates social progress:** Social research helps us obtain appropriate and reliable knowledge on

social structures and groups. This information can be used to disintegrate prejudices, misconceptions, and superstitions, precipitating social progress and creating a more inclusive society.

✳ **Formulates new theories**: Social research allows us to formulate new theories in different fields of study. There are many existing theories on leadership, motivation, and human behaviour that wouldn't exist if it wasn't for social research.

✳ **Helps develop methodologies:** Social research has been used over time to create methodologies to deal with social problems such as drug addiction, worker ethic, leadership style, child labour, and is continually used to revise old methodologies or to create new ones.

Indian Council of Social Science Research (ICSSR):

● **Established in**: 1969

● **Objective**: to promote **research in social sciences in the country**.

● ICSSR provide grants for **projects, fellowships, international collaboration, capacity building, survey, publications etc.** to promote research in social sciences in India.

● ICSSR has developed ICSSR Data Service to serve as a national data service for promoting powerful research environment through sharing and reuse of data among social science community in India.

TAMIL NADU–KARNATAKA CAUVERY DISPUTE

Context: According to a recent update, Chief Justice of India (CJI) has assured Tamil Nadu that he would constitute a Bench to hear the State's plea for the release of its allotment of Cauvery river water for the month of August.

Background:

✳ Tamil Nadu has moved the Supreme Court seeking a **direction to Karnataka** to release **24,000 cusecs** of Cauvery water forthwith from its **reservoirs at Billigundulu** starting from August 14.

✳ Tamil Nadu also asked the court to direct the **Cauvery Water Management Authority** to ensure that the **directions** issued to Karnataka to release water to them were "fully implemented and the stipulated monthly releases during the remaining period of the current water year".

Cauvery River Water Dispute:

✳ The dispute involves **3 states** and **one Union Territory** i.e. **Tamil Nadu, Kerala, Karnataka and Puducherry**).

✳ The genesis of the dispute is **150 years old** and dates back to the two agreements of arbitration in 1892 and 1924 between the then **Madras presidency and Mysore**.

✳ It entailed the principle that the **upper riparian state** must obtain consent of **lower riparian state** for any construction activity viz. **reservoir on the river Cauvery**.

✳ To resolve the matter, the **CWDT (Cauvery Water Disputes Tribunal)** was established in 1990 which took **17 years to arrive at the final order (2007)** on how Cauvery water should be shared between the **4 riparian states in normal rainfall conditions.**

✳ CWDT was constituted by **the Central Government**, in exercise of the powers conferred by section 4 of the **Inter-State River Water Disputes Act, 1956**.

Cauvery River and its Tributaries:

● The Cauvery River (Kaveri) is designated as the '**Dakshi Bharat ki Ganga'** or '**the Ganga of the South'**.

● **Origin:** The Cauvery River rises at an elevation of 1,341 m at Talakaveri on the Brahmagiri range near Cherangala village of Kodagu (Coorg) district of Karnataka.

● The total length of the river from origin to an outfall is 800 km.

● It flows in a south-easterly direction for 705 km through the states of Karnataka and Tamil Nadu and descends the **Eastern Ghats** in a series of great falls.

● Before emptying into the **Bay of Bengal** south of Cuddalore, Tamil Nadu the river breaks into a large number of distributaries forming a wide delta called the "garden of southern India"

● The Cauvery basin extends over states of Tamil Nadu, Karnataka, Kerala, and Union Territory of Puducherry draining an area of 81 thousand Sq.km.

● **Its Tributaries:**

  ➤ **Left Bank**: the Harangi, the Hemavati, the Shimsha, and the Arkavati.

  ➤ **Right Bank**: Lakshmantirtha, the Kabbani, the Suvarnavati, the Bhavani, the Noyil, and the Amaravati join from the right.

● The river descends from the **South Karnataka Plateau** to the Tamil Nadu Plains through the **Sivasamudram waterfalls** (101 m high).

Role of Cauvery Water Management Authority (CMA):

* It has been created as per the **Cauvery Management Scheme** earlier framed by Centre and approved by Supreme Court.

* The CMA will be to secure **implementation and compliance of the Supreme Court's order** in relation to "storage, apportionment, regulation and control of Cauvery waters".

* CMA will also advise the **states to take suitable measures** to improve water use efficiency.

* It will do so by **promoting use of micro-irrigation, change in cropping patterns, improved farm practices** and development of command areas.

* The CMA will also prepare **an annual report** covering its activities during the preceding year.

Constitutional Provisions:

* **Article 131:** This article grants the **original jurisdiction to the Supreme Court of India** in disputes between **two or more states** or between the **Government of India and one or more states**.

  ➢ Such disputes can pertain to legal, constitutional, or any other matter.

  ➢ The disputes brought under this article bypass the jurisdiction of any other court.

* **Article 262**: This article deals with disputes related to water resources between states or between the Government of India and states.

  ➢ It empowers **Parliament to enact laws** for the adjudication of disputes related to **waters of inter-state rivers or river valleys.**

  ➢ However, if a state requests, the dispute can be referred to a **tribunal** for adjudication**.**

* **Interstate Council (Article 263):** Although not directly dealing with disputes, Article 263 provides for the establishment of an Interstate Council to promote coordination and cooperation among states.

  ➢ The President can establish such a council if it appears that a subject of common interest has arisen or is likely to arise in two or more states.

Way forward:

* **Negotiations and Mediation**: Engage in continuous negotiations and mediation involving all stakeholders, including the states of Karnataka, Tamil Nadu, Kerala, and Puducherry, along with expert committees, to find a mutually acceptable solution.

* **Data Sharing and Monitoring:** Establish an independent authority to monitor water flow and usage, ensuring transparency and equitable distribution. Sharing accurate data can reduce disputes arising from water availability.

* **Integrated Water Management**: Adopt an integrated water management approach, emphasizing water conservation, rainwater harvesting, and efficient irrigation practices to optimize water utilization.

* **Technological Solutions**: Leverage technology like GIS (Geographic Information System) to accurately assess water availability, plan reservoir management, and allocate resources based on scientific data.

* **Legal Framework**: Frame clear legal agreements or treaties outlining water-sharing proportions during different seasons, ensuring equitable allocation and minimizing conflicts.

* **Drought and Flood Management**: Develop strategies to manage drought and flood situations, such as building reservoirs, groundwater recharge, and flood control mechanisms.

DRONES TO MONITOR MGNREGA WORKSITES

Context: Recently, the Ministry of Rural Development has released a standard operating procedure (SOP) to increase its surveillance of worksites under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme.

Background:

* There were several complaints about **corruption in MNREGS works**.

* These vary from machines being used in place of the workers, many receiving wages without doing work, or works beyond the approved list being undertaken, and so on.

* The idea to **deploy drones** will be especially helpful in such cases for **real-time monitoring and for garnering evidence.**

About the SOP:

* According to the draft, now the drones will be used for **four types of monitoring**:

  ➢ Surveying the on-going works

  ➢ Inspecting the completed works

  ➢ Impact assessment

  ➢ Special inspection in case of complaints

* **Administered by**: The SOP stipulates that the drones will be used by the ombudsperson.

➤ According to the MGNREG Act which governs the scheme, there should **one ombudsperson per district** that is responsible for registering *suo moto* complaints and disposing of them within 30 days.

❋ **Role of Ombudsperson**:

➤ For efficient monitoring and **redressal of grievances**, it is decided by the Ministry that the ombudsperson may use drone technology facilities for **verification of the works virtually.**

➤ It has directed **State governments** to provide the facility to ombudspersons.

❋ **Fund allocation**:

➤ The States will not be provided with any **extra funds** to deploy these drones.

➤ According to the guidelines, State governments are expected to draw the necessary funds from the administrative head, which is roughly **10% of a State's MGNREGA budget.**

❋ **Data management**: The Ministry also proposes to form a **centralized dashboard to store the videos and photos collected from the drones,** for data analysis and reporting purposes.

Government steps taking MGNREAGA towards digitisation

❋ **Mandatory Attendance:** In May 2022, the Union government made it mandatory to capture attendance at all worksites on the **National Mobile Monitoring Software (NMMS) App.**

❋ **Aadhaar-Based Payment System (ABPS):** In January this year, the **Ministry of Rural Development (MoRD)** also told state governments that all payments to MGNREGA workers would be mandatorily made through the **Aadhaar-Based Payment System (ABPS)** alone.

What is e-governance?

• e-Governance can be defined as the application of information and communication technology (ICT) for providing government services, exchange of information, transactions, integration of previously existing services and information portals.

• **Pillars of e-Governance:**
  ➤ People
  ➤ Process
  ➤ Technology
  ➤ Resources

• **Types of Interaction in e-Governance**
  ➤ **G2G i.e.** Government to Government
  ➤ **G2C i.e.** Government to Citizen
  ➤ **G2B i.e.** Government to Business
  ➤ **G2E i.e.** Government to Employees

Need of Technological interventions in Governance:

❋ **To promote Participative Democracy**: Such Mechanism may help in strengthening Social audit. For example, citizens can directly give suggestions to the government on **myGOV platform**.

❋ **Implementing Good Governance:** Information Technology has ensured that a policy decision taken by the government can be quickly executed and implemented at multiple locations, across the length and breadth of the country.

❋ **Achieving Sustainable Development Goals:** Government has taken much of the e-governance initiatives for effective public service delivery. Also, when combined with emerging technologies, it can help in achieving sustainable development goals.

INHERITANCE RIGHTS IN INDIA

Context: Recently, the Supreme Court (SC) reserved its judgment on whether children born out of invalid, void and voidable Hindu marriages can inherit their parents' ancestral property.

About the Judgement:

❋ Chief Justice of India (CJI) has agreed that children from **void and voidable marriages** had rights over the property, whether **self-acquired or ancestral**, of their parents.

❋ The **birth of a child** in such a relationship has to be viewed independently of the relationship of the parents.

❋ A child born in such a relationship is **innocent** and is entitled to all the rights which are given to other children **born in valid marriage**.

❋ Also as per the **amendment in Section 16(3),"** the Division Bench of Justices (retired) G.S. Singhvi and **A.K. Ganguly** had written in their 2011 judgment in the **Revanasidappa v Mallikarjun case**.

❋ The Division Bench had held that such children would have a right to any property that belonged to their parents.

❋ The Bench had however clarified that the **children's claims** would be limited to the property of their parents and **no other relation.**

Provisions related to Inheritance in India:

❋ *Section 16(3)* of **the Hindu Marriage Act**, **1956** deals with the inheritance laws in India:

❋ **Rights of Natural born Children:** The children, both

son and daughter, under the Succession Act have equal rights over the **father's property** to be shared with the **mother and grandmother**.

➤ Even a **posthumously born child**, if born alive, has rights to the father's property.

➤ The child's rights come after the **father's demise in the grandfather's self-acquired property**.

❋ **Rights of Legally Adopted child**: In the case of a legally adopted child, the child has the same rights as a natural child as per inheritance laws in India.

➤ From the moment of adoption, the child ceases to belong to the biological parents and becomes a part of the new family.

➤ But if a share of property or asset has been vested on the child before adoption from, say, the biological family, the property belongs to the child even after adoption.

Timeline for Inheritance laws:

Ancient Period:

❋ **Pre-Vedic to Vedic Times**: Inheritance practices were often patrilineal (through the male line) and based on family traditions and customs.

❋ **Manusmriti (Laws of Manu):** Manusmriti codified various inheritance laws and practices, emphasizing the importance of **male heirs** and providing guidelines for dividing property among family members.

Medieval Period

❋ **Islamic Rule**: During Islamic rule, Islamic laws of inheritance were followed for Muslims, which emphasized **fixed shares** for various family members**, including sons, daughters, and spouses**.

Post-Independence Era:

❋ **Hindu Succession Act (1956):** The Act aimed to modernize Hindu inheritance laws by providing more equitable shares to daughters and other **female relatives in ancestral property**, and it recognized the concept of a **Hindu Undivided Family (HUF)**.

❋ **Hindu Succession Act Amendments (2005):** Major amendments were made to the Hindu Succession Act, '**granting daughters equal rights'** in ancestral property. It removed the gender-based discrimination present earlier.

❋ **Muslim Personal Law (Shariat) Application Act (1937):** This Act applied Muslim personal law in various matters, including inheritance, for Muslims.

Contemporary Period:

❋ **Triple Talaq and Uniform Civil Code Debates**: Ongoing debates and legal battles continue regarding reforms in personal laws, including inheritance, particularly with regard to Muslim women's rights.

❋ **Supreme Court Rulings**: The Supreme Court of India has delivered judgments promoting gender equality in inheritance, such as the landmark judgment in **Prakash & Ors v. Phulavati & Ors (2016)** that clarified that daughters have equal rights in ancestral property even if the father died before the 2005 amendment.

RBI ALLOWS SWITCH FROM 'FLOATING TO FIXED RATE' REGIME

Context: **The Reserve Bank of India (RBI) asked all regulated entities (REs), including banks and NBFCs, to give personal loan borrowers an option to switch over from a floating rate to a fixed rate regime at the time of resetting interest rates.**

What is floating exchange rate?

● A floating exchange rate is a regime where the currency price of a nation is set by the forex market based on **supply and demand relative** to other currencies.

● This is in contrast to a **fixed exchange rate**, in which the government entirely or predominantly determines the rate.

About Fixed Exchange rate regime:

● A fixed exchange rate is a regime **applied by a government or central bank** that ties the country's official currency exchange rate to another country's currency or the price of gold.

● The purpose of a **fixed exchange rate system** is to keep a currency's value within a narrow band.

Changes made by RBI:

The RBI asked banks to implement the following regulations:

❋ **For Regulated entities (RE)** :

➤ At the time of sanction, REs will have to clearly communicate to the borrowers about the possible impact of a change in **benchmark interest rate** on the loan leading to changes in **EMI and/or tenor** or both.

➤ Any increase in the **EMI/ tenor or both will have to be communicated** to the borrower immediately through **appropriate channels**.

- At the **time of reset of interest rates**, REs will have to give the option to borrowers to switch over to a fixed rate as per their board-approved policy.
- The policy will also specify the number of times a borrower will be allowed to switch during the tenor of the loan.
- REs will have to **disclose all applicable charges** for switching loans from **floating to fixed rate** and any other service charges/ administrative costs in the sanction letter and also at the time of revision of charges or costs from time to time.

❊ **For EMI or Elongation of tenor**:

- The borrowers will also be given the **choice to opt for enhancement in EMI or elongation of tenor** or for a **combination of both options**, and to prepay, either in part or in full, at any point during the tenor of the loan, with foreclosure charges.
- The RBI said REs will have to ensure that these instructions are extended to the existing as well as new loans by December 31, 2023.

Why has RBI issued new regulations?

❊ **Unreasonable Tenor Elongation:** Instances of banks significantly extending tenors of floating rate loans without proper borrower consent and communication have been identified.

❊ **Interest Rate Changes**: Banks can alter interest rates by adjusting the internal benchmark rate and spread during the loan term, potentially harming borrowers' interests and monetary transmission.

❊ **Arbitrary EMI Resets**: Borrowers complain of banks arbitrarily resetting Equated Monthly Installments (EMIs) and extending tenors without adequate notification.

❊ **Hidden Foreclosure Charges**: Borrowers are often unaware of foreclosure charges, adding to borrower dissatisfaction.

❊ **Stress Concealment:** RBI notes that prolonged tenor elongation may obscure underlying stress in banks' financial health.

❊ **Refinancing Challenges**: While theoretically possible, refinancing floating rate loans across different banks with distinct internal benchmarks is complex due to varying benchmark adjustment methods.

❊ **Limited Borrower Options**: Borrowers might feel compelled to stay with their original bank, paying higher charges, as refinancing is often impractical due to benchmark disparities.

Possible impacts:

❊ **Interest rate of borrowers**: Banks can change the interest rate by changing the **internal benchmark rate** and the spread during the term of the loan which could harm the **interest of the borrower** and also **impair monetary transmission**.

Benefits of Fixed rate regime:

❊ **For borrowers:**

- **Protection from Rate Hikes**: Shifting to a fixed rate provides protection against potential future increases in interest rates. This can be particularly beneficial if interest rates are expected to rise in the near future.

- **Budgeting and Financial Planning**: Fixed payments make it easier for borrowers to budget and plan their finances since they know exactly how much they need to allocate for their loan payments.

- **Potential Cost**: Fixed interest rates tend to be initially higher than prevailing floating rates.

❊ **For lenders:**

- **Interest Rate Risk Mitigation**: Lenders are less exposed to interest rate risks when borrowers opt for fixed rates. They can better manage their own interest rate risk since they know the interest income they'll receive remains constant.

- **Lending Profitability**: Fixed-rate loans typically come with higher initial interest rates compared to floating-rate loans. This can lead to increased lending profitability for lenders, especially if rates remain stable or decline.

- **Potential Lower Loan Demand**: Higher initial fixed rates might deter some potential borrowers who are attracted to lower initial payments offered by floating rates.

- **Limited Flexibility**: Lenders might have less flexibility in adjusting loan terms for borrowers with fixed-rate loans, as the interest rate remains constant regardless of market conditions.

PUBLIC TECH PLATFORM FOR FRICTIONLESS CREDIT (PTPFC)

Context: The Reserve Bank of India (RBI) has announced a pilot programme for 'Public Tech Platform for Frictionless Credit' which would strive to deliver frictionless credit by facilitating seamless flow of required digital information to lenders.

About Public Tech Platform for frictionless credit (PTPFC):

* The Public Tech Platform for frictionless credit is an **end-to-end digital platform** that has been developed by the Reserve Bank Innovation Hub, a wholly-owned subsidiary of the central bank.

* **Developed by**: The public platform will be developed by the **Reserve Bank Innovation Hub (RBIH).**

* The newly launched Public Tech Credit platform will help in seamless **disbursal of non-collateral** based loans for **Micro, Small and Medium Enterprises (MSMEs)**, **Kisan Credit Card loans** up to Rs 1.6 lakh, dairy loans, personal loans, and home loans.

* **Objective:** The aim of the pilot project is to connect borrowers and lenders, which will make credit more accessible to millions of individuals looking for small loans.

How will it work?

* The platform has been designed to have **open application programming interface (API) standards**, which will allow other financial institutions to readily adopt it into their systems. Instead of having discrete information systems, the **centralisation of borrower information** can make it much easier for new loan applicants to avail credit facility.

* It is expected to linkage with services like **Aadhar e-KYC**, Aadhar e-signing, land records from on-boarded state governments (Madhya Pradesh, Tamil Nadu, Karnataka, Uttar Pradesh and Maharashtra), satellite data, PAN validation, and transliteration, account aggregation by account aggregators (AAs), milk pouring data from select dairy co-operatives, and house/property search data.

* **Significance of the Programme:**

    ➤ It ensures that **credit or other financial instruments** are extended to a larger set of borrowers with good credit history.

    ➤ It would provide a **basis for improved credit risk and overall credit portfolio management.**

The Credit appraisal process for loan reimbursement:

* Digital delivery of credit (or delivering credit/loans though digital means) is preceded by a process of scrutiny known as **credit appraisal**.

* The process attempts to evaluate and accordingly predict the prospective borrowers' ability for **repayment of credit/loan** and adhering to the credit agreement.

* The process rests on three important pillars, namely, the **problem of adverse selection** (that results from the asymmetry of information from either the borrower or lender), **measurement of exposure risk** and the **assessment of default risk** (the probability that the borrower may default in repayment).

* This **pre-disbursal process** is particularly important for banks since it would in turn determine their **interest income** and **impact on the balance sheet.**

How will it help in MSME and Kisan Credit Card Loans?

* The effect of the PTPFC has been immediately seen with few banks announcing that it will be launching **Kisan Credit Card (KCC)** and **unsecured MSME loans** to small business customers through the platform.

* Once the pilot programme is over, the RBI will be taking a look at the programme and further extend the scope of the project.

* Future changes to the program include adding more products, and providers, as well as onboarding more lenders.

* As the project expands, the PTPFC is expected to further improve credit access to more underserved areas of the country.

SMART & YOUTH-CENTRIC AGRICULTURE IN INDIA

Context: With the increasing challenges posed by climate change, population growth and evolving market dynamics, the need for sustainable, smart, yet localised agricultural practices has become more pressing than ever before.

What is Smart and Youth-centric Agriculture?

✱ "Smart Youth-Centric Agriculture" refers to the **integration of modern technologies, innovative practices, and youth engagement** to transform and enhance the agricultural sector.

✱ It focuses on leveraging the potential of young people in agriculture by equipping them with knowledge, skills, and tools to address challenges and capitalize on opportunities in the agricultural domain.

✱ This approach aims to make agriculture more **attractive, sustainable, and productive** while catering to the **needs and aspirations of the younger generation**.

> Smart farming is a management concept focused on providing the **agricultural industry** with the **infrastructure to leverage advanced technology** – including big data, the cloud and the internet of things (IoT) – for **tracking, monitoring, automating and analyzing operations.**

How it can be beneficial?

✱ **For a sustainable future:** The convergence of traditional wisdom and technology in smart agriculture can open the gateway to a prosperous future for Northeast India's farmers and communities.

✱ **Adaptations to changing environment**: It will likely empower them to adapt to changing conditions, preserve their cultural heritage and build a stronger and self-reliant agricultural sector.

✱ **Inspire young minds towards agriculture:** It will lead to further innovations. As we have witnessed the IT revolution, which was led by young minds who saw a dream and believed in it.

✱ **Making agriculture aspirational**: A new approach to smart farming became possible with an effort to engage with children and youth at the school level, making community spaces into science and agriculture laboratories.

How involvement of youth can be achieved?

✱ **Challenging modern techniques**: Mono-cropping was becoming popular, adversely impacting diversity in local diets as crop and diet diversities are intrinsically linked. These disturbing trends presented an opportunity to rethink agriculture and innovation and make it more community-centric, in fact, even child-centric.

✱ **Promoting community-centric participation**: Today, **krishisakhi, pashusakhi and solarsakhi** are creating an ecosystem of inquiry that helps open minds to the idea of smart agriculture that is community-centered.

✱ **Sense of coexistence**: By attracting youth, helps them discover their relationship with the larger ecosystem, its relationship with **parents, friends, their community** and the environment around them.

Government Initiatives on similar lines:

✱ **Digital Agriculture Mission (DAM**): It includes India Digital Ecosystem of Agriculture (IDEA), Farmers Database, Unified Farmers Service Interface (UFSI), and Funding to the States on the new Technology (NeGPA), **Revamping Mahalanobis National Crop Forecast Centre (MNCFC),** Soil Health, Fertility and profile mapping.

✱ The GoI started **eNAM (National Agriculture Market),** an electronic trading portal which creates networks between the existing Agricultural Produce Market Committee (APMC) mandis for the farmers.

✱ **Common platform called KISAAN:** The Farmer **FIRST (Farm, Innovations, Resources, Science and Technology) initiative** was launched by ICAR to enhance farmers-scientists interface to move beyond production and productivity.

INDIA IS BECOMING A YOUNG COUNTRY BUT WITH AN 'AGEING WORKFORCE'

Context: As per an analysis from CMIE's Economic Outlook data, shows that while India may be the country with the most youthful population, its workforce is rapidly ageing.

What does the ageing population means to India?

✱ An **ageing workforce** basically means that if one looks at all the employed people in India, the share of **young people is going down** while the share of those **closer to 60 years of age is going up**.

✱ In CMIE's data, youth is defined as those **belonging to ages above 15 years and below 25 years.**

✱ However, since the PM has talked about those **under 30 years** as the youth.

✱ The report has divided the workforce into **three groups**:

➤ Those aged 15 years or more but less than 30 years,

➤ Those aged 30 years or more but less than 45 years, and

➤ Those aged 45 years and older.

TABLE: COMPOSITION OF THE WORKFORCE BY AGE GROUP (%)			
Year	Share of >15 and <30 in workforce (in %)	Share of 30 to <45 in workforce (in %)	Share of 45 years and more in workforce (in %)
2016-17	25	38	37
2017-18	23	38	39
2018-19	22	38	40
2019-20	21	37	42
2020-21	18	35	45
2021-22	18	35	47
2022-23	17	33	49
Source: CMIE's Economic Outlook and Indian Express Research			

❋ The data shows that the **oldest age category** however has grown its share **from 37% to 49%.**

❋ In other words, just in the **past seven years**, the workforce has aged so much that the share of people **45 years and older** has gone from **one-third to almost one-half**.

Why is India's workforce ageing?

❋ Simply put, even though its numbers are swelling up, the youth is getting driven out of the job market.

❋ A good way to track this is from "**Employment Rate**".

The **Employment Rate (ER)** for any population or age group tells us what proportion of that age group or population is employed.

❋ So, if there are **100 people** in the **ages 15 to 29** and only **10 are employed** then the **ER would be 10%.**

How demographic dividend can change into 'demographic curse'?

❋ **Challenge to harness the demographic dividend:** As India definitely has large youth population as compared to other developing nations, however, if India remains unable to give them employments can make the situation more worse.

❋ **Burdening economy:** If situation prevails for unemployment, poverty and other social impacts then, economy of India is burden even more.

Impacts of ageing population:

Economic Challenges:

❋ **Labor Force Decline**: As the older population increases, the working-age population shrinks, leading to potential labor shortages and reduced productivity.

❋ **Increased Healthcare Costs**: Aging populations require more healthcare services, leading to higher healthcare expenditures, which can strain public budgets.

❋ **Pension and Social Security Pressures**: A larger elderly population puts pressure on pension and social security systems, potentially leading to financial sustainability issues.

Healthcare and Social Services:

❋ **Higher Healthcare Demand**: Older individuals tend to have more chronic health conditions and require more medical care, leading to increased demand for healthcare services.

❋ **Long-Term Care Needs**: Aging populations require more long-term care services, including nursing homes and assisted living facilities.

❋ **Caregiver Stress**: The burden on family members and informal caregivers can increase, impacting their mental and physical well-being.

Policy and Planning:

❋ **Healthcare Infrastructure**: Aging populations necessitate investments in healthcare infrastructure and geriatric care facilities.

❋ **Pension and Social Programs**: Governments may need to reform pension and social programs to ensure their sustainability.

❋ **Labor Market Policies**: Governments may need to implement policies to encourage older individuals to stay in the workforce or facilitate their transition to retirement.

GS SCORE

GOVT. UNVEILS GREEN HYDROGEN STANDARDS

Context: In a significant move for the progress of the National Green Hydrogen Mission, the Ministry of New and Renewable Energy has notified the 'Green Hydrogen Standard for India'.

Key-highlights:

※ The standards issued by the ministry outline the **emission thresholds** that must be met in order for hydrogen produced to be classified as '**Green'**, i.e., from renewable sources.

※ India became one of the few countries to have a **definition for green hydrogen.**

What is Green Hydrogen?

※ Green Hydrogen is produced using electrolysis of water with electricity generated by renewable energy.

※ The **carbon intensity** ultimately depends on the **carbon neutrality** of the source of electricity (i.e., the more renewable energy there is in the electricity fuel mix, the "greener" the hydrogen produced).

About the notified standards for Green Hydrogen:

※ **Definition:** The ministry has decided to define green hydrogen as having a well-to-gate emission of not more than **two kg carbon dioxide (CO_2) equivalent per kg hydrogen (H_2).**

  ➤ The scope of the definition encompasses both **electrolysis-based and biomass-based hydrogen production methods.**

※ **Methodology:** The notification specifies that a detailed methodology for measurement, reporting, monitoring, on-site verification and certification of green hydrogen and its derivatives will be specified by the ministry of new and renewable energy.

※ **Nodal Authority:** It also specifies that the **Bureau of Energy Efficiency (BEE)** under the **Ministry of Power** will be the nodal authority for accreditation of agencies for the monitoring, verification and certification for green hydrogen production projects.

※ The government launched **National Green Hydrogen Mission** early this year with an aim to produce 5 million metric tonnes (MMT) green hydrogen per annum with an associated renewable energy capacity of about 125 giga watt (GW) by 2030.

※ The **Strategic Interventions for Green Hydrogen Transition (SIGHT) programme** is a major financial measure under the mission with an outlay of Rs 17,490 crore.

※ The programme proposes two distinct financial incentive mechanisms to support domestic production of **electrolysers and production of green hydrogen**.

※ These incentives are aimed at enabling rapid scale-up, technology development and cost reduction.

※ The definition of green hydrogen brings a lot of clarity to the mission of making India a global green hydrogen hub.

India's Green Hydrogen aspiration:

※ India has set a target of producing **5 million tonnes per annum (MTPA)** of green hydrogen by 2030 through the recently launched **National Green Hydrogen Mission.**

※ Rapid scaling up of green hydrogen projects in India would require the development of a favourable ecosystem, and a **single window clearance for green hydrogen projects** would be a key component.

※ In this regard, the development and harmonisation of hydrogen standards would play a critical role in making it for businesses to enter the green hydrogen market.

※ In addition, since India aims to be a **global hub for green hydrogen** in the coming decades, the synchronisation of standards across the value chain with global export markets is of the utmost importance.

Significance of Green Hydrogen:

※ Green Hydrogen, produced using renewable energy, has the potential to play a key role in such low-carbon and self-reliant economic pathways.

※ Green Hydrogen can enable utilization of domestically abundant renewable energy resources across regions, seasons, and sectors, feeding multiple usage streams, either as a fuel or as an industrial feedstock.

* It can directly replace fossil fuel derived feedstocks in petroleum refining, fertilizer production, steel manufacturing etc.

* Hydrogen fuelled long-haul automobiles and marine vessels can enable decarbonisation of the mobility sector.

* Green Hydrogen can be particularly useful as a versatile energy carrier for meeting energy requirements of remote geographies, including islands, in a sustainable manner.

National Green Hydrogen Mission:

* India has set its sight on becoming energy independent by 2047 and achieving Net Zero by 2070.

* To achieve this target, increasing renewable energy use across all economic spheres is central to India's Energy Transition.

* Green Hydrogen is considered a promising alternative for enabling this transition.

* Hydrogen can be utilized for long-duration storage of renewable energy, replacement of fossil fuels in industry, clean transportation, and potentially also for decentralized power generation, aviation, and marine transport.

* The **National Green Hydrogen Mission** was approved with the intended objectives of:

  ➤ Making India a leading producer and supplier of Green Hydrogen in the world

  ➤ Creation of export opportunities for Green Hydrogen and its derivatives

  ➤ Reduction in dependence on imported fossil fuels and feedstock

  ➤ Development of indigenous manufacturing capabilities

  ➤ Attracting investment and business opportunities for the industry

  ➤ Creating opportunities for employment and economic development

  ➤ Supporting R&D projects

Mission outcomes:

The mission outcomes projected by 2030 are:

* Development of green hydrogen production capacity of at least 5 MMT (Million Metric Tonnes) per annum with an associated renewable energy capacity addition of about 125 GW in the country

* Over **Rs. eight lakh crore** in total investments

* Creation of over Six lakh jobs

* Cumulative reduction in fossil fuel imports over Rs. one lakh crore

* Abatement of nearly 50 MMT of annual greenhouse gas emissions

EXTREME HEAT IN MEDITERRANEAN SEA

Context: Extreme heat has plagued the Mediterranean for weeks ending with wildfires across nine countries in the region from Algeria to Greece. This increasing heat has impacted the marine life as well.

Why are high sea temperatures a problem?

* **Lesser dissolution of gases**: Gases like oxygen and carbon dioxide dissolve better at colder temperatures, so that means the warmer the water; the less oxygen is available to breathe.

* **Higher rate of respiration in marine organism**: Higher temperatures also cause an increase in metabolism, which in turn means animals have to breathe even more than usual.

  ➤ The rise in temperature accelerates metabolism, and the organisms need more food to maintain this metabolic rate.

* **More Algal blooms:** They are more common in hotter waters. Such blooms can further **deplete oxygen levels and produce toxins harmful for fish**, marine mammals and birds.

What species and ecosystems are worst hit by marine heat waves?

* High water temperatures are most harmful for animals living at the **bottom of oceans, lakes or rivers**.

* These benthic species include **corals, mussels, sponges, starfish** and plants like **sea grasses,** and are often attached to rock or solid ground.

* Scientists observed **mass deaths of benthic species** along thousands of kilometers of Mediterranean coastline **between 2015 and 2019.**

What does extreme heat in the Mediterranean mean for people?

* **Affecting fishing activities in the area:** Fishermen are catching fewer familiar species and instead are finding more invasive fish which they have difficulty selling.

* **Increase in invasive fishes:** Some are even poisonous, like the **puffer fish** migration is seen in the region.

* **Habitat loss**: It could also lead to an overall decline in fish populations, while disappearing seagrass.

GS SCORE

What is the phenomenon behind heat trap in oceans?

* **Ocean Heat Content (OHC):** It is the amount of energy absorbed by and stored in the oceans. It is measured in joules.

* When sunlight reaches the earth, oceans absorb this energy and store it as heat.

* While the heat is first absorbed at the surface of the water body, some of it is eventually disbursed throughout.

* Water has a higher **heat capacity than air**, which means that it can store much larger amounts of heat.

* **GHG emissions** - These gases trap heat in a blanket around the earth, not allowing it to escape, thus raising the temperature of the earth's surface and leading to global warming.

Why Mediterranean Sea is significant for global temperatures?

The Mediterranean Sea has significant implications for global temperatures due to its role as a "climate amplifier." This phenomenon is referred to as the "Mediterranean Effect" or "Mediterranean Climate Amplification." Here are the reasons:

* **Heat Absorption and Release**: The Mediterranean Sea has a lower heat capacity compared to the vast oceans, such as the Atlantic or Pacific.

  ➤ As a result, it heats up and cools down more quickly. During the summer months, the Mediterranean Sea absorbs heat from the sun, leading to warming of the surrounding land areas.

  ➤ In winter, it releases the stored heat, moderating temperatures in nearby regions.

* **Warm and Dry Summers**: The Mediterranean region experiences warm and dry summers, which are conducive to high evaporation rates from the sea's surface.

  ➤ This process results in the release of latent heat into the atmosphere, contributing to the warming of the air.

* **Atmospheric Circulation**: The temperature contrast between the relatively warm Mediterranean Sea and the cooler landmasses during summer leads to the development of low-pressure systems over land.

  ➤ This creates a pressure gradient that drives winds from the sea to the land, bringing warm, moist air with it. This warm air can further increase temperatures over land areas.

* **Feedback Loops**: The warming effect of the Mediterranean Sea can lead to feedback loops. Warmer land areas result in higher evaporation rates, which in turn contribute to the amplification of temperature rise.

➤ This cycle of heat absorption, release, and evaporation intensifies the Mediterranean Climate Amplification.

PROTECTING THE BIODIVERSITY OF THE NORTHEAST

Context: The recent case of "Re: Cleanliness of Umiam Lake versus State of Meghalaya (2023)" heard by the Meghalaya High Court raises concerns about the environmental impact of construction and tourism on the entire Northeast's biodiversity.

Biodiversity of the Northeast

* Northeast India is a green belt region due to its abundant natural resources such as oil, natural gas, minerals and fresh water.

* The **Garo-Khasi-Jaintia hills** and the **Brahmaputra valley** are some of the most important biodiversity hotspots.

How climate change is threatening the North-East?

* **Changed rainfall pattern**: Rainfall patterns over the region in the last century have considerably changed, resulting in its overall drying up.

* **Variation in temperature:** From rice to tea, crop cultivation across the board has been affected by variations in temperature and rainfall, causing distress to agricultural workers.

* **Fluctuations in water flow and erratic flooding** have exacerbated riverine erosion, which hinders the lives and livelihoods of communities residing near the Brahmaputra and its tributaries.

* **Desertification:** Six states in northeastern India were among the top 10 places in the country with the highest rates of desertification between 2003 and 2018. These are **Mizoram, Arunachal Pradesh, Assam, Tripura, Nagaland and Meghalaya.**

Climate refugees:

A large fraction of settlements on forest reserve areas and grazing lands are communities that have been previously displaced by riverbank erosion. These communities fall within the category of climate refugees, a term coined to describe the increasing number of people displaced due to environmental disruptions.

Major threats to the environment

✳ Though the northeast is industrially backward, deforestation, floods, and existing industries are causing serious problems to the environment in the region.

✳ An environmental assessment of the **North East Rural Livelihood Project** undertaken by the **Ministry of Development of the North-eastern Region** lays out that "Northeast India lies within ecologically fragile, biologically rich region, highly prone to climatic changes, located in trans boundary river basins. Both flora and fauna of the areas are under threat due to deforestation, mining, quarrying, shifting cultivation."

Environmental Laws

✳ **Development of Environmental Laws and Offences:** During the 1980s, India established numerous environmental laws and policies. Offences against the environment were framed under Sections 268 to 290 of the Indian Penal Code, classifying them as "public nuisance."

✳ **Challenges with Autonomy and District Councils:** The Sixth Schedule of the Constitution grants autonomy to District Councils. This autonomy limits State authority, including land use, within the jurisdiction of District Councils.

  ➤ In cases like **Umiam Lake**, District Councils often lack regulations for land preservation, especially near water bodies.

✳ **Environmental Litigation and PILs: Articles 32 and 226** of the Constitution fostered public interest litigation (PILs) and judicial activism. Environmental litigation surged, with instances like the National Green Tribunal imposing fines on state governments.

  ➤ In 2019, Meghalaya faced a Rs.100 crore fine for failing to curb illegal mining.

  ➤ Manipur encountered a Rs.200 crore fine for improper waste management in 2022.

✳ **Role of Judicial and Quasi-Judicial Organs:** Judicial and quasi-judicial bodies, may apply stringent guidelines and heavy penalties imposed by these bodies protect ecologically sensitive flora and fauna.

What measures can be adopted to protect the north-east?

✳ **Balancing Development and Sustainability:** Central and State governments must ensure infrastructure, revenue, and employment growth through sustainable strategies.

✳ **North East Industrial Development Scheme (NEIDS) and Environment:** The NEIDS, 2017's

'Negative List' is a positive step. Entities not adhering to environmental standards, clearances, or pollution board consent won't receive NEIDS incentives. The 'Negative List' aligns incentives with environmental compliance.

✳ **Comprehensive Approach in 'Act Fast for Northeast' Policy:** The 'Act Fast for Northeast' policy should encompass more than "trade and commerce."

  ➤ Prioritizing environment and ecology preservation is crucial.

  ➤ Striving for a 10 trillion-dollar economy without environmental protection lacks value.

✳ **Uniform Environmental Legislation for Comprehensive Governance:** Central and State governments should consider uniform and comprehensive environmental laws.

  ➤ Addressing environmental issues across governance levels is essential for effective protection.

NATIONAL 'ONE HEALTH' MISSION

Context: The concept of 'One Health' is currently gaining popularity worldwide which, India must deploy to bolster the way it responds to health crises.

About the Mission:

✳ India is currently preparing for a wider '**National One Health Mission'** under the Office of the **Principal Scientific Advisor.**

✳ **Objective:** The idea behind this mission is to **coordinate, support, and integrate** all existing One Health initiatives in the country.

What does One Health concept mean?

✳ One Health is a holistic approach to problems that recognizes the **interconnections** between the **health of humans, animals, plants, and their shared environment.**

An early articulation can be found in the **writings of Hippocrates (460-367 BC),** who contemplated the relationships between **public health and clean environments.**

How 'One health' is linked to Humans and Animals?

✳ Human population growth, **urbanization, and industrialisation** have compounded the damage to biodiversity and ecosystems.

❋ These harmful environmental changes are **linked to zoonoses** – diseases shared between animals and humans.

❋ Researchers have estimated that **60% of emerging diseases** that can infect humans are zoonotic in nature.

❋ They include **bird flu, Ebola, rabies, and Japanese encephalitis**.

SOME ZOONOTIC SPILLOVER EVENTS	
COVID-19 Pandemic:	The **SARS-CoV-2 virus** responsible for the COVID-19 pandemic is believed to have originated in **bats and possibly passed to humans** through an intermediate animal host, possibly pangolins.
MERS-CoV:	The **Middle East Respiratory Syndrome (MERS)** coronavirus is believed to have originated in dromedary camels. Human infections have occurred through close contact with infected animals or their products.
Avian Influenza (H5N1 and H7N9):	These bird flu strains have caused sporadic human infections, often associated with close contact with infected poultry. Although human-to-human transmission has been limited, the potential exists for these viruses to adapt and spread widely.
Rabies Virus	Rabies is often transmitted to humans through the bites of infected animals, primarily dogs, bats, and other mammals.

Need for such an initiative:

❋ Humankind has also become beset by major issues of **antimicrobial resistance**, **food safety and security**, and the control of **vector-borne diseases**.

❋ These issues warrant both the **inter-sectoral management and the efficiency** that characterises the One Health strategy.

What are the benefits of One Health approach?

❋ One Health minimises resource requirements across sectors.

❋ Taking a One Health approach allows researchers to, for example, share their laboratories and findings, and ultimately make decisions that lead to resilient, sustainable, and predictable policies.

❋ The economic benefits of One Health are understood in contrast to the cost of managing a pandemic with a non-One-Health approach.

What are some recent One Health initiatives?

❋ The Government of India established its '**Standing Committee on Zoonoses**' in 2006 under the Ministry of Health and Family Welfare (MoHFW).

  ➤ The purpose of this committee was to provide the Union and the State governments guidance and recommendations on challenges related to zoonoses.

❋ **India's first consortium on One Health**: The Department of Biotechnology launched India's first consortium on One Health in October 2021.

  ➤ It brings together 27 organisations from several ministries and plans to assess the burden of five transboundary animal diseases and 10 select zoonotic diseases.

  ➤ The government has allocated Rs.31 crore for three years to the consortium, especially for its promise of improving cross-cutting collaborations between the animal, human, and wildlife sectors.

❋ **One Health pilot project in Karnataka and Uttarakhand**:

  ➤ In June 2022, the Department of Animal Husbandry and Dairy (DAHD) – in partnership with the Bill & Melinda Gates Foundation and the Confederation of Indian Industry – launched a One Health pilot project in Karnataka and Uttarakhand.

  ➤ This initiative intends to strengthen intersectoral collaborations through capacity-building, with the goal of improving livestock health, human health, wildlife health, and environmental health.

Way forward:

❋ **Departmental collaboration**: An important way to achieve one health is by encouraging coordination across governmental units, including the **Ministries of Health and Family Welfare, Fisheries, Animal Husbandry and Dairying, Environment, and Science and Technology.**

❋ **Surveillance and Early Detection**: Establish integrated surveillance systems to monitor and

detect emerging infectious diseases in both humans and animals. Timely identification can help prevent outbreaks and mitigate their impact on public health.

❋ **Research and Data Sharing**: Invest in research that explores the connections between human, animal, and environmental health. Encourage open data sharing to facilitate informed decision-making and knowledge dissemination.

❋ **Policy Integration**: Integrate the One Health approach into national and international policies, regulations, and guidelines. This can ensure that health strategies consider the interdependencies between sectors.

★★★★★

Section *B* [SPECIALS]

Topic
❧ **BRICS Summit 2023**

BRICS SUMMIT 2023

Context: The Prime Minister of India is in Johannesburg, South Africa to attend the 15th BRICS summit held from August 22 to August 24, 2023.

History of BRICS:

* The term BRIC was **first introduced in the 2001.**

* In 2001, the **British Economist Jim O'Neill** coined the term BRIC to describe the four emerging economies of **Brazil, Russia, India, and China**.

* The grouping was formalised during the first meeting of BRIC Foreign Ministers' in 2006.

* South Africa was invited to join BRIC in **December 2010**, after which the group adopted the acronym BRICS.

BRICS Organization:

* BRICS is an acronym for the grouping of the world's leading emerging economies, namely **Brazil, Russia, India, China, and South Africa.**

* The chairmanship of the forum is **rotated annually among the members**, in accordance with the acronym B-R-I-C-S.

* India has the chair BRICS in 2021.

About the summit 2023:

* **Theme of the summit**: "*BRICS and Africa: Partnership for mutually accelerated growth, sustainable development and inclusive multilateralism*".

* **Presidency of:** South Africa

* **Significance:**

    ➤ **BRICS summit is crucial due to recent events**: Russian invasion of Ukraine impacting global stability, food, fertilizer, and energy security.

    ➤ **Counter-Western Slant:** With BRICS having a "**counter-western" perception**, discussions gain significance as the **U.S. and EU seek to isolate Russia**.

    ➤ **Leadership Dynamics**: Summit marks Lula's return to **power in Brazil**, highlighting a shift towards **socialist and anti-western politics** compared to Bolsonaro's presidency.

15th BRICS Summit: Top agendas for the meeting

* **Expansion of BRICS nations**: Leaders of the BRICS group of developing nations have invited **Saudi Arabia, Iran,** **Ethiopia, Egypt, Argentina and the United Arab Emirates** to join, in a move aimed at growing the clout of a bloc that has pledged to champion the "**Global South**".

* **Discussion on Dollar dominance**: The group will also discuss reducing the dollar's dominance, and several BRICS nations have already begun their trade in local currencies.

* **Trade by BRICS nations:** It surged by 56 per cent to reach 422 billion dollars in the past five years.

    ➤ In these transactions, **New Development Bank**, earlier known as **BRICS Development Bank**, will work as a medium for such transactions.

* **India's proposals**:

    ➤ India's proposed for **permanent G20 membership to African Union** gets support from BRICS.

    ➤ India is according "**highest priority**" to the issues of countries of the **Global South under its G20 presidency.**

Why BRICS organisation is important?

* BRICS is a group of emerging economies comprising;

    ➤ 41 per cent of the world population and

    ➤ 24 per cent of the GDP, and

    ➤ More than 16 per cent share in world trade.

* At present, BRICS denote the group of fastest-growing economies **(Brazil, Russia, India, China and South Africa**) that would collectively dominate the world economy by the year 2050.

HIGH-STAKES 15TH BRICS SUMMIT

India and expectations from BRICS

❋ **BRICS Summit Significance**: The BRICS summit holds special importance for India as the first in-person meeting after the **2020 India-China standoff**.

❋ **Leaders' Face-to-Face**: Prime Minister Modi and President Xi Jinping's **face-to-face interaction at BRICS** allows for bilateral discussions amid ongoing tensions.

❋ **LAC Situation and Bilateral Talks**: The meeting is an opportunity to address the LAC situation and possibly resolve tensions, with 1,00,000 soldiers stationed at the boundary.

❋ **Cooperation and Diplomacy**: India seeks cooperation from China and Russia to address issues like the G20 summit's declaration and hopes to strengthen ties within the BRICS group.

Initiatives of BRICS till now:

- **New Development Bank**: During the Sixth BRICS Summit in Fortaleza (Brazil) in 2014, the leaders signed the Agreement establishing the New Development Bank (NDB - Shanghai, China).
  - ➤ It has so far approved 70 infrastructure and sustainable development projects worth.
- **Contingent Reserve Arrangement**: In 2014, the BRICS governments had signed a treaty on the setting up of the contingent reserve arrangement
  - ➤ The arrangement is aimed at forestalling short-term balance of payments pressures, provide mutual support and strengthen financial stability of the BRICS nations.
- **BRICS Payment System**: BRICS countries are trying to create a payment system as an alternative to the SWIFT payment system.
  - ➤ This has taken on a new urgency as post Ukraine war, Russia has been frozen out of SWIFT.
- **Customs Agreements**: Customs agreement were signed to coordinate and ease trade transport between BRICS countries
- **Launched of Remote Sensing Satellite**: A Remote Sensing constellation of satellites has been launched – with 6 satellites including 2 from India, 2 from China, 1 from Russia, and 1 Brazil-China collaboration

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Section C [PRELIMS]

To Attempt
Weekly Current Affairs Test, Visit

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- Maharishi Dayanand Saraswati

- Traditional medicines in India

- Bharat NCAP (New Car Assessment Programme) Launched

- National Curriculum Framework for school Education 2023

- Lokniti-CSDS's survey

- Infrastructure Debt Funds - Non-Banking Financial Companies (IDF-NBFCs)

- China enters into 'Deflation'

- Railways to install intrusion detection system in Odisha

- World Water Week 2023

- Fukushima nuclear disaster: Japan to release treated water

- Soft-landing on the Moon & the Challenges

- ASTRA air-to-air missile

MAHARISHI DAYANAND SARASWATI

Context: The Prime Minister inaugurated the year-long celebrations commemorating the 200th birth anniversary of Maharishi Dayanand Saraswati, at Indira Gandhi Indoor Stadium, Delhi.

❋ He also released a logo for commemoration.

About Maharishi Dayanand Saraswati (1824-1883):

❋ Dayanand Saraswati was the founder of Hindu reform organisation called '**Arya Samaj'**.

❋ He was born on **February 12, 1824** in Gujarat.

❋ His original name was **Mool Shankar Tiwari**.

❋ He wandered as an ascetic for **fifteen years (1845-60)** in search of truth.

❋ He was born to **Karshanji Lalji Kapadi, and Yashodabai**.

❋ He was a social leader, Indian philosopher, and reform movement of the **Vedic dharma**.

❋ He was the first to give the call for Swaraj "**India for Indians**" in 1876, which was later taken up by **Lokmanya Tilak.**

❋ He took inspiration from the Vedas and considered them to be '**India's Rock of Ages'**, the infallible and the true **original seed of Hinduism**.

❋ He gave the slogan "**Back to the Vedas**".

❋ Dayananda died after vigorous **public criticism of a princely ruler**, under circumstances suggesting that he might have been poisoned by one of the maharaja's supporters, but the accusation was never proved in court.

Arya Samaj:

❋ Arya Samaj is a **monotheistic Indian Hindu reform movement** that promotes practices and values based on the belief in infallible authority of the Vedas.

❋ It was founded by Dayanand Saraswati on **April 10, 1875.**

❋ It was the **first Hindu organisation** to introduce **proselytization in Hinduism**.

❋ It has worked towards the growth of the **civil rights movement** across India since the 1800s.

Azadi Ka Amrit Mahotsav:

● Azadi Ka Amrit Mahotsav is an initiative of the Government of India to celebrate and commemorate 75 years of independence and the glorious history of its **people, culture and achievements**.

● This Mahotsav is dedicated to **the people of India** who have not only been instrumental in bringing India thus far in its **evolutionary journey** but also hold within them the power and potential to enable.

● The official journey of Azadi Ka Amrit Mahotsav commenced on 12th March 2021 which started a 75-week countdown to our **75th anniversary of independence** and will end post a year on 15th August 2023.

● Following are the **five themes of Azadi Ka Amrit Mahotsav**, in which one is' **Freedom Struggle'.**

TRADITIONAL MEDICINES IN INDIA

Context: Recently, WHO director-general Tedros Adhanom Ghebreyesus attends the Global Conference on Traditional Medicine as part of the G-20's Health Ministers' meeting in Gandhinagar, Gujarat.

❋ He urged countries around the world to work towards unlocking the power of traditional medicine and provide **evidence and action-based suggestions** that can be interpreted into a global strategy.

About the event:

❋ It was WHO's **first global summit** on traditional medicine.

❋ As part of the meet, India's Health minister launched the **Advantage Healthcare India Portal**, for an upcoming exhibition and conference on medical value travel.

❋ India emphasized that **medical value travel** would enable **greater knowledge-sharing**, sustainable partnerships and increased synergies, contributing to building **stronger global health architecture.**

❋ By leveraging **medical value travel**, countries could offer specialized resources and services that may not be available, affordable, or accessible in other parts of the world.
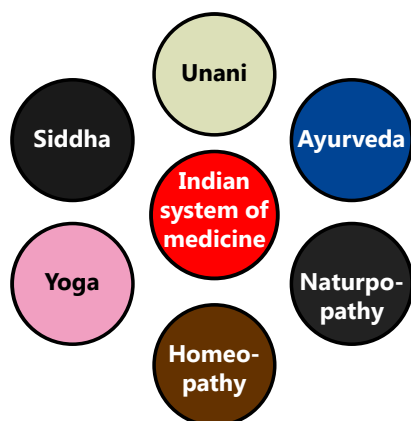
What is Traditional Medicine?

❋ According to the WHO, traditional medicine is the total sum of the "knowledge, skills and practices

indigenous and different cultures have used over time to maintain health and prevent, diagnose and treat physical and mental illness".

❋ Its reach encompasses ancient practices such as acupuncture, ayurvedic medicine and herbal mixtures as well as modern medicines.

Role of India in Traditional Medicines:

❋ In India, it is often defined as including practices and therapies — such as **yoga, Ayurveda, Siddha**.

❋ These therapies and practices have been part of Indian tradition historically as well as others — such as homoeopathy — that became part of Indian tradition over the years.

❋ Ayurveda and yoga are practised widely across the country.

❋ The Siddha system is followed predominantly in Tamil Nadu and Kerala

The **Sowa-Rigpa system** is practised mainly in **Leh-Ladakh** and Himalayan regions such as **Sikkim, Arunachal Pradesh, Darjeeling, Lahaul & Spiti.**

WHO's strategy for Traditional medicines:

❋ **Integrating with Technological Advancements**: The Centre aims to channel the potential of traditional medicine, by integrating it with technological advancements and evidence-based research.

❋ **Set Policies and Standards**: It will seek to set policies and standards on traditional medicine products and help countries create a comprehensive, safe, and high-quality health system.

❋ **Support Efforts to Implement WHO Strategy:**

  ➤ It will support efforts to implement the WHO's Traditional Medicine Strategy (2014-23).

  ➤ It aims to support nations in developing policies & action plans to strengthen the role of traditional medicine in pursuing the goal of universal health coverage.

➤ According to WHO estimates, 80% of the world's population uses traditional medicine.

Initiatives by India:

❋ India has committed an estimated USD 250 million to support the GCTM's establishment, infrastructure and operations.

  ➤ **Focus on four main strategic areas:**

    ● Evidence and learning

    ● Data and analytics

    ● Sustainability and equity and

    ● Innovation and technology to optimize the contribution of traditional medicine to global health.

BHARAT NCAP (NEW CAR ASSESSMENT PROGRAMME) LAUNCHED

Context: **India's road and car safety just received mass acceleration as the government launched the much-awaited Bharat New Car Assessment Programme (Bharat NCAP), India's homegrown vehicle safety rating system.**

What is Bharat NCAP?

❋ The Bharat NCAP is India's **very own automobile safety performance assessment programme.**

❋ In this programme, vehicles sold in the domestic market will be tested and graded on several measures.

❋ **Aim:** to enhance road safety by elevating vehicle safety standards for up to 3.5-tonne vehicles in India.

❋ With the launch of this programme, India becomes the fifth country in the world – behind the **United States, China, Japan and South Korea** – to have its dedicated car crash safety program.

❋ The Bharat NCAP is aligned with global crash test protocols. Incidentally, until now, India relied on **Global NCAP**, which performs 'voluntary' crash tests of cars to give them a rating out of five.

Global NCAP:

  ● In 2011, a **UK-based charity Towards Zero Foundation** formed the **Global NCAP** to enhance cooperation among the various NCAPs and promote vehicle crash-testing and reporting in emerging markets.

How will it work?

* **Applicability:** It will be applicable to all passenger vehicles that can seat up to **eight people and weigh less than 3.5 tonnes**, starting from 1 October.

* In addition to **petrol and diesel vehicles**, Bharat NCAP could also offer tests and safety ratings for CNG and hybrid cars.

* As part of the programme, cars will be **crash-tested** and given points which in turn would translate into stars. The safest of the lot will get **five stars.**

* As of now the Bharat NCAP crash test will be voluntary for now.

A series of tests:

* The car will have to go through a **frontal crash test** conducted at a speed of 64 kmph, as well as a **side and pole-side tests** occur at 50 kmph and 29 kmph respectively.

* The ratings are based upon two main criteria (similar to the Global NCAP):
  ➤ **Adult safety for front passengers:** To achieve a five-star rating for adult safety, a vehicle will have to gain a minimum of 27 out of 32 possible points.
  ➤ **Child safety for rear occupants:** a score of 41 out of 49 points secures the highly acclaimed five-star rating.
* Furthermore, vehicles can earn additional points by incorporating features like ISOFIX anchorages, which play a pivotal role in bolstering child restraint systems.

The need

* India is one of the leading nations when it comes to road accidents and fatalities on the roads. Official data shows that in 2021, 1.54 lakh people lost their lives and 3.84 were injured in road accidents.

* The 2020 data was also shocking – 1.31 lakh people lost lives, and 3.49 lakh were injured in road mishaps.

INDIA'S KILLER ROADS — Deaths and injuries on Indian roads

Source: Ministry of Road Transport and Highways

Significance:

* **Improved road safety:** The Bharat NCAP is aimed at improving road safety by raising the safety standards of motor vehicles.

* **Enhanced focus on customer safety:** The programme would increase the demand for safer cars and encourage manufacturers to focus more on customer safety.

* **Export-worthiness of Indian automobiles:** Additionally, with the Bharat NCAP, Indian cars are expected to compete better in the global market with high safety standards, increasing the export potential of car manufacturers in India.

NATIONAL CURRICULUM FRAMEWORK FOR SCHOOL EDUCATION 2023

Context: Recently, the final National Curriculum Framework (NCF) has been released by the National Council of Educational Research and Training (NCERT).

About the Proposed framework:

* **Framed by:** The NCF was drafted by the **National**

steering committee headed by former Chairman of the Indian Space Research Organisation (ISRO)**, K. Kasturirangan**.

❋ **Key points:**

➤ **For languages:**

● From now, Students in **Classes 9 and 10** will need to learn **three languages**, of which at least two will be native to India.

● Classes 11 and 12, students will learn **two languages**, including one of Indian origin.

➤ **Board Exams**: The NCF states that all students will be allowed to take **Board exams** on **at least two occasions** during any given school year, with only the best score being retained.

➤ **New Text books**: It follows the lead of the National Education Policy (NEP) 2020, and gives assent for formulating new textbooks from **Grades 3 to 12** under the **Central Board of Secondary Education (CBSE)**.

➤ **Number of Subjects**: For students from **Classes 9 to 12** has to study five mandatory subjects, with an option of adding one more subject.

➤ Now, the number of mandatory subjects for **Classes 9 and 10** is seven and six for **Classes 11 and 12**.

➤ **Optional subjects** have been grouped in three parts in the NCF.

● The first optional group includes **art education, physical education and vocational education**.

● The second group includes **Social Science, the Humanities, and interdisciplinary areas**.

● The third group includes **Science, Mathematics, and computational thinking.**

➤ **Shift to semester-based term**: The NCF has recommended that in the long term, all Boards should **change to semester or term-based systems.**

➤ Now, there is no hard separation between **academic and vocational subjects**, or **between Science, Social Science, Art, and Physical Education.**

NCF from NEP 2020:

The NCF brings the **aims and commitments** of the NEP:

❋ This includes the full range of human capacities, values and dispositions that are aimed to be developed in school education.

➤ Pedagogy, practices, and culture must work in tandem to develop these, and move away from an overemphasis on memorization and content accumulation; in fact, content reduction is required to create space for such development.

❋ The **5+3+3+4 Curricular and Pedagogical structure** of school education is reflected in the learning standards, the content, the pedagogy, and the assessment approaches.

❋ It is integrative and holistic with equal status to all subjects and learning domains from **Math to Sports.**

❋ It integrates **vocational education in all schools**, and there is integration across subjects while developing rigorous subject understanding and capacities.

National Council of Educational Research and Training (NCERT):

● The National Council of Educational Research and Training (NCERT) is an **autonomous organisation** set up in 1961 by the **Government of India** to assist and advise the **Central and State Governments** on policies and programmes for qualitative **improvement in school education**.

● The **major objectives** of NCERT and its constituent units are to:

➤ Undertake, promote and coordinate research in areas related to school education

➤ Prepare and publish model textbooks, supplementary material, newsletters, and journals and develops educational kits, multimedia digital materials, etc.

➤ organize pre-service and in-service training of teachers

➤ develop and disseminate innovative educational techniques and practices

➤ Collaborate and network with state educational departments, universities, NGOs and other educational institutions.

LOKNITI–CSDS'S SURVEY

Context: As per the report released by Lokniti-CSDS recently, suggest that the youth identify challenges relating to the economy as the most significant facing the nation.

❋ The report offers insights into **career aspirations, job preferences, and expectations of younger Indians**.

About the survey:

❋ The data is collected from survey conducted in **18 states** with a sample of **9,316 respondents** — show **unemployment** as a significant concern across all economic classes.

❋ **Conducted by: Centre for the Study of Developing Societies (CSDS)**, it is an Indian research institute for the social sciences and humanities.

➤ It was founded in 1963 by **Rajni Kothari** and is largely funded by the Indian Council of Social Science Research Government of India.

The Lokniti programme for comparative democracy:

● The **Lokniti Programme for Comparative Democracy** was established in 1997 as a research programme of the Centre for the Study of Developing Societies (CSDS), Delhi.

● CSDS is an **autonomous social science research institute**.

● CSDS has argued in favour of a more **humane holistic view of democracy** that goes beyond democratic institutions and processes in their narrow sense and emphasizes the survival of dissent and cultural contents of the civil society as central concerns of democracy.

Key points of the Report:

❋ For views on Biggest concern in country:

Table: The Biggest Concern (In %)			
	Unemployment	Poverty	Price rice
Overall	26 (18)	10 (0)	13(7)
Poor	29	25	20
Lower	37	18	12
Middle	39	14	12
Rich	35	12	12
Non-literate	27	22	25
Up to Primary	32	22	20
Middle Class	31	22	12
Matric Pass	37	17	16
12th Pass	34	16	13
Graduate and above	40	13	11
Men	42	15	10
Women	31	18	16

Note: Only top three porblems have been reported. Figures in parentheses refers to the chane from 2016 **Question asked:** What is teh biggest problem in India today?

➤ More than one in three (36%) Indians between the ages of 15 and 34 believe **unemployment is biggest** problem in the country.
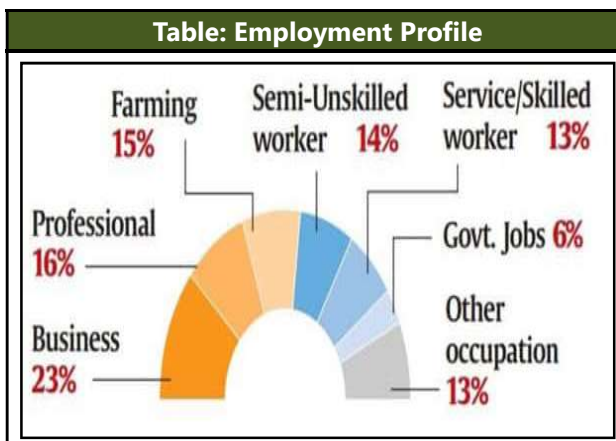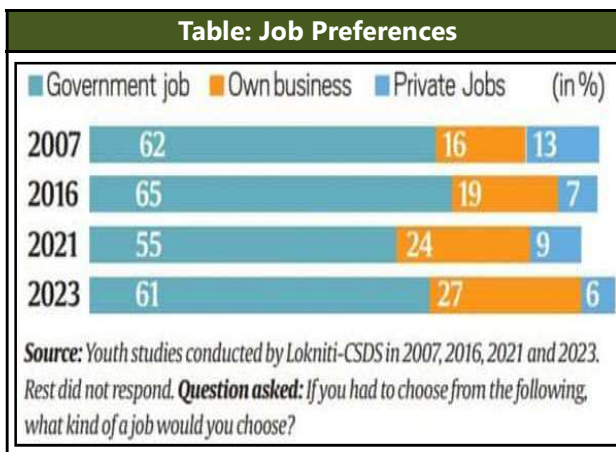
➤ Reasons considered for unemployment remains to be about one in six (16%) think it **is poverty**, and 13% think it **is inflation.**

➤ About **6%** of respondents identified **corruption** as the most significant challenge;

➤ **4%** each identified problems in **education and high population**.

➤ Only 27% of non-literate individuals cited unemployment as their primary concern, likely due to their greater willingness to take on a range of jobs.

➤ **Forty-two per cent of men** said unemployment was the most significant problem; among young women, this number was **31%.**

❋ **Occupational status in the country**:

➤ Sixteen per cent were professionals such as doctors or engineers, **15%** were involved in **agriculture, and semi-unskilled** and **skilled workers** made up **27% of the total.**

➤ Only **6%** were in government job.

❋ **Job Aspirations :**

➤ The preference for setting up an own business has grown consistently over this period — from 16% in 2007 to 27% in 2023.

Table: Job Preferences

	Government job	Own business	Private Jobs (in %)
2007	62	16	13
2016	65	19	7
2021	55	24	9
2023	61	27	6

Source: Youth studies conducted by Lokniti-CSDS in 2007, 2016, 2021 and 2023. Rest did not respond. **Question asked:** If you had to choose from the following, what kind of a job would you choose?

Table: Employment Profile

Farming 15%   Semi-Unskilled worker 14%   Service/Skilled worker 13%
Professional 16%   Govt. Jobs 6%
Business 23%   Other occupation 13%

INFRASTRUCTURE DEBT FUNDS – NON-BANKING FINANCIAL COMPANIES (IDF-NBFCS)

Context: In a release, the Reserve Bank of India (RBI) detailed the revised guidelines for Infrastructure Debt Funds - Non-Banking Financial Companies (IDF-NBFCs) and the sponsorship of IDF-MFs by Non-Banking Financial Companies (NBFCs).

What are Infrastructure Debt Funds - Non-Banking Financial Companies (IDF-NBFCs)?

✳ An IDF-NBFC is a **company registered as NBFC** to facilitate the flow of **long- term debt** into infrastructure projects.

✳ It comes under the **regulation of RBI**.

✳ It raises resources through **issue of rupee or dollar-denominated bonds** of minimum **5-year maturity**.

✳ Only **Infrastructure Finance Companies** can sponsor IDF-NBFCs.

✳ IDF-NBFCs would take over loans extended to infrastructure projects which are created through the Public **Private Partnership (PPP)** route and have successfully completed **one year of commercial production**.

Infrastructure Debt Funds (IDFs):

● IDFs are investment vehicles for **channelizing investment** into the infrastructure sector.

● They are sponsored by **commercial banks and NBFCs** in India in which **domestic/offshore institutional investors,** specially insurance and pension funds can invest through units and bonds issued by the IDFs.

Eligibility parameters for NBFCs as sponsors of IDF-MF:

NBFCs sponsoring IDF-MFs are required to comply with the following requirements:

✳ The NBFC should have a minimum Net Owned Funds (NOF) of Rs.300 crore; and Capital to Risk Weighted Assets (CRAR) of 15%;

✳ its net NPAs should be less than 3% of net advances;

✳ it should have been in existence for at least 5 years;

✳ it should be earning profits for the last three years and its performance should be satisfactory;

✳ the CRAR of the NBFC post investment in the IDF-

MF should not be less than the regulatory minimum prescribed for it;

✳ The NBFC should continue to maintain the required level of NOF (Net Owned Fund) after accounting for investment in the proposed IDF and

✳ There should be no supervisory concerns with respect to the NBFC.

About the revised guidelines:

✳ According to the revised definition, an IDF-NBFC refers to a **non-deposit-taking NBFC** that is authorized to **refinance infrastructure projects** that have completed at **least one year of satisfactory commercial operations.**

✳ Additionally, IDF-NBFCs can directly finance **toll-operate-transfer (TOT) projects.**

✳ To qualify as an IDF-NBFC, entities must adhere to **specific net owned funds (NOF)** and **regulatory capital requirements.**

✳ The guidelines said that IDF-NBFCs are **allowed to raise funds** through **rupee or dollar-denominated bonds** with a **minimum maturity of five years**.

✳ For better **asset-liability management (ALM),** they can also utilise shorter tenor bonds and commercial papers (CPs) up to **10 per cent of their total outstanding borrowings**.

✳ Additionally, **external commercial borrowings (ECBs)** can be used, provided they have a minimum tenure of five years and are not sourced from **foreign branches of Indian banks.**

✳ **Need**:

  ➤ In order to enable IDF-NBFCs to play a greater role in the financing of the infrastructure sector and to harmonise the regulations governing financing of infrastructure sector by the NBFCs, a review of the guidelines applicable to IDF-NBFCs has been undertaken, in consultation with the Government of India.

Other provisions:

✳ IDF-NBFCs are also subject to **exposure limits**, allowing up to 30 per cent of their Tier 1 capital for a single borrower or party and up to 50 per cent for a **single group of borrowers or parties.**

✳ **Risk weights** are determined based on risk weights applicable to NBFC-Investment and Credit Companies (NBFC-ICCs) for computing CRAR.

✳ The RBI has also outlined eligibility criteria for NBFCs to sponsor IDF-MFs.

✳ These criteria include factors such as **net owned funds, net NPAs, years of existence, profitability, and other supervisory concerns.**

CHINA ENTERS INTO 'DEFLATION'

Context: China's economy has now entered a period of deflation.

What is deflation?

❋ Deflation is a **general decline in prices for goods and services**, typically associated with a contraction in the **supply of money and credit** in the economy.

❋ During deflation, the purchasing power of currency rises over time.

❋ **Impact:**

➤ Deflation benefits consumers because they can purchase more goods and services with the same nominal income over time.

➤ However, economists are often concerned about the consequences of falling prices on various sectors of the economy, especially in financial matters.

● For instance, deflation can harm borrowers, who can be bound to pay their debts in money that is worth more than the money they borrowed, as well as any financial market participants who invest or speculate on the prospect of rising prices.

How does this scenario impact India?

Core inflation refers to the price changes of goods and services excluding the volatile food and energy sectors.

❋ The impact of China's export deflation is extending to India, resulting in a moderation of **core inflation.**

❋ **Benefits**: This scenario benefits India due to its robust export pricing and the deflationary environment in China.

➤ This dual effect not only curbs global disinflation in traded goods but also exerts downward pressure on core inflation within India.

❋ **Flip-side:** China is one of the biggest importers of iron ore from India. It imports almost 70 percent of iron-ore from India and hence, a slower economy for China would mean the amount of import into China from India could fall.

RAILWAYS TO INSTALL INTRUSION DETECTION SYSTEM IN ODISHA

Context: To prevent death of elephants due to train hits, the East Coast Railway (ECoR) has decided to install intrusion detection systems (IDS) at the sensitive locations of elephant passing zones and elephant corridors in Odisha.

Background:

❋ According to official data, as many as **784 elephants** died in Odisha during 2012-13 to 2021-22 due to various reasons while **electrocution and train-hits** are considered among the key reasons.

❋ Similarly, **925 persons** were trampled to death by tuskers while **212 persons** were permanently disabled during the period.

What is Intrusion detection system (IDS)?

❋ IDS is based on **artificial intelligence (AI) and existing optical fibres** will be used as sensors to identify movements of elephants at locations and alert **control offices, station masters, gatemen and loco pilots**.

❋ It uses the **fibre optic based acoustic system** to sense **real time presence of elephants** on the track.

❋ The AI-based system can monitor **unusual movement up to a stretch of 60 km**.

❋ The system will help in locating and detecting the presence of elephants near the track so that speed of the trains in the sections will be reduced.

❋ IDS will send alarms to the loco pilot unit via **SMS/internet with GPS tag**, providing real time information about the location of elephants.

❋ **Significance:**

➤ The detection system will work as an **early warning system** for elephant intrusion.

➤ IDS will also help in detecting rail fracture, trespassing on **railway track and alert about disaster mitigation** due to unauthorized digging near **railway tracks, landslides near tracks**.

Need of such an initiative:

❋ **For Conservation of Elephants:** Under **Project Elephant,** was launched in 1992 as a Centrally-sponsored scheme with an aim to protect elephants and improve its **habitat and corridors**, **reduce human-elephant conflict and ensure their welfare.**

➤ As many as 33 elephant reserves, spanning 80,777 sq. km, have been notified.

❋ **To avoid Human-Animal Conflict:** As prime elephant habitats are shrinking across Asia and human developments are on the rise, both species are increasingly coming into close contact.

➤ **Human-elephant conflicts (HEC)** arise with complex interactions between humans and elephants often resulting in detrimental impacts for both species.

Status of Elephants in India:

❋ India has about **27,000 Asian Elephants**, which is the **world's largest population of the species**.

❋ As per **Elephant Census (2017),** Karnataka has the highest number of elephants (6,049), followed by Assam (5,719) and Kerala (3,054)

❋ More than **60% of the world's elephant** population is in India.

❋ The elephant is the '**Natural Heritage Animal of India'.**

Asian Elephants:

● There are **three subspecies** of Asian elephants namely, **Indian, Sumatran and Sri Lankan.**

● The elephant herd is led by the **oldest and largest female member** (known as the matriarch). This herd includes the **daughters of the matriarch** and their offspring.

● Elephants have the **longest-known gestational (pregnancy) period of all mammals**, lasting up to 680 days (22 months).

● Females between **14 - 45 years** may give birth to calves approximately **every four years** with the mean interbirth intervals increasing to **five years by age 52 and six years by age 60.**

● **IUCN Status:** Endangered

● **World Elephant Day**: August 12

Other Steps taken for Elephant conservation:

❋ **Gaj Yatra (a nationwide awareness campaign to protect elephants):** Monitoring the Illegal Killing of Elephants (MIKE) program (2003, to monitor the effectiveness of field conservation efforts)

❋ **Gaj Soochna' mobile application for forest officials:**

➤ Upholding the right of passage of elephants by SC

➤ Involvement of mahouts and their families in the welfare of elephants

❋ **Gaj Utsav:** Asian Elephant Alliance, an umbrella initiative by five NGOs, had, last year, come together to secure 96 out of the 101 existing corridors used by elephants across 12 States in India.

📗 WORLD WATER WEEK 2023

Context: **World Water Week has been recently organized by the Stockholm International Water Institute at the Waterfront Congress Center.**

About World water week 2023:

❋ **Theme:** "Seeds of Change: Innovative Solutions for a Water-Wise World".

❋ The event this year invites a rethink of how water is managed, and urges consideration of the ideas, innovations, and governance systems that are needed in an increasingly **unstable and water scarce world**.

❋ **World Water Week 2023** will draw on the latest scientific knowledge and experiences from around the world to explore how water can be a powerful tool for addressing the water crisis, global warming, biodiversity loss, and poverty.

❋ The **World Bank Group** will convene and participate in **multiple sessions** on a wide range of topics, including digitalization for **water utilities, tools for managing flood and drought risks, water services for refugees, and smart water management in rice cultivation.**

Need of such initiative:

❋ The world population is currently on the rise which has led to an increased **demand for water.**

❋ Our natural water cycles are also currently being disrupted by **man-made activities and climate change**.

❋ Improper water management, pollution, extraction of resources and infrastructure construction further aggravate negative impacts on our freshwater sources.

Significance:

✳ Water is a necessity to sustain life on our planet. Clean water is required for **drinking, sanitation, and providing for our crops.**

✳ The fresh water on our planet accounts for **less than one per cent** of the world's water.

✳ Fresh water can be found in **rivers, lakes, wetlands, streams and even groundwater.**

✳ Despite having several sources, the freshwater levels on our planet are **currently under threat.**

India's effort for Water Conservation:

✳ **Jal Jeevan Mission**

➤ Under the mission, the government aims to provide tapped water connections to all rural households by 2024.

➤ The scheme also has a major focus on sensitizing the communities and implementing officers at all levels.

➤ One of the stated key objectives is to "Take up all support activities like Information, Education and Communication (IEC), training, development of utilities, water quality laboratories, water quality testing and surveillance, research development, knowledge centers, capacity building of communities etc. to make the mission successful".

Concerns:

✳ As per government data, **22 per cent villages** are yet to set up the **Village Water Sanitation Committee** which has the crucial responsibility of maintaining and overseeing the water supply on a day-to-day basis. Even the capacity of the members at the village level needs to be improved.

✳ The programme has a robust dashboard where centralized progress of the scheme is pushed out for the general public. However, it does not locate the source sustainability structures like rainwater harvesting, groundwater recharge.

FUKUSHIMA NUCLEAR DISASTER: JAPAN TO RELEASE TREATED WATER

Context: **Japan is gearing up to release the treated radioactive water from the tsunami-hit Fukushima nuclear plant into the Pacific Ocean, despite opposition.**

Background:

✳ In 2011, a tsunami triggered by a magnitude 9.0 earthquake flooded three reactors of the **Fukushima Daiichi Nuclear Power Plant**.

✳ The event is regarded as the **world's worst nuclear disaster since Chernobyl.**

✳ Shortly after, authorities set up an exclusion zone which continued to be expanded as radiation leaked from the plant, forcing more than 150,000 people to evacuate from the area.

Key-highlights:

✳ Some 1.34 million tonnes of water - enough to fill 500 **Olympic-size pools** - have accumulated since the 2011 tsunami destroyed the plant.

✳ The water will be released over 30 years after being filtered and diluted.

✳ As per Japan, the water is a necessary step in the lengthy and costly process of decommissioning the plant, which sits on the country's east coast, about 220km (137 miles) north-east of the capital Tokyo.

✳ The U.N.'s nuclear watchdog has endorsed the move.

Where is the plant?

● The **Fukushima Daiichi Nuclear Power Plant** is in the town of Okuma, in Fukushima Prefecture.

● It sits on the country's east coast, about 220km (137 miles) north-east of the capital Tokyo.

How safe is the water?

✳ The water has been filtered to remove more than 60 radioactive substances.

✳ But the water will not be entirely **radiation-free** as it will still contain **tritium and carbon-14- radioactive isotopes of hydrogen and carbon** that cannot be easily removed from water.

SOFT–LANDING ON THE MOON & THE CHALLENGES

Context: **India has successfully soft landed on the Moon's South Pole, now became the first country to achieve this feat.**

✳ The recent crash of **Russia's Luna-25** highlights the challenges of **safe lunar landings**, with only a few nations, including the **United States, Soviet Union, and China**, having successfully soft-landed on the Moon till now.

What is soft landing?

❋ A soft landing entails a successful landing by a spacecraft without sustaining any significant damage to itself or its payloads.

❋ Whereas, in a hard landing, the probe suffers damage which may result in the failure of the mission.

The South Pole:

● The region has a difficult terrain, full of craters and deep trenches. It is also far from the **equatorial region** explored by previous lunar missions.

● Some areas on the South Pole are shrouded in darkness and have never received sunlight.

● Temperatures are so cold there that they can plummet to as low as -230 degree Celsius. This rocky terrain, complete darkness and extremely cold weather make it more difficult for electronic instruments to function properly.

● Situated on the edge of the **Aitken basin,** the largest impact basin on the Moon, the lunar South Pole offers a unique opportunity to study materials from the Moon's deep crust and mantle.

● Before Russia, countries such as Japan, Israel and the United Arab Emirates (UAE) have tried and failed to land on the Moon's South Pole.

Why is landing on Moon challenging?

❋ **Less gravity than Earth:** The Moon has much less gravity than the Earth. Its thin and tenuous atmosphere, along with lunar dust, also makes it tough for spacecraft to land.

❋ **Dust:** The presence of dust, even in very small quantities, can have a significant effect on temperature control and optical performance of hardware on the lunar surface.

❋ **Deep space communication** also poses a challenge as the "large distance from the Earth and the limited on-board and radio signals are weak with heavy background noises that need to be picked up by large antennas".

ASTRA AIR–TO–AIR MISSILE

Context: Recently, the Light Combat Aircraft (LCA) Tejas Limited Series Production-7 (LSP-7) successfully test fired the ASTRA indigenous Beyond Visual Range (BVR) air-to-air missile off the coast of Goa.

Background:

❋ The Astra project was officially launched in the **early 2000s** with defined parameters and proposed future variants.

❋ Around 2017, the development phase of the **Mk-1 version** was complete.

❋ Several successful tests have been conducted since 2017 from **Sukhoi-30 MKIs.**

About ASTRA indigenous Beyond Visual Range (BVR):

❋ The Astra Mk-1 is a **Air-to-Air Missile (AAM).**

❋ BVM missiles are capable of engaging beyond the range of **20 nautical miles or 37 kilometers**.

❋ AAMs are fired from an **airborne asset** to destroy **an airborne target.**

❋ **Range:**
  ➤ The range for Astra Mk-1 is around 110 km.
  ➤ The Mk-2 with a range over 150 km is under development and Mk-3 version with a longer range is being envisaged.
  ➤ One more version of Astra, with a range smaller than Mk-1 is also under development.

❋ **Designed and Developed by:**
  ➤ Defence Research and Development Organisation (DRDO)

Significance:

❋ **Can be integrated with other Fighter Aircraft:** The missile is fully integrated on the Sukhoi 30 MKI I and will be integrated with other fighter aircraft in a phased manner, including the **Light Combat Aircraft (LCA) Tejas.**

  ➤ It will integrate the missile on the MiG-29K fighter aircraft which are deployed on the Navy's aircraft carriers, thus adding to the lethality of India's Aircraft carriers.

❋❋❋❋❋

Section D [QUICK BYTES]

- Monsoon Trough

- ASEAN-India Trade in Goods Agreement (AITIGA)

- Commonwealth Parliamentary Association (CPA)

- The Spirit of Camp David

- Indira Rasois

- Indian Pharmacopoeia Commission (IPC)

- 830 MEIs on scholarship portal are fake: Report

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- C.R. Rao (1920-2023)

[SPECIES IN NEWS]

- *Tachymenoides harrisonfordi*

- Kashmir stag (*Cervus hanglu hanglu*)

[LOCATION IN NEWS]

- Pong Dam
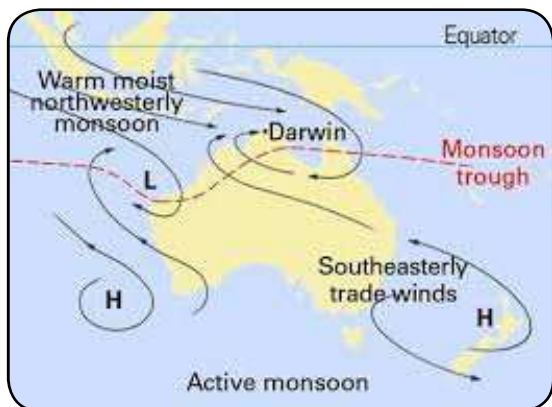
Monsoon Trough

The monsoon trough, **an elongated low-pressure area** that was to the north of its normal position, causing heavy rainfall over **Himachal Pradesh and Uttarakhand,** has gradually started moving south, as per the India Meteorological Department.

What is Monsoon Trough?

- Monsoon Trough is an elongated low-pressure area which extends from heat low over **Pakistan to Head Bay of Bengal.**

- This is one of the **semi-permanent features of monsoon** circulation.

- Monsoon trough may be a characteristic of east west orientation of Himalayan ranges and north south orientation of **Khasi-Jaintia Hills.**

- Generally the eastern side of monsoon trough oscillates, **sometimes southwards and sometimes northwards**.

- Southward migration results in active/vigorous monsoon over major part of India.

- In contrast, the northward migration of this trough leads to break monsoon conditions over major part of India and heavy rains along foothills of Himalayas and sometimes floods in Brahmaputra River.

ASEAN-India Trade in Goods Agreement (AITIGA)

India and the ASEAN countries reached an agreement to review their free trade pact for goods and set a 2025 goalpost for concluding the review aimed at addressing the "asymmetry" in bilateral trade.

About AITIGA:

- The **ASEAN-India Trade in Goods Agreement (AITIGA)** was signed in 2009.

- AITIGA is a **free trade agreement (FTA)** between the Association of Southeast Asian Nations (ASEAN) and India, aimed at promoting trade and economic cooperation between the two regions.

- ASEAN is a regional intergovernmental organization comprising ten Southeast Asian countries, while India is a South Asian country.

- AITIGA aims to reduce or eliminate tariffs on a wide range of goods traded between ASEAN member states and India.

Commonwealth Parliamentary Association (CPA)

The **Ninth Commonwealth Parliamentary Association (CPA) India Region Conference** concluded recently.

What is CPA?

- **Founded in:** 1911

- The Commonwealth Parliamentary Association (CPA) is one of the oldest established organisations in the Commonwealth.

- It is a membership association which brings together Members, irrespective of gender, race, religion or culture, who are united by community of interest, respect for the rule of law and individual rights and freedoms, and by the pursuit of the positive ideals of parliamentary democracy.

- The Association is made up of over **180 Legislatures** (or Branches) divided up between nine geographic regions of the Commonwealth.

- **The nine Regions of the CPA are:** Africa; Asia; Australia; British Islands and Mediterranean (BIM); Canada; Caribbean, Americas and the Atlantic (CAA); India; Pacific; and South-East Asia.

- The CPA India Regional Secretariat is based within the Lok Sabha at the Parliament of India.

The Spirit of Camp David

US President Joe Biden hosted the **first-ever trilateral summit** bringing together the leaders of the **United States, Japan, and South Korea** at Camp David in Maryland.

The summit resulted in a joint statement dubbed "**The Spirit of Camp David**".

About:

- This is the **first stand-alone trilateral summit** among the three countries.

- It was hosted by US and countries are intended to imbue the summit with special historic significance and symbolism.

- Irrespective of Chinese and North Korean posturing, this does not represent the kernel of a "**NATO in Asia.**"

- The Spirit of Camp David statement issued by the **three leaders** is a political agreement, rather than a legal one requiring signature.

- It represents a major effort to establish precedent, create momentum, and set the course for **trilateral security cooperation** among the three countries.

Indira Rasois

Chief Minister Ashok Gehlot inaugurated **1000 new Indira Rasois** in the Rajasthan.

About the scheme:

- **Background**: In 2020, Rajasthan Chief Minister Ashok Gehlot launched Indira Rasoi Yojana to provide quality nutritious food-- 100 gms of pulses, 250 gms chapatti, 100 gms of vegetables, and pickles-- to poor people at just Rs. 8. It is expected to benefit around 4 crores 87 lakh people of the state.

- The scheme will provide **semi-rural rasoi or canteen**, which offers a nutritious meal at a throwaway price.

- Today, there are **950 functional Indira Rasois**.

- Each plate has **100 grams of dal, 100 grams of seasonal vegetables and six chapatis along with a serving of pickle.**

- It costs Rs 17, but a patron pays Rs 8; the government subsidises the remaining amount.

But the popularity of **Indira Rasois** has affected **small vendors and restaurant** owners whose unique selling point is affordability.

Indian Pharmacopoeia Commission (IPC)

Recently, the '**Republic of Suriname'** recognised Indian Pharmacopoeia Commission (IP).

- The Indian Pharmacopoeia (IP) is officially recognized **by five (5) countries**: **Afghanistan, Ghana, Nepal, Mauritius and the Republic of Suriname**.

About:

- **Indian Pharmacopoeia Commission (IPC)** is an **Autonomous Institution** of the **Ministry of Health and Family Welfare, Govt. of India.**
- IPC is created to set **standards of drugs in the country.**
- Its basic function is to regularly update the standards of drugs commonly required for treatment of diseases prevailing in this region.
- It publishes official documents for improving Quality of Medicines by way of adding new and updating existing monographs in the form of **Indian Pharmacopoeia (IP).**
- It further promotes rational **use of generic medicines** by publishing National Formulary of India.
- IP prescribes standards for **identity, purity and strength of drugs** essentially required from the health care perspective of human beings and animals.
- IPC also provides **IP Reference Substances (IPRS)** which act as a fingerprint for identification of an article under test and its purity as prescribed in IP.

830 MEIs on scholarship portal are fake: Report

The **Ministry of Minority Affairs** has found at least **830 minority institutions** registered with the **National Scholarship Portal (NSP)** to be either **fake or non-operational.**

What are minority Institutions?

- Minority educational institution or "**Minority Institution**" means a college or institution established or maintained by a **person or group of persons belonging to a minority,** recognized as such by the concerned **State Government/UT Administration.**

Constitutional Provisions:

- **Right to Education under Article 21A**: It describes modalities of the importance of free and compulsory education for children aged **between 6-14 years** in India under **Article 21 (A**) of the **Constitution of India (86th Amendment).**
- **Article 29 and 30 of Indian Constitution** contain provisions securing rights of minorities and minority-run institutions.
- Minority institutions have the **Fundamental right** under **Article 30** of the Constitution to establish and administer their educational institutions according to their choice.

Adivasi ooru

Though, Kerala was the first State in the country to declare **the right to Internet** as a basic right, as many as **189 Adivasi ooru** (tribal colonies) spread over 12 districts in the State still have **no access to Internet and mobile connection**, affecting the prospects of over **5,000 tribal students** in these colonies.

What are Adivasi ooru?

- En Ooru is a **tribal heritage village** which showcases the **vibrant culture and tradition of tribal communities of the state.**

- A cluster of **traditional tribal huts** roofed with hay and against the backdrop of towering hills has become a major tourist attraction in the region.

- Managed by **tribal communities** and with the aim of enhancing their livelihood options, the **village hosts cafeterias** that serve ethnic dishes and a tribal market.

- It is a joint venture of the **Departments of Tourism and Scheduled Tribe Development,** the village also takes the lead in preserving traditional knowledge on food processing and other related areas, and takes up training in organic farming.

Promotion of Research and Innovation in Pharma MedTech Sector (PRIP)

The **Department of Pharmaceuticals (DoP)** has notified the **Scheme for Promotion of Research and Innovation** in **Pharma-MedTech Sector (PRIP)** with an outlay of Rs. 5,000 crore to support **Research and development (R&D)** and innovation in **pharma, medical devices and animal health segments.**

About the scheme:

- The scheme has **two components** comprising strengthening of research infrastructure through establishment of seven National Institutes of **Pharmaceutical Education & Research (NIPERs)** as Centres of Excellence (CoEs) in specific specialisations and promotion of research in **Pharma-MedTech sector** by providing financial assistance for research **in six priority areas** –

  ➤ New chemical and biological entities, and natural products;

  ➤ Complex generics and biosimilars;

  ➤ Precision medicines; medical devices;

  ➤ Orphan drugs; and

  ➤ Drug development for antimicrobial resistance (AMR).

- The Scheme proposes establishment of CoEs in the **seven existing NIPERs** at **Mohali, Ahmedabad, Hyderabad, Guwahati, Kolkata, Hajipur and Raebareli** at a tentative cost of Rs. 700 crore over a period of five years.

- This will help in building specific research capacities in the identified priority areas in a focused time bound programme, tapping industry-academia linkage.

- The CoEs will strengthen the research infrastructure in **Pharma-MedTech sectors** in the country by providing advanced facilities to conduct research and will also help in nurturing talent pool by promoting industry academia linkage.

- Under the **second component** of **promotion of research in pharma and MedTech sector,** the financial assistance will be provided in three categories.

- In the first category (BI), nine established pharma companies may be selected to carry out research in **six priority areas** with academic collaboration in government institute of national repute.

Xenotransplantation
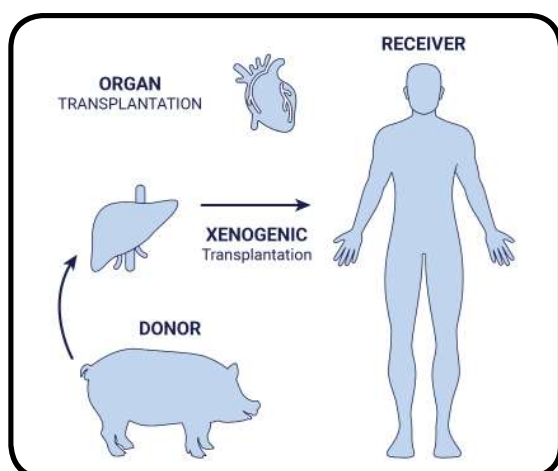
Surgeons at **NYU Langone Health** have transplanted a '**Pig kidney Xenotransplantation'** that continues to function well after **32 days in a man declared** dead by neurologic criteria and maintained with a beating heart on ventilator support.

- This represents the longest period that a **gene-edited pig kidney** has functioned in a human, and the latest step toward the advent of an **alternate, sustainable supply of organs for transplant**.

About the Process:

- Xenotransplantation is the **transplantation of organs or tissues** from an animal source into a human recipient.

- Scientists first attempted xenotransplantation in the early 1900s.

- Researchers have focused **on using pigs** because primate organs carry infectious disease risks, along with ethical concerns.

- Also, **pig organs** are a relatively compatible size for humans.

- Pig tissues and hormones have been used in medicine for years, including for **heart valves, insulin, and hormones.**

INS Vindhyagiri

President Droupadi Murmu launched **INS Vindhyagiri**, an advanced stealth frigate, at the GRSE facility on the banks of the River Hooghly in Kolkata.

About INS Vindhyagiri:

- INS Vindhyagiri is the **sixth stealth frigate** built under **Project 17A** at the GRSE.

- After the launch, **INS Vindhyagiri** will join its two sister ships at the outfitting jetty at GRSE, to progress on remaining activities and equipment trials, in the run-up to their delivery and commissioning.

- This is the **third and last stealth frigate** that the Kolkata-based warship maker was contracted to build for the Navy under the project.

- The state-of-the-art ship will be fitted with the latest gadgets and undergo extensive trials before being handed over to the Indian Navy for commissioning into service.

Significance:

- The launch of **INS Vindhyagiri** will boost the defence industrial base in India, reducing India's dependence on foreign suppliers, promoting self-reliance and fostering a robust defence industrial base.

Project 17A Frigates are the follow-on class of the **Project 17 (Shivalik Class**) Frigates, with improved stealth features, advanced weapons & sensors and platform management systems.

Agnibaan SubOrbital Technological Demonstrator (SOrTeD)

Chennai-based start-up **AgniKul Cosmos** recently commenced the process of integrating its cutting-edge **Agnibaan SubOrbital Technological Demonstrator (SOrTeD)** at its private launchpad at the **Satish Dhawan Space Centre (SDSC) SHAR in Sriharikota.**

About:

- Agnibaan SOrTeD is a **single-stage launch vehicle** powered by AgniKul's patented **Agnilet engine**, which is an entirely 3D-printed, single-piece, 6 kilonewton (kN) semi-cryogenic engine.

- Unlike traditional sounding rockets that launch from guide rails, Agnibaan SOrTeD will lift off vertically and follow a predetermined trajectory to perform a precisely orchestrated set of manoeuvres during flight.

- Features:

  ➤ It is a customisable launch vehicle that could be launched in one or two stages.

  ➤ The rocket stands 18 metres tall and has a mass of 14,000 kg.

  ➤ It is capable of carrying payloads up to 100 kg to an altitude of 700 km in five different configurations.

  ➤ The rocket's first stage could have up to seven Agnilet engines, depending on the mission, which are powered by Liquid Oxygen and Kerosene.

  ➤ The rocket is also designed for launch from more than 10 different launch ports.

- The Agnilet engine, which powers the entire operation, is the world's sole single-piece 3D-printed engine.

Covid variant 'EG.5'
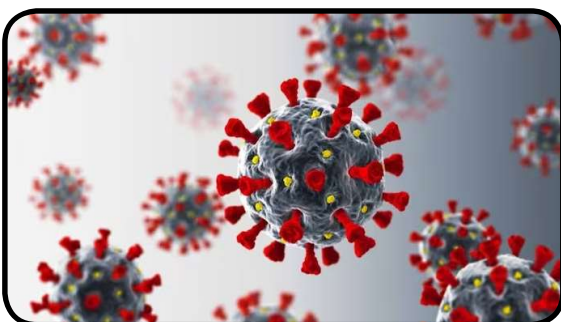
WHO has classified the 'EG.5' as a **Variant of Interest (VOI).**

About:

- EG.5 is one of three variants on the WHO's watchlist.

- The other two are XBB.1.5, which is largely circulating in Europe and the Americas, and XBB.1.16, which is predominant in Asia.

- The WHO classified EG.5 as a VOI due to rising infection rates attributed to the variant, the fact that it spreads fast and its ability of so-called "immune escape".

GS SCORE

- EG.5 is a descendent lineage of **XBB. 1.9.2.**
- It has an additional spike mutation that may explain why it can escape the human immune system's response.
- In its EG.5 Initial Risk Evaluation report (August 7, 2023), the WHO said the variant had been sequenced more than 7,350 times, with samples from 51 countries.

Matti Banana

Tamil Nadu's **Kanniyakumari Matti Banana** has finally received the **GI tag**, making Tamil Nadu the region with the **highest number of GI tagged products**.

About the variety:

- The banana type known as the "**Matti Banana**" is widely cultivated in southern India.
- The majority of the time, matti bananas are little and slightly curved in shape.
- When ripe, their unique **yellow skin develops brown patches throughout.**
- The Matti banana's creamy white flesh has a tart and sweet flavour.

Benefits of Matti banana:

- **Health of the digestive system**: The fibre in Matti bananas helps encourage regular bowel movements and lower the risk of constipation.
- **Cardiovascular health:** Matti bananas' potassium concentration may help lower blood pressure and lower the risk of heart disease.
- The **Vitamin C in Matti bananas** can assist maintains a strong defence mechanism and lowers the risk of infection.
- Matti bananas **include vitamin B6,** which aids in the production of serotonin, a neurotransmitter **that controls mood and sleep.**

Butterflies of India consortium

Butterflies of India consortium, a collaboration of research institutions, NGOs and citizen science groups anchored the study on India's butterfly populations.
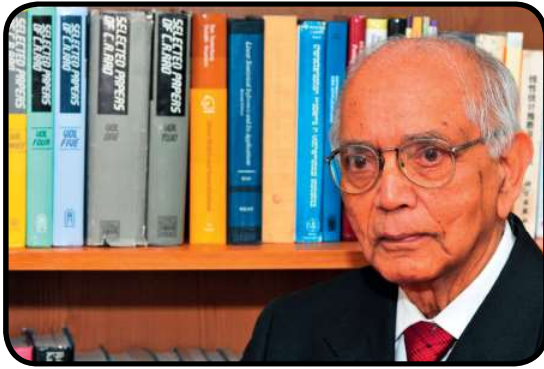
About:

- The Butterflies of India is a large consortium of **amateur and professional naturalists and research scientists.**
- The data on this website are contributed by hundreds of contributors, whose **butterfly images** and other contributions to this national butterfly database should be acknowledged.

- Maharashtra became the first State in the country to have a **'State Butterfly'.**
- It declared the **Blue Mormon (Papilio polymnestor)** as the State Butterfly.
- It is the **second largest butterfly in India** after the Troides minos commonly known as the Southern Birdwing.

PERSONALITY IN NEWS

C.R. Rao (1920-2023)

Mr. Calyampudi Radhakrishnan Rao, 102, among the world's **most eminent statisticians**, and who spent nearly his entire professional career in India, died on 23 August in the **United States.**

About his achievements:

- C R Rao is an **Indian-born mathematician** and **statistician** who has worked most of his life in America.
- He graduated **M.A. with First Class Honours in Mathematics** from Andhra University in 1940.
- His most significant result was obtained during this period is now **called the Cramér-Rao inequality** and gives a bound for the variance of an unbiased estimate of a parameter.
- In 1972 he was appointed **Director-Secretary of the Indian Statistical Institute**.
- He was named **Jawaharlal Nehru Professor in 1976.**

Prizes and Awards:

- The **S S Bhatnagar Prize of Council of Scientific and Industrial Research** (1963),
- The Guy Medal in Silver of the **Royal Statistical Society (1965),**
- Awarded the title of **Padma Bhushan** by the Indian Government (1968),
- The **Jagdish Chandra Bose Gold Medal** of the Bose Institute (1979),
- The Silver Plate of the Andhra Pradesh Academy of Sciences (1984),
- The Times of India listed Rao as one of the top 10 Indian scientists of all time (1988),
- Awarded the **Samuel S Wilks Memorial Award** of the **American Statistical Association (1989)**

SPECIES IN NEWS

Tachymenoides harrisonfordi

Researchers from **Germany**, the **United States** and **Peru** have named a recently discovered **species of snake '*Tachymenoides harrisonfordi*'** after actor *Harrison Ford.*

- Known for his portrayal of Indiana Jones, who famously fears snakes, Ford's real-life commitment to conservation earned him this distinction.

About the species:

- The snake was found in **Peru's Otishi National Park** by researchers from Peru and the United States.

- Measuring about **16 inches** when fully grown, the **non-harmful Tachymenoides harrisonfordi** serves as a reminder of the importance of studying and preserving **Earth's diverse biosphere.**

- The discovery sheds light on the plight of reptiles, as over a fifth of all reptile species are currently threatened with extinction.

Kashmir stag (*Cervus hanglu hanglu*)

After two years, the unique Kashmir stag, vernacularly known as Hangul, has again shown a marginal increase in its population.

About:

- The Kashmir stag (*Cervus hanglu hanglu*), also called hangul, is a subspecies of Central Asian red deer endemic to Kashmir and surrounding areas.

- It is the state animal of Jammu and Kashmir.

- It is found in dense riverine forests in the high valleys and mountains of **Jammu and Kashmir and northern Himachal Pradesh.**

- Hangul Cervus hanglu is the **only red deer species** in India.

- Hangul is a **critically-endangered species** as per the **International Union for Conservation of Nature and Natural Resources (IUCN) Red List**.

- It is listed as a **Schedule I** Species in **Indian Wildlife Protection Act 1972.**

- The species is under threat based on the vulnerability of population with regard to viability and structure, dwindling population, and habitat vulnerability.
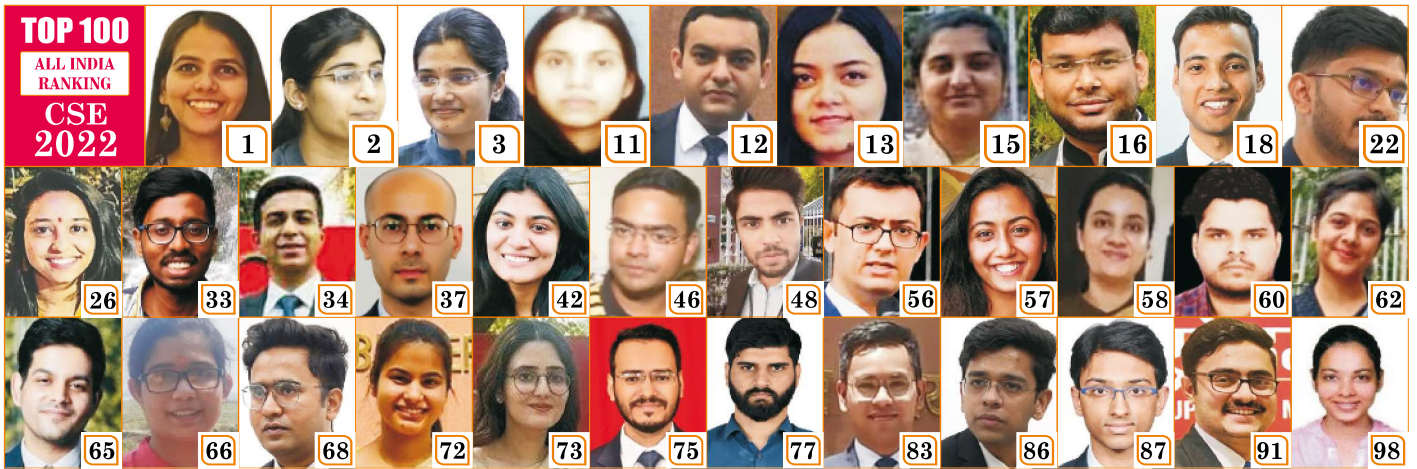
LOCATION IN NEWS

Pong Dam

Amid torrential rain in the upstream territories of Himachal Pradesh, **the Bhakra and Pong Dams** are flowing above their capacity.

About Pong Dam:

- It is a reservoir has been constructed on the **river Beas** in the wet land of Shivalik hills of Kangra district of Himachal Pradesh, which has been named **as Maharana Pratap Sagar.**

- It is also known as **Pong reservoir or Pong Dam**.

- This dam was built in 1975 named in honor of **Maharana Pratap**, this reservoir or lake is a famous wildlife sanctuary and one of the 25 international wetland sites declared by **Ramsar Sammel** in India.

- The reservoir stretches to an area of 24,529 hectares (60,610 acres), and part of the lakes is 15,662 hectares (38,700 acres).

- Pong reservoir is the most important fish reservoir in the foothills of the Himalayas in Himachal Pradesh.

- In this reservoir, the majestic fish is found in excess.

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SUCCESS IS A PRACTICE WE DO!