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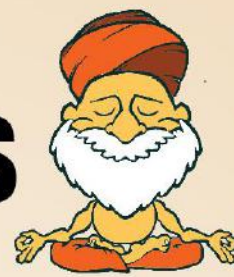
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PRELIMS



POLITY & GOVERNANCE



Central Consumer Protection Authority (CCPA)

Context: The Central Consumer Protection Authority (CCPA) issued an order against M/s IQRA IAS Institute, to discontinue the false testimonials and misleading claims from their website with immediate effect recently.

Background: -

- The issue came to the notice of CCPA through the website of IQRA IAS Institute established in 2018 deliberately and falsely claimed through the testimonials of top-rank holders of UPSC CSE in 2015 & 2017 as their students which is factually deceiving.
- Therefore, **CCPA took Suo-moto cognizance** and found that along with the aforesaid false claim the institute claimed itself as the only coaching academy to have the best faculty from all around India for providing the best UPSC online prelims test series 2020, thus making it the top UPSC coaching within a year in Pune.
- Accordingly, the notice was issued to IQRA IAS Institute in view of the violation of the [Consumer Protection Act, 2019](#).

Consumer Protection Act, 2019: -

- **Definition of consumer:** The act defines a consumer as a person who buys any good or avails a service for consideration.
- **Exclusion:** It does not include a person who obtains a good for resale or a good or service for commercial purposes.
- It covers transactions through all modes including offline, and online through electronic means, teleshopping, multi-level marketing, or direct selling.
- **Definition of misleading advertisement:** The Act defines “misleading advertisement” in relation to any product or service as “an advertisement, which:-
 - Falsely describes such product or service.
 - Gives, a false guarantee to, or is likely to mislead the consumers as to the nature, substance, quantity, or quality of such product or service.
 - Conveys an express or implied representation which, if made by the manufacturer or seller or service provider thereof, would constitute an unfair trade practice.
 - Deliberately conceals important information.

Rights of consumers: -

- Six consumer rights have been defined in the Act, including:-
- Right to safety, right to be Informed, right to choose, right to be heard, right to seek redressal, and right to consumer education.

About Central Consumer Protection Authority (CCPA):-

- **Establishment: 2020.**
- **Ministry: Ministry of Consumer Affairs.**
- **HQ: Delhi.**
- **Objective:** To protect the rights of the consumer by cracking down on unfair trade practices, and false and misleading advertisements that are detrimental to the interests of the public and consumers.
- The [Central Consumer Protection Authority \(CCPA\)](#) is an authority constituted under **Section 10(1) of The Consumer Protection Act, 2019.**

Composition: -

- **Head: Chief Commissioner**
- **Members:** two other commissioners as members.
 - One of these will deal with **matters relating to goods** while the other will look into **cases relating to services.**
- **Investigation Wing:** The CCPA will have an Investigation Wing, headed by a **Director General.**
- **District Collectors:** They too, will have the power to investigate complaints of violations of consumer rights, unfair trade practices, and false or misleading advertisements.

Powers and Functions of CCPA: -

- Inquire or investigate matters relating to violations of consumer rights or unfair trade practices **Suo moto, or on a complaint received, or on a direction** from the central government.

- **Recall goods or withdrawal of services** that are “dangerous, hazardous, or unsafe.
- Pass an order for a **refund of the prices of goods or services** so recalled to purchasers of such goods or services.
- Impose a **penalty of up to Rs 10 lakh**, with imprisonment of up to two years, on the manufacturer or endorser of false and misleading advertisements.
 - The penalty may go up to Rs 50 lakh, with imprisonment up to five years, for every subsequent offense committed by the same manufacturer or endorser.
- **Ban the endorser** of a false or misleading advertisement from making an endorsement of any products or services in the future.
- **File complaints** of violation of consumer rights or unfair trade practices before the District Consumer Disputes Redressal Commission, State Consumer Disputes Redressal Commission, and the National Consumer Disputes Redressal Commission.

MUST READ: [New consumer rights law](#)

SOURCE: [PIB](#)

Article 371 D

Context: The students of Andhra Pradesh stare at the prospect of losing ‘local quota’ in educational institutions as **Article 371 D** may not come to their rescue when the validity of the A.P. Reorganisation Act ceases after the 10-year period in May 2024.

Background: -

- The teaching fraternity and the student community fear the prospect of losing the ‘**local quota**’ in educational institutions in the near future.
- Their fear stems from the fact that the **Andhra Pradesh Reorganization Act**, which came into force in May 2014, is valid only for 10 years.
- This means that the rules and regulations formulated prior to the bifurcation of Andhra Pradesh will not hold good after May 2024.

About Article 371 D: -

- Article 371 of the Indian Constitution deals with **special provisions for eleven states** of the Indian Union.
- It is a **part of XXI** of the Constitution of India, Article 371.

Beneficiary states: -

- This Article ranges from Article **371-A to Article 371-J**.
- It gives special provisions for the states of **Maharashtra, Gujarat, Nagaland, Assam, Manipur, Andhra Pradesh, Sikkim, Mizoram, Arunachal Pradesh, Goa and Karnataka**.
- The main objectives behind Article 371 granting special provisions to some states are:-
 - To meet the **unique needs of the backward regions of these states**.
 - Protect the **economic and cultural interests** of these regions.
 - Combat the **local challenges** and protect the customary laws in these regions.
- **Article 371D**, gives special provisions for the state of **Andhra Pradesh**.
- It was added to the Constitution in 1974 by the **32nd Amendment Act, 1973**.
- It states that: the president must ensure “equitable opportunities and facilities” in “public employment and education to people from different parts of the state”. He may require the state government to organize “any class or classes of posts in the civil service of, or any class or classes of civil posts under, the State into different local cadres for different parts of the State”. He has similar powers vis-à-vis admissions in educational institutions.

Benefits: -

- It provides **equitable opportunities** and facilities for the people of the state.
- It safeguards their rights in matters of **employment and education**. ([Domicile-based job quota](#))
- The state government may organize **civil posts or direct recruitment to posts** in the local cadre as required.

MUST READ: [Asymmetrical federalism](#)

SOURCE: [THE HINDU](#)

e-Courts Mission Mode Project

Context: The Government has recently, approved the **e-Courts Mission Mode Project Phase -3** as part of the National e-Governance Plan.

Background:-

- It is a part of the **National e-Governance Plan**.
- It will span for four years with a financial outlay of seven thousand 210 crore rupees.

About e-Courts Mission Mode Project:-

- **Launched:2007.**
- **Ministry: Ministry of Law & Justice.**
- E-Courts Project is a **mission-mode project** undertaken by the **Department of Justice**, Government of India.
- **Objective:** to provide designated services to litigants, lawyers, and the judiciary by universal computerization of district and subordinate courts in the country and enhancement of ICT enablement of the justice system.
- **Implementation:** The e-Courts project is being implemented in association with the e-Committee **Supreme Court of India and the Department of Justice.**
- The project is aimed at **providing the necessary hardware and software application** to enable courts to deliver e-services, and the judiciary to be able to monitor and manage the functioning of courts.
- It is a **Central Sector Scheme.**
- The e Committee of the Supreme Court has been overseeing the implementation of the e Courts Project, conceptualized under the “National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary-2005”.
- The **Chairperson of the e Committee** is Dr Justice Dhananjaya Y Chandrachud, Judge, Supreme Court of India.

Phases:-

- **Phase I:** It was implemented during 2011-2015.
- **Phase II:** It was started in 2015 under which various District and subordinate courts have been computerized.
- **Draft vision document for Phase III** aims for: ([Phase III of the eCourts Project](#))
 - Digitization of court processes.
 - Upgrade the electronic infrastructure of the judiciary.
 - Enable access to lawyers and litigants.
 - Seamless exchange of information between various branches of the State through the Interoperable Criminal Justice System (ICJS).
 - These branches include the **judiciary, the police, and the prison systems.**

Advantages:-

- **Faster justice** delivery. ([Digitization of Court Records](#))
- **Clearing pendency** which is around 3.27 crore cases before Indian courts.
- **Reduce long delays** and difficulties for ordinary litigants.
- Building **people's trust** in the judiciary.

Challenges:-

- **Technical Challenges:** Complex process that involves upgrading existing technology and infrastructure.
- **Cybersecurity Risks.**
- **Equity Concerns:** The digitization of courts can exacerbate existing disparities in access to justice for marginalized communities, particularly those without access to technology.
- **Preservation of Records:** Digitizing records poses challenges for preserving historical records

MUST READ: [Judiciary & AI](#)

SOURCE: [AIR](#)

National Higher Education Qualifications Framework (NHEQF)

Context: The University Grants Commission (UGC) recently finalised the National Higher Educational Qualification Framework (NHEQF), a regulatory reform proposed by National Education Policy 2020.

About National Higher Education Qualifications Framework (NHEQF):

- **Development:** The **Ministry of Labour and Employment** developed the National Vocational Qualifications Framework (NVQF) and the **Ministry of Education** developed the Vocational Education Qualifications Framework (NVEQF).
- **The NHEQF has divided parameters into levels 5 to 10.**
 - Levels 1 to 4 cover the school education.
 - The NHEQF level 5 represents learning outcomes appropriate to the first year (first two semesters) of the undergraduate programme of study;
 - While Level 10 represents learning outcomes appropriate to the doctoral-level programme of study.
- According to the NHEQF, students must possess and display the **desired graduate profile/attributes** after completing a programme of study.
- It also establishes the amount of credits required to complete the **four-year undergraduate programme, postgraduate degrees, and doctoral degrees at various levels.**

About University Grants Commission (UGC):

- **EST:** 28th December, 1953

- It is a **statutory organization** by the UGC Act, 1956
- **Ministry:** Ministry of Education.
- **The UGC's mandate includes:**
 - Promoting and coordinating university education.
 - Determining and maintaining standards of teaching, examination and research in universities.
 - Framing regulations on minimum standards of education.
 - Monitoring developments in the field of collegiate and university education; disbursing grants to the universities and colleges etc

Source: [The Hindu](#)

National Medical Commission (NMC)

Context: The National Medical Commission (NMC) of India has been awarded the coveted World Federation for Medical Education (WFME) Recognition Status for a tenure of 10 years.

About NMC:

- **Statutory body** under National Medical Commission Act, 2019.
- **HQ:** New Delhi
- It has replaced the Medical Council of India (MCI) constituted under the Indian Medical Council Act, 1956.
- **Ministry:** Ministry of Health and Family Welfare
- **Functions:**
 - NMC regulates medical education and medical professionals.
 - The Commission grants recognition of medical qualifications gives accreditation to medical schools, grants registration to medical practitioners, monitors medical practice and assesses the medical infrastructure in India.
- **Members:** It consists of **33 members including Chairman** (medical professionals only), 10 ex-officio members and 22 parttime members.
- **Four autonomous boards under NMC:**
 - Under-Graduate Medical Education Board (sets norms for undergraduate (UG) courses),
 - Post-Graduate Medical Education Board (sets norms for post-graduate courses),
 - Medical Assessment and Rating Board (inspects and rates the medical education institutes), and
 - Ethics and Medical Registration Board (regulates professional conduct of the doctors and registers them).

About World Federation for Medical Education (WFME):

- **EST:** In 1972
- **HQ:** Ferney-Voltaire, France.
- **Aim:** WFME is a global organisation concerned with the education and training of medical doctors.
- **Objective:** It is the organisation that officially and globally represents medical teachers and medical teaching institutions before the [World Health Organization\(WHO\)](#).
- **WFME's accreditation program** plays a pivotal role in ensuring that medical institutes meet and uphold the highest international standards of education and training

Source: [AIR](#)



INTERNATIONAL RELATIONS



20th ASEAN-India Summit

Context: Prime Minister Narendra Modi will be on a two-day visit to Indonesia to attend **the ASEAN-India Summit** and East Asia Summit.

About 20th ASEAN-India Summit:-

- **Host:** Indonesia.
- **Venue:** Jakarta, Indonesia
- **Significance:** It will be the first Summit since the elevation of India-ASEAN relations to a Comprehensive Strategic Partnership last year. ([India-ASEAN relations](#))
- It will review the progress of India-ASEAN relations and chart the future direction of cooperation.

About East Asia Summit:-

- **Established :2005.([East Asia Summit](#))**
- **First summit:** Kuala Lumpur, Malaysia.
- **Date:** 14 December 2005.
- **18th summit:** Jakarta, Indonesia.
- It is a forum of 18 regional leaders for strategic dialogue and cooperation on the key political, security, and economic challenges facing the Indo-Pacific region.
- This forum has an important role to play in advancing closer regional cooperation.
- The 18th East Asia Summit will provide an opportunity for leaders of ASEAN countries and its eight dialogue partners, including India, to exchange views on issues of regional and global significance.

MUST READ: [India-ASEAN conclave](#)

SOURCE: [AIR](#)

Africa Climate Summit 2023

Context: Recently, **Africa Climate Summit 2023** was inaugurated.

Background:-

- Despite having a small carbon footprint, Africa disproportionately bears the human toll of climate change.
- Thus, highlighting the urgent need for regional and global action, President William Ruto reminded us while inaugurating the Africa Climate Summit, 2023 (ACW23) on September 4, 2023, in Nairobi, Kenya.

About Africa Climate Summit 2023:-

- **Date:** 4th to 6th September 2023.
- **Venue:** Nairobi, Kenya. (Africa)
- The summit aims to address the increasing exposure to climate change and its associated costs, both globally and particularly in Africa.
- At the Africa Climate Summit, leaders will be called upon to **make ambitious pledges and commitments**.
- A comprehensive "**Pledging and Commitment Framework**" will be developed to guide these actions.
- The outcomes of the summit are critical for the African continent **to arrive at a consensus** and mobilize action in the lead-up to the upcoming 28th Conference of Parties (COP28) to the United Nations Framework Convention on Climate Change to be hosted in Dubai, United Arab Emirates.

Theme & Focus Areas:-

- Climate Action Financing.
- Green Growth Agenda for Africa.
- Climate Action and Economic Development.
- Global Capital optimization.

MUST READ: [27th COP of UNFCCC](#)

SOURCE: [DOWN TO EARTH](#)

Organisation for Economic Co-operation and Development (OECD)

Context: Secretary General of the **Organisation for Economic Co-operation and Development (OECD)** Mathias Cormann arrived in New Delhi to attend the G20 Summit recently.

Background:-

- European Council President Charles Michel also arrived to attend the G20 Summit.

About the Organisation for Economic Co-operation and Development (OECD):-

- **Establishment: 1960.**
- **HQ: Paris, France.**
- **Objective:** to shape policies that foster prosperity, equality, opportunity and well-being for all.

Historical Background:-

- The forerunner of the [OECD](#) was the **Organization for European Economic Co-operation (OEEC)**.
- OEEC was formed to administer **American and Canadian aid under the Marshall Plan** for the reconstruction of Europe after World War II.
- The Convention **transforming the OEEC into the OECD** was signed in Paris in 1960 and entered into force in **1961**.

Members of OECD:-

- OECD currently has **38 member nations** and the Member Countries are each represented by a delegation led by their ambassadors.
- **The 38 Member Countries consist of:** Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.
- India is a **non-member economy** with working relationships with the OECD.

Functions of OECD:-

- It is responsible for **publishing economic reports, statistical databases, analyses**, and forecasts on the outlook for economic growth worldwide. ([OECD/G20 Inclusive Framework tax deal](#))
- The group analyzes the **impact of social issues on economic growth** and makes recommendations.
- It endeavours to **eliminate bribery** and other forms of financial crimes worldwide.
- It **seeks to eliminate bribery and other financial crimes** worldwide.
- It also **maintains a "blacklist" of nations** that are considered uncooperative tax havens.

Reports:-

- **OECD Economic Outlook**
- **OECD Communication Outlook**
- **OECD Internet Economy Outlook**

MUST READ: [Digital taxation & OECD: On a weak pillar](#)

SOURCE: [AIR](#)

G20 New Delhi Declaration

Context: The Group of Twenty (G20) recently adopted the **G20 New Delhi Leader's Declaration**.

Background:-

- The New Delhi Leader's Declaration was adopted on September 9, 2023.
- The Countries committed to, accelerating their actions to address environmental crises and challenges, including climate change.

About G20 New Delhi Leader's Declaration:-

- The New Delhi Leader's Declaration was adopted with **consensus on a number of issues**.
- These include sustainable development goals (SDG), climate finance, energy transitions, using and restoring natural ecosystems, harnessing and preserving ocean-based economy, plastic pollution, reducing disaster risk, and building resilient infrastructure. ([SDG India](#))
- In the declaration under the **Green Development Pact for a Sustainable Future**, the countries have committed to **"urgently accelerate actions to address environmental crises and challenges, including climate change"**.

- **Paris Agreement:** One of the aims of the declaration is "to tackle climate change by strengthening the full and effective implementation of the Paris Agreement and its temperature goal.
- This reflects equity and the principle of **common but differentiated responsibilities and respective capabilities (CBDR)**.
- The inclusion of the principles of CBDR is interesting as some developed G20 countries such as the **United States have been averse to the usage**.
- The G20 members also cited the **findings of the [Intergovernmental Panel on Climate Change \(IPCC\) Sixth Assessment Synthesis Report](#)**.
- It stated that Global greenhouse gas (**GHG**) **emissions are projected to peak** between 2020 and at the latest before 2025 in global modeled pathways that limit warming to 1.5°C with no or limited overshoot and in those that limit warming to 2°C and assume immediate action. ([Mitigating Climate Change](#))
- The G20 members also highlighted the **macroeconomic risks stemming from climate change** and transition pathways.
- The G20 countries also noted the **institutionalization of the Disaster Risk Reduction Working Group** under the presidency of India, which catalyzed efforts toward disaster risk reduction.
- The document also talks about **accelerating progress on early warning and early action** through strengthening national and local capacities, innovative financing tools, private sector investments, and knowledge sharing.
- The members supported the United Nations initiatives such as the **Global Platform for DRR and the Coalition for Disaster Resilient Infrastructure** in "furtherance of such collaboration and sharing".

MUST READ: [India and G20 Presidency](#)

SOURCE: [DOWN TO EARTH](#)

Conference of National Human Rights Institutions of the Asia Pacific region

Context: President Droupadi Murmu recently, inaugurated the **conference of National Human Rights Institutions of the Asia Pacific region** in New Delhi.

About the conference of National Human Rights Institutions of the Asia Pacific region:-

- **Hosted by:** [National Human Rights Commission \(NHRC\), India](#)
- **Date:** 20 – 21, September, 2023.
- **Venue:** Vigyan Bhavan, New Delhi.
- The two-day conference will celebrate the 75th anniversary of the Universal Declaration of Human Rights and 30 years of National Human Rights Institutions and the Paris Principles.
- A sub-theme on the **environment and climate change** was also held.
- Additionally, the National Human Rights Commission will organize a seminar on **Business and Human Rights**.
- The event aims to ensure that businesses prioritize human rights and environmental sustainability in their operations.
- It is a Biennial Conference of **National Human Rights Institutions (NHRIs) of Asia Pacific**.
- Earlier, in **2002 and 2014**, such an AGM of Asia Pacific Forum and conference was held in India.

About Asia Pacific Forum:-

- **Founded:**1996.
- The APF was founded to promote the **establishment of independent NHRIs in the Asia Pacific region** and to support them in their work to promote and protect human rights as effectively as possible.
- **Objective:** to promote the establishment of independent NHRIs in the Asia Pacific region and to support our members to do their work as effectively as possible.
- **Membership:-**
- From **five founding members**, the APF membership has expanded to 26 NHRIs.
- NHRC, India is one of the founding members of the **Asia Pacific Forum** of the NHRIs.
- As a coalition of national human rights institutions, it works together and shares expertise to help make its vision a reality.
- It works closely with **governments, civil society organizations**, regional human rights bodies, and the international community.
- It aims to **build strong partnerships** and strengthen the impact of our members as they work to build fair, inclusive, and resilient communities.
- Its network now supports over 4,000 dedicated **human rights defenders** who work tirelessly on the ground to **protect the rights of those most vulnerable**.
- **Significance:** It has created a **strong and united platform** that brings together National Human Rights Institutions (NHRIs) from all corners of the Asia Pacific to address some of the most serious human rights challenges in our region.

MUST READ: [Giving Human Rights Commissions more teeth](#)

SOURCE: [AIR](#)

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SOURCE: [AIR](#)

India-Canada Relations

Context: The recent killing of pro-Khalistan leader and a Canadian citizen, Hardeep Singh Nijjar has caused diplomatic challenges in **India-Canada Relations**.

Background of the Issue:-

- Khalistan Tiger Force chief Hardeep Singh Nijjar, one of the most wanted terrorists in India, was shot dead by two unidentified men within the premises of a gurdwara in Canada Sunday night.
- Canadian Prime Minister Justin Trudeau recently made explosive allegations of a “potential link” between agents of the Government of India and the killing of a pro-Khalistan leader and Canadian citizen, Hardeep Singh Nijjar.
 - Hardeep Singh Nijjar's name had been included in the **wanted list** handed over by the then-Punjab CM Captain Amarinder Singh, to Canadian Prime Minister Justin Trudeau during the latter's visit to India in 2018.
- The Khalistan issue has always plagued bilateral ties, from the 1980s to the last eight years of Trudeau's term.
- But this time, Ottawa has ratcheted up the ante and New Delhi is watching the situation keeping in mind the complexity of the bilateral ties and the reputational cost on the global stage.

About India-Canada Relations:-

- India and Canada have a longstanding bilateral relationship based on **shared democratic values, the multi-cultural, multi-ethnic, and multi-religious nature**.
- **1947:** India **established diplomatic relations** with Canada in 1947.

- **1951: Canada's aid program to India** began in 1951 and grew substantially under the **Colombo Plan**.
 - Canada provided **food aid, project financing, and technical assistance** to India.
- **1974:** deterioration of India-Canada relations due to **India's Smiling Buddha nuclear test**.
- **1976:** The Canadian government **severed bilateral nuclear cooperation with both India** and Pakistan in 1976 after claims that the fissionable material used to construct India's first nuclear device had been obtained from the Canadian-supplied CIRUS nuclear research reactor.
- **1985:** The **bombing by Sikh separatists** of Air India Flight 182 resulted in Canada and India maintaining a bilateral dialogue on anti-terrorism.
- **2015:** The Prime Minister of India's visit to Canada in **April 2015 elevated the bilateral relationship to a strategic partnership**.
- In recent years, both countries have been **working to enhance bilateral cooperation** in several areas of mutual importance.

Significance:-

- Canada hosts **one of the largest Indian diasporas** in the world, numbering 16 lakh people of Indian origin.
- It accounts for **more than 3 percent of the total Canadian population** and **700,000 NRIs**.
- At the **Ministerial level**, Canada and India enjoy a strategic partnership underpinned by Ministerial Dialogues on foreign policy, trade and investment, finance, and energy.
- At the official level, there are **regular working groups** that focus on **counter-terrorism, security, agriculture, education, science, technology, etc.**
- **Trade relations**
- In **2021**, India was **Canada's 14th largest export market** and **13th largest trading partner** overall.
- India became the **top source of foreign students** studying in Canada — 2.3 lakh, according to 2022 data.
- India is a **key partner** as Canada strengthens its **economic links to the Indo-Pacific** under a new, comprehensive strategy for the region.

Challenges in India-Canada Relations:-

- **Sikh extremism and the Presence of Sikh separatist groups** in Canada.
- Concerns about the **revival of the Khalistan movement**.
- **Sikh Diaspora's Influence on Canadian Politics**
- **Impediments for Trade:** India's Complex labour laws; Market protectionism; Bureaucratic regulations.

Areas of Cooperation:-

- **Politically**, India and Canada share commonalities in Parliamentary structure and procedures.
- **Commercial:** Bilateral trade between India and Canada stands at over USD 6.4 billion in 2020. Negotiations for a Comprehensive Economic Partnership Agreement (CEPA).
- **Nuclear Cooperation:** Nuclear Cooperation Agreement (NCA) signed in 2010 by, the Joint Committee on Civil Nuclear Cooperation, restoration of nuclear cooperation.
- **Security and Defense Collaboration:** in international fora, mutual ship visits, Framework for Cooperation between India and Canada on Countering Terrorism in 2018
- People-to-People Ties
- Cultural Exchanges
- Cooperation during **COVID-19 Pandemic**. ([Second Wave of COVID-19](#))

MUST READ: [India and G20 Presidency](#)

SOURCE: [THE INDIAN EXPRESS](#)

G4 countries

Context: Recently the G4 countries have reiterated that expansion of UN Security Council in both permanent and non-permanent categories is essential to make the body more representative, legitimate, effective and efficient.

About G4 countries:

- The G4 is a grouping of **Brazil, Germany, India and Japan** which are aspiring to become permanent members of the UNSC.
- They are supporting each other's bids for **permanent membership of the UNSC**.
- The G4 nations traditionally meet on the sidelines of the **annual high-level UN General Assembly session**.

Opposition to G4: the Coffee Club

- The [Uniting for Consensus \(UfC\)](#), or the **Coffee Club**, emerged in the 1990s in opposition to the potential extension of permanent seats on the UN Security Council.

- **Italy** along with **Pakistan, Mexico and Egypt** founded the **Coffee Club in 1995** to reject the proposal to increase the number of permanent seats in the UNSC.

About UN Security Council:

- **EST:** United Nations charter in 1945
- **HQ:** New York City, USA.
- **Members:** 15 members
- **Permanent members with veto power (P5 members):** the United States, the Russian Federation, France, China and the United Kingdom.
- **Non-permanent members:** The non-permanent members of the Security Council are elected for a term of two years.
- The 10 non-permanent seats are distributed on a regional basis as follows:
 - Five for African and Asian States.
 - One for the Eastern European States.
 - Two for the Latin American and Caribbean States;
 - Two for Western European and other States

Source: [AIR](#)

Five Eyes Alliance

Context: Recently US ambassador to Canada has claimed that “shared intelligence among Five Eyes partners” had informed Prime Minister of Canada about the possible involvement of Indian agents in the killing of Khalistan separatist.

About Five Eyes Alliance:

- **Est:** Post-World War II
- **Members states:** Australia, Canada, New Zealand, the United Kingdom, and the United States.
- The term “**Five Eyes**” refers to the five countries’ collective efforts to gather and share signals intelligence (SIGINT) to address common security threats and challenges.
- **Objectives:**
 - **Intelligence Sharing:** The alliance members collaborate to share signals intelligence, which includes intercepted communications and electronic data, to enhance their collective understanding of global security threats.
 - **Counterterrorism and National Security:** The Five Eyes network focuses on countering terrorism and addressing other national security concerns by exchanging vital intelligence and cooperating on joint operations.
 - **Cybersecurity and Cyber Threats:** Given the growing significance of cyber threats, the alliance works together to monitor and address cyber activities from adversarial nations and non-state actors.
 - **Information and Technology Sharing:** The Five Eyes partners share expertise and technological advancements in the field of intelligence gathering, analysis, and cryptography.

Source: [Indian Express](#)

India and Finland

Context: **India and Finland** recently agreed on cooperation between the two countries in several areas of telecom including the development of Human Resources for the dynamic sector.

About India and Finland:-



- Finland and India have traditionally enjoyed **warm and friendly relations**.
- In recent years, bilateral relations have acquired diversity with **collaboration in research, innovation, and investments by both sides**.
- 2019 marked **70 years of diplomatic relations** between the two countries.
- Economic cooperation: -**
 - **Finland sees India as a market** for its products and a favourable investment destination for its high-technology industries.

- India views **Finland as an important member of the European Union** and a repository of modern technology.

S&T Collaboration: -

- An agreement for Cooperation in S&T was signed in February 2008 for the development of **innovation policies, exchange of information and scientists and R&D collaboration.**
- Both India and Finland are consultative members of the **Antarctic Treaty** and have active stations in Antarctica.
- Finland will be hosting the **Antarctic Treaty Consultative Meeting (ATCM) in 2023 and India in 2024.**
- The India Meteorological Department (IMD) and the Finnish Meteorological Institute (FMI) have been cooperating in the **field of Atmospheric Environment since 2014.**

Cultural Relations: -

- Indian **culture and yoga** are very popular in Finland.
- Cultural events are organized regularly by Indian Associations and other cultural organizations promoting Indian dance and music.

Environment Relations: -

- There have been successful partnerships since 2004 between the **Finnish Meteorological Institute (FMI), the India Meteorological Department (IMD) and The Energy and Resources Institute (TERI)** in air quality including capacity building.

Cooperation in Education: -

- Finland is a global leader in education scoring consistently on several parameters.
- There have been tie-ups between private firms for the exchange of best practices in **early childhood and K-12 education.**
- There is an MoU between a Consortium of ten Finnish Universities and **twenty-three Indian Institutes of Technology (IITs)** for the period 2020-2025 for cooperation in the higher education sector.

MUST READ: [Foreign Universities in India](#)

SOURCE: [AIR](#)



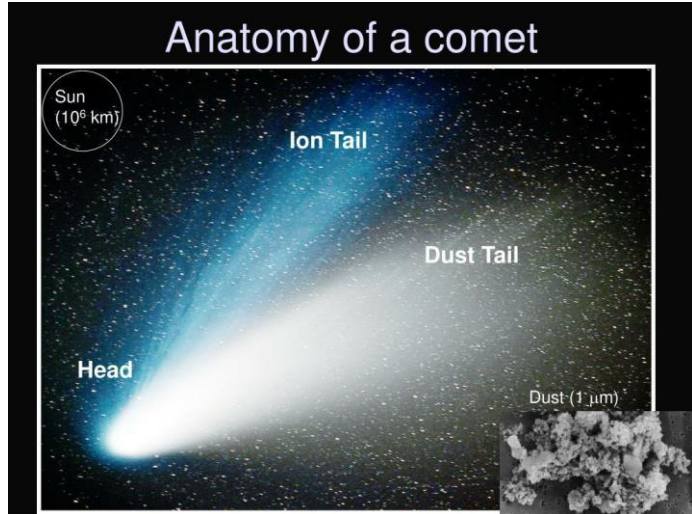
GEOGRAPHY



Comet Nishimura

Context: Recent reports suggest, that **Comet Nishimura** could be visible in September.

About Comet Nishimura:-



- **Discovered on: August 11, 2023.**
- **Discovered by: Hideo Nishimura. ([Bernardinelli-Bernstein comet](#))**
- It was discovered **during 30-second exposures** with a standard digital camera.
- Comet Nishimura was imaged from **June Lake, California, USA.**
 - **Comets:** Comets are celestial objects composed of frozen gases, dust, and rocks that orbit the Sun.
 - They originate from the early solar system and develop tails when they approach the Sun due to the release of gas and dust.
 - These **tails make them visible** from Earth.
- It was pictured sporting **a green coma and a thin tail.**

- It's expected to brighten to a **magnitude of 1.8.**
- Its closest approach to us will be on **Sep 12 and its perihelion on Sep 17/18.**
- The comet is **currently located in the constellation Leo.**
 - **Constellation Leo:** A prominent constellation in the night sky, represented by the **shape of a lion.**
 - It is one of the zodiac constellations and contains various stars and celestial objects.
 - The constellation is visible toward the **east-northeastern horizon about 90 minutes before sunrise.**
- As the comet approaches the sun, the visitor is also getting closer to the horizon, thus making it more difficult to observe it after this week.
- Since its discovery, C/2023 P1 Nishimura has **increased in brightness** and its path across the inner Solar System determined.
- As the comet dives toward the Sun, **it will surely continue to intensify** and possibly become a naked-eye object in early September.
- The comet will also be angularly near the Sun, so **it will only be possible to see it near sunset or sunrise.**

MUST READ: [Exoplanets](#)
SOURCE: [THE INDIAN EXPRESS](#)

Northern Sea Route

Context: India and Russia have been exploring the use of the **Northern Sea Route**, and Eastern Maritime Corridor in recent times.

Background:-

- India and Russia discussed the possibility of exploring new transport corridors like the Northern Sea Route (NSR).
- Both sides also agreed that **Indian seafarers will be trained on Polar and Arctic waters** at the Russian Maritime Training Institute in Vladivostok, which is equipped with simulators.
- India is keen to collaborate on a partnership regarding the development of the NSR recognizing the potential it holds for enhanced connectivity and trade.

About Northern Sea Route:-

- Eastern and western regions of the Arctic Ocean are **connected via the Northern Sea Route (NSR)**, sometimes known as the Northeast Passage (NEP).
- It is the **shortest shipping route connecting Europe and the Asia-Pacific region.**
- The route between **Europe and Asia** is just 13,000 km long, compared to the 21,000 km covered by the Suez Canal route, which **reduces the travel duration** from one month to less than two weeks.
- It passes through **four seas of the Arctic Ocean.**



• The route starts at the **boundary between the Barents and Kara seas (Kara Strait)** and concludes at the Bering Strait (Provideniya Bay).

Advantages:-

- The NSR offers potential **distance savings of up to 50%** compared to existing shipping lanes via Suez or Panama.
- The region **may hold over 40 percent** of the current global reserves of oil and gas.
- There may also be significant reserves of **coal, zinc, and silver**.

India’s gains in NSR development:-

- **Growing Cargo Traffic:** NSR cargo traffic increased by about 73% during 2018-2022.
- **Strategic Transit Route:** India’s geographical location and reliance on sea transportation make the NSR a crucial transit route. [India – Russia Relations](#)
- **Geopolitics:** India would like to **complement China and**

Russia’s potential collective influence over NSR. [\(India-Russia military alliance\)](#)

MUST READ: [Russia-Ukraine War](#)

SOURCE: [THE HINDU](#)

Bhoj wetland

Context: The National Green Tribunal (NGT) recently, ordered the Madhya Pradesh government to stop the operation of cruise vessels as well as other motor-propelled boats in the **Bhoj wetland**.

About Bhoj wetland:-



IMAGE SOURCE: [ResearchGate](#)

- **Location:** Bhopal, Madhya Pradesh.
- [Bhoj Wetland](#) consists of **two contiguous human-made reservoirs**.
- The **upper and lower lakes** are located in the city of Bhopal.
- **Historical Background:-**
 - The Bhoj wetland was first conceived by the visionary **king Paramara Raja Bhoj in 1005-1055 CE**.
 - He built the lake by raising an earthen dam across the Kolans.
 - **The Lower Lake was built much later in 1794 by Chhote Khan**, a minister to Nawab Hayath Mohammad Khan.

- **Bhadbhada dam** was built on the southeast corner of Bhojtal in 1965.
- It was designated as the **Ramsar site in 2002**.

Threats to the Bhoj Wetland:-

- The Bhoj wetland faces various threats from **urbanization and human settlements** on all sides.

MUST READ: [COP14 of Ramsar Convention on Wetlands](#)

SOURCE: [THE HINDU](#)

Hirakud dam

Context: The Odisha government recently, announced a plan to rehabilitate those displaced by the construction of the **Hirakud dam**.

Background:-

- In a resolution to a seven decade–long land displacement issue, 1,749 families of 19 villages of Jharsuguda district will be given rights on 3,231 acres of land .

About Hirakud Dam:-



- Inaugurated: 1957.
- Location: 15 Kms from Sambalpur, Odisha.
- River: Mahanadi.
- Type: It is a composite structure of earth, concrete, and masonry. ([Central Water Commission \(CWC\)](#))
- Installed capacity: 287.8 MW.
- Height of Dam: 80.96 meters.

Historical Background:-

- After the high floods of 1937, Er. M. Visveswaraya gave a proposal for a detailed investigation of storage reservoirs in the Mahanadi basin to tackle the problem of flood in Mahanadi delta.
- The multi-purpose Hirakud Dam project is the first stage of the plan of Dr. Ajoy Nath Khosla, the then Governor of Odisha.
- The commissioning of Unit

III of Burla Power House was completed in 1956.

- Pandit Jawaharlal Nehru laid the **foundation stone in 1948**.
- The project was formally inaugurated by Pandit Jawaharlal Nehru on **13 January 1957**.

Objectives:-

- Irrigation.
- Power Generation.
- Flood Control. ([National Dam Safety Authority](#))

Salient features:-

- The Hirakud Dam Project is a **multipurpose scheme** intended for flood control, irrigation, and power generation.
- This is **one of the oldest hydel projects** in India.
- It was the **first post-independence major multi-purpose river valley project** in the country.
- It is the **longest dam** in India.
- The **Debrigarh Wildlife Sanctuary** is located near Hirakud Dam.
 - It is bounded on the east and north by the huge Hirakud reservoir.

MUST READ: [Sunni Dam Hydro Electric Project](#)

SOURCE: [THE HINDU](#)

Kaobal Gali-Mushkoh Valley

Context: The Kaobal Gali-Mushkoh Valley, the battlefield of the Kargil war, was recently, opened up for tourists.

Background:-

- Mushkoh Valley which resounded with artillery gunfire in 1999 is on the tourist map this year.
- This became possible due to the 43-month-long ceasefire agreement between India and Pakistan.

About Kaobal Gali-Mushkoh Valley:-

- Location: in Kargil’s Drass Sector, Jammu and Kashmir.
- It was a **battlefield during the 1999 Kargil War** between India and Pakistan. ([Kargil Vijay Diwas](#))
- The region includes the **Gurez Valley** in north Kashmir, which was previously inaccessible to civilians due to shelling from Pakistan but now connects with the **Mushkoh Valley** in Kargil’s Drass Sector.

Gurez Valley:-

- **Kaobal Gali** is the highest pass at a height of 4,167 meters in Gurez.
- **It connects Gurez to Mushkoh Valley.**

- **River:** Kishanganga River flows through the valley.
- The Gurez Valley is **close to the Line of Control (LoC)**.
- **Inhabitants:** Being situated very close to the **Burzil Pass**, which leads into Astore, the **inhabitants are ethnic Dards/Shins**.
 - They speak the **Shina language** and have the same styles of dress and culture as their kinsmen in Pakistani-administered Gilgit-Baltistan.
 - The Gurez Valley, with about 38,000 residents, is already setting a record by hosting 50,000 tourists this year so far.
- **Fauna:** ibex, musk deer, and marmots, Himalayan brown bear, and snow leopard.
 - **Zumba yak** (smaller than other yaks) is found in the Buduaab village, Gurez valley.

Mushkoh valley:-

- **Location:** Dras (Ladakh). ([Operation Sadbhavana](#))
- It is also known as the **valley of wild tulips**.
- The meadows of Mushkoh offer boisterous **wild tulip flowers**.
- The valley is also home to the **endangered Himalayan yew**.

MUST READ: [Judicial remedies for the Jammu and Kashmir net restrictions](#)

SOURCE: [THE HINDU](#)

India Ageing Report 2023

Context: India Ageing Report 2023 was released recently.

About India Ageing Report 2023:-

- **Released on:** 27 September 2023.
- **Released by:** International Institute for Population Sciences and the United Nations Population Fund.

Key highlights of the report:-

- The percentage of the **elderly in India has been increasing rapidly** in recent years and this **trend is likely to continue** in the coming decades as well,
- **By 2050**, the share of the elderly in India's total population can reach more than **20 percent**.
- The number of elderly will also be **higher in proportion** to the number of **children aged 0-14 years**.
- The number of **working-age people** in the age group of 15-59 years **will decrease**.
- Also, **women will live longer than men**, due to which the number of older women will be more than older men.
- A large number of them will be **rural women**.
- It noted that the **decadal increase in India's elderly population** since 1961 was medium to high.
- This pace was slow until 2001 but is **expected to spike** in the coming decades.
- The report said the **global population has been increasing** even as people are living longer. ([World Population Prospects](#))
- According to the report, in India, a man aged 60 years can live another 18.3 years, while women can live 19 years.
- In **Kerala and Himachal Pradesh**, women can be up to 4 years more than men.
- The report has expressed concern that since the **life expectancy of women in India will be longer than that of men**, the number of widowed women will be considerable. ([The Population Worry](#))

MUST READ: [Demographic Dividend](#)

SOURCE: [DOWN TO EARTH](#)



Economy



Build Operate Transfer (BOT) model

Context: Minister of Road Transport and Highways Nitin Gadkari recently suggested the revival of the **Build Operate Transfer (BOT) model** via smaller highway projects.

About Build Operate Transfer (BOT) model:-

Build	Operate	Transfer
<ul style="list-style-type: none"> ▪ As-Is business analysis ▪ Business architecture planning ▪ Infrastructure and technology set-up ▪ Creation of statutory and budget aspects 	<ul style="list-style-type: none"> ▪ Project Management ▪ Go-to-market strategy implementation ▪ Reduction in management overhead ▪ Development and maintenance ▪ Fully operating subsidiary 	<ul style="list-style-type: none"> ▪ Fully operational facility transferred back to client ▪ Post transfer operations and management support

- A [build-operate-transfer \(BOT\)](#) contract is a model **used to finance large projects**, typically **infrastructure projects** developed through **public-private partnerships**.
- They are normally large-scale, **greenfield infrastructure projects** that would otherwise be financed, built, and operated solely by the government.
- Under a build-operate-transfer (BOT) contract, an entity—usually a government—**grants a concession to a private company** to finance, build, and operate a project for a period of 20 to 30 years, hoping to earn a profit.
- After that period, the **project is returned to the public entity** that originally granted the concession.

Other commonly used PPP investment models in India:-

Build ,Operate ,Lease ,Transfer (BOLT):-

- In this approach, the **government gives a concession to a private** entity to build a facility (and possibly design it as well), own the facility, and lease the facility to the public sector.
- At the end of the lease period **transfer the ownership** of the facility to the government.

Hybrid Annuity Model (HAM):-

- The central government **bears 40%** of the project cost.
- The **remaining amount** is arranged by the developer.

Engineering, Procurement and Construction Model (EPC)

- The EPC Model partnership **requires the government to undertake the total funding** of the project.
- The Private sector partner **provides the engineering and construction requirements**.

About the National Highways Authority of India (NHAI):-

- **Establishment: 1988.**
- **Ministry: Ministry of Road Transport and Highways.**
- NHAI is an **autonomous agency** of the Union Government, responsible for the management of a network of over 70,000 km of national highways in India.
- It is a **statutory body**.
- It was established through the **National Highways Authority of India Act, 1988.**

- **1995:** It was formally made an autonomous body.
- It is responsible for the development, management, operation, and maintenance of **National Highways**.

MUST READ: [Forum for Decarbonizing Transport](#)

SOURCE: [FINANCIAL EXPRESS](#)

Central Bank Digital Currency (CBDC)

Context: The Reserve Bank of India (RBI) is working with lenders to introduce new features to popularise the **central bank digital currency (CBDC)**, in recent times.

About Central Bank Digital Currency (CBDC):-

- **CBDC is fiat money** or **money established/backed by a government** through its central bank in a virtual form.
- It is a **legal tender** issued by a **central bank** in a digital form.
- It combines the power of blockchain with the logistics of distributed ledger technology (DLT), **where data can be synchronized across multiple locations** without the need for centralized storage.

Salient Features:-

- CBDC is a **high-security digital instrument**.
- It is a means of payment, a unit of account, and a store of value.
- Just like paper currency, each unit is **uniquely identifiable** to prevent counterfeiting.
- It is a **liability of the central bank** just as physical currency is.
- It's a digital bearer instrument that **can be stored, transferred, and transmitted** by all kinds of digital payment systems and services.

Advantages:-

- CBDC is a **faster system**.
- **Financial inclusion**
- Improve **Monetary policy** facilitation.
- It can become a **regional currency for cross-border transactions**.

MUST READ: [Rupee](#)

SOURCE: [THE INDIAN EXPRESS](#)

Bureau of Indian Standards (BIS)

Context: The **Bureau of Indian Standards (BIS)** recently, reached 2.4 lakh Gram Panchayats to create awareness and promote compliance with Indian standards.

Background:-

- The initiative aims to enhance the overall quality and safety of government programs and schemes implemented at the village level.

About the Bureau of Indian Standards (BIS):-

- **Establishment: 1986.**
- **Ministry: Ministry of Consumer Affairs, Food & Public Distribution.**
- **HQ: New Delhi.**
- The [Bureau of Indian Standards \(BIS\)](#) was **established under the BIS Act, 1986** for the harmonious development of the activities of standardization, marking, and quality certification of goods and for matters connected therewith or incidental thereto.
- **Objectives:** harmonious development of the activities of standardization, marking, and quality certification of goods and for matters connected therewith or incidental thereto.

- BIS is the **National Standard Body of India**.

Historical Background:-

- It was **formerly the Indian Standards Institution (ISI)**, set up under the Resolution of the Department of Industries and Supplies in 1946.
- The ISI was registered under the **Societies Registration Act, of 1860**.
- A new Bureau of Indian Standards Act, 2016 which was notified on 22nd March 2016, has been brought into force with effect from 12 October 2017.
- It **reinforces the activities of BIS** with respect to standardization and certification of goods, articles, processes, systems, and services.

Composition:-

- **President, Ex-officio:** Hon'ble Minister for Consumer Affairs, Food and Public Distribution, Government of India.
- **Vice President, Ex-officio:** Hon'ble Minister of State for Consumer Affairs, Food and Public Distribution, Government of India.

Functions:-

BIS is involved in various activities as given below:-

- Standards Formulation
- Product Certification Scheme
- Compulsory Registration Scheme
- Foreign Manufacturers Certification Scheme
- Hall Marking Scheme
- Laboratory Services
- Laboratory Recognition Scheme
- Sale of Indian Standards
- Consumer Affairs Activities
- Promotional Activities
- Training Services, National and international level
- Information Services

MUST READ: [Bureau of Indian Standards\(BIS\) and Hallmark](#)

SOURCE: [AIR](#)

First Global Symposium on Farmers' Rights

Context: President Droupadi Murmu inaugurated the **First Global Symposium on Farmers' Rights** in New Delhi recently.

About First Global Symposium on Farmers' Rights:-

- **Venue:** ICAR Convention Centre, National Agricultural Science Centre, New Delhi.
- **Date:** September 12 to 15, 2023.
- **Historical Background:** The proposal to hold the first GFSR was mooted by the Government of India at the Ninth Session of the Governing Body (GB9) of the International Treaty on Plant Genetic Resources for Food and Agriculture (International Treaty) held in India in September 2022, which was agreed by the FAO.
- **Organized by:** Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture (International Treaty) of the Food and Agriculture Organization (FAO), Rome.
- **Hosted by:** Ministry of Agriculture and Farmers Welfare, Government of India, in collaboration with the Protection of Plant Varieties and Farmers' Rights (PPVFR) Authority, Indian Council of Agricultural Research (ICAR), ICAR-Indian Agricultural Research Institute (IARI), and ICAR-National Bureau of Plant Genetic Resources (NBPGR).

- **Objective:** to address critical issues related to farmers' rights and their essential role in global food security and agriculture.
- Eminent scientists and resource persons will participate **from 59 countries** across the globe.
- They will deliberate on how to **recognize and reward** the enormous contribution that local and **indigenous communities and farmers** of all regions of the world have made to the conservation and development of plant genetic resources (PGR).

Key Agendas:-

- **Focus on Farmers' Rights:** The symposium places a strong emphasis on farmers' rights as its central theme.
- **Proposal for Future Work:** Participants engage in discussions and deliberations aimed at formulating proposals for future work.
- **Knowledge and Awareness:** An essential outcome of the symposium is the promotion of knowledge and awareness regarding farmers' rights among its participants. ([Tenant Farmers in India](#))
- **Sharing Best Practices:** The symposium serves as a valuable platform for stakeholders to share best practices, experiences, and lessons learned related to farmers' rights. ([Organic Farming](#))
- **The interconnectedness of Farmers' Rights and Human Rights:** Recognizing that farmers' rights are intrinsic to human rights underscores their significance within the broader context of agriculture and farming.

MUST READ: [Doubling the Farmers' Income](#)

SOURCE: [AIR](#)

World Trade Organisation (WTO)

Context: Recently, the **World Trade Organisation (WTO)** disputes between the US and India were resolved through Mutually Agreed Solutions.

Background:-

- With the decision to resolve six outstanding World Trade Organisation (WTO) disputes between the US and India through Mutually Agreed Solutions in June 2023, **India has withdrawn additional duties on eight US-origin products**, including apples, walnuts and almonds vide notification number 53/2023 (Custom).
- **Additional duties of 20% each on apples and walnuts and Rs 20 per kg on Almonds** were imposed on the US's products in 2019 over and above the Most Favoured Nation (MFN) duty as a retaliation to the US's state protectionist measure of increasing tariffs on certain steel and Aluminium products.
- These additional duties imposed by India on US-origin products have been withdrawn as the US agreed to provide market access to Steel and Aluminium products under the exclusion process.
- There is no reduction on the Most Favoured Nation (MFN) duty on apples, walnuts, and almonds, which still applies to all imported products, including US-origin products, at 50%, 100%, and Rs 100 per kg, respectively.
- This measure would protect against the dumping of low-quality apples and from any predatory pricing in the Indian market.

About WTO:-

- **Established: 1995.**
- **HQ: Geneva, Switzerland.**
- **Members: 164 members.**
- **India is a member of WTO.** ([China's Developing Status at WTO](#))
- The WTO operates the global system of trade rules.

- It helps **developing countries build their trade capacity**.
- It also provides a forum for its members to **negotiate trade agreements** and **resolve the trade problems** they face with each other.

Historical Background:-

- It was established following the **Marrakesh Agreement** which was ratified on April 15, 1994.
- The General Agreement on Tariff and Trade was substituted by the **Marrakesh Agreement**.
- The GATT was only a set of rules and multilateral agreements and lacked institutional structure.
- The **GATT 1947 was terminated and WTO preserved** its provisions in the form of GATT 1994 and continues to govern trade in goods.
- It is the only global international organization dealing with the rules of trade between nations.

Functions of WTO:-

- Establishing and Enforcing Rules for International Trade
- Negotiating trade rules
- Overseeing WTO agreements
- Maintaining open trade
- Settling disputes
- Collaboration Between International Economic Institutions
- Safeguarding The Trading Interest of Developing Countries

MUST READ: [Pact](#)

SOURCE: [PIB](#)

Edible oil

Context: India could soon see record imports of **edible oil** of over 16 to 16.5 million tonnes during the current oil year ending October 2023.

Background:-

- Low rainfall in the month of August, along with other factors, is driving the high demand.
- Data released on September 2023, showed the import of edible oil in August 2023 was 35 percent higher compared to imports in August 2022.

About Edible oil:-

IMAGE SOURCE: bestfoodfacts.org

- Oilseeds and edible oils are two of the most sensitive essential commodities.
- India is the **world's second-largest consumer** and number one importer of vegetable oil.
- In terms of volumes, **palm oil, soya bean oil, and mustard oil** are the **three largest consumed edible oils** in India.
- India is **one of the largest producers of oilseeds** in the world. ([Edible oil prices](#))
- **India produces-** rapeseeds, soybean, peanut, groundnut, copra, cottonseeds and sunflower seeds.
- In India, the Edible Oil industry is **dependent on the vagaries of monsoons** like other agricultural products.
- In order to cater **to rising demand, India imports refined edible oil** or crude stock to meet the **demand-supply gap**.
- India imported **15.0 million tonnes of edible oil in the year 2019**, while the production is around 7.0 million tonnes.
- At present, **India meets nearly 55% to 60%** of its edible oil demand through imports.





- **Palm oil (Crude + Refined)** constitutes roughly **62% of the total edible oils** imported and is imported mainly from **Indonesia and Malaysia**.

ALL ABOUT OILS

Lots of plant-based oils are on the market, but which one is the best for what?

The **smoke point** is the temperature that causes oil to start smoking, which produces fumes and free radicals.

Different oils have different **smoke points**, making them better suited for certain types of cooking.

<p>Olive Oil</p>  <ul style="list-style-type: none"> • Medium-High smoke point (depending on quality & freshness) • High in monounsaturated fats • Good for dressings, frying veggies & meat; sautéing 	<p>Peanut Oil</p>  <ul style="list-style-type: none"> • Medium-high smoke point • Contains mono & polyunsaturated fats • Good for deep-frying & dressings 	<p>Coconut Oil</p>  <ul style="list-style-type: none"> • Medium smoke point • High in saturated fat • Can replace butter; good for cooking fish & veggies
<p>Palm Oil</p>  <ul style="list-style-type: none"> • High smoke point • Contains saturated and monounsaturated fats • Use for frying and in certain processed foods 	<p>Canola Oil</p>  <ul style="list-style-type: none"> • Medium-high smoke point • Contains mono & low in polyunsaturated fats • Can replace butter in cooking & baking; good for stir-frying 	<p>Soybean Oil</p>  <ul style="list-style-type: none"> • High smoke point • Low in mono & contains polyunsaturated fats • Good for baking, dressings & sautéing

Storing Oil

It's important to note that oils can become rancid if stored improperly. **Store oil in a cool, dry place** and do not consume if a bitter smell is present. *Source: USDA Food Composition Databases*



- **Soyabean oil (22%)** is imported from **Argentina and Brazil**.
- **Sunflower oil (15%)** is imported mainly from **Ukraine and Russia**.

India's Export-Import Policy on Edible Oils:-

- To **reduce the import of edible oils** in the country, the Indian Government is focusing on increasing the production and productivity of oilseeds and area expansion under Oil Palm and tree-borne oilseeds to enhance the domestic availability of edible oils.
- **National Mission on Oil Seed and Oil Palm (NMOOP)** was launched by the Government from 2014-15 to increase the production and productivity of Oilseed crops including **mustard and soybean** in the country.
- The scheme is now merged with the **National Food Security Mission** from **2018-19** as NFSM-Oilseeds & Oil Palm. ([National Food Security Act](#))
- It has also placed the **import of refined palm oil** in the 'restricted' category with effect from **8th January 2020**.

MUST READ: [National Mission on Edible Oil-Oil Palm \(NMEO-OP\)](#)
SOURCE: [DOWN TO EARTH](#)

OIML (International Organisation of Legal Metrology) Certificates

Context: Recently, India has become the 13th country in the world that issue Internationally Accepted **OIML (International Organisation of Legal Metrology) Certificates**.

About OIML (International Organisation of Legal Metrology) Certificates:-

- **Established: 1955.**
- **HQ: Paris.**
- OIML (International Organisation of Legal Metrology) is a renowned international **standard-setting body** in the field of **legal metrology**.

- Its primary role is to **develop model regulations, standards, and related** documents for use by legal metrology authorities and industries worldwide.
- These standards are **crucial in harmonizing national laws and regulations** concerning the performance of measuring instruments, such as clinical thermometers, alcohol breath analyzers, radar speed measuring instruments, ship tanks at ports, and petrol dispensing units.
- India became an **OIML member in 1956**.
- India signed the metric convention, emphasizing its commitment to international standards in metrology.
- The OIML-CS (Certificate System) is a **globally recognized system** for issuing, registering, and using OIML certificates, along with their associated OIML-type evaluation/test reports.

Advantages:-

- Indian manufacturers can now **export their products with greater ease**.
- The certification services provided by India will **attract international manufacturers**.
- To meet the growing demand for certification services, India is expected to witness a **surge in employment opportunities** in the legal metrology sector.

MUST READ: [Legal metrology \(packaged commodities\) rules Amendment 2022](#)

SOURCE: [AIR](#)

World Trade Report 2023

Context: The onset of the Ukraine war has started fragmenting world trade as per the recent **World Trade Report 2023**.

About World Trade Report 2023:-

- **Launched:12 September 2023.**
- **Published by: WTO.** ([India Challenges WTO verdict on sugar](#))
- It emphasizes **policy goals beyond** trade efficiency, including peace, security, poverty reduction, and sustainability.
- It features findings on **how re-globalization or increased international cooperation** and broader integration can support security, inclusiveness, and environmental sustainability.

Key Highlights:-

- The report addresses the **shift in** the narrative around **globalization**.
- It emphasizes policy goals beyond trade **efficiency, including peace, security, poverty reduction, and sustainability**.
- **Re-globalization:** The report **advocates for “re-globalization,”** expanding trade integration to more economies, people, and issues.
- **Reorientation of Trade**
 - It states **reorientation of Trade** is gradually aligning **along geopolitical lines**.
 - It states Trade flows within **hypothetical geopolitical “blobs” are growing faster** than those between them, indicating a shift towards friend-shoring.
- **Geopolitical Shifts**
 - It states that **Geopolitical tensions, the Ukraine conflict, and the rise of China have impacted global trade dynamics**.
 - It states **COVID-19 pandemic highlighted** the importance of resilient supply chains.
 - It states that despite challenges, **bilateral trade between China and the United States** reached record highs. ([China’s Developing Status at WTO](#))
- **Inclusiveness:** It states **inclusiveness Trade integration** has lifted millions out of poverty.
- **Sustainability:** It states **Sustainability Trade** can contribute to sustainability by providing access to green technologies.

MUST READ: [12th WTO Ministerial Conference](#)

SOURCE: [BUISSINESS LINE](#)

Business Responsibility and Sustainability Reporting (BRSR)

Context: Indian Institute of Corporate Affairs (IICA) recently, organized a workshop on **Business Responsibility and Sustainability Reporting (BRSR)**.

Background:-

- The [Indian Institute of Corporate Affairs \(IICA\)](#), organized a workshop on Business Responsibility and Sustainability Reporting (BRSR) in collaboration with UNICEF and the National Stock Exchange at the NSE premises in Mumbai on September 12, 2023.
- The workshop aimed to **provide a comprehensive understanding of the BRSR framework**, which is based on the nine principles of the National Guidelines for Responsible Business Conduct (NGRBC).

About Business Responsibility and Sustainability Reporting (BRSR):-

- The BRSR framework is a **mandatory disclosure mechanism for the top 1000 listed companies or businesses** to report their performance on environmental, social, and governance (ESG) aspects.
- It demonstrates their **commitment to responsible business practices**.
- It will be **applicable to the top 1000 listed entities** (by market capitalization), for **reporting on a voluntary basis** for FY 2021 – 22 and on a mandatory basis from **FY 2022 – 23**.
- It includes:-
 - **Sustainability Reporting:** disclosure and communication of environmental, social, and governance (ESG) goals.
 - It is intended to have quantitative and standardized disclosures on **ESG parameters** to enable comparability across companies, sectors, and time.
 - **Environmental criteria:** consider how a company performs as a steward of nature.
 - **Social criteria:** examine how it manages relationships with employees, suppliers, customers, and the communities where it operates.
 - **Governance:** deals with a company's leadership, executive pay, audits, internal controls, and shareholder rights.
- The listed entities already preparing and disclosing sustainability reports based on **internationally accepted frameworks** (such as GRI, SASB, TCFD, or Integrated Reporting)
- **Significance:-**
 - Such disclosures will be **helpful for investors** to make better investment decisions.
 - It shall also enable companies to **engage more meaningfully with their stakeholders**, by encouraging them to look beyond financials and social and environmental impacts.

MUST READ: [National Stock Exchange \(NSE\) and Bombay Stock Exchange \(BSE\)](#)

SOURCE: [PIB](#)

Dividend Distribution Tax

Context: The Income Tax Appellate Tribunal has recently ordered Cognizant Technology Solutions, to pay **dividend distribution tax (DDT)** on Rs 19,080-crore share buyback in the assessment year 2017-18

Background:-

- During the assessment year 2017-18, Cognizant bought 94,00,534 equity shares from its shareholders in the US and Mauritius at Rs 20,297 per share, totaling Rs 19,080 crore.

About Dividend distribution tax (DDT):-

- DDT was a tax imposed by the Indian government on companies distributing dividends to shareholders.
- **Objective:** taxing dividend income indirectly through the company.
- However, **it was repealed and abolished** for Indian corporations in the **Finance Act 2020**.
- Now, **shareholders are taxed on dividends** based on their individual tax brackets.
 - **Dividend:** a return given by a company to its shareholders from its annual profits.

Salient features:-

- It was a tax levied on dividends that a **company pays to its shareholders out of its profits**.
- DDT was **taxable at source**. ([Bond Yields](#))
- It is deducted at the time the **company distributes dividends**.
- **All local and international businesses operating in India** were to comply with the DDT.
- However, **the tax rate varied** based on the tax treaty between India and the foreign company's home country.
- **Significance:** This tax was designed to **ensure the government gets a fair part** of the company's revenues.

MUST READ: [Increase in Direct Tax Collections](#)

SOURCE: [THE NEW INDIAN EXPRESS](#)

G20 Global Partnership for Financial Inclusion (GPII) Meeting

Context: The Fourth **G20 Global Partnership for Financial Inclusion (GPII) Meeting** concluded recently.

Background:-

- The three-day meeting saw G20 GPII delegates engaging in thought-provoking discussions on energizing growth for MSMEs, empowering consumers through digital financial literacy and consumer protection as well as key priority areas of GPII, namely, digital financial inclusion and SME (Small and Medium Enterprise) Finance.

About G20 Global Partnership for Financial Inclusion (GPII) Meeting:-

- **Venue: Mumbai, India.**
- **Date: from September 14-16, 2023.**
- The meeting brought together over **50 delegates from G20 member countries**, special invitee countries, and International Organizations. ([India and G20 Presidency](#))
- The meeting involved discussions on **ongoing work of the financial inclusion agenda under the G20 India Presidency** in areas of Digital Financial Inclusion and SME Finance.
- A **Symposium on Digital Public Infrastructure for energizing MSMEs** was held on September 14, 2023.
- The Symposium saw a panel discussion between global experts around **two key themes** “**Energizing MSMEs for Higher Economic Growth through Digital Public Infrastructure**” and “**Credit Guarantees and SME ecosystems**”.
- GPII members discussed GPII work regarding the **implementation of G20 GPII High-Level Principles** for Digital Financial Inclusion, Update of National Remittance Plans and SME best practices and innovative instruments to overcome common constraints in SME financing.
- A Symposium on “**Advancing Financial Inclusion through Digital Public Infrastructure: Empowering Consumers through Digital and Financial Literacy and Consumer Protection**” was also held on September 16, 2023, as part of the GPII Meeting.
- The delegates attending the 4th GPII WG meeting also visited the **Kanheri Caves in Mumbai**.

Significance:-

- Through the **New Delhi Leaders Declaration**, the G20 Leaders **renewed their commitment to accelerate “strong, sustainable, balanced and inclusive growth”** and “the full and effective

implementation of the 2030 Agenda for Sustainable Development” and underscored that MSMEs will be central in fulfilling both the commitments.

- Through two-panel discussions, eminent global panelists deliberated upon **approaches to bridge the challenges faced by MSMEs through innovative measures like DPI (Digital Public Infrastructure) for bridging the credit gap, promoting transparency, enhancing affordability, and driving innovations and productivity gains.**
- The GPMI Plenary Meeting included discussions on GPMI work regarding the **implementation of G20 GPMI High-Level Principles for Digital Financial Inclusion, Update of National Remittance Plans** and SME best practices and innovative instruments to overcome common constraints in SME financing.
- The discussions contributed towards the **culmination of the remaining work of the ongoing three-year Financial Inclusion Action Plan FIAP 2020** which is in its terminal year and is being implemented by the GPMI.
- GPMI members agreed to continue **working towards the vision of universal financial inclusion** under the new G20 Financial Inclusion Action Plan. ([Financial Inclusion index](#))
- The discussions included how Digital Public Infrastructure can be used for **advancing financial inclusion for consumer protection and consumer literacy.** ([Role of Microfinance Institutions in the Financial Inclusion](#))

MUST READ: [Role of Digital Banks in Financial Inclusion](#)

SOURCE: [AIR](#)

Serious Fraud Investigation Office (SFIO)

Context: Serious Fraud Investigation Office (SFIO), arrested a Chartered Accountant in Hyderabad recently.

Background:-

- A Chartered Accountant was arrested for failure to honour the summons issued in connection with the prosecution of Nityank Infrapower & Multiventures Private Limited.

About Serious Fraud Investigation Office (SFIO):-

- **Ministry:** Ministry of Corporate Affairs.
- **HQ:** New Delhi.
- **Establishment:** As per the **Companies Act, 2013**, the Serious Fraud Investigation Office (SFIO) has been established through the Government of India Notification dated **21.07.2015**.
- It is a **multi-disciplinary organization**, consisting of experts in the field of accountancy, forensic auditing, banking, law, information technology, investigation, company law, capital market and taxation, etc.
- **Objective:** It works for detecting and prosecuting or recommending for **prosecution white-collar crimes/frauds.** ([Shell Companies](#))
- It has five Regional Offices in **Mumbai, New Delhi, Chennai, Hyderabad & and Kolkata.**

Composition:-

- **Headed by:** a Director as Head of Department in the rank of Joint Secretary to the Government of India.
- The Director is assisted by **Additional Directors, Joint Directors, Deputy Directors, Senior Assistant Directors, Assistant Directors Prosecutors**, and other secretarial staff.

Functions:-

- Take up for investigation cases characterized by
 - complexity and having inter-departmental and multi-disciplinary ramifications.
 - substantial involvement of public interest to be judged by size, either in terms of monetary

- the possibility of investigation leading to or contributing towards a clear improvement in systems, laws, or procedures
- Investigate serious cases of fraud received from the Department of Company Affairs.
- Investigate the affairs of a company on: -
 - On receipt of a report of the Registrar or inspector under section 208 of the Companies Act, 2013.
 - On intimation of a special resolution passed by a company that its affairs are required to be investigated.
 - In the public interest.
 - On request from any department of the Central Government or a State Government.

MUST READ: [CBI and ED](#)

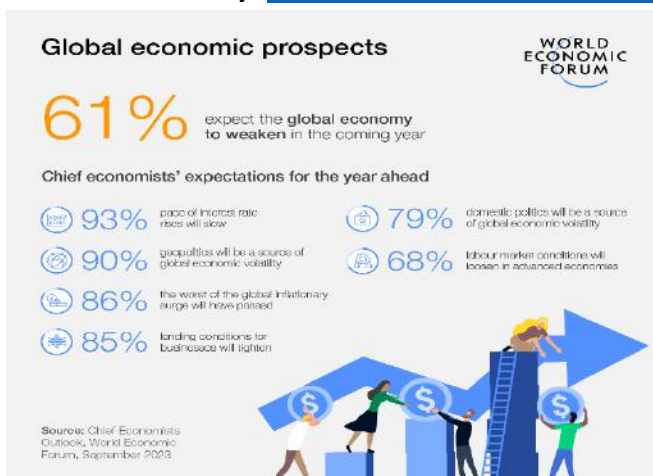
SOURCE: [AIR](#)

World Economic Forum's Chief Economists Outlook

Context: Recently released **World Economic Forum's Chief Economists Outlook** report states that Global economic uncertainty is taking a toll on SDG progress.

About World Economic Forum's Chief Economists Outlook:-

- **Published by:** [World Economic Forum\(WEF\)](#)



- The World Economic Forum’s latest Chief Economists Outlook report, **highlights the economic challenges that developing countries** are facing.
- This report draws on the **individual and collective perspectives** of a group of leading chief economists through consultations with the World Economic Forum’s Chief Economists Community and a regular Chief Economists Survey.
- It explores the **key trends in the economic environment**, including the prospects for growth, inflation, and monetary policy.

Key highlights:-

- The Chief Economist's Outlook is published amid **slowing global momentum** and continuing economic uncertainty.
- **Recession concerns appear to have eased**, but the **outlook remains anaemic** as the world grapples with political and financial headwinds.
- There are **some signs of optimism about the easing of inflationary pressures** following looser labour market conditions and fading supply-chain pressures.
- According to a significant majority of chief economists, **the weak economic outlook and geopolitical tensions** are likely to have a **lasting impact on global development goals** in the coming years.
- It says that over 60% of chief economists expect the **global economy to weaken** in the coming year amid uncertain domestic and international politics and unsettled financial markets.
- A large majority (86%) expects the recent **global inflationary surge to ease**.

- The **prolonged tightening** of financial conditions is expected to **have lasting impacts**, including a squeeze on business lending, increases in corporate debt defaults, and potential corrections in property and equity markets. ([World Economic Forum's Global Risks Report 2023 and Polycrisis](#))
- The economic outlook **varies across regions** for 2023-2024.
- The chief economists are most **optimistic about growth in Asia**.
- The outlook for China has dimmed since the May 2023 survey, following signs of deflationary pressures and fragility in the country's real estate market.

MUST READ: [IMF and World Economic Outlook](#)

SOURCE: [BUSINESS TODAY](#)

e-NAM 2.0

Context: A National Workshop on **e-NAM 2.0** and Agri Marketing Reforms was conducted recently.

Background:-

- 28 new mandis were approved recently for integration to take the total count of APMCs to 1389 on e-NAM.

About e-NAM 2.0:-

- **Launched: 2016**
- **Implementing agency: Small Farmers Agribusiness Consortium (SFAC).**
- **Ministry: Ministry of Agriculture and Farmers' Welfare.**
- **Objective:** integrating the existing Mandis into a "One Nation One Market" for agricultural commodities in India.

Salient Features:-

- e-NAM 2.0 will be an **advanced version** of existing e-NAM.
- The eNAM platform is an **online trading platform for agricultural commodities** in India.
- It is a **pan-India electronic trade portal** linking agricultural produce market committees (APMCs) across all states.
- It **facilitates farmers, traders, and buyers** with online trading in commodities.
- It provides for **contactless remote bidding**.
- It provides for **mobile-based anytime payment** for which traders do not need to either visit mandis or banks for the same.

Benefits:-

- [e-NAM](#) has been able to bring **competence in APMC mandi operations** via technology interventions like:-
 - Accuracy in **weighing via digital weighbridge** and weighing scale.
 - Accuracy in assaying via **advanced assaying equipment**.
 - **Real-time online information** on commodity prices.
 - Access to more buyers/sellers and **transparency in trade**.
 - Transparency in payment via **multiple online payment modes**.
 - Better efficiency in overall **mandi operations via digitalization**.

Challenges:-

- Lack of **internet connectivity**.
- Farmers feel more comfortable with physical trading rather than going online as they face issues with **transportation** for their produce.
- A very **small percentage** of the total mandis are connected through the e-NAM platform.

MUST READ: [Integration of E-MANDIS into E-NAM Platform](#)

SOURCE: [PIB](#)

State of Working India Report 2023

Context: Recently the 'State of Working India 2023' report, released by Azim Premji University's Centre for Sustainable Employment.

Major Findings of the 'State of Working India 2023' Report:

- **Faster structural change:** Between 2004 and 2017, around 3 million regular wage jobs were created annually.
 - Between 2017 and 2019 this jumped to 5 million per year.
 - Since 2019, the pace of regular wage job creation has decreased due to the growth slowdown and the pandemic.
- **Upward mobility has increased:** In 2004 over 80% of sons of casual wage workers were themselves in casual employment.
 - This was the case for both SC/ST workers and other castes.
 - For non-SC/ST castes, this fell from 83% to 53% by 2018 and incidence of better quality work such as regular salaried jobs increased.
 - It fell for SC/ST castes as well, but to a lesser extent (86% to 76%).
- **Caste-based segregation has reduced:** Between 1983 and 2021, the proportion of regular wage workers belonging to the SC category has increased.
 - In 2021, 32% of general caste workers were in regular wage employment as compared to 22% of SC workers.
 - The report also looks at firm ownership data to conclude that general castes are over-represented to a greater degree in larger enterprises.
- **Gender-based earnings disparities have reduced:** In 2004, salaried women workers earned 70% of what men earned.
 - By 2017 the gap had reduced and women earned 76% of what men did. Since then, the gap has remained constant till 2021-22.
- **Women in job:** Between 1983 and 2021, the degree of women's representation in industries like **tobacco, education, health and social work, and textiles** has increased whereas in waste management and sewerage, it has decreased.
 - Still, in all these sectors, women are over-represented in comparison to men.
- **Unemployment is falling but remains high:** Post-Covid the unemployment rate is lower than it was pre-Covid, for all education levels.
 - But it remains above 15% for graduates and more worryingly it touches a huge 42% for graduates under 25 years.
- **The connection between growth and good jobs remains weak:** Since the 1990s year-on-year non-farm GDP growth and non-farm employment growth are uncorrelated with each other suggesting that policies promoting faster growth need not promote faster job creation.
 - However, between 2004 and 2019, on average growth translated to decent employment.
- **Male Breadwinner Norm:** Due to the "male breadwinner" norm, as the husband's income increases the probability of the wife being employed also reduces.
 - In rural areas, the fall in probability slows down as the husband's income increases.

Source: [Indian Express](#)

Basel-III capital framework

Context: The RBI recently introduced norms on the Basel III capital framework for All India Financial Institutions (AIFIs), which will come into effect from 2024.

About Basel III:

- Basel III is an internationally agreed set of measures developed by the **Basel Committee on Banking Supervision** in response to **the financial crisis of 2007-09** in order to strengthen the regulation, supervision and risk management of banks.
- Basel III standards are minimum requirements which apply to internationally active banks.
- **Objective:** The guidelines aim to promote a more resilient banking system by focusing on four vital banking parameters viz. **capital, leverage, funding and liquidity**.
 - **Capital:** The capital adequacy ratio is to be maintained at 12.9%.
 - The minimum Tier 1 capital ratio and the minimum Tier 2 capital ratio have to be maintained at 10.5% and 2% of risk-weighted assets respectively.
 - **Leverage:** The leverage rate has to be at least 3 %. The leverage rate is the ratio of a bank's tier-1 capital to average total consolidated assets.
 - **Funding and Liquidity:** Basel-III created two liquidity ratios: **LCR and NSFR**.
 - **The liquidity coverage ratio (LCR)** will require banks to hold a buffer of high-quality liquid assets sufficient to deal with the cash outflows encountered in an acute short term stress scenario as specified by supervisors.
 - This is to prevent situations like "**Bank Run**".
 - The goal is to ensure that banks have enough liquidity for a 30-days stress scenario if it were to happen.
 - **The Net Stable Funds Rate (NSFR)** requires banks to maintain a stable funding profile in relation to their off-balance-sheet assets and activities.
 - NSFR requires banks to fund their activities with stable sources of finance (reliable over the one-year horizon).
 - The minimum NSFR requirement is 100%.
 - Therefore, LCR measures short-term (30 days) resilience, and NSFR measures medium-term (1 year) resilience.
- **Deadline for India to adopt:** March 2019 but it was postponed to March 2020 in light of the coronavirus pandemic.

About AIFIs:

- AIFI is a group composed of financial regulatory bodies that **play a pivotal role in the financial markets** by assisting the proper **allocation of resources, sourcing from businesses** that have a surplus and distributing to others who have deficits.
- They act as an intermediary between **borrowers and final lenders**, providing safety and liquidity.
- India has five AIFIs regulated by the central bank:
 - National Bank for Financing Infrastructure and Development (NaBFID)
 - National Housing Bank (NHB)
 - Small Industries Development Bank of India (SIDBI)
 - Export-Import Bank of India (EXIM Bank)
 - National Bank for Agriculture and Rural Development (NABARD)

Source: [The Hindu](https://www.thehindu.com)

JPM GBI-EM Global Diversified Index

Context: India will be included in the **JPM GBI-EM Global Diversified Index** as of June 2024.

Background:-

- **JP Morgan Chase & Co** has announced that it will include Indian government bonds in its emerging markets bond index from 28 June 2024.
- The move can potentially attract about \$25 billion into the country, as per analyst estimates.
- Its ultimate weight will likely reach the 10% cap, which will be scaled in at 1% per month.
- The inclusion will be phased over 10 months till March 31, 2025.

Implications of the move:-

- Currently, foreign investors own two percent of Indian debt, a number which could **more than double** after the next inclusion.
- Indian bonds are expected to account for **ten percent of the index** once included.
- The inclusion would result in index tracking managers allocating money to India, which is expected to be in tens of billions of dollars.
- This could be a push factor to **prompt foreign inflows** into India and foreign investors are likely to be more active in the Indian fixed-income market.
- Experts believe the move is likely to **bring down the cost of borrowing** for the government.
- It will **support the Indian rupee and bond markets, and improve the country's credit rating.**

About JPM GBI-EM Global Diversified Index:-

- The Government Bond Index-Emerging Markets (GBI-EM) is a widely tracked index in the **global financial market**.
- It comprises **government bonds issued by emerging market countries**. ([Government bonds for NRIs](#))
- These **countries can differ significantly** in terms of their economic development, creditworthiness, and the size of their bond markets.
- **Investment decisions and portfolio allocations** in the emerging market debt space are often guided by this index.
- The index is maintained by **prominent financial institutions**, including JPMorgan.
- The J.P. Morgan ESG EMBI Global Diversified Investment Grade Index (JESG EMBI IG) tracks liquid, US Dollar **emerging market fixed and floating-rate debt instruments issued by sovereign and quasi-sovereign entities**.
- The index applies an **ESG scoring and screening methodology** to tilt toward issuers ranked higher on ESG criteria and green bond issues, and to underweight and remove issuers that rank lower.
- The JESG EMBI IG is based on the established flagship J.P. Morgan EMBI.
- Global Diversified Index **tracks instruments** that are classified as investment grade (IG).
- The GBI-EM index is not static, it **undergoes periodic updates**.
- These updates ensure that the **index remains relevant and up-to-date**.

Significance:-

- It plays a crucial role in **shaping international capital flows**.
- It serves as a benchmark for global investors **to assess the performance of these bonds**.

Benefits:-

- Access to Global Capital.
- Boost to International Capital Markets.
- Increased Investor Confidence. ([Bond Yields](#))

- Diversification of Funding Sources.

Challenges:-

- Outflows from Other Countries.
- Currency Risk Management.
- **Taxation Policies.**

MUST READ: [Green Bonds](#)**SOURCE:** [THE INDIAN EXPRESS](#)**Spike in global crude oil prices**

Context: The recent **spike in global crude oil prices** above the \$80-per-barrel mark has contributed to petrol and diesel prices hitting all-time highs in India.

Background:-

- Since hitting a low of \$16 per barrel on 22 April 2022, the **price of Brent crude oil has been rising steadily.**
- Since the beginning of the year (2023), it has risen nearly 58% from about \$51.8 per barrel to about \$81 in September.
- The rise has been sharp over the last six weeks, from \$65 per barrel on 20 August 2023.
- According to analysts, prices are nearing their intermediate top level of \$86 per barrel, around which some cooling off is expected even though the broader trend remains rising. ([Oil Price Rise](#))

Reasons for price rise:-

- Crude Oil prices have **risen sharply in 2021** on the back of a **recovery in global demand** as the world economy recovered from the COVID-19 pandemic.
- Supply restrictions maintained by the OPEC+ grouping, have kept international oil prices high.
- These oil-producing economies have signaled slow production increases, which has led to a rise in gas prices as well.
- A **shortage of gas in Europe and Asia** has further boosted the demand for oil for power generation.

Impact on India:-

- The rise in crude prices has contributed to **petrol and diesel prices hitting all-time highs in India.**
- Prices of petrol and diesel in India are **pegged to a 15-day rolling average** of the international prices of these fuels.
- High taxes by the central and state governments have contributed to **retail prices being far higher.**
- Analysts point out that **increasing oil prices reflect growing demand in the economy**, and equities often deliver more than the expected inflation that the oil surge may lead to.
- In line with oil, **prices of other commodities including coal have been rising sharply.**

Impact stocks and bonds:-

- **The BSE Basic Materials Index** has risen more than **three times** from a low of 1,761 on April 3, 2020, to 5,725 at Wednesday's close.
- This reflects the general view that **economic recovery will strengthen** going forward.
- **For bonds:** **central bank policies** will play a far greater role than the direct impact of rising oil prices.
- **For equity investors:** they can increase their exposure to upstream oil companies, which benefit from rising prices.
- In sectors where oil is a major cost component, a **negative reaction on returns can be expected.**

Impact currency and the economy:-

- Rising crude prices tend to **depress the rupee**, as India being a major importer of oil needs more dollars to buy the same amount of crude.
- A surge in crude prices tends to increase India's expenditure and **adversely affects the fiscal deficit**.

MUST READ: [Rising Oil Prices and Stagflation](#)

SOURCE: [THE ECONOMIC TIMES](#)

Global Innovation Index 2023

Context: The **Global Innovation Index 2023** was released recently.

Background:-

- India has retained **40th rank** in the Global Innovation Index 2023.

About Global Innovation Index 2023 rankings:-

- **Publication: annual.**
- **Published by: World Intellectual Property Organization.**
 - WIPO is a self-funding agency of the **United Nations, with 193 member states.**
- **Edition: 16th edition.**
- The [Global Innovation Index](#) is a **leading reference for measuring an economy's innovation ecosystem performance.**
- It is also a valuable **benchmarking tool used by policymakers, business leaders, and other stakeholders** to assess progress in innovation over time.
- The 2023 edition of the Global Innovation Index (GII) takes the pulse of global innovation trends against the background of an economic environment fraught with uncertainty.
- Global Innovation Tracker 2023 captures key trends in **innovation investments and measures the pace of technological progress and adoption, as well as the resulting socioeconomic impact.**
- The index reveals the ranking of this **year's most innovative economies** in the world amongst **132 economies.**

Key highlights:-

- **Most innovative economies in 2023:-**
 - For the 13th year in a row, **Switzerland** is the most innovative economy in 2023 followed by Sweden, the **United States, the United Kingdom, and Singapore.**
- **The top Science and Technology innovation clusters in the world in 2023** are: -
 - Tokyo–Yokohama, followed by Shenzhen–Hong Kong–Guangzhou, Seoul, Beijing and Shanghai–Suzhou.
 - **China now has the largest number** of clusters in the world, overtaking the United States.
- **India's performance:-**
 - India retained the **40th rank** out of 132 economies.
 - Over the past few years, India has **consistently climbed** the ranks in the GI, rising from 81st place in 2015 to its current position.

MUST READ: [Boosting patent ecosystem](#)

SOURCE: [AIR](#)

Gems and Jewellery Export Promotion Council (GJEPC)

Context: Recently, the **Gems and Jewellery Export Promotion Council (GJEPC)** recently appealed to diamond industries to stop importing rough diamonds from October 15 to December 15.

Background:-

- The decision has been taken due to the lack of demand for **polished natural diamonds** and studded jewellery in the international market.
- In a statement, GJEPC said that the demand for loose polished diamonds and jewellery from large economies like the USA and China has been affected over the last many quarters.

About Gems and Jewellery Export Promotion Council (GJEPC): -

- **Establishment: 1966.**
- **HQ: Mumbai.**
- **Ministry: Ministry of Commerce and Industry.**
- **VISION:** to make India the preferred source for quality gems and jewellery. ([India's Gems & Jewellery sector](#))
- The Gem & Jewellery Export Promotion Council is the **apex body** which aims to **promote the gems and jewellery** products and industry.
- It is considered to be one of the **leaders in diamond manufacturing and trading.**
- It is a central **administrative and statutory body** looking over the gems and jewellery industry in India.
- It has **regional offices** in New Delhi, Kolkata, Jaipur and Surat.
- It drives **India's export-led growth** in the gem and jewellery sector. ([Export-oriented units](#))

Objectives: -

PROMOTING BRAND INDIA: -

- Organizing India's biggest and second-biggest trade shows, IJS Premiere and IJS Signature.
- Organizing joint participation in international jewellery shows.

CONNECTING GOVERNMENT & TRADE: -

- Facilitating better interaction on trade-related issues between the industry and the Government of India, Ministry of Commerce & Industry, Ministry of Finance, DGFT, Dept of Commerce, Dept. of Finance.

UPHOLDING DIAMOND INTEGRITY: -

- Executing the **Kimberly Process Certification Scheme** in the country, as the Nodal Agency appointed by the Government of India.

SPREADING EDUCATION: -

- Running training institutes that impart manufacturing skills, and technical and design excellence in six cities – Mumbai, Delhi, Surat, Jaipur, Varanasi and Udupi.

INNOVATION AND INFRASTRUCTURE: -

- Providing MSMEs with affordable modern machines and tools at Common Facility Centres.
- Setting up Jewellery Parks across the country.

HEALTH AND WELL-BEING:-

- Providing health insurance for the employees of the Council's member companies through the group mediclaim scheme called Swasthya Ratna.

PAYING BACK TO SOCIETY:-

- Founded by GJEPC in 2014, Jewellers for Hope has donated Rs.1 crore every year to one or more NGOs/charities doing exceptional work in supporting the underprivileged.

MUST READ: [New Foreign Trade Policy](#)

SOURCE: [THE INDIAN EXPRESS](#)



Environment and Ecology



Red sand boa

Context: In India, 172 incidents of seizures of **red sand boa** were recorded from 2016 to 2021 as per the recent report.

Key Highlights of the report:-

- Incidents of illegal sand boa trade were documented in **18 States and one Union Territory** covering 87 districts across India; the highest number was recorded in Maharashtra (59) followed by Uttar Pradesh (33).
- The study also highlights the **role of social media** in the illegal trade of the species.
- The report also suggested that local and international conservation organizations should conduct formative research to better understand the situation of the illegal reptile trade and demand.

About Red sand boa:-

- **Scientific Name:** *Eryx johnii*.
- **Family:** Boidae.
- **Habitat:** arid and semi-arid regions.
- **Distribution:** India, Pakistan, Sri Lanka, and parts of Bangladesh.
- The Red Sand Boa is a **rare non-poisonous snake**.
- It is a **non-venomous snake** species.
- It is predominantly **nocturnal**.
 - **Nocturnal:** most active during the night.
- It is **ovoviviparous**.
 - **Ovoviviparous:** They produce young ones by means of eggs which are hatched within the body of the parent.

Ecological importance:-

- Like other snake species, the Red Sand Boa also plays a significant role in the ecosystem by maintaining a healthy population between **prey and predator**. ([Species in news: Gharials](#))

Application:-

- It has applications in medicine, cosmetics, and even black magic, making it highly valued in the global market. ([Wildlife Protection](#))

Conservation Status:-

- IUCN: **Near Threatened**.
- CITES: **Appendix II**.
- Wildlife Protection Act of 1972: **Schedule IV**.

MUST READ: [Animal Welfare Board of India \(AWBI\)](#)

SOURCE: [THE HINDU](#)

Hollongapar Gibbon Sanctuary

Context: Recently, the **Hollongapar Gibbon Sanctuary in Assam** turned in to a forest island after having lost connectivity with surrounding forest patches.

About Hollongapar Gibbon Sanctuary:-

- **Location:** Jorhat district of Assam.
- The Hoollongapar Gibbon Sanctuary was renamed in **2004**.
- It was formerly known as the **Gibbon Wildlife Sanctuary** or **Hollongapar Reserve Forest**.
- It is an isolated **protected area** of evergreen forest.

Vegetation:-

- The upper canopy of the forest is dominated by the Hollong tree, while the Nahar dominates the middle canopy.
- The lower canopy consists of **evergreen shrubs and herbs**.

Fauna:-

- The sanctuary has a rich biodiversity and is home to the **only apes in India**, the western Hoolock, as well as the **only nocturnal primate found** in the northeast Indian states, the Bengal slow loris.
- **Other animals:** Stump-tailed macaque, northern pig-tailed macaque, eastern Assamese macaque, rhesus macaque, capped langur, etc.

About Hoolock Gibbon:-

- It is the **only ape found in India**.

- It is native to **eastern Bangladesh, Northeast India, Myanmar, and Southwest China.**
- Like all apes, they are **extremely intelligent**, with distinct personalities and strong family bonds.
- It is categorized into **Western Hoolock Gibbon and Eastern Hoolock Gibbon.**

Western Hoolock Gibbon:-

- It is found in all the states of the **northeast**, restricted between the south of the Brahmaputra River and east of the Dibang River.
- **Conservation Status:-**
 - **IUCN Red List: Endangered**

Eastern Hoolock gibbon:-

- It inhabits specific pockets of **Arunachal Pradesh and Assam in India, and southern China, and northeast Myanmar.**
- **Conservation Status:-**
 - **IUCN Red List: Vulnerable**

MUST READ: [Kaziranga National Park](#)

SOURCE: [THE HINDU](#)

Air Quality Life Index (AQLI)

Context: The recently released **Air Quality Life Index (AQLI)** report suggests that air pollution shortens the lives of the residents of Delhi by around **11.9 years**.

Key Highlights of the report:-

- On account of the number of people that high particulate matter levels affect in **India**, the country faces the greatest health burden from air pollution among all the countries in the world.
- In **South Asia**, particulate pollution has **increased by 9.7 percent** from 2013 to 2021.
- In **India**, **PM2.5 levels rose 9.5 percent.**
 - **Particulate matter (PM):** particles found in the air, including dust, dirt, soot, smoke, and liquid droplets that remain suspended in the air for long periods of time.
- According to PM2.5 data for 2021 derived from satellites, pollution in India has **increased from 56.2 µg/m3 in 2020 to 58.7 µg/m3 in 2021.**
 - This is more than **10 times the WHO guideline of 5 µg/m3.**
- **Delhi's annual average PM2.5 level** in 2021 was found to be 126.5 µg/m3, which is more than **25 times the World Health Organization (WHO) guideline.** ([Delhi and Air Pollution](#))
- The report said **particulate matter pollution is also the biggest threat to human health in India** in terms of lowering life expectancy, beating cardiovascular diseases, and child and maternal malnutrition.
- The average Indian resident is set to lose 5.3 years of life expectancy if the WHO guideline is not met.

About Air Quality Index (AQLI):-

- **Produced by:** Energy Policy Institute at the University of Chicago (EPIC).
- **Published:** Annually.
- The Air Quality Life Index (AQLI), provides details of impact of [air pollution](#) on life expectancy.

Special Features of AQLI:-

- The research underlying the AQLI is **based on pollution data at the very high concentrations** that prevail in many parts of the world today.
- The causal nature of the AQLI's underlying research allows it to **isolate the effect of air pollution from other factors that impact health.**
- The AQLI **delivers estimates of the loss of life expectancy** for the average person.
- The AQLI **uses highly localized satellite data**, making it possible to report life expectancy that impacts at the county or similar level.

MUST READ: [India's uphill battle to bring down air pollution](#)

SOURCE: [THE INDIAN EXPRESS](#)

BS 6 Stage II Electrified Flex fuel vehicle

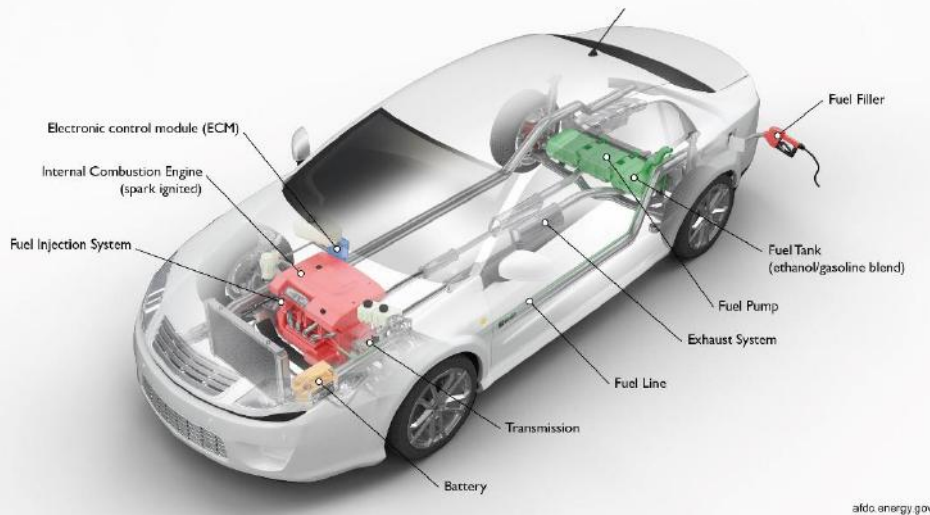
Context: The World's first prototype of the BS 6 Stage II 'Electrified Flex fuel vehicle' was launched recently.

Background:-

- These vehicle technologies will provide the opportunity for greater substitution of petrol by Ethanol as it is capable of using any of the higher blends of ethanol mix beyond 20%.

About Electrified Flex fuel vehicle:-

Flexible Fuel Vehicle



- **Flex-fuel vehicles (FFV)** are capable of **running on 100% petrol, 100% bio-ethanol, or a combination of both.**
- These vehicles are equipped with **engines that can adjust their fuel mixture** based on the available fuel blend.
- Electrified Flex Fuel Vehicles are an **advanced version of FFVs.**
- They are able to **operate on both ethanol-based fuels and electricity.** ([The technology powering hybrid electric vehicles](#))

- They **provide increased fuel efficiency.**
- They **reduce emissions** compared to traditional gasoline-only vehicles.
- An Electrified Flex Fuel Vehicle has **both a Flexi Fuel engine and an electric powertrain.**
- This gives it the ability to provide the **dual benefit of higher ethanol use and much higher fuel efficiency.**
- A **Strong Hybrid Electric Vehicle (SHEV)**, can provide 30-50% higher Fuel Efficiency as it can run 40-60% in EV mode with engine shut off.
- **The world's 1st BS-6 Stage-II, Electrified Flex fuel vehicle,** has been developed by **Toyota Kirloskar Motor.**
- It has both a **flex-fuel engine as well as an electric powertrain,** thereby offering higher use of ethanol combined with better fuel efficiencies.

About Bharat Stage VI (BS VI):

- It is a **set of emission standards** established to regulate the level of air pollutants emitted from internal combustion and spark-ignition engine equipment.
- BS-VI contains **enhanced fuel quality,** and **reduced the permissible Sulphur content by 80%,** from 50 Parts Per Million (ppm) to a maximum of 10 ppm.
- India has made it **mandatory to follow BS-VI emission** (from previously BS-IV) norms in two phases:-
- **Phase 1:** Effective from April 1, 2020.
- It witnessed substantial reductions in permissible pollutant limits, setting new standards for emissions.
- **Phase 2:** Initiated on April 1, 2023.
- It focuses on Real Driving Emission (RDE) testing which measures emissions emitted by a vehicle while in real-world driving conditions.

MUST READ: ([Flex Fuel Technology](#))

SOURCE: [AIR](#)

Fujianvenator prodigiosus

Context: The evidence of a Bizarre' bird-like dinosaur **Fujianvenator prodigiosus** has enthralled scientists recently.

Background:-

- Scientists reported to have unearthed the fossil of a **Jurassic Period** dinosaur they named Fujianvenator from the **Fujian Province.** ([Dinosaur footprints in China](#))
- It is a creature that sheds light on a critical evolutionary stage in the origin of birds.

About Fujianvenator prodigiosus:-

- **Distribution:** **southeastern China.** ([Abnormal' dinosaur egg in India](#))
- Fujianvenator is a member of a grouping called **avialans.**
- This group includes **all birds and their closest non-avian dinosaur** relatives.
- **Survival:** Despite their modest beginnings, **birds survived the asteroid strike** 66 million years ago that doomed their non-avian dinosaur comrades.
- **Diet and lifestyle:** The Fujianvenator fossil, discovered **lacks the animal's skull** and parts of its feet, making it **hard to interpret its diet and lifestyle.**

Physical Description: -

- It was a pheasant-sized and **bird-like dinosaur.**

- It had elongated legs and **arms built much like wings**.
- It had a puzzling anatomy suggesting it **either was a fast runner** or lived a lifestyle like a **modern wading bird**.
- Its **lower leg bone** - the tibia - was **twice as long as its thigh bone** - the femur.
- It also had a **long bony tail**.
- The **forelimb is generally built like a bird's wing**, but with three claws on the fingers, which are **absent from modern birds**.
- It cannot be determined whether **it could fly or not**

MUST READ: [Dinosaur eggs](#)

SOURCE: [THE HINDU](#)

Segur elephant corridor

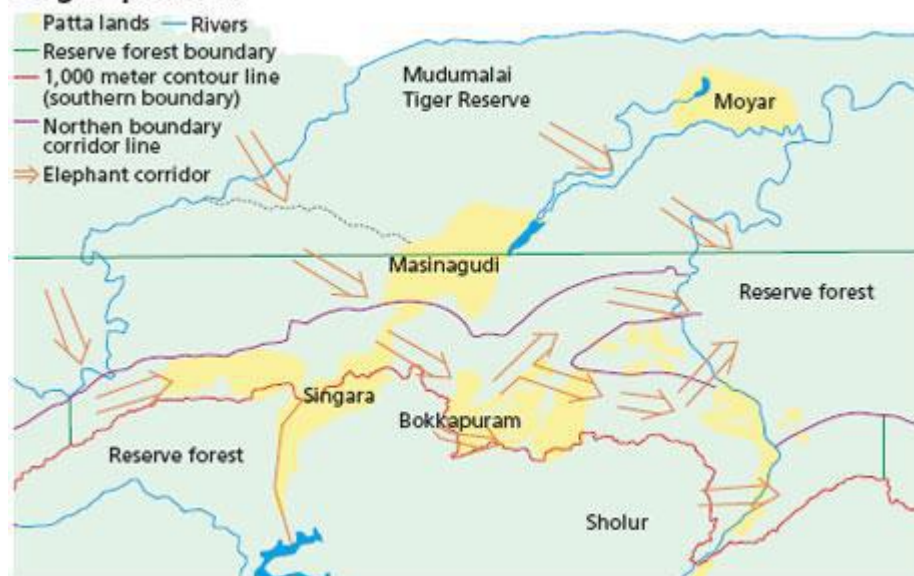
Context: A Supreme Court-appointed committee recently declared 12 private resorts, along the **Segur elephant corridor**, illegal.

Background:-

- The committee's ruling highlighted that the resorts had constructed unlawful structures that impeded the natural movement of elephants.
- Despite assertions from resort owners who disputed the corridor's designation as an elephant habitat, the committee ultimately sided with preserving the corridor's integrity.
- While this decision secures the protection of the corridor, it carries economic implications for the local communities that depend on employment opportunities provided by these resorts.

About Segur elephant corridor:-

Segur plateau



- The Segur elephant corridor serves as a **crucial passageway for the movement of elephants** and various other wildlife species between different habitats within the **Nilgiri Biosphere Reserve**. ([Endangered Asian elephant in Nilgiri Biosphere Reserve](#))

- The corridor is situated in the ecologically fragile **Sigur plateau**.
- Sigur plateau **connects the Western and the Eastern Ghats**.
- It facilitates easy movement of about 6,300 Asiatic elephants from **Kerala, Tamil Nadu, and Karnataka**.
- It sustains elephant populations and their **genetic diversity**. ([Elephant Conservation](#))

Most of the resorts are in Masinagudi and Bokkapuram

- The elephants cross the plateau in search of **food and water**.
- It has the **Nilgiri Hills** on its southwestern side.
- **Moyar River Valley** is on its northeastern side.
- The plateau is a **low-rainfall** marginal land.
- It has **poor soils** and in recent times, also had a low population density.
- There are **five major streams** in the Sigur plateau: Moyar River, Sigur River, Avarahalla River, Kedarhalla River, and Gundattihalla River.
 - All these rivers originate in the **Nilgiris plateau**.

MUST READ: [Project Re-Hab](#)

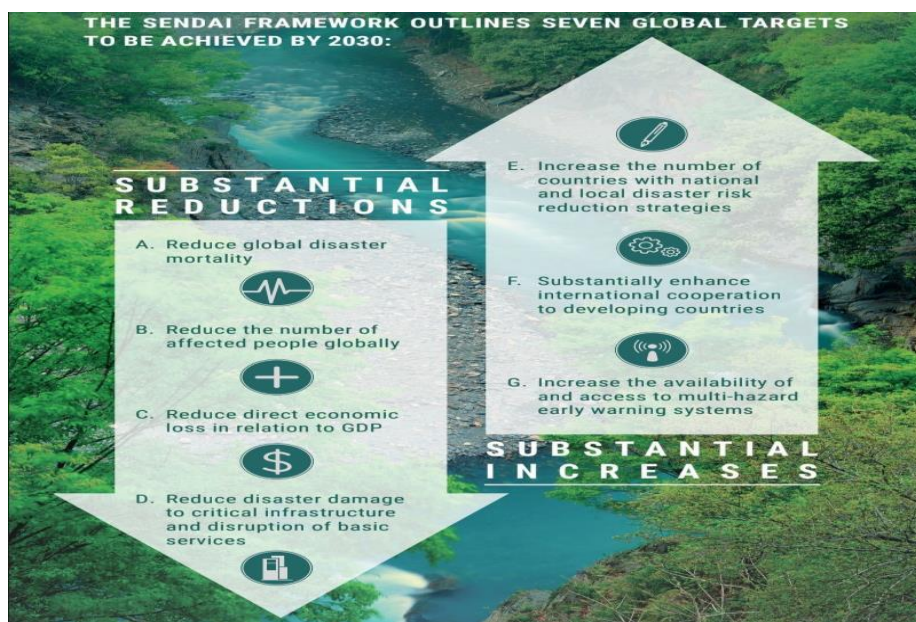
SOURCE: [THE HINDU](#)

Sendai Framework for Disaster Risk Reduction

Context: Leaders have recommitted to full implementation of the **Sendai Framework for Disaster Risk Reduction** in the recently held summit.

Background:-

- Leaders from around the world gathered on September 18, 2023, for the High-level Sustainable Development Goals (SDG) Summit and agreed to intensify their efforts to deliver SDGs by 2030.



About Sendai Framework for Disaster Risk Reduction:-

- **Adoption: 2015.**
- **Time Period: 2015-2030.**
- It was **adopted at the Third UN World Conference in Sendai, Japan, on March 18, 2015.**
- **Objective:** to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors.

Historical Background:-

- It is the outcome of stakeholder consultations initiated in March 2012 and inter-governmental negotiations from July 2014 to March 2015, supported by the United Nations Office

for Disaster Risk Reduction at the request of the UN General Assembly.

- It is the **successor** instrument to the **Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters.**
- The Sendai Framework outlines **seven clear targets** and **four priorities for action** to prevent new and reduce existing disaster risks.
- The **four priorities for action include:-**
 - **Understanding disaster risk:** Disaster risk management should be based on an understanding of disaster risk in all its dimensions.
 - **Strengthening disaster risk governance to manage disaster risk:** Disaster risk governance at the national, regional, and global levels.
 - **Investing in disaster reduction for resilience:** Public and private investment in disaster risk prevention and reduction.
 - **Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation, and reconstruction:** strengthen disaster preparedness for response.
- It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods, and health and in the economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries.
- It recognizes that the **State has the primary role to reduce disaster risk.**
- It believes that responsibility should be shared with other stakeholders including **local government, the private sector, and other stakeholders.** ([Reimagining Disaster Management](#))
- The Sendai Framework works hand in hand with the **other 2030 Agenda agreements**, including The Paris Agreement on Climate Change.

Significance:-

- The Sendai Framework for Disaster Risk Reduction 2015-2030 was the **first major agreement** of the **post-2015 development agenda.**
- It provides Member States with **concrete actions** to protect development gains from the risk of disaster.

MUST READ: [Joshimath crisis](#)

SOURCE: [DOWN TO EARTH](#)

Veerangana Durgavati Tiger Reserve

Context: Recently, 'Veerangana Durgavati Tiger Reserve' became Madhya Pradesh's 7th protected habitat for big cats.

About Veerangana Durgavati Tiger Reserve:-

- **Location:** Damoh and Narsinghpur districts of Madhya Pradesh.
- **Area:** 2,339 square kilometers.
- **Naming:** It is named after **Rani Durgavati**, a queen of the Gond people.
- **Rivers:** Some areas of the reserve are situated in the **Narmada and Yamuna River basins.**

- **Culture:** The **Singorgarh Fort** can be found inside the reserve.
- **Vegetation:** Dry deciduous type.
- **Flora:** The chief floral elements include Teak, Saja, Dhaora, Ber, Amla, etc.

Fauna:-

- The sanctuary provides a habitat for a wide variety of **mammals**, totaling 18 different species. ([Global Conservation Assured | Tiger Standards \(CA|TS\)](#))
- These include notable creatures such as leopard, wolf, the elusive jackal, the swift Indian fox, the fascinating striped hyena, and the adorable sloth bear.
- In addition to these captivating mammals, the sanctuary also serves as a residence for many species of **birds, fish, reptiles, and amphibians**.

Significance: -

- It is the **seventh tiger reserve** in Madhya Pradesh. ([Importance of Tiger Conservation](#))
- It will encompass areas within the **Nauradehi Wildlife Sanctuary and Durgavati Wildlife Sanctuary**.
- A **green corridor** linking **Panna Tiger Reserve (PTR)** with Durgavati will be developed for the natural movement of the tiger to the new reserve.

MUST READ: [Buddhist caves, temples in Madhya Pradesh's Bandhavgarh Tiger Reserve](#)

SOURCE: [THE HINDU](#)

Kole wetlands

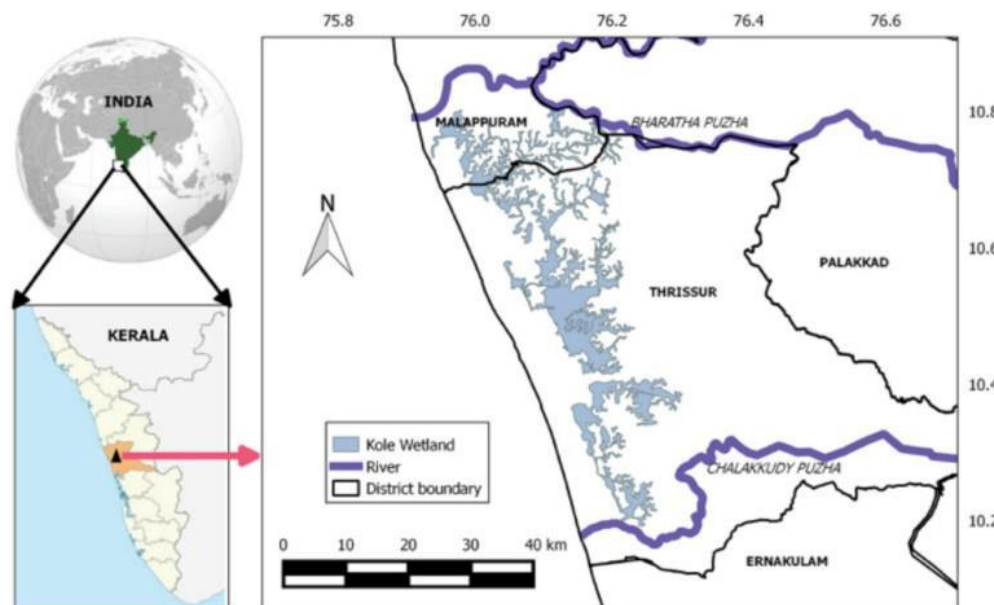
Context: The **Kole wetlands** of Kerala are facing the threat of alien plants.

Background:-

- *Cabomba furcata*, popularly called as Pink Bloom due its massive flowering, has been a new threat in addition to water hyacinth and *Salvinia molesta* to the Kole wetlands.

About Kole wetlands:-

IMAGE SOURCE: fas.org.in



- **Location:** Thrissur and Malappuram districts in Kerala, India.
- **River:** The area extends from the **Chalakudy River** in the South to the **Bharathappuzha River** in the North, and to Ponnani Taluk
- It fulfills **40 percent of Kerala's rice requirement**.
- It acts as a **natural drainage system** for Ponnani City, Thrissur City, Thrissur District, and Malappuram District.
- It is **one of the largest, highly productive, and threatened wetlands** in Kerala.
- It is **fertile with alluvium soil**

which is deposited Kechery and Karuvannoor rivers in the monsoon.

- In terms of the number of birds, the Thrissur Kole Wetlands is the **third largest in India after Chilika Lake** in Orissa and Amipur Tank in Gujarat. ([Launch of 'Wetlands of India' Portal](#))
- It comes in the **Central Asian Flyway** of migratory birds.
- It has been recognized as one of India's **Important Bird Areas** by **BirdLife International**.
- It is an internationally important **Ramsar site**. ([COP14 of Ramsar Convention on Wetlands](#))
- It is known for its **high biodiversity**.
- **Threat:** It is facing a **new threat** from an invasive alien plant species called **Cabomba furcata**, also known as **Pink Bloom**.

About Cabomba furcate:-

- *Cabomba furcata* is a species of **aquatic plant** in the water shield family.

- It is known by the common names **red cabomba and forked fanwort**.
- It is native to **Central and South America** and as far north as Cuba and the tip of Florida.
- It reaches a **maximum height between 30 and 80 centimeters** and is up to **8 centimeters wide**.
- It bears **purple flowers**.
- This is used as an **aquarium plant**.
- Carbon dioxide addition is usually necessary, mostly because this plant requires high light and regular fertilization for optimal growth.
- It has been reported as an **invasive species in Kerala, India**.
- Its active stem propagation **prevents light from penetrating the surface of water**.
- It **suffocates the water bodies**, economically and ecologically hindering the growth of native aquatic plants and freshwater fish.
- It requires a **huge quantity of oxygen**, resulting in a decline in biodiversity and water quality.
- While its **vibrant pink appearance** may seem picturesque.
- It poses a significant **threat to the biodiversity** and agricultural productivity of the region.

MUST READ: [Wetland Conservation](#)

SOURCE: [THE HINDU](#)

Kaimur Wildlife Sanctuary

Context: As per a recent announcement, **Kaimur Wildlife Sanctuary** may become the second tiger reserve in Bihar.

About Kaimur Wildlife Sanctuary:-

- **Established in 1979.**
- **Location: Kaimur district of Bihar, India.**
 - It is situated in the **southwestern part of Bihar**, close to the borders with Uttar Pradesh and Jharkhand.
- **Area:** approximately 1,504.96 square kilometers
- **Mountain range:** The sanctuary covers an extensive area in the **Kaimur Hills**, which are part of the **Vindhya Range**.
- Kaimur Wildlife Sanctuary is a significant wildlife reserve in the state and **plays a vital role in conserving the region's biodiversity**.
- This sanctuary was **officially designated as a protected area** in recognition of the region's unique biodiversity and the need to safeguard its delicate ecosystems.
- The sanctuary is known for its **diverse flora and fauna**.
- It provides a natural habitat for various species of plants, animals, and birds, contributing to the ecological balance in the region.
- **Vegetation:** a mix of deciduous and tropical dry broadleaf forests, with several plant species that are native to the region.
- **Flora:** Sal is one of the dominant tree species found in the sanctuary.
- **Other flora include** Saja, Mahua, Teak Bamboo etc.
- **Fauna:** Bengal Tigers, Indian Leopards, Indian Boars, Indian Pangolins, Sloth Bears, Sambar Deer etc. ([Blackbuck](#))
- **Birds:** Peafowl, Grey Partridge, Quail, Malabar Pied Hornbill, Swallow, Paradise Flycatcher, Kingfisher, Bulbul etc.
 - During winter, the sanctuary also witnesses the **migration of several bird species from Central Asia**, including the lesser White-fronted Goose, Ferruginous Duck, Baer's Pochard Duck, Lesser Adjutant, Greater Adjutant, etc.

MUST READ: [Wildlife Institute of India \(WII\)](#)

SOURCE: [DOWN TO EARTH](#)

Commission for Air Quality Management (CAQM)

Context: Recently, Punjab submitted the State Action Plan and District-wise Action Plans for tackling the problem of stubble burning to the **Commission for Air Quality Management (CAQM)**.

Background:-

- The Action Plans commit to an overall reduction of more than 50% in paddy stubble burning incidents this year as compared to 2022.

About Commission for Air Quality Management (CAQM):-

- **Establishment: 2020.**
- It is a permanent body. ([Air pollution](#))
- The Commission has been set up for **Air Quality Management in the National Capital Region and Adjoining Areas**.
- It aims for better coordination, research, identification, and resolution of problems surrounding the air quality index and for matters connected therewith or incidental thereto.

- It is a **statutory mechanism** to coordinate and oversee diverse efforts to **improve air quality in Delhi, Punjab, Haryana, Rajasthan, and UP, with the underlying remedial approach.**
- CAQM will **supersede all existing bodies**, including the Central Pollution Control Board (CPCB), as well as state governments in matters of air pollution mitigation.
- **Significance:** The establishment of CAQM has the potential to address the problem of air pollution but an institution by itself is not a solution.

Historical Background:-

- The Commission for Air Quality Management (CAQM) was established under the Air Quality Management in the National Capital Region and Adjoining Areas Ordinance in **October 2020.**
- The parliament was not in session during this time, and an urgent need for such legislation was felt.
- The ordinance lapsed on 12th March 2021.
- Consequently, a new bill for this was promulgated. It was given the assent of both the houses and the President, following which **Air Quality Management in National Capital Region and Adjoining Areas Act, 2021** was passed on 12th August 2021.
- The [CAQM](#) was formed after dissolving the 22-year-old Environmental Pollution (Prevention and Control) Authority (EPCA).
- **Objective: Air Quality Management** in the National Capital Region and Adjoining Areas.

Functions and Power of the Commission:-

- The Commission will provide the mechanism and the means to implement in the NCR and around, **the National Clean Air Programme, the National Air Quality Monitoring Programme, and the National Ambient Air Quality Standards.**
- It is tasked with **laying down parameters of air quality.**
- The Commission has the **right to prohibit activities that are likely to cause or increase air pollution** in the NCR.
- The Commission **can take up matters suo-motu** or on the basis of complaints from individuals and organizations.
- It will submit to the Centre an **annual report** which will be laid before both houses of the Parliament.
- Every regulation and order of the Commission will be placed before Parliament.
- The Commission would specifically **monitor measures taken by the states** to prevent factors causing air pollution like stubble burning, industrial emissions, road dust, vehicular pollution, construction activities, biomass burning, and other major sources of air pollution.

Composition of CAQM:-

- **Chairperson:** It will have a **full-time chairperson.**
 - It will be one “who is or has been **Secretary to the Government of India or Chief Secretary to the Government of a state**”.
 - The chairperson will hold the post for three years or until s/he attains the **age of 70 years.**
- **State Representatives:** The Commission will also have **five ex officio members** who are either Chief Secretaries, or Secretaries in charge of the department dealing with environment protection in the States of Delhi, Punjab, Haryana, Rajasthan, and Uttar Pradesh
- **Experts:** Three full-time **independent technical members** with “specific scientific knowledge and experience in matters relating to air pollution”; a technical member each from the CPCB and nominated by ISRO, ex officio.
- **Civil Society:** Three representatives of NGOs with experience in combating air pollution
- **Others:** It will have members from Niti Aayog and several Ministries

MUST READ: [National Clean Air Campaign](#)

SOURCE: [PIB](#)

Pink Bollworm

Context: Damages due to the **Pink Bollworm** have been wreaking havoc on **cotton fields** from Rajasthan to Haryana.

Background: -

- The Pink Bollworm (PBW), a highly destructive cotton pest, has reached unprecedented levels of infestation in the Indian states of Rajasthan and Haryana, severely affecting cotton crops.

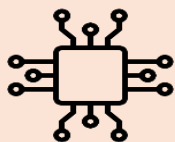
About Pink Bollworm: -

- Pink Bollworm is one of the **most destructive pests of cotton.**
- It is **native to India.**
- It was originally reported in **India in 1842.**
- It has now spread to **cotton-growing regions worldwide.**
- The adult Pink bollworms are **small moths.**
- The **larvae are the most damaging stage**, identified by distinctive pink bands.
- The pinkish-coloured **larva generally pupates in a cocoon** inside a boll or seed, in litter, or underground.

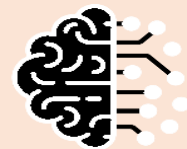
- They **feed on cotton bolls**, consuming seeds and damaging fibres.
- **This leads to reduced crop yields and quality.** ([Genetic Engineering Appraisal Committee](#))
- The infestation **also impacts other plants like hibiscus, okra, and hollyhock.**
- This outbreak threatens **the livelihoods of cotton farmers.**
- It calls for urgent **pest management measures.** ([Agristack Project](#))

MUST READ: [GM Crops and their regulation](#)

SOURCE: [THE INDIAN EXPRESS](#)



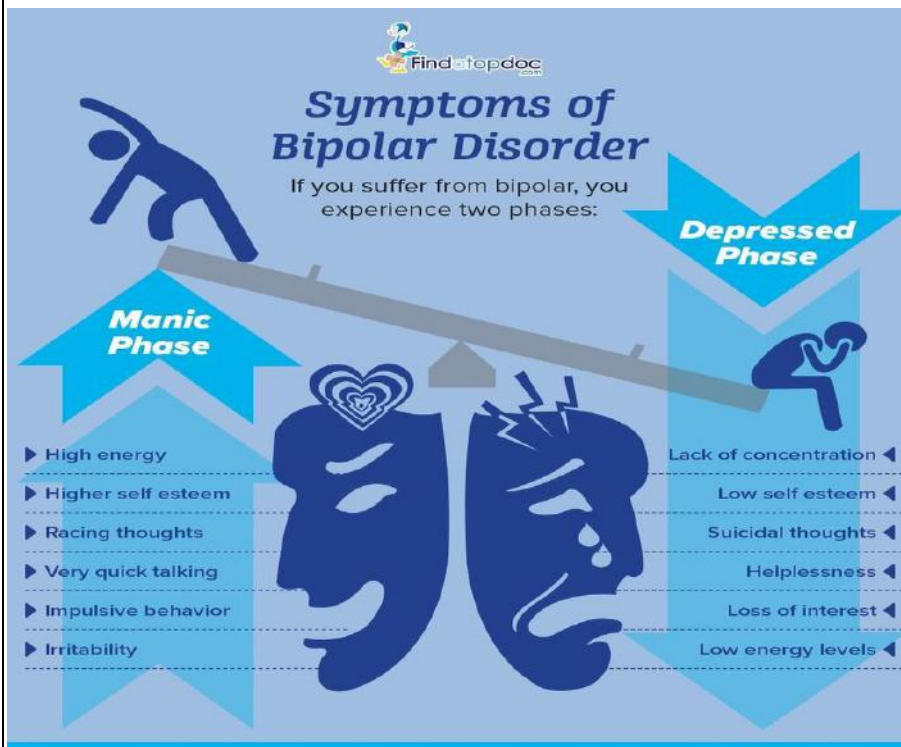
SCIENCE & TECHNOLOGY



Bipolar disorder

Context: Pakistani actress Mahira Khan recently revealed that she was suffering from **bipolar disorder**.

About Bipolar disorder:-



- It is a mental health condition that **causes extreme mood swings** that include **emotional highs (mania or hypomania) and lows (depression)**.
- The symptoms of the condition can cause **unpredictable changes in mood and behavior**, resulting in significant distress and difficulty in life. ([Mental Health](#))

Types of Bipolar Disorder:-

There are **several types** of bipolar and related disorders.

Bipolar I disorder:-

- One has had **at least one manic episode** that may be preceded or **followed by hypomanic or major depressive episodes**.

Bipolar II disorder:-

- One has had **at least one major depressive episode** and **at least one hypomanic episode**, but **never had a manic episode**.

Cyclothymic disorder:-

- One has had **at least two years or one year** in children and teenagers of **many periods of hypomania symptoms** and **periods of depressive symptoms** (though less severe than major depression).

Other types:-

- These include, **bipolar and related disorders induced** by certain **drugs or alcohol** or due to a **medical condition**

Symptoms of Bipolar Disorder:-

Symptoms of mania ("the highs"):-

- Excessive happiness, hopefulness, and excitement
- Sudden changes from being joyful to being irritable, angry, and hostile
- Restlessness
- Rapid speech and poor concentration
- Increased energy and less need for sleep
- Unusually high sex drive
- Making grand and unrealistic plans
- Showing poor judgment

Symptoms During depressive periods ("the lows"):-

- Sadness
- Loss of energy
- Feelings of hopelessness or worthlessness
- Not enjoying things they once liked
- Trouble concentrating
- Forgetfulness
- Talking slowly
- Less of a sex drive
- Inability to feel pleasure
- Uncontrollable crying

- Trouble making decisions
- Irritability

Treatment:-

- Bipolar disorder is a **lifelong condition**, but one **can manage** your mood swings and other symptoms by following a treatment plan.
- In most cases, bipolar disorder is treated with **medications and psychological counseling (psychotherapy)**. ([Deep Brain Stimulation](#))

MUST READ: [Address Stigma and Discrimination in Mental Health](#)

SOURCE: [DOWN TO EARTH](#)

Spamouflage

Context: Meta recently, claimed that it is fighting a Chinese 'Spamouflage' operation.

About Spamouflage:-

- It is an **online Chinese spam operation**. ([Cyberattacks](#))
- It **pushes positive narratives about China** and **negative commentary about the United States, Western foreign policies, and critics of the Chinese government**.
- **Origin: China.**
- **Targets: Taiwan, the United States, Australia, Britain, Japan, and global Chinese-speaking audiences.**
- It mimicked websites of mainstream news outlets in Europe and posted stories about Russia's war on Ukraine and then spread it online. ([Cybercrime](#))
- The accounts in the campaign have a tendency to **intersperse political posts**.
- It has been active on over **50 platforms and forums**, including Facebook, Instagram, TikTok, YouTube, and X (formerly Twitter).
- Companies involved in the campaign were recently sanctioned by the European Union.

MUST READ: [Global Cybersecurity](#)

SOURCE: [TIMES OF INDIA](#)

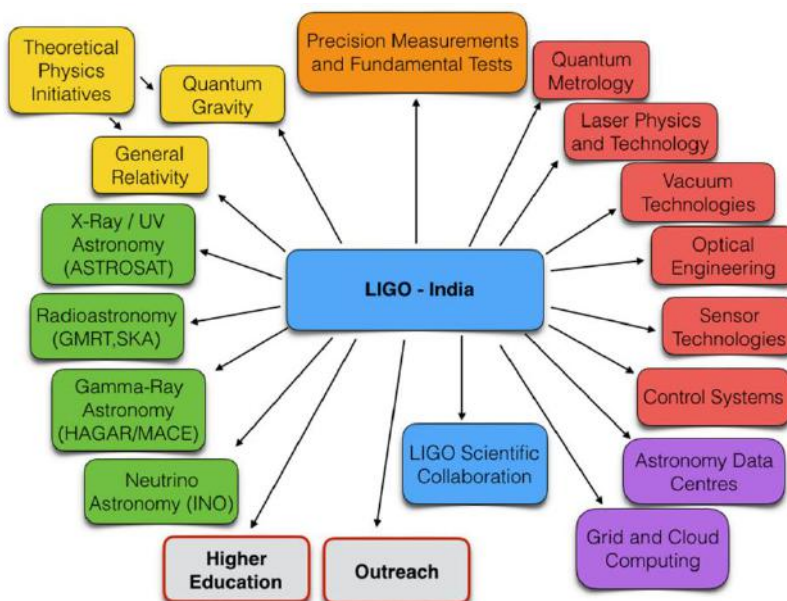
LIGO-India Project

Context: As per recent reports, the **Laser Interferometer Gravitational-Wave Observatory project (LIGO)-India**, is the next focus of Indian scientists after the Chandrayaan and Aditya missions.

Background:-

- Laser Interferometer Gravitational-Wave Observatory project (LIGO) observatory.

About Laser Interferometer Gravitational-Wave Observatory project (LIGO)-India:-



- **Location: Hingoli district of Maharashtra, India.**
- **Built by: the Department of Atomic Energy and the Department of Science and Technology with an MoU with the U.S. National Science Foundation.**
- The LIGO-India Project aims to **detect gravitational waves** from the universe.
 - **Gravitational waves:** They were first postulated (1916) in Albert Einstein's General Theory of Relativity.
 - These waves are produced by the movement of massive celestial bodies, such as black holes or neutron stars
 - They are the ripples in spacetime that propagate outward.
- Four comparable detectors will be operating simultaneously around the globe to localize a

source of gravitational waves anywhere in the sky. ([International Space Station \(ISS\)](#))

- LIGO-India will be the **third of its kind in the world**. ([Space Economy of India](#))
- It is made to the **exact specifications of the twin LIGO**, in **Louisiana (first) and Washington (second)** in the U.S.
- The fourth detector will be in **Kagra, Japan**.

- **LIGO**: an international network of laboratories that detect gravitational waves.
- The LIGO in the US first detected gravitational waves in 2015, which led to a **Nobel Prize in Physics** in 2017.

Significance:-

- It will bring India into a prestigious **international scientific experiment**.
- It will bring **advances in astronomy, astrophysics**, and cutting-edge technology.

MUST READ: [SpaceTech Innovation Network \(SpIN\)](#)

SOURCE: [THE INDIAN EXPRESS](#)

Golden egg

Context: Recently, a **Golden egg** was found on the Alaskan seafloor.

Background:-

- Researchers from NOAA Ocean Exploration found the yellowish object while diving on a small seamount in the Gulf of Alaska.
- Initially referred to as 'yellow hat', the still-unidentified object is now being dubbed as 'golden egg' or 'golden orb'.

About Golden Egg:-

- **Discovered on: 30 August 2023.**
- **Discovery site: Gulf of Alaska.**
- **Discovered by: National Oceanic and Atmospheric Administration (NOAA).**
- It was discovered during a **mission to map unexplored deepwater habitats** off Alaska using remotely operated vehicles.

Features:-

- The 'golden egg' is a **gold, dome-shaped** specimen.
- It is about **10 centimeters (4 inches) in diameter**.
- It was tightly adhered to a rock.
- A **small hole or tear** near its base revealed a similarly colored interior.
- It is **still unclear** whether the 'golden egg' is associated with a **new species** or represents the unknown life stage of an existing one.
- **Significance:** Researchers believe that the new species have the potential to reveal new sources for medical therapies and vaccines, food, energy, and other societal benefits and knowledge.
- The researchers are still working to unveil the 'golden egg' mystery.

MUST READ: [Dinosaur eggs](#)

SOURCE: [HINDUSTAN TIMES](#)

Nipah Virus (NiV)

Context: There has been an outbreak of **Nipah Virus (NiV)** in the state of Kerala recently.

Background:-

- Two people have died and two others have been hospitalized, one of whom is in critical condition in the latest outbreak.
- The state government has set up a control room to monitor the evolving situation.
- NiV was first reported in the state in 2018 in Kozhikode district.

About Nipah Virus (NiV):-

- [Nipah virus \(NiV\)](#) is a **zoonotic virus**.
 - **Zoonotic virus:** It is transmitted from animals to humans.
- **Natural host:** Fruit bats (Pteropodidae family)
- **Incubation period:** 4 to 14 days.
 - **Incubation period:** interval from infection to the onset of symptoms.
- **Fatality rate:** 40% to 75%.
- The Nipah virus was **first recognized in 1999** during an outbreak among pig farmers in, **Malaysia**. ([Zika Virus Disease](#))
- It was also **recognized in Bangladesh in 2001**, and nearly annual outbreaks have occurred in that country since.
- The disease has also been **identified periodically in eastern India**.
- The **2018 annual review of the WHO R&D Blueprint** list of priority diseases indicates that there is an urgent need for accelerated research and development for the Nipah virus.

Transmission:-

FACTS ABOUT THE NIPAH VIRUS

Nipah virus is a zoonotic virus, firstly recognised in 1999 during an outbreak of encephalitis and respiratory illness among pig farmers and people with close contact with pigs in Malaysia. It can infect both humans and a wide range of animals and causes severe disease and death in people, making it a major public health concern.

Transmission
Direct contact with sick animals and their contaminated tissues.

Natural host: fruit bats
Infection can also occur in: pigs, horses, goats, sheep, cats and dogs

Current Outbreak
Locations: Kerala State and Karnataka State, India.
Confirmed human infections: 16
Deaths: 14

Countries with confirmed outbreaks: Malaysia, Singapore, India, Bangladesh

Countries at risk: Australia, Cambodia, Thailand, Taiwan, China, Indonesia, Madagascar, Ghana and the Philippines

Fatality rate: 40 - 75 per cent

Treatment
No drugs or vaccines available for Nipah virus. Intensive supportive care is recommended to treat severe respiratory and neurological complications.

Consumption of fruit or fruit products contaminated with urine or saliva from infected fruit bats

Close contact with secretions and excretions of patients

Sources: World Health Organisation, Centres for Disease Control and Prevention

- Nipah virus can be **transmitted to humans from animals (such as bats or pigs)**, or contaminated foods.

- Human-to-human transmission** of the Nipah virus has also been reported among families and caregivers of infected patients.

Signs and symptoms:-

- Human infections range from **asymptomatic infection to acute respiratory infection (mild, severe), and fatal encephalitis.**

- Infected people initially develop symptoms including **fever, headaches, myalgia (muscle pain), vomiting and sore throat.**

- This can be followed by **dizziness, drowsiness, altered consciousness, and neurological signs** that indicate acute encephalitis.

- Some people can also experience **atypical pneumonia and severe respiratory problems**, including acute respiratory distress.
- Encephalitis and seizures** occur in severe cases, progressing to coma within 24 to 48 hours.

Diagnosis:-

- Nipah virus infection can be **diagnosed with clinical history** during the acute and convalescent phases of the disease.
- The main tests used are:-
 - Real-time polymerase chain reaction (RT-PCR)** from bodily fluids.
 - Antibody detection via **enzyme-linked immunosorbent assay (ELISA).**
 - Polymerase chain reaction (PCR) assay**
 - Virus isolation by cell culture.

Treatment:-

- There are currently **no drugs or vaccines** specific for Nipah virus infection.
- WHO has identified **Nipah as a priority disease** for the WHO Research and Development Blueprint.
- Intensive supportive care** is recommended to treat severe respiratory and neurologic complications.

Prevention:-

- Reducing the risk of bat-to-human transmission:** decreasing bat access to date palm sap and other fresh food products.
- Reducing the risk of animal-to-human transmission:** Gloves and other protective clothing should be worn while handling sick animals or their tissues and during slaughtering and culling procedures.
- Reducing the risk of human-to-human transmission:** Close unprotected physical contact with Nipah virus-infected people should be avoided

MUST READ: [Zombie Virus](#)

SOURCE: [DOWN TO EARTH](#)

Probiotics

Context: Recent studies have shown the positive role of **probiotics** in reducing Cholesterol.

Background:-

- Using probiotics to reduce cholesterol is an upcoming area of interest and the research is promising.
- Probiotics are thought to help lower cholesterol levels via a number of mechanisms.
- These include helping to incorporate cholesterol into cells and adjusting the microbiome of the gut to favor the elimination of cholesterol via the faeces.
- In a 2018 study, researchers pooled results from 32 studies and analyzed them all together in a type of study known as a meta-analysis.
- The people who took probiotics reduced their total **cholesterol level by 13 percent.**
- Other systematic reviews support these findings. ([Indian scientists develop a next-generation probiotic](#))

About Probiotics:-

- Probiotics are a **combination of live beneficial bacteria and/or yeasts.**
- Probiotic supplements are a way to **add good bacteria** to our body.
- A probiotic community is made up of things called **microbes.**
- We have **trillions of microbes** on and in our body.

- These microbes are a combination of:
 - Bacteria.
 - Fungi (including yeasts).
 - Viruses.
 - Protozoa.
- Everyone's **microbiome is unique**.
- No two people have the same microbial cells.
 - **Even twins are different**.
- The **most common type of probiotic bacteria** is **Lactobacillus and Bifidobacterium**.
- Probiotics are also made up of **good yeast**.
 - The most common type of yeast found in probiotics is **Saccharomyces boulardii**.

Working mechanism:-

- We constantly have both **good and bad bacteria** in our body. ([iNCOVACC](#))
- When we get an infection, there are **more bad bacteria**, knocking your system out of balance.
- Good bacteria **help eliminate extra bad bacteria, returning the balance**

Characteristics of a probiotic:-

For a microbe to be called a probiotic, it must have several characteristics. These include being able to:

- **Be isolated** from a human.
- **Survive** in your intestine after ingestion (being eaten).
- Have a **proven benefit**.
- Be **safely consumed**.
- **Help your body digest food**.
- **Keep bad bacteria** from getting out of control and making you sick.
- **Create vitamins**.
- Help **support the cells** that line your gut to prevent bad bacteria that you may have consumed (through food or drinks) from entering your blood.
- **Break down and absorb** medications.

Probiotic-rich foods:-

- Yogurt.
- Buttermilk.
- Sourdough bread.
- Cottage cheese.
- Kombucha.
- Tempeh.
- Fermented pickles.

MUST READ: [National Institute of Biologicals \(NIB\)](#)

SOURCE: [DOWN TO EARTH](#)

Engineers' Day 2023

Context: Recently, **Engineers' Day 2023** was celebrated.

Background:-

- It was celebrated on **September 15**.
- Engineer's Day is also celebrated in **Sri Lanka and Tanzania** on September 15.

About Engineers' Day 2023:-

- The day is celebrated to recognize the contributions made by **M Visvesvaraya** in the field of science and technology.
- **Born:1861**.
- M Visvesvaraya was born in a Telugu family at Chikkaballapur near Bengaluru, Karnataka.
- He was known as the father of Modern Mysore. His full name is **Mokshagundam Visvesvaraya**.
- After completing his formal school education in his hometown, Visvesvaraya went to study BA at the University of Madras.
- However, he later switched and pursued a diploma in **civil engineering at the College of Science in Pune**.
- He was a **pro in flood disaster management** and irrigation techniques.
- He was recognized for his work in **irrigation techniques and flood control**.
- He was **Diwan of Mysore** from 1912 to 1918.

Contributions:

- He was the chief engineer responsible for the construction of the **Krishna Raja Sagara Dam** in Mysore.
- He designed and patented automatic water floodgates in 1903, which were first installed at the **Khadakwasla reservoir in Pune**.
- In 1917, Visvesvaraya established the Government Engineering College in Bengaluru, which was later named University Visvesvaraya College of Engineering in his honour.
- He founded the Bangalore Agricultural University.
- He was a renowned precursor of economic planning in India.

Awards:

- In 1955, the Government of India honoured him with the highest civilian honour — **Bharat Ratna** for his numerous industrial, economic and social projects.
- He was also conferred the British knighthood by King George V, earning the title "Sir."

MUST READ: [Satyendra Nath Bose](#)

SOURCE: [THE INDIAN EXPRESS](#)

TTPs (tactics, techniques, and procedures)-based cybercrime investigation framework

Context: A new cybercrime investigation tool called **TTPs (tactics, techniques, and procedures)-based cybercrime investigation framework** was developed recently.

Background:-

- It can help in tracking and classifying cybercrimes identifying chains of evidence required to solve the case and mapping evidence onto the framework to convict criminals, says a press release.

About TTP (tactics, techniques, and procedures)-based cybercrime investigation framework:-

- **Developed by:** I-hub NTIHAC foundation (c3ihub) at IIT Kanpur with support from the Department of Science and Technology (DST).
- It has been developed under the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)**.
- It is a methodology and **tool for apprehending cybercriminals' modes of operations** in a crime execution life cycle.
- It was developed with the **help of literature study, case studies, and framework building**.
- It incorporated **pre-existing crime in the framework**, evolving interactive framework navigator and mapping real cases onto the framework.
- The technology **can create an approximate crime execution path and suggest a crime path** based on a user-derived set of keywords. ([Cyberattacks](#))
- It can also **compare modus operandi** used in different crimes manage user roles and track activity for crime paths.

Significance:-

- It identifies the **chain of evidence** required to solve a case and maps evidence onto the framework to convict criminals.
- It could be highly effective as it **restricts the number of forms and methods** the investigation can be conducted and primarily **relies on criminals' TTPs**.
 - This can lead to **precise and rapid conviction** of cybercriminals. ([Cyber Security](#))

About TTP Triangle:-

- **Tactics:** describe the technical objectives (the "why") an attacker is performing an action.
- **Techniques:** describe the methods used by the attacker to engage in their attack.
- **Procedures:** the detailed description of the components used in an attack, including the tools and practices that attackers used.

MUST READ: [India's cyber infrastructure](#)

SOURCE: [BUSINESSLINE](#)

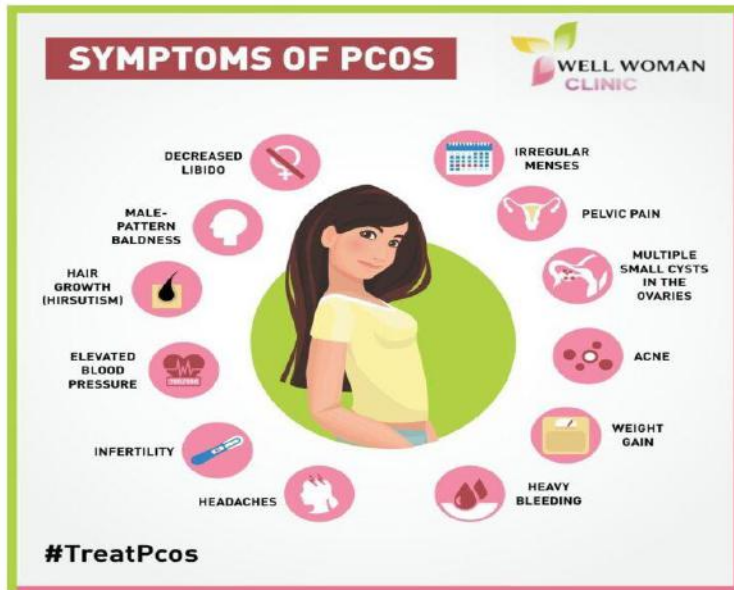
Polycystic Ovary Syndrome (PCOS)

Context: Recent studies establish a clear link between academic stress and **Polycystic Ovary Syndrome (PCOS)**.

Background:-

- Amid PCOS awareness month, in September, a concerning reality emerges that academic pressure may unknowingly contribute to a silent health crisis among young girls.

About Polycystic Ovary Syndrome (PCOS):-



- Polycystic ovary syndrome (PCOS) is a hormonal imbalance that occurs when ovaries **create excess hormones**.
 - **Ovaries:** the organ that produces and releases eggs.
- PCOS is a “syndrome,” or group of symptoms that affects the ovaries and ovulation.
- Its three **main features are:**
 - cysts in the ovaries
 - high levels of male hormones
 - irregular or skipped periods
- PCOS affects women during their **childbearing years (ages 15 to 44)**.
- Between **2.2 and 26.7 percent of women** in this age group have PCOS.
- PCOS interrupts the normal menstrual cycle and **makes it harder to get pregnant**.
- Between 70 and 80 percent of women with PCOS have **fertility problems**. ([In vitro fertilization](#))

[\(IVF\) procedure](#)

Causes:-

- The exact reasons of what causes PCOS is not known yet.
- It is believed that **high levels of male hormones** prevent the ovaries from producing hormones and making eggs normally.
- **Genes, insulin resistance, and inflammation** have all been linked to excess androgen formation.

Common symptoms of PCOS:-

- **Irregular periods:** A lack of ovulation prevents the uterine lining from shedding every month.
- **Heavy bleeding:** The uterine lining builds up for a longer period of time, so the periods you do get can be heavier than normal.
- **Hair growth:** More than 70 percent of women with this condition grow hair on their face and body — including on their back, belly, and chest.
- **Acne:** Male hormones can make the skin oilier than usual and cause breakouts in areas like the face, chest, and upper back.
- **Weight gain.** Up to 80 percent of women with PCOS are overweight or have obesity.
- **Male pattern baldness.** Hair on the scalp gets thinner and may fall out.
- **Darkening of the skin.** Dark patches of skin can form in body creases like those on the neck, in the groin, and under the breasts.
- **Headaches:** Hormone changes can trigger headaches in some women.

Common medical treatments:-

- **Birth control pills and other medications** can help regulate the menstrual cycle and treat PCOS symptoms like hair growth and acne.

MUST READ: [Control of Anaemia among Children in the Country](#)

SOURCE: [THE HINDU](#)

MISSION Psyche

Context: The National Aeronautics and Space Administration (NASA) will be launching a **Psyche mission** soon.

About MISSIONS Psyche:-

- **Launch date:** 5 October 2023.
- **Launch Site:** NASA’s Kennedy Space Center, Florida, USA.
- **Launch Vehicle:** SpaceX Falcon Heavy.
- Psyche is a NASA mission to **study a metal-rich asteroid** named **Psyche**.



- Asteroid Psyche is located in the **main asteroid belt between Mars and Jupiter.**
- This is **NASA's first mission to study an asteroid that has more metal than rock or ice.**
- The journey to the asteroid, also named Psyche, will span nearly **six years.**
- It will cover approximately **3.6 billion kilometers.**
- The body of the Psyche spacecraft is about the size of a small van.
- It is powered by **solar electric propulsion.**
- It has a **magnetometer, a gamma-ray and neutron spectrometer, and a multispectral imager** to study asteroid Psyche.
- The spacecraft will start sending images to Earth as soon as it spots the asteroid.
- The asteroid **orbits the Sun between Mars and Jupiter.** ([NASA's InSight Mars Mission](#))

- It is believed to be a **remnant core of a planetesimal**, composed primarily of iron-nickel metal.
- While there are no plans to mine the asteroid, studying it from orbit could provide invaluable insights into the **composition of Earth's core.**
- In addition to its primary mission, the Psyche spacecraft will also host a **pioneering technology** demonstration known as NASA's Deep Space Optical Communications (DSOC) experiment. ([NISAR satellite](#))
- This experiment could revolutionize **how data is transmitted across vast distances in space**, potentially enhancing our ability to explore the farthest reaches of the solar system.
- **Significance:** This mission represents a significant step forward in our **understanding of the early solar system and the formation of terrestrial planets.**

MUST READ: [NASA's DART mission](#)

SOURCE: [INDIA TODAY](#)

ciTRAN

Context: Researchers at the Indian Institute of Science Education and Research (IISER) in Bhopal have recently identified a Circular RNA virus, **ciTRAN**.

Background:-

- The development could potentially lead to novel drugs and therapies to fight HIV-1.

About ciTRAN:-

- It is a **Circular RNA virus.**
- RNAs are in general **straight-chain, free-end structures** but these circular RNA ('circRNA') form a closed-loop.
- The circRNA plays a **pivotal role in regulating gene expression.**
- It is essential for **various biological processes.**
- Its role in HIV-1 replication has remained unclear for a long time.
- Characterizing circular RNA can be tricky because it usually is **less abundant**, making it further challenging to detect in its native form.
- During viral infections, there's so much information from the virus that it can make it hard to find the less common ones like circular RNA.

About the recent study's implications:-

- The researchers deployed a novel approach called '**circDR-Seq**', to successfully **capture circRNAs from T-cells** (white blood cells) infected with the HIV-1 virus and identified a specific circRNA named ciTRAN, which plays an important role in the multiplication of the virus.
- **HIV-1 viral protein R (VpR)** is a multifunctional protein that plays specific roles at multiple stages of the HIV-1 viral life cycle and affects anti-HIV functions of the immune cells.
- Further it was found that **HIV-1 infection induces ciTRAN expression in a Vpr-dependent manner** and that ciTRAN interacts with serine/arginine-rich splicing factor 1 (SRSF1), a protein known to repress HIV-1 transcription
- **Unveiling ciTRAN's Role in HIV-1 Replication:-**
- In a recent study, researchers at IISER Bhopal deployed a **specialized protocol called circDR-Seq**, utilizing direct RNA nanopore sequencing.

- Through this innovative approach, they were able to **capture circRNAs from HIV-1-infected T cells** (white blood cells) and pinpointed the existence of ciTRAN, a circRNA that exerts influence over HIV-1 transcription.

Potential for Novel Drugs and Therapies

- Understanding how ciTRAN modulates the transcription process of the virus could **be a game-changer in the fight against HIV-1**.
- This newfound knowledge opens doors to the **development of novel drugs and therapies** to combat this persistent virus.

MUST READ: [mRNA Vaccine](#)

SOURCE: [DOWN TO EARTH](#)

CALIPSO mission

Context: Recently, NASA's **CALIPSO mission** stopped blasting lasers at Earth after 17 years.

Background: -

- NASA recently announced that its CALIPSO satellite, which takes climate, weather and air quality measurements using LIDAR, has ended its science mission.

About CALIPSO mission: -

- **Launch Date:** April 28, 2006
- **Launch Location:** Vandenberg Air Force Base, California, USA.
- **Launch Vehicle:** Delta II rocket. ([Small Satellite Launch Vehicle \(SSLV\)](#))
- **Spacecraft:** PROTEUS
- **Orbit Type:** Sun-synchronous.
- CALIPSO is a **joint U.S. (NASA)/French** (Centre National d'Etudes Spatiales/CNES) mission.
- Observations from spaceborne lidar, combined with passive imagery, will lead to an improved understanding of the role aerosols and clouds play in regulating the Earth's climate, in particular, how aerosols and clouds interact with one another.

Mission's Objectives:-

- CALIPSO's primary objective is to enhance our **understanding of clouds and aerosols** (tiny solid and liquid particles suspended in the atmosphere) and their roles in Earth's climate system.
- CALIPSO aims to provide **valuable data for climate change** research by monitoring key atmospheric parameters.
- The mission contributes to **improved air quality assessments and weather forecasting** by providing real-time atmospheric data.

Instruments:-

- **Lidar Technology:** CALIPSO is equipped with a lidar (light detection and ranging) instrument, known as the CALIOP (Cloud-Aerosol Lidar with Orthogonal Polarization).
- It uses **laser pulses to measure the altitude and properties of clouds** and aerosols with high precision.
- **Passive Sensors:** The satellite also carries passive sensors, including the Imaging Infrared Radiometer (IIR).
- **Wide Field Camera (WFC):** provides complementary data on clouds and aerosols.

MUST READ: [India – USA space cooperation](#)

SOURCE: [THE INDIAN EXPRESS](#)



HISTORY AND ART & CULTURE

World Sanskrit Day 2023

Context: The World Sanskrit Day 2023 was celebrated in Colombo recently.

About World Sanskrit Day 2023:-

- **Venue:** Colombo.
- **Celebrated on:** 31st August, 2023.
- The event was organized by the cultural arm of the High Commission of India, **Swami Vivekananda Cultural Centre (SVCC)** in collaboration with 12 universities and institutes of Sri Lanka.
- The event marked the **silver jubilee of SVCC**.
- It featured a **collaborative effort** with several prestigious Sri Lankan universities.

Significance:-

- This celebration of Sanskrit underscores the profound **cultural and linguistic ties between India and Sri Lanka**.
- It emphasizes the importance of Sanskrit as a shared heritage.

World Sanskrit Day:-

- It is an annual celebration observed on the day of **Shravan Purnima**. ([Sanskrit Grams Programme: Uttarakhand](#))
 - **Shravan Purnima:** This is considered to be one of the most sacred days in the month of Shravan and is dedicated to Lord Shiva.
- **Historical Background:** The Ministry of Education declared World Sanskrit Day back in 1969 on the occasion of **Shraavana Purnima**.
- On the day of World Sanskrit Day in India, **Panini is remembered and honoured** for his contribution to this ancient language.
 - **Panini:** a Sanskrit linguist, who wrote the Sanskrit grammar guide named the **Ashtadhyayi**.

About Sanskrit:-

- Sanskrit is among the **oldest surviving languages**. ([What is 'Sanskritisation'](#))
- It is said that **Sanskrit belongs to the Indo-Germanic or Indo-Aryan family** of languages.
- It is around **3,500 years old**.
- This makes the Sanskrit language one of the **oldest in the world**.
- It is a **sacred language** in several traditions.
- It is a repository of ancient knowledge including the **Vedas** and other renowned literary works such as the **Yoga Shastra**.
- It is also known as the **mother of many present-day languages** such as **Hindi and Sinhala**.

MUST READ: [International Mother Language Day](#)

SOURCE: [AIR](#)

Pulikkali

Context: The Pulikkali show was presented during the Onam celebrations, in Thrissur city (Kerala) recently.

About Pulikkali:-

- **Place:** Kerala.
- **Venue:** The Swaraj Ground in Thrissur district, Kerala
- **Introduced by:** Maharaja Rama Varma Sakthan Thampuran (the erstwhile ruler of Cochin)
- **Naming:** Puli means Leopard/Tiger and Kali means Play in Malayalam.
- **Main theme:** tiger hunting.
- It is also called the **Tiger Dance**.
- It is a recreational street folk art.
- It is performed on the **fourth day of Onam celebrations**.
- Artists paint their bodies like tigers with stripes of yellow, red, and black and dance to the rhythm of **traditional percussion instruments** such as thakil, udukku, and chenda.
- The participants play the **role of tiger and hunter**.
 - **Onam:** It is the biggest and the most important festival in the state of Kerala.
 - It is a **harvest festival**.
 - It is celebrated at the beginning of the month of Chingam, the first month of the Malayalam Calendar (Kollavarsham).

MUST READ: [Kathakali dance](#)

SOURCE: [THE HINDU](#)

Saint Narayana Guru

Context: Saint Narayana Guru's birth anniversary was celebrated recently.

Background:-

- Social reformer and saint Narayana Guru's birth anniversary was celebrated in Yadgir on 31, August 2023.

About Saint Narayana Guru:-

- [Narayana Guru](#) was a **saint & and social reformer of India. (Bhakti Movement)**
- He has been credited with transforming the social fabric of **Kerala**.
- He **fought the caste system** and for equality among people from all communities.
- He was a **great thinker** of that era.
- He **raised his voice for the people** of downtrodden communities and for their rights.
- He **guided people against superstition**, which was deep-rooted in society.
- He **built a temple for Dalits** who were denied entry into temples for worship.
- He preached the '**oneness**' of humanity **He preached the 'oneness' of humanity, crossing the boundaries of caste and creed.**
- In 1888, he installed an idol of Siva at Aravippuram in Kerala in his effort to show that the consecration of god's image was not a monopoly of the Brahmins.
 - This is popularly known as the **Aravippuram movement**.
- He contributed many important literary works, the most influential being **Atmopadesa Satakam** which he composed in 1897.

MUST READ: [Sant Kabir](#)

SOURCE: [THE HINDU](#)

Dance forms of Kerala

Context: Various dances of Kerala were performed during Onam celebrations held recently.

Background:-

- This year, Onam festivities began on 20th August 2023 and Thiruvonam fell on August 31 as the 10-day harvest festival was observed across the South Indian state of Kerala.
- It marks the **beginning of the Malayalam year**, called Kolla Varsham, and commemorates the return of the mythical King Mahabali with great enthusiasm and cultural fervor.

About Classical dances of Kerala:-

- Kerala is known for its rich cultural heritage. ([Karakattam dance](#))
- It includes various classical dance forms, some of these performed during Onam 2023 celebrations include:-

Kathakali:-

- It originated in Kerala over **300 years ago. (Kathakali dance)**
- It is one of the **most famous** classical dance forms of the state.
- It is **One of the eight classical dances of India**.
- It is a highly stylized and dramatic art form combining the elements of dance, music, acting, devotion, drama, costumes, and make-up.
- Kathakali performances retell the great **stories of the past, mostly from Indian epics**, or depict episodes from the Mahabali legend or other mythological stories associated with the festival, using hand and facial gestures and expressions.

Mohiniyattam:-

- It is a graceful and **lyrical dance form. (Mohiniyattam)**
- It is performed in honor of the **Hindu god Vishnu** in his incarnation as the **enchantress Mohini**.
- It is **One of the eight classical dances of India**.
- It is performed **exclusively by women**.
- It is characterized by **gentle, flowing movements** and expressive storytelling, narrating the stories related to King Mahabali during the Onam festival.

Koodiyattam:-

- It is recognized as a **UNESCO Intangible Cultural Heritage**.
- It is one of the **oldest classical theater** forms in the world.
- It involves **elaborate and ritualistic performances** with traditional costumes and makeup.
- It depicts stories from **Hindu epics and Puranas** that are sometimes staged during Onam.

Thiruvathirakali:-

- It is a **traditional group dance**.

- It involves **graceful circular movements by the women** and clapping of their hands to the rhythm of the music.
- This group dance is **often performed by women**.
- It is considered a **celebration of womanhood**.
- It is mostly performed in the **evening under the moonlight**.

Chakyar Koothu:-

- It is a traditional **solo performance**.
 - It has the **artist narrating episodes** from epics like the **Ramayana and the Mahabharata** in a humorous and dramatic manner on Onam.
 - It is **not a dance form** per se.
- It is an **integral part of Kerala's performing arts tradition**.

Ottamthullal:-

- The dance form was **created by** the renowned **Malayalam poet Kunchan Nambiar**.
- It involves a **single performer** narrating stories with dance and song in a satirical and humorous style.
- The performance is accompanied by a **mridangam** (barrel-shaped drum).

MUST READ: [National Tribal Dance Festival 2022](#)

SOURCE: [HIDUSTAN TIMES](#)

Konark Wheel

Context: India showcased the **Konark Wheel** of the Konark Sun Temple the recently held G 20 Summit.

Background:-

- As world leaders started arriving at Bharat Mandapam in Delhi for the G20 Summit, Prime Minister Narendra Modi personally welcomed each and every one of them at the arrival area on the building's second level.
- PM Modi shook hands with them for the customary photo-op, with a **wall depicting the Konark Wheel of Odisha** in the background.

About Konark Wheel:-

- **Located: Konark Sun Temple, Puri in Odisha.**
- The Konark Wheel, also known as the **Konark Chakra**.
- It is an **iconic symbol** associated with the Konark Temple.
- The wheel **symbolizes the Sun God's chariot**.

Different theories exist regarding the significance of the Konark Wheel:-

- According to one interpretation, **the seven horses represent the days of the week, the 12 pairs of wheels symbolize the 12 months of the year, and the 24 wheels represent the 24 hours of a day**, with the 8 major spokes denoting three-hour periods (prahars) of a day.
- Another interpretation suggests that the **wheels symbolize the cycle of creation, preservation, and realization**, akin to the "**Wheel of Life**."
- Some believe the **12 pairs of wheels** may represent the **12 zodiac signs**.
- Others draw parallels between the **Konark Wheel and the Dharmachakra**, the Wheel of Karma, in Buddhist symbolism. [\(Buddhist Philosophy on Dharmachakra Day\)](#)

Carvings and Decorations:-

- The **24 wheels** of the Konark Temple, though similar in size and architecture, feature unique carvings all over.
- The **thicker spokes are adorned with circular medallions** at their centers.
- The **axles of the wheels project** about one foot from the surface, also decorated at their ends.
- The **rims of the wheels are intricately carved** with foliage designs, along with **depictions of various birds and animals**.
- The **medallions in the spokes** of the wheels showcase **figures of women in various poses**, often of a sensual nature.
- It serves as a **representation of the cosmic cycle** and the concept of time in **Hindu mythology**.

Konark Sun Temple

- **Timeline:** It was constructed in the **13th century**.
- **Historical Background:** The temple was constructed during the reign of **King Narasimhadeva I** of the **Eastern Ganga Dynasty**.
- It is designed in the **shape of a colossal chariot with 12 pairs of stone-carved wheels**.
- They represent the **chariot of the Sun God**. [\(Modhera Sun temple\)](#)
- The temple is built using **Khondalite rocks**.
- It is carved to depict various **mythological and religious themes**.
- Konark Sun Temple was declared a **UNESCO World Heritage Site** in 1984.

MUST READ: [Puri Jagannath Temple](#)

SOURCE: [THE INDIAN EXPRESS](#)

Phanigiri artifacts

Context: The **Phanigiri artifacts**, belonging to 200 BCE-400 CE were put on display at the New York Metropolitan Museum of Art.

Background:-

- The Phanigiri artifacts would be displayed in the art collection of the Tree and Serpent exhibition, which began at the New York Metropolitan Museum of Art (popularly known as The Met) in July 2023.
- The exhibition has 125 objects between 200 BCE and 400 CE.
- The exhibition at The Met is on till November 13, 2023.

About the Phanigiri artifacts:-

- **Discovered: 1942.**
- **Rediscovered: 2003.**
- **Location: Phanigiri, Telangana.**
- Phanigiri in Suryapet district is a small village of about 4,000 residents, **about 150 km from Hyderabad.**
- The Phanigiri Buddhist site is considered **one of the most important finds in Buddhist iconography** in this millennium. ([Buddhist monastery complex at Bharatpur of Bengal](#))
- Phanigiri means the **hillock of snake hood.**

Key Findings and their Significance:-

- The **thoranas discovered at Phanigiri** are very important as they are among the **first found south of Sanchi.**
 - The same thorana has a panel that shows both the **Mahayana and Hinayana school of thought.**
 - This shows that despite philosophical differences, **both sects co-existed in Phanigiri.**
- There is evidence from Phanigiri that shows **the deification of Buddha.** ([The Buddhist Circuit](#))
- The change from a historical and spiritual identity and a **transition to canonization and ritual** is evident in Phanigiri.
- The artifacts from this site, include a **limestone carving of Buddha wearing** what appears to be a **Roman toga.**

MUST READ: [Buddhist caves, temples in Madhya Pradesh's Bandhavgarh Tiger Reserve](#)

SOURCE: [THE HINDU](#)

Megalithic dolmen site

Context: Ancient terracotta figurines were found during archaeological explorations at the **megalithic dolmen site** near Moodbidri recently.

Background:-

- Unique terracotta figurines in different states of preservation, with bone and iron pieces have been found in recent archaeological explorations conducted in the megalithic dolmen site at Mudu Konaje, near Moodbidri, in Dakshina Kannada.

About Megalithic dolmen site:-

- **Discovery site: Moodbidri in Dakshina Kannada(Karnataka)**
- **Duration: 800-700 B.C.**
- **Discovery:** Of the eight figurines found, there are **two cow bovines, one mother goddess, two peacocks, a horse, the hand of a mother goddess, and an unknown object.**
- These figurines were **found inside the surface of dolmens**, although some had been disturbed by treasure hunters.
- Megalithic culture is known for its **different types of burials and use of iron in India** and **Dolmen** is one among them.
- Under a dolmen, huge stone slabs known as orthostats were erected in clockwise order, which created a **square room** that was closed by another huge stone slab as a **capstone.**
- Generally, on the Eastern slab, a round or U-shaped entrance known as a **port-hole was created.**
- It was **known by different names in South India** like Kalmane, Pandavara Mane, Moriyara Mane, Moriyara Betta, and so on.

Cow bovines:-

- One of the two cow bovines is a **solid handmade human body with a bull's head** and is about 9 cm in height and 5 cm in width.
- It **has a clear snout** of a bull and its femininity is well attested by two breasts attached by the applique method.
- The second cow bovine is another solid handmade figurine which is about **7.5 cm in height and 4 cm in width.**
- It has a bovine snout and an archetype head gear and applique ornamentation around the neck and below the belly.
- The **presence of cow bovines helps determine the chronology** of the dolmens.
- **Cow goddesses have parallels** in other megalithic terracotta figurines found in places like **Kerala and Egypt.**

Peacock and Horse Figurines:-

- One of the two peacocks is a solid peacock which is about 11 cm in height and 7 cm in width, **dipped into red ochre and its feathers are down towards the earth.**
- Another peacock has an **elongated head** created separately, which can be insertable into a shallow body that is **missing, and the feathers** are designed upwards.
- The figurines of peacocks and a horse **suggest a connection to animals** in their beliefs or possibly a representation of their natural surroundings.

Mother goddess:-

- The torso of a mother goddess has **no head, hands, or legs.**

Significance of the discovery:-

- These discoveries **offer insights into the cultural and religious practices** of the **people of coastal Karnataka** during the 800-700 B.C. timeframe.
- These terracotta figurines provide a solid foundation for studying the **Bhoota cult or Daiva Aradhane** in coastal Karnataka during ancient times.
- The presence of these figurines in a megalithic burial context adds **to our understanding of the religious and cultural practices of the region.**

MUST READ: [Language in Indus Valley Civilization](#)

SOURCE: [THE HINDU](#)

Shantiniketan

Context: Prime Minister Narendra Modi congratulated the nation on the inclusion of **Shantiniketan** in the UNESCO World Heritage list.

Background:-

- Shantiniketan has been listed on the UNESCO World Heritage List on Sep 17, 2023.
- In a social media post, Prime Minister Modi said that this is a proud moment for all Indians.
- Mr. Modi said that Shantiniketan is an embodiment of Gurudev Rabindranath Tagore's vision and India's rich cultural heritage.

About Shantiniketan:-

- **Location: Birbhum district in West Bengal.**
- **Established: 1901.**
- **Established by: Maharshi Debendranath Tagore.**
- Maharshi Debendranath Tagore was the father of Nobel laureate Rabindranath Tagore.
- Shantiniketan has been listed on the **UNESCO World Heritage List in 2023.**
- It was **based on old Indian traditions** and a vision of **humanity's unity** that transcended religious and cultural barriers.
- Santiniketan grew into the [Visva Bharati University](#) in 1921, attracting some of the most creative minds in the country.
- The Visva-Bharati University at Shantiniketan is the epitome of the revolutionary tradition of breaking barriers of all kinds, be it castes, religions, classes, creeds, genders, cultures with a principal focus on humanities, arts, and contact with nature.
- Even today, Shantiniketan follows Tagore's **principles of equality.**
- It houses a little over 10,000 students on its campuses who **comprise Indian and international students** within a **co-educational facility.**
- The **trend of Gurukul** (open-air classes) is still practiced under the campus trees.
- Shantiniketan is also famous for its many festivals. Some of them include:-
 - **Grand Poush Utsav:** celebrated on the Foundation Day of the University.
 - **Basant Utsav:** celebrated on Holi.
 - **Sarad Utsav:** Autumn Festival.
 - **Magh Utsav :** Founding Day of the Sriniketan campus
 - **Vrikhsharopan Utsav:** Tree Planting Festival.

Important Places in Shantiniketan:-

- **Tagore's Ashram:** The Ashram complex is the **oldest area** of Shantiniketan where Maharshi Debendranath Tagore built Shantiniketan Griha, the first guest house.
- **Rabindra Bhaban Museum or Tagore Museum:** The Rabindra Bhaban Museum was founded just after the death of Rabindranath Tagore in 1942.
- **Vishwa Bharati University:** Established with the principal motto and objective to explore arts, humanities, language, music, dance, and folk arts, Visva Bharati's focal point is to create oneness in diversity.

- **Uttarayan Complex:** Located in the northern part of Shantiniketan, it is a collection of five houses built by Rabindranath Tagore during his lifetime.
- **Upasana Griha:** the Prayer Hall is one of the stunning buildings in the entire Shantiniketan area.
- **Kala Bhavan:** One of the most beautifully designed blocks within the Visva Bharati University premises is the Kala Bhavan.
- **China Bhavan:** The academic blocks within the vicinity of Visva Bharati University Complex are named in accordance with the purpose, culture, and subject being taught there.
- **Nippon Bhavan:** Like China Bhavan, the Nippon Bhavan is dedicated to Japanese culture, literature, art, language and tradition.
- **Chhatimtala:** The site of Chhatimtala is considered to be sacred and is of great importance to everyone at Shantiniketan.

MUST READ: [Gitanjali by Rabindranath Tagore](#)

SOURCE: [AIR](#)

Hoysala Temples

Context: As per recent announcements, the **Hoysala Temples**, will be India's 42nd UNESCO World Heritage Site.

Background:-

- The announcement was made by the agency in Riyadh, Saudi Arabia, where the 45th session of the World Heritage Committee is being held till September 25, 2023.
- Rabindranath Tagore's **Santiniketan**, the university town in West Bengal, was also included as a world heritage site previously.

About Hoysala Temples:-

IMAGE SOURCE: [INDIAN EXPRESS](#)



- The sacred ensembles of the Hoysalas, that has been inscribed on the UNESCO's World Heritage List includes **three temples in Karnataka**.
- The three [Hoysala temples](#) include:-
Chennakeshava temple
- **Location: Belur (Hassan district), Karnataka.**
- It is located at the centre of the traditional settlement which is **surrounded by the remnants** of a mud fort and a moat.
- The Garbhagriha is **stellar shaped** with **zigzag walls** making 24 forms of Lord Vishnu looking different at all times of the day due to light and shade effect.

- **Shantaladevi**, the queen of King Vishnuvardhana, is represented in **Darpana Sundari** (lady with the mirror).
- Sculpture and bracket figures of **madanikas** (celestial nymphs) are on the ceiling.
- Temples of **Kappe Chennigaraya, Soumyanayaki, Andal, and other Vaishnava** manifestations, surround the main temple.

Hoysaleswara Temple

- **Location: Halebidu (Hassan district), Karnataka.**
- **River:** It is on the banks of the **Dwarasamudra tank** in Halebidu.
- It is a town that has many protected and unprotected **temples, archaeological ruins, and mounds**.
- **Twin-shrine temple**, perhaps the largest **Shiva temple** built by Hoysala kings.
- Poised on a **star-shaped base** that consists 8 rows of friezes **carved with** elephants, lions, horses, and floral scrolls.
- **Outer walls have intricately carved Hindu deities, sages, stylized animals, birds, and friezes** depicting the life of Hoysala kings.
- Imagery from epics like **Ramayana, Mahabharata, and Bhagavad Gita** adorn the outer walls.
- Highly ornate temple **doorways**.
- The **Nandimantapa** with a decorated Nandi statue is positioned right in front of the temple.
- The **exquisite carvings in the interiors** of the temple have highly polished lathe-turned pillars.

Keshava Temple

- **Location: Mysore district, Karnataka.**
- It is at the center of **Somanathapura village (Mysore district)**.

- It is a **Vaishnava temple**.
- **River:** Built on the banks of **River Kaveri** at Somanathapura.
- It was consecrated in 1258 CE by **Somanatha Dandanayaka** who was a general of King Narasimha III.
- It is **enclosed in a walled courtyard** with a **mahadvara** (major gate) and **tall carved soapstone pillars**.
 - **Soapstone:** a green-grey chloritic schist material that is soft in a quarry but hardens when exposed to the air.
- There are **inscription stones** in old Kannada, with **Hindu iconography** and miniature reliefs of Keshava, Janardhana, and Venugopala.

About Hoysala Architecture:-

- Hoysala architecture developed under the rule of the **Hoysala Empire between the 11th and 14th centuries**.
- It is mostly concentrated in **southern Karnataka**.
- Hoysala temples are sometimes called **hybrid or vesara** as their unique style seems **between Dravida and Nagara styles**.
- The Hoysala temples **contain multiple shrines** grouped around a **central pillared hall** and laid out in the shape of an **intricately designed star**.
- They are made out of **soapstone** which is a relatively soft stone.
- They are easily distinguishable from other medieval temples by their highly original **star-like ground plans** and a **profusion of decorative carvings**.

List of World Heritage Sites In India:

Cultural 34

- Agra Fort (1983)
- Ajanta Caves (1983)
- Archaeological Site of Nalanda Mahavihara at Nalanda, Bihar (2016)
- Buddhist Monuments at Sanchi (1989)
- Champaner-Pavagadh Archaeological Park (2004)
- Chhatrapati Shivaji Terminus (formerly Victoria Terminus) (2004)
- Churches and Convents of Goa (1986)
- Dholavira: a Harappan City (2021)
- Elephanta Caves (1987)
- Ellora Caves (1983)
- Fatehpur Sikri (1986)
- Great Living Chola Temples (1987, 2004)
- Group of Monuments at Hampi (1986)
- Group of Monuments at Mahabalipuram (1984)
- Group of Monuments at Pattadakal (1987)
- Hill Forts of Rajasthan (2013)
- Historic City of Ahmadabad (2017)
- Humayun's Tomb, Delhi (1993)
- Jaipur City, Rajasthan (2019)
- Kakatiya Rudreshwara (Ramappa) Temple, Telangana (2021)
- Khajuraho Group of Monuments (1986)
- Mahabodhi Temple Complex at Bodh Gaya (2002)
- Mountain Railways of India (1999, 2005, 2008)
- Qutb Minar and its Monuments, Delhi (1993)
- Rani-ki-Vav (the Queen's Stepwell) at Patan, Gujarat (2014)
- Red Fort Complex (2007)
- Rock Shelters of Bhimbetka (2003)
- Sacred Ensembles of the Hoysalas (2023)
- Santiniketan (2023)
- Sun Temple, Konârak (1984)
- Taj Mahal (1983)
- The Architectural Work of Le Corbusier, an Outstanding Contribution to the Modern Movement (2016)
- The Jantar Mantar, Jaipur (2010)
- Victorian Gothic and Art Deco Ensembles of Mumbai (2018)

Natural 7

- Great Himalayan National Park Conservation Area (2014)
- Kaziranga National Park (1985)
- Keoladeo National Park (1985)
- Manas Wildlife Sanctuary (1985)
- Nanda Devi and Valley of Flowers National Parks (1988, 2005)
- Sundarbans National Park (1987)
- Western Ghats (2012)

Mixed 1

- Khangchendzonga National Park (2016)

MUST READ: [Khajuraho temples](#)**SOURCE:** [INDIAN EXPRESS](#)**Adi Shankaracharya statue**

Context: Recently Madhya Pradesh Chief Minister unveiled the 108-foot-tall 'Statue of Oneness' of Adi Shankaracharya at Omkareshwar in Madhya Pradesh.

About Adi Shankaracharya:

- **Birth:** 11th May 788 AD, at Kaladi, Kerala.
- **Samadhi:** at Kedar Tirth.
- **Philosophy:** Propounded the Doctrine of Advaita (Monism),
- He was opposed to **Buddhist philosophers**.
- Established four **Mathas in the four corners of India at Sringeri, Puri, Dwaraka and Badrinath**– for propagation of **Sanathana Dharma**.

Major books:

- Brahmasutrabhasya (Bhashya or commentary on the Brahma Sutra), Bhajagovinda Stotra, Nirvana Shatakam and Prakaran Granths

Advocation of Advaita Vedanta:

- It articulates a **philosophical position of radical nondualism**, a revisionary worldview which it derives from the ancient Upanishadic texts.
- According to Advaita Vedantins, the Upanishads reveal a **fundamental principle of nonduality termed 'brahman'**, which is the reality of all things.
- Advaitins understand **brahman as transcending individuality** and empirical plurality.
 - They seek to establish that the essential **core of one's self (atman) is brahman**.
- The fundamental **thrust of Advaita Vedanta** is that the atman is pure non-intentional consciousness.
- It is one without a second, nondual, infinite existence, and numerically identical with brahman.

Source: [Indian Express](#)**Mewar-style painting**

Context: Recently, a **Mewar-style** Mahabharata painted by a Muslim was discovered in Udaipur, Rajasthan.

Background:-

- A trunk in a dingy room in Udaipur's City Palace had been sheltering thousands of miniature paintings of the Mahabharata, painted by Allah Baksh between 1680 and 1698.
- In The Mahabharata by Baksh, they highlight **how literature undergoes constant reinterpretation** through centuries and millennia.
- A 300-year-old text, in this Baksh's illustrations is not a Sanskrit Mahabharata but a Rajasthani one.
- It is not painted by a Muslim but by a **proponent of the Mewari school** of thought, in such a manner that when one sees the paintings, and visualizes Mewari culture in its entirety.

About Mewar-style painting:-

- **Timeline: 17th and 18th centuries.**

- Mewar painting is one of the most important schools of **Indian miniature painting**.
- It is a school in the **Rajasthani style**.
- It developed in the Hindu principality of **Mewar (Udaipur)**.

Salient features:-

- It is characterized by **simple bright colour and direct emotional appeal**.
- The earliest dated manuscript associated with the Mewar school of Rajput painting is the **Chawand Ragamala series (1605)**, painted by the artist Nasiruddin.
- Most of the paintings of this series are in the **collection of Shri Gopi Krishna Kanoria**.
- The **expressive and vigorous style** continued with some variations through 1680 in the region, after which time Mughal influence became more apparent.
- An increasing number of paintings were concerned with **portraiture and the life of the ruler** though religious themes were popular.
- The Mewar school of miniature painting, is renowned for **vibrant colors and intricate narratives within a single frame**.
- These paintings provide **historical insights, including details like sword storage, turban styles, and the occasions celebrated during the depicted times.** ([Mural Art](#))

Famous artists of Mewari school of painting:-

- **Allah Baksh:** Allah Baksh, a notable Mewari painter during Maharana Jai Singh’s reign (1653-98), is renowned for creating **comprehensive depictions of the entire Mahabharata** and including every shloka of the Gita.
- **Sahibdin:** In the later half of the seventeenth century, during the reigns of Raj Singh and Jai Singh, portraiture gained prominence in Mewar.

MUST READ: ([Ancient rock paintings](#))

SOURCE: [THE PRINT](#)

Battle of Haifa

Context: India and Israel commemorated the **Battle of Haifa** recently.

Background:-

- Every year on **September 23**, diplomats from India’s Embassy in Israel and Israeli government officials representing the municipality of the northern port city of Haifa gather at the Haifa War Cemetery to pay respects to the Indian soldiers who were killed and wounded in battle, on foreign soil.

About the Battle of Haifa:-



- The 23rd of September is designated as **'Haifa Day'**.
- It commemorates the city's capture following a daring cavalry action by the **15th Imperial Service Cavalry Brigade** during World War I.
- Haifa Day commemorations were **initiated in 2010**.
- **Teen Murti Chowk** in India was renamed **Teen Murti Haifa Chowk** in honour of the Battle of Haifa’s centenary.

Historical background:-

- The Battle of Haifa was fought during the **First World War** as a part of the Sinai and Palestine campaigns. ([India, Israel, and Palestine](#))
- The 5th Cavalry Division comprising the 13, 14, and 15 Cavalry Brigades were tasked with capturing Haifa.
- The 15 Cavalry Brigade comprised the Jodhpur Lancers and the Mysore and Hyderabad Lancers.
- The British Empire, the Kingdom of Italy, and the French Third

Republic, fought alongside the Arab Revolt, in **opposition to the Ottoman Empire, the Austro-Hungarian Empire, and the German Empire**.

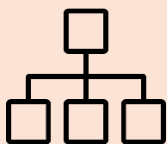
- The Indian Cavalry Brigade, **played a decisive role**, leading to the capture of Haifa and Acre from the Ottoman Empire.

Significance:-

- The Battle of Haifa is a **testament to the valour of Indian soldiers**, including Sikhs and Rajputs, in global conflicts.
- It highlights India's **contributions during the First World War**.
- It adds a historic significance in **strengthening India-Israel relations.** ([15th India-Israel Joint Working Group](#))

MUST READ: [India and Israel](#)

SOURCE: [THE INDIAN EXPRESS](#)



GOVT. INITIATIVES, SCHEMES AND POLICIES

**POSHAN (Prime Minister's Overarching Scheme for Holistic Nutrition) scheme**

Context: As per recent reports, the Government will celebrate the sixth Rashtriya Poshan Maah 2023 in September.

Rashtriya Poshan Maah 2023:-

- **Objective:** to comprehensively tackle malnutrition through a life-cycle approach.
- The focal point of Poshan Maah 2023 is to cultivate widespread awareness concerning critical human life stages comprising pregnancy, infancy, childhood, and adolescence.
- The aim of this celebration is to **foster nutritional understanding across India**.
- **Theme:** "Suposhit Bharat, Sakshar Bharat, Sashakt Bharat" (Nutrition-rich India, Educated India, Empowered India).

About POSHAN:-

- **Launched: 2018.**
- **Ministry: Ministry of Women and Child Development.**
- **Vision:** to ensure the attainment of Malnutrition Free India by 2022.

Historical Background:-

- The Government launched the POSHAN Abhiyaan, earlier known as the **National Nutrition Mission, on March 08, 2018.**
- **Objective:** to address the problem of malnutrition in the country.

Salient Features of POSHAN:-

- POSHAN Abhiyaan is the Government of India's flagship programme to **improve nutritional outcomes for children, adolescent Girls, pregnant women, and lactating mothers.**
- The Abhiyaan targets to reduce:-
 - Stunting by 2% per annum
 - Undernutrition by 2% per annum
 - Anemia (among young children, women, and adolescent girls) by 3% per annum
 - Low birth weight by 2% per annum
- It is a **Multi-Ministerial Convergence Mission.**
- It aims to **reduce malnutrition in the country in a phased manner** through a life cycle approach.
- Under the POSHAN Abhiyaan, 'Rashtriya Poshan Maah' is celebrated **each year in September** with the aim of **creating awareness** about nutrition and healthy food. ([POSHAN Maah](#))

Mission Poshan 2.0:-

- **Mission Poshan 2.0**, an integrated nutrition support programme, **subsumed** the Supplementary Nutrition Programme and POSHAN Abhiyaan.
- It was announced in the **Union Budget 2021-2022** for all States/UTs.
- **Objective:** to strengthen nutritional content, delivery, outreach, and outcomes with a focus on developing practices that nurture health, wellness, and immunity to disease and malnutrition. ([PM Poshan Shakti Nirman Scheme](#))

Targets of Poshan 2.0:-

- Nutrition Support for POSHAN through the Supplementary Nutrition Programme (SNP) for **children of the age group of six months to six years**, pregnant women and lactating mothers (PWLM), and Adolescent Girls in the age group of 14 to 18 years in Aspirational Districts and North Eastern Region (NER).
- **Early Childhood Care and Education** [3-6 years] and early stimulation for (0-3 years).
- **Anganwadi Infrastructure** including modern, upgraded Saksham Anganwadi POSHAN Abhiyaan.
- Poshan 2.0 also focuses on **Maternal Nutrition, Infant and Young Child Feeding Norms, Treatment Protocols** for Severely Acute Malnourished (SAM) / Moderately Acute Malnourished (MAM) and wellness through AYUSH practices to reduce wasting and under-weight prevalence besides stunting and anaemia.

MUST READ: [Year End Review-2022: Ministry of Women and Child Development](#)

SOURCE: [AIR](#)

Mera Bill Mera Adhikaar scheme

Context: The invoice incentive scheme - **Mera Bill Mera Adhikaar scheme** began recently.

About Mera Bill Mera Adhikaar:-



MERA BILL MERA ADHIKAAR

Launching on 1st September 2023

In the States of **ASSAM, GUJARAT and HARYANA**, and UTs of **DAMAN & DIU, DADRA & NAGAR HAVELI, and PUDUCHERRY**

An Incentive Scheme to win cash prizes with GST invoices of your purchase

#Mera_Bill_Mera_Adhikaar

@cbic_india @cbicindia @cbicindia @CBICINDIA @cbic www.cbic.gov.in

- **Launched:** 1st September, 2023.
 - **Ministry:** Ministry of Finance.
 - **Objective:** to bring a cultural and behavioural change in the general public to 'Ask for a Bill' as their right and entitlement.
 - **Duration:** This Pilot Scheme will run for a period of 12 months.
- Salient Features of Mera Bill Mera Adhikaar:-**
- This scheme is a **Goods and Services Tax (GST) invoice incentive programme** that offers cash incentives for uploading invoices.
 - **Invoice:** a commercial document that itemizes and records a transaction between a seller and a buyer.

- It will initially be launched as a pilot in the States of Assam, Gujarat & Haryana, and UTs of Puducherry, Dadra Nagar Haveli and Daman and Diu.
- A **monthly and quarterly draw of lots will be made**, and winners will be eligible for **cash reward prizes** beginning from **Rs 10,000 to up to Rs 1 crore**.
- **Eligibility:** -
 - All residents of India will be eligible to participate in this Scheme irrespective of their State/UT.
 - The invoice uploaded on the app should have the **GSTIN of the seller, invoice number, amount paid, and tax amount.** ([GST Council](#))
- **Minimum value of invoices:** to be considered for a lucky draw is **Rs. 200**.
- **Maximum value for invoices:** A maximum of 25 invoices can be uploaded by an individual on the App/web portal in a month to be considered for the lucky draw.
- **Mobile Application:** Invoices can be **uploaded on the Mobile Application 'Mera Bill Mera Adhikaar'**.
 - It is available on **IOS and Android** as well as on the **web portal 'web.merabill.gst.gov.in'**.
- **Acknowledgement Reference Number (ARN):** will be generated for each uploaded invoice, which will be used for the draw of prizes.

Prizes:-

- In this scheme, the government will select **800 people every month**, who will get a reward of **ten thousand rupees**.
- In Bumper Draw, which will **held quarterly, two people** will get a reward of **one crore rupees**.
- **Selection of Winner:** Winning invoices will be picked by a method of **random draw** at regular intervals (monthly/quarterly).

Benefits of Mera Bill Mera Adhikaar:-

- It will help simplify the tax system of the country and end Inspector Raj.
- It will reduce the tax burden on the citizens.

MUST READ: [GST Compensation](#)**SOURCE:** [AIR](#)**Personalized Adaptive Learning (PAL)**

Context: The National e-Governance Division (NeGD) recently announced plans to integrate **Personalised Adaptive Learning (PAL)** into its existing Digital Infrastructure for Knowledge Sharing (DIKSHA) platform.

Background:-

- PAL's software-based approach will allow each student to have an individualized learning experience over the course of the curriculum based on their unique needs and abilities.
- The Ministry of Education intends to begin PAL implementation for challenging subjects like Chemistry, Mathematics, and Physics for Classes 9 to 12.

- By focusing on these subjects, the initiative aims to improve learning outcomes and school retention rates, addressing the issue of dropouts after Class 10.

About Personalised Adaptive Learning (PAL):-

- It is an educational approach that uses technology, particularly **artificial intelligence (AI)**, to **customize the learning experience for individual students**. ([A new global standard for AI ethics](#))
- It is based to cater individual student's unique needs, abilities, and progress.
- It employs AI to **monitor student progress** and **identify areas of difficulty**.
- **For instance**, if a student makes a mistake in a calculation, the system detects it and redirects the student to relevant foundational content, ensuring a better understanding of the concept.
- PAL **adapts to the unique progress and challenges faced by each student**, offering a more effective and engaging learning experience.

Benefits of PAL:-

- Personalized Study Plans.
- Support for Special Needs.
- Flexibility in Learning.

Challenges faced by states in implementing PAL:-

- States like **Assam and Haryana** have faced **budget constraints** when implementing PAL.
- While **Assam** discontinued the project due to **funding issues**.
- **Haryana** found the streaming **costs for content** to be prohibitively high, leading to a standstill in the adoption process.

About DIKSHA:-

- **Launched: 2017.**
- **Ministry: Ministry of Education.**
- **DIKSHA** is the platform for providing quality e-content for school education in States/UTs and QR-coded Energized Textbooks for all grades.
- It aids **teachers in learning and training themselves** for which assessment resources will be available.
- It houses digitized National Council of Educational Research and Training (NCERT) textbooks, teaching videos, and practice questions.
- It also has **assistive technologies for learners with disabilities**, but it's a static content repository.

MUST READ: [Regulating Artificial Intelligence](#)

SOURCE: [THE HINDU](#)

Gramodyog Vikas Yojna

Context: The Lieutenant Governor of Delhi, Shri Vinai Kumar Saxena, distributed Honey Bee-Boxes and Toolkits under the 'Gramodyog Vikas Yojna' recently.

About Gramodyog Vikas Yojna:-

- **Launched: March 2020.**
- **Ministry: Ministry of Micro, Small and Medium Enterprises (MSME)**
- **Objective:** assisting and developing of agarbatti industry and its artisans.
- The programme aims to **enhance the production of 'Agarbatti'** in the country.
- It aims to create sustainable employment for the traditional Artisans, by providing them with regular employment and an increase in their wages.
- **Components of the Yojana:-**
- **Research & Development and Product Innovation:** R&D support would be given to the institutions that intend to carry out product development, new innovations, design development, product diversification processes, etc.
- **Capacity Building:** exclusive capacity building of staff, as well as the artisans, would be adequately addressed through the existing Multidisciplinary Training Centers (MDTCs) and institutions of excellence.
- **Marketing & Publicity:** The institutions will be provided market support. ([Effects of globalization on the rural population of India](#))

About Khadi and Village Industries Commission (KVIC):-

- **Establishment: 1957.**
- **Ministry: Ministry of Micro, Small and Medium Enterprises**
- It is a statutory body established under the **Khadi and Village Industries Commission Act, of 1956.**

Objectives of KVIC:-

- To boost employment in the country. ([Project Re-Hab](#))
- To promote the promotion and sale of Khadi articles.

Function:-

- It is charged with the planning, promotion, organization, and implementation of programmes for the development of Khadi and other village industries in rural areas.
- It coordinates with other agencies engaged in rural development wherever necessary.

MUST READ: [Rural Manufacturing](#)

SOURCE: [PIB](#)

Adopt a Heritage 2.0 programme

Context: The Archaeological Survey of India (ASI) recently, launched the revamped '**Adopt a Heritage 2.0**' programme.

Background:-

- Apart from the programme an **Indian Heritage app** was also launched.
- The app, provides a **comprehensive guide to monuments** under ASI's ambit.
- It lists historical structures along with pictures, public facilities available on site and **geo-tagged locations**.

About Adopt a Heritage 2.0 programme:-

- **Launched: 2023.**
- **Ministry: Ministry of Culture.**
- **Implementing Agency:** [Archaeological Survey of India](#)

Salient Features:-

- Under this programme, the Archeological Survey of India (ASI) **invites corporate stakeholders to enhance the amenities** at the monuments by utilizing their CSR funds.
- The programme is a **revamped version** of the earlier scheme launched in 2017. ([Need for heritage conservation](#))
- It clearly **defines the amenities sought for different monuments** as per the **Ancient Monuments and Archaeological Sites and Remains Act or AMASR Act 1958**.
- The stakeholders can apply for adopting a monument or specific amenity/ amenities at a monument through a URL **www.indianheritage.gov.in**.
- The portal contains the details of monuments sought for adoption dedicated web portal along with **gap analysis and financial estimation of amenities**.

Selection:-

- The process for selection will be carried out after due diligence and discussions with various stakeholders and assessing the economic and developmental opportunities at each monument.
- The selected stakeholders will **develop, provide, and/or maintain amenities** in hygiene, accessibility, safety, and knowledge categories. ([Indian Institute of Heritage](#))

Significance:-

- The programme seeks to **foster collaboration with corporate stakeholders** through which they can contribute to preserving these monuments.

MUST READ: [World Heritage Sites Under Threat](#)

SOURCE: [THE INDIAN EXPRESS](#)

Malaviya Mission - Teachers Training Programme

Context: The **Malaviya Mission - Teachers Training Programme** was launched recently.

About Malaviya Mission - Teachers Training Programme:-

- **Organized: September, 2023.**
- **Organized by: University Grants Commission and Ministry of Education.**
- **Duration: 2 weeks.** ([NIPUN bhara mission](#))
- **Objective:** to provide tailored training programmes for teachers.
- This programme will work for the **capacity building of faculty members** in higher educational institutions.
- It will **improve the quality of teachers' training, build leadership skills** in teachers and help realize the goals of NEP. ([One year of NEP reform: new initiatives](#))
- **Themes:** 8 themes are identified for course curriculum/content for capacity building of faculty members at higher educational institutions.
- These include **Holistic and Multidisciplinary Education, Indian Knowledge Systems (IKS), Academic Leadership, Governance and Management, Higher Education and Society, Research and Development, Skill Development, Student Diversity and Inclusive Education and Information and Communication Technology.**
- **Online Portal:** To facilitate this transformative journey, the UGC has also established a **dedicated portal** for faculty members to register for the capacity-building programmes. ([NISHTHA](#))

Significance:-

- The programme will **ensure continuous professional development**.
- It will help in **building capacities** of 15 lakh teachers of HEIs through 111 Malaviya Mission centres across India in a time-bound manner.
- It will help to make educators future-ready with a deeper understanding of Indian values.

MUST READ: [Savitribai Phule: India's first woman teacher](#)

SOURCE: [PIB](#)

Battery energy storage systems

Context: The government recently approved ₹3,760 crore for **viability gap funding** of up to 40% of total capital cost to set up a 4,000 MWh **battery energy storage system** in the country.

Background:-

- The entire ₹3,760 crore viability gap funding (VGF) will be borne by **the central government**.
- The VGF will be released in **five tranches till 2030-31**.
 - **Viability Gap Finance:** It means a grant to support projects that are economically justified but not financially viable.
- It aims to **reduce the levelized cost of storage (LCoS)** to ₹5.50-6.60 per kilowatt-hour (kWh), making storage a viable option to manage peak power demand.
- It will help in the **creation of 4,000 MWh storage** across the country.
- The **selection of BESS developers** for VGF grants will be carried out through a **transparent competitive bidding process**, promoting a level-playing field for both public and private sector entities.

About Battery energy storage systems:-

- A battery energy storage system is a type of energy storage system that **uses batteries to store and distribute energy** as electricity.
- These are often used to enable energy from **renewable sources**, like solar and wind, to be stored and released.

Types of Battery energy storage systems:-

- **Residential BESS:** for homes
- **Commercial BESS:** for businesses
- **Utility-scale BESS:** for large-scale energy storage.

Benefits:-

- BESS will **enhance renewable energy** integration into the grid. ([Sustainable Energy](#))
- It will **reduce wastage, and minimize infrastructure** upgrade costs.
- It will reduce peak demand and associated costs.

Challenges:-

- It has **High initial costs**. ([Battery Energy Storage System \(BESS\) for 1000 MWhourproject](#))
- **Recycling and disposal** of batteries issues.
- **Regulatory** and grid integration issues.

MUST READ: [Solar Energy in India](#)

SOURCE: [THE HINDU](#)

Skill India Digital app

Context: Recently, the centre launched the **Skill India Digital app**.

Background:-

- The Skill India Digital app, brings together listings for upskilling courses and job listings.
- The app was soft launched in April 2023, and was announced by Union Finance Minister Nirmala Sitharaman during the Budget session of Parliament.

About Skill India Digital app:-

- **Launched in 2023.**
- **Developed by:** National Skill Development Corporation.
- **Ministry:** Ministry of Skill Development and Entrepreneurship.
- Skill India Digital app, **brings together** listings for upskilling **courses and job listings**.
- The app will be **linked with DigiLocker and Aadhaar** to issue verifiable certificates of course completion.
- It will generate **digitally signed CVs** for job applicants and people taking courses.
- The app would help in **distributing courses on skills**.

- It will use **digital matchmaking** to bring potential employers and employees together.

Skill India Digital:-

- **Launched: September, 2023.**
- **Ministry: Ministry of Skill Development and Entrepreneurship.** ([Schemes related to skill development](#))
- Skill India Digital is a state-of-the-art platform to **bring all skilling initiatives together**
- It is the **Digital Public Infrastructure** for **skilling, employment, and education.**
- It engages and caters to learners, central and state ministries, employers, content providers, knowledge partners, sector skill councils, assessment bodies, and media.
- It is also a **comprehensive information gateway** for all government skilling and entrepreneurship initiatives.
- It is a go-to hub for citizens in pursuit of **career advancement and lifelong learning.**
- It is linked to the **Udyam portal** for the registration of micro, small, and medium enterprises.
- It is “the **marketplace, the platform** where all those who are interested — commercial or non-commercial stakeholders — can come together, plug in, deliver skills, gain skills, look for employment, and offer employment.
- It has a vision to **make skill development more innovative, accessible, and personalized** in its embodiment, focusing on digital technology and Industry 4.0 skills. ([Skill Development in India](#))
- It will be a breakthrough in **accelerating skilled talent hiring** and facilitating lifelong learning and career advancement.

MUST READ: [National Skill Development Mission](#)

SOURCE: [THE HINDU](#)

NeVA Project

Context: President Droupadi Murmu launched the Gujarat Assembly’s **National e-Vidhan Application (NeVA) project** recently.

About National e-Vidhan Application (NeVA) project:-

- National eVidhan Application (NeVA) is an **online application.**
- It is a **Mission Mode Project (MMP)** that comes under the [Digital India Programme.](#)
- **Objective:** to make all legislatures digital with the help of Information & Communication Technologies (ICT).
- **Ministry: Ministry of Parliamentary Affairs (MoPA).**
 - It is the ‘Nodal Ministry’ for its implementation in all the 31 States/UTs with Legislatures.
- **Funding:** It is provided by the MoPA.
 - The funding of NeVA is through **Central Sponsored Scheme** i.e. 60:40; and 90:10 for North East & and hilly States and 100% for UTs.
- The **technical support** by the **Ministry of Electronics and Information Technology (MietY).**
- So far, **21 State Assemblies have signed Memorandums of Understanding** to implement NeVA, and funding has been allocated for 17 of them.
- **Nine legislatures have transitioned fully into digital Houses** and actively operate on the NeVA platform.
- Himachal Pradesh was the **first Digital Legislature** of the country.

Significance:-

- NeVA epitomizes the concept of ‘**One Nation, One Application**’, with a mission to prioritize cloud-first and mobile-first approaches.
- It is to **serve the Members of Legislative Assemblies** more effectively.
- It **enables automation** of the entire law-making process, tracking of decisions and documents, and sharing of information.
- Through the cloud technology (**Meghraj**), data deployed can be accessed anywhere at any time.
- The **live webcasting** of Lok Sabha TV and Rajya Sabha TV is also available on this application.

MUST READ: [Global Digital Governance](#)

SOURCE: [THE HINDU](#)

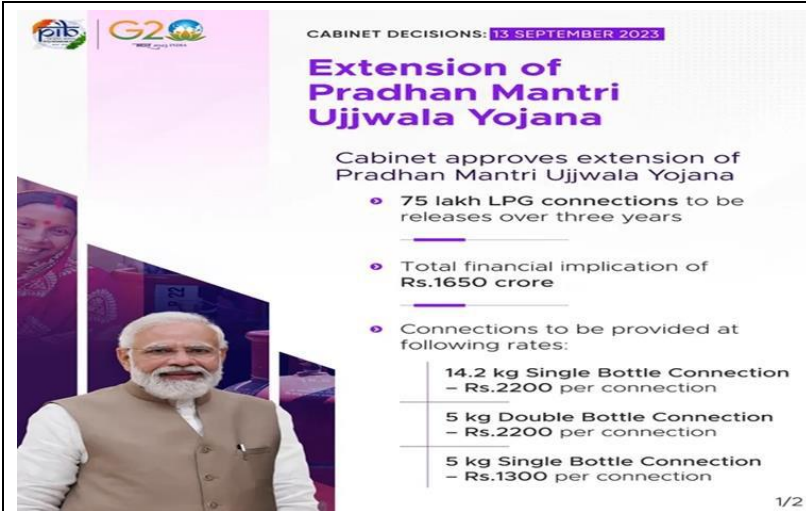
PM Ujjwala Yojana

Context: Recently, the centre approved the expansion of **PM Ujjwala Yojana.**

Background:-

- So far 9.60 crore LPG cylinders have been distributed under the Ujjwala scheme and another 75 lakh free LPG connections will be given to women from poor and needful families so that they can avail of the benefits from the scheme.

About PM Ujjwala Yojana:-



CABINET DECISIONS: 13 SEPTEMBER 2023

Extension of Pradhan Mantri Ujjwala Yojana

Cabinet approves extension of Pradhan Mantri Ujjwala Yojana

- 75 lakh LPG connections to be releases over three years
- Total financial implication of Rs.1650 crore
- Connections to be provided at following rates:

14.2 kg Single Bottle Connection	- Rs.2200 per connection
5 kg Double Bottle Connection	- Rs.2200 per connection
5 kg Single Bottle Connection	- Rs.1300 per connection

- **Launched:** May 2016.
 - **Ministry:** Ministry of Petroleum and Natural Gas.
 - **Objective:** to make clean cooking fuel such as LPG available to the rural and deprived households that were otherwise using traditional cooking fuels such as firewood, coal, cow-dung cakes, etc.
- Pradhan Mantri Ujjwala Yojana (PMUY) – Diversion of LPG**
- **Significance:** It will help achieve the Prime Minister's vision of universal access to LPG.
- Salient Features:-**
- Ujjwala 1.0 had a target to provide deposit-free LPG connections to 5 crore women members

of BPL households.

- The scheme was **expanded in April 2018** to include women beneficiaries from **seven more categories** (SC/ST, PMAY, AAY, most backward classes, tea garden, forest dwellers, etc.).
- **EMI facilities** were given for stove and refill costs (Interest-free loan).

Ujjwala 2.0:-

- The **Union budget for FY 21-22**, announced the provision for an additional one crore LPG connection under the PMUY scheme.
- **Additional allocation of 1.6 Crore LPG Connections** under the PMUY Scheme with a special facility to migrant households.
- It will provide a **deposit-free LPG connection**. ([UJJWALA 2.0](#))
- It will also give the **first refill and hotplate (stove) free** of cost to the beneficiaries.
- The **migrants** will not be required to submit ration cards or address proof.
- A **self-declaration** for both a 'family declaration' and a 'proof of address' will suffice.

MUST READ: [Special Discussion on Pradhan Mantri Ujjwala Yojana](#)

SOURCE: [AIR](#)

Kalaigiar Magalir Urimai Thogai

Context: Recently, the Tamil Nadu government has identified 1.06 crore women, who are eligible to benefit from the **Kalaigiar Magalir Urimai Thogai** (women's basic income) scheme.

Background:-

- Chief Minister M.K. Stalin launched the scheme in Kancheepuram on September 15, the birth anniversary of the former CM. C.N. Annadurai.

About Kalaigiar Magalir Urimai Thogai:-

- **Launched:** September, 2023.
- **Launched by:** Government of Tamil Nadu.
- Kalaigiar Magalir Urimai Thittam is a scheme through which a **monthly grant** is to be provided to eligible women heads of households.
- Under this program, qualified women are entitled to a **monthly rights grant of Rs 1,000, totaling Rs 12,000 annually**.
- It will be effective from **15, September 2023**.
- **Objective:** to give **women economic recognition, and empowerment**.
- **Background:-**
 - The scheme was **one of the poll promises** of the ruling DMK government in 2021.
 - During the State Budget presentation in March this year, the then Finance Minister Palanivel Thiaga Rajan announced that ₹7,000 crore would be allotted for the scheme for the current financial year.
- Initially, an estimated 2.2 crore women heads of families, all ration card holders were expected to benefit from this scheme.
- However, now the government has indicated **an estimated one crore women heads of families** would receive the rights grant.

Eligibility:-

Beneficiary families should meet the following economic criteria:-

- Annual income **below ₹2.5 lakh**.

- Ownership of **less than five acres of wetland** or less than ten acres of dryland.
- Consumption of **less than 3,600 units** of electricity per year for domestic use.

Significance:-

- This initiative aims to **enhance the economic well-being and living standards of women**, ultimately fostering societal self-respect.
- Once implemented, will be one of the **biggest cash transfer schemes** implemented by any State government in India's history.

MUST READ: [SAMARTH initiative for women](#)

SOURCE: [THE HINDU](#)

SHREYAS scheme

Context: As per recent estimates, over 2300 crore rupees have been allocated for the education of students since 2014 under the **SHREYAS scheme**.

Background:-

- SHREYAS National Fellowship Scheme benefits more than 21,000 SC students for Higher Education.

About SHREYAS scheme:-

- **Launched:2014.**
- **Ministry: Ministry of Social Justice & Empowerment.**
- SHREYAS stands for, **the Scholarships for Higher Education for Young Achievers Scheme.**
- It is an **umbrella scheme** that comprises **4 central sector sub-schemes**.
- Since all these sub-schemes are central sector schemes, **state-wise data is not maintained** for these schemes.

Objectives:-

- Provide **high-quality coaching** to **economically disadvantaged SC and OBC** candidates.
- Prepare them for **competitive and entrance exams** for public and private sector jobs.
- Facilitate **admissions** to prestigious technical and professional higher education institutions.

Salient Features:-

- SHREYAS stands for, **the Scholarships for Higher Education for Young Achievers Scheme.**
- The **4 central sector sub-schemes** under it include:-
 - Top Class Education for SCs
 - Free Coaching Scheme for SCs and OBCs
 - National Overseas Scheme for SCs
 - National Fellowship for SCs.

Top Class Education for SCs:-

- **Objectives:-**
- To provide coaching of good quality for economically disadvantaged Scheduled Castes (SCs) and Other Backward Classes (OBCs) candidates.
- To enable them to appear in **competitive and entrance examinations** for obtaining appropriate jobs in the Public/Private Sector as well as for securing admission in reputed technical and professional higher education institutions.
- The **ceiling of the total family income** under the scheme is **8 lakhs per annum**.
- The **ratio of SC: OBC students is 70:30**.
- 30% of slots are **reserved for females** in each category.
- In case of the non-availability of an adequate number of candidates in the SC category, the Ministry can relax this ratio.
- However, **in no case, a less than 50% SC student** shall be permitted.

Top-Class Education for SCs:-

- **Objective:** recognizing and promoting quality education amongst students belonging to SCs by providing full financial support.
- The Scheme will **cover SC students** pursuing studies **beyond the 12th class**.
- The scholarship, **once awarded, will continue till the completion of the course**, subject to satisfactory performance of the student.
- The **ceiling of the total family income** under the scheme is **8 lakhs per annum**.
- Under the scheme, **full tuition fees, non-refundable charges, and academic allowance** expenses are provided.

National Overseas Scheme for SCs:-

- Under this scheme, **financial assistance is provided to the selected students** from SCs, De-notified, Nomadic, and Semi-Nomadic Tribes, landless agricultural labourers, and traditional artisan categories for pursuing master and Ph.D. level courses abroad.
- Such students can benefit under the scheme whose **total family income**, including the candidate, is **less than 8 lakhs per annum**, who have more than 60% marks in the qualifying examination, who are below 35 years of age, and who secured admission in top 500 QS ranking foreign Institutes/ Universities.
- Under the scheme, **total tuition fees, maintenance and contingency allowance, and visa fees**, to and fro air passage, are provided to the awardees. ([Education & Nation Building](#))

National Fellowship for SC Students:-

- Under the scheme, fellowship is provided to **Scheduled Castes students** for pursuing higher education leading to M.Phil/Ph.D. degrees in Sciences, Humanities, and Social Sciences in Universities/Institutions/ Colleges recognized by the University Grants Commission (UGC).
- The scheme provides for **2000 new slots per year** who have qualified the National Eligibility Test- Junior Research Fellowship (NET-JRF) of UGC and Junior Research Fellows for Science stream qualifying UGC-Council of Scientific and Industrial Research (UGC-CSIR) Joint Test.

MUST READ: [Gender gap in education](#)

SOURCE: [PIB](#)

Kisan Rin Portal

Context: Recently, the Indian govt launched the **Kisan Rin Portal** with the weather portal **WIND**.

The WIND portal:-

- **Launched:** July 2023.
- **Objective:** to leverage advanced weather data analytics and to give stakeholders actionable insight to make informed weather decisions on agriculture.
- The portal also provides a **comprehensive manual to stakeholders** for an in-depth understanding of the portal functionalities, data interpretations, and effective utilization, empowering farmers, policymakers, and various agricultural entities to make well-informed decisions.

About Kisan Rin Portal:-

- **Launched:** September, 2023.
- **Objective:** to revolutionize access to credit services under the Kisan Credit Card (KCC) scheme, particularly for farmers.
 - The Kisan Credit Card (KCC) scheme is a credit scheme introduced in August 1998 by Indian public sector banks.
- **Implementation:** Ministry of Agriculture and Farmers' Welfare (MoA&FW), Ministry of Finance, Reserve Bank of India (RBI), and National Bank for Agriculture and Rural Development (NABARD).

Salient Features:-

- The Kisan Rin portal **serves as an integrated hub**.
- It offers a **comprehensive view** of farmer data.
- It will also show the **progress in scheme utilization**.
- It will provide farmers easy access to **subsidized loans under** the Kisan Credit Card (KCC) scheme. ([Pradhan Mantri Kisan Samman Nidhi](#))
- The Kisan Rin digital platform will offer:-
 - a comprehensive view of farmer data
 - scheme utilization progress
 - loan disbursement specifics ([Agriculture Infrastructure Fund \(AIF\)](#))
 - interest subvention claims
- It will facilitate farmers in availing of subsidized agricultural credit through the **Modified Interest Subvention Scheme (MISS)**.

Benefits:-

- By fostering **seamless integration with banks**, this pioneering portal enables proactive policy interventions, strategic guidance, and adaptive enhancements for more focused and efficient agriculture credit and optimum utilization of interest subvention.
- It will **increase seamless integration** with banks for more effective and efficient agriculture credit

MUST READ: [Digital Platform Kisan Sarathi](#)

SOURCE: [BUSINESS LINE](#)

GCES Web Portal and Mobile Application

Context: The Innovative **GCES Web Portal and Mobile Application** was launched recently.

About GCES Web Portal and Mobile Application:-

- **Launched: September, 2023.**
- **Ministry: Ministry of Agriculture & Farmers Welfare.**
- **Objective:** the portal and mobile application have been designed to transform agricultural practices across the nation.

Salient Features of the GCES Web Portal and Mobile Application:-

- **Comprehensive Information:-**
- The portal and the app provide a comprehensive repository of yield estimation including village-wise GCES plan.
- Plot details where the crop-cutting experiments are conducted, post-harvesting crop weight, and drainage weight of the crop are also provided. ([Crop Insurance](#))
- **Geo-referencing:-**
- It is one of the **key features** of the mobile application.
- It enables the primary worker to draw the boundary of the experimental plot and **upload photos of the plot** as well as of the crops through it.
- This feature **will ensure transparency and accuracy** of the data as well.

Challenges Addressed by GCES Web Portal and Mobile Application:-

- **Delay in Reporting:** To date, data collection, compilation, and yield estimation is a completely manual process that causes delays in reporting by states.
 - In the new process, **the field data will be collected using a GPS-enabled mobile application.**
 - Storing the data in the server will ensure **on-time reporting** of crop statistics.
- **Transparency:** GPS-enabled devices provide precise latitude and longitude coordinates for data collection points.
 - This information ensures that **data is linked to specific geographic locations**, leaving no room for ambiguity or manipulation of data regarding where it was collected.

Significance:-

- It provides for a **real-time estimate and technology** in agriculture. ([InfoCrop](#))
- It is in line with the Prime Minister's vision towards **maximizing digital technology for social benefit.**

About General Crop Estimation Survey (GCES):-

- **Conducted by: ICAR-Indian Agricultural Statistics Research Institute (IASRI).**
- **Ministry: Ministry of Agriculture & Farmers Welfare.**
- The estimates of crop production are obtained by **multiplying the area under the crop and the yield rate.**
- The yield rate estimates are **based on scientifically designed crop-cutting experiments** conducted under the General Crop Estimation Survey (GCES).
- The GCES covers around **68 crops (52 food and 16 non-food) in 22 States and 4 Union Territories.**
- Around 5,00,000 experiments are conducted every year with the help of **State revenue and agricultural staff** of a rank higher than the primary field staff of the departments.
- The field staff is **periodically trained** in the conduct of crop-cutting experiments.

MUST READ: [Pradhan Mantri Fasal Bima Yojana](#)

SOURCE: [PIB](#)

Pradhan Mantri Matsya Sampada Yojana (PMMSY)

Context: The Department of Fisheries is installing artificial reef units for coastal states as a sub-activity under '**Integrated Modern Coastal Fishing Villages**' of Pradhan Mantri Matsya Sampada Yojana (PMMSY).

About Artificial Reefs:

- An artificial reef is a **human-made underwater structure** that substitutes as a natural reef to form a habitat for marine life.
- They are placed in areas where there is **little bottom topography** or near coral reefs to attract marine populations.
- They **serve to protect coral reefs** from human-induced damages as well as supporting biodiversity and healthy ecosystems.

About Pradhan Mantri Matsya Sampada Yojana (PMMSY):

- It is a flagship scheme for focused and sustainable development of the fisheries sector to be implemented from 2020-21 to 2024-25
- **Ministry:** Fisheries, Animal Husbandry and Dairying

- **Objectives:**
 - To bring about a blue revolution through sustainable and responsible development of the fisheries sector in India.
 - To double the incomes of fishers and fish farmers, reducing post-harvest losses from 20-25% to about 10% and the generation of employment opportunities in the sector.
- **Implementation:** It is implemented as an umbrella scheme with two separate components **Central Sector Scheme and Centrally Sponsored Scheme.**
 - **North Eastern & Himalayan States:** 90% Central share and 10% State share.
 - **Other States:** 60% Central share and 40% State share.
- **Achievements:**
 - As of 2023, under PMMSY, projects **worth Rs 14,654.67 crore** have been approved from **2020-21 to 2022-23.**
 - The fish production reached an all-time high of **16.25 MMT during FY 2021-22 with marine exports touching Rs. 57,586 Crores.**

Source: [PIB](#)

MISCELLANEOUS

Ramon Magsaysay Award

Context: Recently, an Assam-based oncologist was among the winners of the **Ramon Magsaysay Award 2023**.

Background:-

- **Oncologist Ravi Kannan**, a recipient of India’s fourth-highest civilian award Padma Shri, and the director of Assam’s Cachar Cancer Hospital and Research Centre (CCHRC), has been named one of the four winners of the 2023 Ramon Magsaysay Award.
- His pioneering efforts have revolutionized cancer treatment in Assam by prioritizing people-centric and pro-poor healthcare solutions.

About Ramon Magsaysay Award:-



- **Established: 1957.**
- **Naming:** It is named after Ramon Magsaysay.
 - **Ramon Magsaysay:** the third president of the Republic of the Philippines.
- It recognizes and honours individuals and organizations in Asia, regardless of race, creed, gender, or nationality, who have achieved **distinction and have helped others generously without aiming for public recognition.**
- It is Asia’s equivalent of the Nobel Prize.

Award Categories:-

Awardee	Country	Contribution
Ravi Kannan	India	For his combination of skill, commitment, and compassion in pushing the boundaries of people-centered, pro-poor health care and cancer care
Korvi Rakshand	Bangladesh	For his work towards developing inclusive education for the underprivileged children in Bangladesh
Eugenio Lemos	Timor-Leste	For his efforts in ensuring adequate food for people and promoting the importance of conserving the environment and social equality.
Miriam Coronel-Ferrer	Philippines	For her unwavering confidence in the transforming power of nonviolent peacebuilding techniques.

- Till 2009: awards were traditionally given in five categories:-
 - These include Government service; public service; community leadership; journalism, literature and creative communication arts; and peace and international understanding.
- **Post-2009:** The Ramon Magsaysay Award Foundation annually selects the awardees for the field of Emergent Leadership.

Award Decoration:-

- Awardees are presented with a **certificate**, a **medallion** with an embossed image of Ramon Magsaysay, and a **cash prize**.

Important Indian Awardees: -

- Till date, India has received a total of 59 awards, while the Philippines has received 65 awards, making it the highest among all countries.
 - Vinoba Bhave (1958)

- Mother Teresa (1962)
- Verghese Kurien (1963)
- Jayaprakash Narayan (1965)
- Kamaladevi Chattopadhyay (1966)
- Satyajit Ray (1967)
- M.S. Subbalakshmi (1974)
- Arun Shourie (1982)
- Kiran Bedi (1994)
- Mahasweta Devi (1997)
- Aruna Roy (2000)
- Rajendra Singh (2001)
- Arvind Kejriwal (2006)
- Anshu Gupta of Goonj (2015)
- Bezwada Wilson, human rights activist (2016)
- Ravish Kumar, journalist (2019)

MUST READ: [Gandhi Mandela Award](#)

SOURCE: [HINDUSTAN TIMES](#)

Men's Hockey5s Asia Cup 2023

Context: Prime Minister Narendra Modi congratulated the Indian Men's Hockey team on winning the Men's **Hockey 5s Asia Cup**.

About Men's Hockey5s Asia Cup 2023:-

- **Date:** 29 August to 2 September 2023.
- **Venue:** Salalah, Oman.
- **Host nation:** Oman.
- It was the **first-ever Men's Hockey5s Asia Cup 2023. (Grand Slam)**
- It was a historic event in the world of field hockey. ([Sports Code](#))
- **Elite group:** India, Malaysia, Pakistan, Japan, Oman, and Bangladesh competed in the
- **Challenger group:** Hong Kong China, Indonesia, Afghanistan, Kazakhstan, and Iran.
- **Significance:** This tournament was **the qualifier for the FIH Hockey5s World Cup 2024**.
 - **Three teams** got to earn their tickets to the global stage.

MUST READ: [Social change through sports](#)

SOURCE: [AIR](#)

MQ-9B drones

Context: India recently initiated the process to purchase 31 **MQ-9B drones** from the USA.

About MQ-9B drones:-

- **Developed by:** General Atomics Aeronautical Systems (GA-ASI).
- The [MQ-9B drone](#) is a variant of the MQ-9 "Reaper".
 - **MQ-9 Reaper:** an unmanned aerial vehicle (UAV) capable of remotely controlled or autonomous flight operations.
- These are **high-altitude long-endurance drones**.
- They are designed for **intelligence, surveillance, and reconnaissance missions and come equipped with air-to-ground missiles and smart bombs**.
- They are armed with strike missiles which can take out enemy targets with **high accuracy**.
- The MQ-9B has two variants: **SkyGuardian and SeaGuardian**.
- The Indian Navy has been operating the **MQ-9B Sea Guardian since 2020. (Drone Insurance Policy)**

Features of MQ-9B SeaGuardian :-

- **Payload:** It can carry up to 5,670 kg.
- **Altitude:** 40,000 feet.
- **Endurance time:** 40 hours.
- This makes it useful for **long-hour surveillance**.
- It can support **land, maritime surveillance, anti-submarine warfare, anti-surface warfare, strike, electronic warfare, and expeditionary roles**.
- It is capable of **automatic take-offs and landings**.



MQ-9B
Predator Drones

Max Gross Takeoff Weight: 5,670 kg
Fuel Capacity: 2,721 kg
Payload Capacity: 2,177 kg across 9 hardpoints (8 wing, 1 centerline)

Crew:
Two pilots in ground control stations

Weapons
Laser guided missiles
Anti-tank missiles
Anti-ship missiles

Missions

- Humanitarian Assistance/Disaster Relief
- Search and Rescue
- Law Enforcement
- Border Enforcement
- Defensive Counter Air
- Airborne Early Warning

Missions

- Electronic Warfare
- Anti-Surface Warfare
- Anti-Submarine Warfare
- Airborne Mine Counter Measures
- Long-Range Strategic ISR
- Over-the-Horizon Targeting

- It can safely **integrate into civil airspace**.
- This enables joint forces and civil authorities to deliver real-time situational awareness anywhere in the maritime domain -- **day or night**.

MUST READ: [India bans drone import](#)
SOURCE: [HIDUSTAN TIMES](#)

TRIFED (Tribal Cooperative Marketing Development Federation of India)

Context: Recently, the G20 Summit witnessed a remarkable showcase of India's rich tribal heritage and craftsmanship, curated and presented by **TRIFED (Tribal Cooperative Marketing Development Federation of India)**.

Key highlights of the event:-

- Several exquisite products, handcrafted by tribal artisans from various regions of India, captured the attention and admiration of delegates from around the world. These included:-

Longpi Pottery:-

- **Location:** village of Longpi in Manipur.
- **Tribe:** Tangkhul Naga tribes.
- Unlike most pottery, Longpi **does not resort to the potter's wheel**.

Chhattisgarh Wind Flutes:-

- **Location:** Bastar in Chhattisgarh.
- **Tribe:** Gond Tribe.
- Unlike traditional flutes, **it produces melodies through a simple one-handed twirl**.
- Craftsmanship involves **meticulous bamboo selection**, hole drilling, and surface etching with fish emblems, geometric lines, and triangles.

Gond Paintings:-

- **Tribe:** Gond tribe.
- The artistic brilliance shines through their intricate paintings, reflecting their deep connection to nature and tradition.

Gujarat Hangings:-

- **Location:** Dahod, Gujarat.
- **Tribe:** Bhil & Patelia Tribe.
- It stems **from an ancient Gujarat art form** and **initially dolls and cradle birds**, featuring cotton cloth and recycled materials.

Sheep Wool Stoles:-

- **Location:** Himachal Pradesh/Jammu & Kashmir.
- **Tribe:** Bodh, Bhutia, and Gujjar Bakarwal tribes.
- They exhibit their ingenuity with pure sheep wool, fashioning a diverse range of apparel, from jackets to shawls and stoles.

Araku Valley Coffee:

- **Location:** Araku Valley in Andhra Pradesh.
- This coffee is renowned for its **unique flavors** and **sustainable cultivation practices**.

Glass Mosaic Pottery:-

- It captures the mosaic art style, meticulously crafted into lampshades and candle holders.
- When illuminated, they unleash a kaleidoscope of colors, adding vibrancy to any space.

Meenakari:-

- **Location:** Rajasthan.
- It is the art of decorating metal surfaces with vibrant mineral substances, a technique **introduced by the Mughals**.

Metal Ambabari Craft:-

- **Location:** Rajasthan.

- **Tribe:** Meena Tribe.
- It is a meticulous process that elevates metal decoration.
- Today, it extends beyond **gold to metals like silver and copper.**

About TRIFED:-

- **Establishment:** 1987.
- **Ministry:** Ministry of Tribal Affairs.
- **Objective:** to bring about the socio-economic development of tribals of the country by institutionalizing the trade of Minor Forest Produce (MFP) and surplus Agricultural Produce (SAP) collected/ cultivated by them.
- TRIFED was established in August 1987 under the **Multi-State Cooperative Societies Act, 1984** by the Government of India as a National-level Cooperative body. ([VanDhan Chronicle](#))

Functions:-

- It plays the dual role of both a market **developer and a service provider**, empowering the tribals with knowledge and tools to better their operations in a systematic, scientific manner and also assisting them in developing their marketing approach.
- It is involved actively in **capacity building of the tribal people** through sensitization and the formation of **Self Help Groups (SHGs)**.
- It also **assists them in exploring and creating opportunities** to market the developed products in national and international markets on a sustainable basis.

MUST READ: [Tech for Tribal](#)

SOURCE: [PIB](#)

Hindi Diwas

Context: Hindi Diwas was celebrated across country recently.

About Hindi Diwas:-

- "[Hindi Diwas](#)" is celebrated annually on **September 14th in India.**
- It commemorates the **adoption of Hindi** as one of India's official languages.
- The **Constituent Assembly of India**, on September 14, 1949, **formally recognized Hindi**, written in the Devanagari script, as the official language of India for central government and Union purposes.
- This decision was enshrined in **Article 343** of the Constitution of India.
- **Article 351** pertains to the 'Directive for development of the Hindi language'.
- **World Hindi Day** is observed on **10th January.** ([International Mother Language Day](#))
- About 425 million people speak Hindi as their first language and about 120 million people speak Hindi as their second language.
- The Hindi language is majorly spoken in states like **Uttar Pradesh, Himachal Pradesh, Uttarakhand, Haryana, Bihar, Jharkhand etc.**
- Hindi is also spoken in **Mauritius, Nepal, Fiji, Suriname, Guyana, Trinidad and Tobago.**

Other languages in India:-

- The Indian constitution recognizes **22 major languages of India** in what is known as "**the 8th Schedule**" of the Constitution.
- These include **Sanskrit, Assamese, Bangla, Bodo, Dogri, Gujarati, Hindi, Kashmiri, Kannada, Konkani, Maithili, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Tamil, Telugu, Santali, Sindhi, and Urdu.**

MUST READ: [Languages of India](#)

SOURCE: [AIR](#)

Borlaug Award

Context: Indian agriculture scientist **Swati Nayak** won the **Borlaug Award** recently.

Background:-

- Fondly called "Bihana Didi" (Seed Lady) by local communities in Odisha, Indian agriculture scientist **Swati Nayak** became the third Indian agriculture scientist to win the prestigious Norman E. Borlaug Award for 2023.
- She received the award for introducing **drought-tolerant rice in Odisha.**

Contribution of Swati Nayak's work:-

- She is the South Asia head for **Seed System and Product Management** at the **International Rice Research Institute (IRRI).**
- Her work has been on "**technology scaling**" or closing the gap between scientific knowledge and its practical application among farmers.

- She is credited with the **successful dissemination and adoption** of more than **20 climate-resilient and bio-fortified rice varieties**.
- Among these are ‘**Sahbhagi Dhan**’, a drought-tolerant variety suitable for hilly uplands, and ‘**BINA Dhan-11**’, which is **flood-tolerant**.
 - She introduced ‘Sahbhagi Dhan’ in the tribal belt of **Odisha’s Mayurbhanj district** with the help of women farmers. ‘Sahbhagi Dhan’ has become a much in-demand variety throughout Odisha.
- ‘**BINA-Dhan-11**’, which contains a **submergence-tolerant Sub1 gene** identified from an indigenous land race of Odisha, was a similar success.
- The Sub1 gene has been incorporated into many existing popular high-yielding varieties such as ‘**Samba Mahsuri**’, ‘**Swarna**’, and ‘**Ranjit**’.

About Borlaug Award:-

- **Duration:** It is presented every year in October.
- **Venue:** Des Moines, Iowa, USA.
- **Presented by:** World Food Prize Foundation.
- It is endowed by the **Rockefeller Foundation**.
- The award is given to **exceptional scientists under 40** working in the field of food and nutrition security, and hunger eradication.
- It is given in memory of the **Nobel awardee and Green Revolution’s chief architect Dr. Norman Borlaug**.
- **Norman Ernest Borlaug:** an American agronomist who led initiatives worldwide that contributed to the extensive increases in agricultural production termed the Green Revolution.
 - Borlaug was often called “**the father of the Green Revolution**”.

Decoration:-

- The award diploma incorporates the **image of Dr. Borlaug** at work in the fields of Mexico.
- **Cash prize of \$10,000.**

Other Indian recipients:-

- Aditi Mukherji (2012) and
- Mahalingam Govindaraj (2022).

MUST READ: [Gandhi Mandela Award](#)

SOURCE: [BUSINESSLINE](#)

Counter Terrorism Field Training Exercise (FTX) 2023

Context: Recently, the Indian Army Contingent departed for the ASEAN Defence Ministers Meeting (ADMM) Plus Expert Working Group (EWG) on Counter Terrorism Field Training Exercise (FTX) 2023.

About Counter Terrorism Field Training Exercise (FTX) 2023:-

- **Date:** 25th to 30th September 2023.
- **Venue:** Russia.
- It is a **multinational joint military exercise** being hosted by Russia as a co-chair of the EWG **along with Myanmar**.
([Exercise IBSAMAR](#))
- It was preceded by the Table Top Exercise of the ADMM Plus EWG on Counter-Terrorism at **Nay Pyi Taw, Myanmar** from 2nd to 4th August 2023.

Historical Background:-

- Since 2017, the ADMM Plus has met annually to allow **dialogue and cooperation** among the Association of Southeast Asian Nations (ASEAN) and Plus countries.
- The **inaugural ADMM Plus** was convened in **Ha Noi, Vietnam on 12th October 2010**.
- This year **ASEAN member states** along with Plus Group will be participating in the exercise.
- **Objective of the exercise:** strengthening and promoting regional cooperation in the field of **counter-terrorism**.
- The exercise will comprise a number of **counter-terrorism drills** including destroying of terrorist groups in a fortified area.
- ADMM Plus EWG on Counter-terrorism 2023 will provide the Indian Army with a platform to **share their expertise and best practices** in counter-terrorism operations.
- It will increase the cooperation between the **other 12 participating countries**. ([Military Exercises](#))
- The Indian Army looks forward to an **enriching professional experience** from the exercise.

MUST READ: [26th Exercise Malabar](#)

SOURCE: [PIB](#)

Dadasaheb Phalke Lifetime Achievement Award

Context: Waheeda Rehman will be honoured with the 53rd **Dadasaheb Phalke Lifetime Achievement Award for the year 2023.**

About Dadasaheb Phalke Lifetime Achievement Award:-

- **Established: 1969.**
- **Presented at the National Film Awards ceremony.**
- **Presented by: President of India.**
- **First awardee: Devika Rani.**
- **Naming:** This award commemorates **Dadasaheb Phalke.**
- **Dadasaheb Phalke** was the director of India's inaugural full-length feature film, "Raja Harishchandra," in 1913.
 - He is known as the "**Father of Indian Cinema**".
- **The Dadasaheb Phalke Lifetime Achievement Award is India's highest cinema honour.**
- It is presented **annually** at the National Film Awards ceremony by **the Directorate of Film Festivals.**
- The award is presented by the President of India in the presence of the Union Minister of Information and Broadcasting, the Chairpersons of the juries, the representatives of the Film Federation of India, and the Confederation of All India Cine Employees among senior officials.
- It is awarded for **outstanding contribution to the growth** and development of Indian cinema.
- The Dadasaheb Phalke Award for the year 2020 was accorded to legendary actress **Ms Asha Parekh.**

Decoration:-

- The prize includes:-
 - Swarna Kamal (Golden Lotus) medallion
 - a shawl
 - a cash prize of 10 lakh.

MUST READ: [Golden Globes Award](#)

SOURCE: [PIB](#)

MS Swaminathan

Context: **MS Swaminathan** passed away recently.

Background:-

- Agricultural scientist Dr MS Swaminathan, known as the father of India's Green Revolution, passed away in Chennai.
- He was 98 years old.

About MS Swaminathan:-

- **Birth date: August 7, 1925.**
- **Birth Place: in Kumbakonam, Tamil Nadu.**
- Swaminathan brought a social revolution through his policies to **rescue India from famine-like circumstances in the 1960s.**
- He was called the '**Father of the Indian Green Revolution**'.

Early life and education:-

- Initially, aiming for a career in civil services he **switched to agriculture** due to his passion, inspired by the [Quit India Movement](#) and the Bengal famine of 1942–43.
- He enrolled in the **Agriculture College in Coimbatore** to pursue his interest in agriculture.
- Swaminathan held various **significant positions** related to agriculture, **both in India and abroad.**

Contributions to the Green Revolution:-

- Swaminathan's contributions to agriculture in the 1960s and '70s **transformed India's farming landscape**, ushering in an era of food security.
- He worked on **enhancing crop varieties**, particularly rice and wheat.
- He pioneered the **development of semi-dwarf wheat varieties to boost yields.**
- **Collaboration with Norman Borlaug** resulted in the introduction of **dwarfing genes** into wheat varieties.
- Swaminathan organized hundreds of **exhibitions in the northern portion of the country in 1965** to teach small-scale farmers how genetically engineered grains might enable them to grow higher yields in the same land.
- These demonstrations were game-changing since the **crop tripled prior output levels in the first year** of the Green Revolution era.
- Swaminathan **trained farmers to use these new approaches**, overcoming the illiteracy barrier.
- Because of his efforts, the **average agricultural production increased from 12 million tonnes to 23 million tonnes in just four crop seasons.**

Roles:-

- His roles included **Independent Chairman of the Food and Agricultural Organization Council (1981–85)**.
- President of the **International Union for the Conservation of Nature and Natural Resources (1984–90)**
- President of the **World Wide Fund for Nature (India)** from 1989–96.
- He also served as the **Director General of the Indian Council of Agricultural Research (ICAR)**.
- He founded the **MS Swaminathan Research Foundation**.
- He played a vital role in **developing high-yield variety seeds of wheat**, which led to the green revolution in India.

Awards:-

- **Albert Einstein World Science Award in 1986**.
- He won the **first World Food Prize in 1987**.
- **Tyler Prize for Environmental Achievement in 1991**.
- **Planet and Humanity Medal of the International Geographical Union in 2000**.
- He was conferred with **Padma Shri (1967), Padma Bhushan(1972), and Padma Vibhushan(1989)**.

MUST READ: [Mahatma Gandhi](#)**SOURCE:** [AIR](#)

World University Rankings 2024

Context: In first, there are a record-breaking number of Indian universities in the recently released, Times Higher Education's **World University Rankings 2024**.

Key highlights of the report:-

- **The University of Oxford** tops the ranking for the eighth year in a row.
- The **US is the most-represented country overall**, with 169 institutions, and also the most-represented in the top 200 (56).
- With 91 institutions, **India** is now the **fourth most-represented nation**, overtaking China (86).
- The top university in India, the **Indian Institute of Science, Bangalore**.
- The **next highest-ranked** universities in India are **Anna University, Jamia Millia Islamia, Mahatma Gandhi University, and Shoolini University of Biotechnology and Management Sciences**, which are all in the 501-600 band.
- Indian universities **made significant gains this year**, including five of the countries' top universities.
- **IISc moved up from 251-300 bands** last year to 201-250.
- **Anna University moved up from 801-1000 band** last year to 501-600.
- **Aligarh Muslim University moved up from 801-1000 band** last year to 601-80.
- **Bharathiar University moved up from the 801-1000 band** last year to 601-800.
- **Malaviya National Institute of Technology entered the ranking** for the first time in the 601-800 band.
- Two IITs, the **Indian Institute of Technology Guwahati and the Indian Institute of Technology (Indian School of Mines) Dhanbad**, moved up two bands to join the **world's top 800 universities**, from 1001-1200 to 601-800.

About World University Rankings 2024: -

- **Founded in 2004**.
- **Published by: Times Higher Education**.
- The Times Higher Education World University Rankings 2024 include **1,904 universities across 108 countries and regions**.
- These rankings are the **most comprehensive, rigorous and balanced** global ranking. ([QS World University Rankings 2021](#))
- It covers their **core missions** of teaching, research, knowledge transfers and internationalization.
- It assesses research-intensive universities across **18 carefully calibrated performance indicators** that measure an institution's performance across five areas: teaching, research environment, research quality, industry, and international outlook.
- It is trusted worldwide by **students, teachers, governments and industry experts**.

MUST READ: [Education & Nation Building](#)**SOURCE:** [THE INDIAN EXPRESS](#)

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MAINS

Paper I

Gandhi-Ambedkar Debate on caste-based separate electorates

Syllabus

- **Mains – GS 1 (History)**

Context: In the month of September 1932, at the Yerawada Central Jail in Pune, Gandhi began fasting unto death against the award of separate electorates to harijans.

About Poona Pact of 1932:

- In 1932, Gandhi began a fast unto death in the Yerawada Jail against the British decision to create separate electorates based on caste.
- With pressure from Gandhi, Ambedkar signed the historic **Poona Pact in 1932**.
 - According to this pact, Hindu joint electorate was retained and gave reserved seats to the depressed classes.
- It was signed by Ambedkar on **behalf of the depressed classes** and **Madan Mohan Malviya** on behalf of the Upper Caste Hindus.

The reservations for lower castes under the pact:

- **Gandhi's Action:** Gandhi began a fast unto death against the British decision to create separate electorates based on caste.
- **Ambedkar's Dilemma:** Ambedkar disagreed with Gandhi's political reservations and he knew Gandhi was the nation's most loved political leader, and if something were to happen to him, the fledgling Dalit movement might bear heavy consequences.
- **Inking of Poona Pact:** With a heavy heart, Ambedkar agreed to Gandhi's pressure, inking what would be known as the Poona Pact, which secured reservations for lower castes.

Evolving views on Caste:

Gandhi views:

- **Earlier Orthodox Views:** Initially, Gandhi supported traditional caste norms, advocating for inter-dining and inter-marriage prohibitions, considering caste fundamental to Hinduism.
- **Evolution amid national movement:** Gandhi's views evolved as he assumed a pivotal role in India's national movement, influenced by the emerging Dalit movement.
 - He began preaching unity and condemned untouchability, coining the term "**harijans**" for untouchables, emphasizing their **status as children of God**.
- **Critique of untouchability:** Gandhi openly criticized untouchability, recognizing its harmful impact on both spiritual and national well-being in 1936.

Ambedkar views:

- **View of Rejection:** Any revolt against the caste system would only be possible after the oppressed themselves rejected their condition and oppression as being divinely ordained.
- **Rejection of Shastras:** Bringing an end to the caste system would only be possible if the divine authority of the holy scriptures was rejected first.

Views on Separate Electorates:

Ambedkar's Belief:

- **Affirmative Action:** He suggested separate electorates as a form of affirmative action to empower lower castes.
- **Favor to Double Vote:** He favoured separate electorates with double vote – one for SCs to vote for an SC candidate and the other for SCs to vote for in the general electorate.
- **Against Joint Electorates:** For him, joint electorates enabled the majority to influence the election of the representatives of the Dalits community, and thus disabled them for defending the interests of their oppression against the 'tyranny of the majority'.

Gandhi's Opposition:

- **Restriction to Rule the World:** Gandhi argued that rather than being restricted to just this measly share of seats, lower castes should aspire to rule “**the kingdom of the whole world**”.
- **Exploitative Step:** Gandhi rightly understood British intentions of exploiting internal divisions in Indian society for their own purposes.
 - Separate electorates would only help the **British ‘divide and rule’**.
 - This was also a time when **antagonism between Hindus and Muslims** was rising.
 - If separate electorates were announced, this would significantly reduce the Indians’ power.

Present system of reservation:

- The system of **caste-based reservation** sets aside a certain number of seats for people belonging to castes that historically **experienced social and economic discrimination**.
- These reservations are applicable on **higher education, government jobs, and even political office**.
- There are a certain number of seats reserved for **scheduled castes (SCs) and (STs) in all legislative bodies, including Parliament**.

Constitutional Provisions Governing Reservation in India

- **Part XVI** deals with reservation of SC and ST in Central and State legislatures.
- **Article 15(4) and 16(4)** of the Constitution enabled the State and Central Governments to reserve seats in government services for the members of the SC and ST.
- The Constitution was amended by the **Constitution (77th Amendment) Act, 1995** and a new clause (4A) was inserted in Article 16 to enable the government to provide reservation in promotion.
 - Later, clause (4A) was modified by the Constitution (85th Amendment) Act, 2001 to provide consequential seniority to SC and ST candidates promoted by giving reservation.
- **Constitutional 81st Amendment Act, 2000** inserted Article 16 (4 B) which enables the state to fill the unfilled vacancies of a year which are reserved for SCs/STs in the succeeding year, thereby nullifying the ceiling of fifty percent reservation on total number of vacancies of that year.
- **Article 330 and 332** provides for specific representation through reservation of seats for SCs and STs in the Parliament and in the State Legislative Assemblies respectively.
- **Article 243D** provides reservation of seats for SCs and STs in every Panchayat.
- **Article 233T** provides reservation of seats for SCs and STs in every Municipality.

Source: [Indian Express](#)

India’s growing mental health issues

Syllabus

- **Mains – GS 1 (Society)**

Context: The Standing Committee on Health and Family Welfare recently tabled its report on ‘**Mental Health Care and Its Management in Contemporary Times**’ in the Parliament.

Highlights of the report:

- The report **defines mental health** as a state of well-being that enables people to cope with the stress of life.
- It highlighted that the **mental health-related issues** are rising in India and the country lags with inadequate staff, medical infrastructure and budgetary allocation.
- The Committee stated that **India currently has 0.75 psychiatrists per lakh people, which is significantly low**.
- The Committee observed that if India targets having three psychiatrists per lakh people, it will need 27,000 more psychiatrists.
- **Global Scenario:**
 - In 2010, global economic losses of around \$2.5 trillion annually were attributed to poor mental health, stemming from diminished well-being and productivity. This will surge to \$6 trillion by 2030.
- **Inadequate funding:** The report highlights inadequate funding for care and research.
 - It requires not only increased financial support and expanded psychiatry residency programmes, but also establishment of positions for trained psychiatrists and ensuring an ample number of working psychologists.

Status of mental healthcare

India:

- It is estimated that **6-7 % of the population** suffers from mental disorders in India.

- **WHO estimates** that the burden of mental health problems in India is **2443 disability-adjusted life years (DALYs) per 100 00 population**.
- The age-adjusted suicide **rate per 100 000 population is 21.1**.
 - The economic loss due to mental health conditions, between 2012-2030, is estimated at USD 1.03 trillion.

Global:

- **As per World Bank**, nearly 1 billion people live with a mental disorder and in low-income countries; more than 75% of people with the disorder do not receive treatment.
- Every 40 seconds, a **person dies by suicide**.
- About 50% of mental health disorders start by the age of 14.
- As per WHO Depression is one of the leading causes of disability and suicide is the fourth leading cause of death among 15-29-year-olds.
- People with mental illness may be subject to the UN Convention on the Rights of Persons with Disabilities (CRPD).

Causes of mental illness:

- Exposure to **unfavourable social, economic, geopolitical and environmental circumstances** including **poverty, violence, inequality and environmental deprivation** also increases people's risk of experiencing mental health conditions.
- Over the past two years, the **pandemic-led lockdowns and the uncertainties** associated with them have had a detrimental effect on mental well-being
- Early adverse life experiences, such as **trauma or a history of abuse** (for example, child abuse, sexual assault, witnessing violence, etc.)
- **Use of alcohol or drugs**, having feelings of loneliness or isolation, etc.

Impacts of poor mental health:

- **Impact on relationships:** Mental-health conditions during adolescence and young adulthood can have a significantly negative impact on the development of safe and healthy relationships with peers, parents, teachers, colleagues and partners.
- **Impact on physical health:** A study found that positive psychological well-being can reduce the risks of heart attack and stroke.
 - On the other hand, poor mental status can lead to poor physical health or harmful behaviour.
 - Depression has been linked to many chronic illnesses.
 - These illnesses include diabetes, asthma, cancer, cardiovascular disease, and arthritis.
- **Impact on productivity:** It impacts a person's ability to concentrate and engage in productive activities.

Government of India Initiatives:

- **National Mental Health Programme (NMHP) in 1982:** To ensure the availability and accessibility of minimum mental healthcare for all in the foreseeable future.
- **Mental Healthcare Act, 2017:** It provides mental healthcare and services for persons with mental illness in India.
- **Rights of Persons with Disabilities Act, 2017:** The Act acknowledges mental illness as a disability and seeks to enhance the **Rights and Entitlements of the Disabled**.
- **National Suicide Prevention Strategy**
- **National Tele-Mental Health Programme:** To improve access to quality mental health counselling and care services in the country.
- **Kiran Helpline:** It provides for suicide prevention and can help with support and crisis management.
- **World Mental Health Day:** To raise awareness of mental health issues around the world and to mobilize efforts in support of mental health.

Source: [The Hindu](#)

Assam to Draft Anti-polygamy Law

Syllabus

- **Mains – GS 1 (Society)**

Context: Recently the Assam government has constituted a three-member panel to draft the proposed law to end polygamy in the State.

About Polygamy:

- Polygamy comes from two words: “poly,” which means “many,” and “gamos,” which means “marriage.”
 - As a result, **polygamy relates to marriages that are several.**
- Thus, polygamy is marriage in which a spouse of either sex may have more than one mate at the same time.
- Traditionally, polygamy mainly the situation of a **man having more than one wife — was practiced widely in India.**
 - The Hindu Marriage Act, 1955 outlawed the practice.
- The [Special Marriage Act \(SMA\), 1954](#) allows individuals to perform inter-religious marriages, but it forbids polygamy.
 - The Act has been used by many Muslim women to help them stop practicing polygamy.

Types of polygamy:

- **Polygyny:** It is the matrimonial structure in which a male individual has numerous wives. Polygamy in this form is more common or widespread.
 - Monarchs and emperors in the Indus Valley Civilisation were believed to have several wives.
- **Polyandry:** It is a type of marriage in which a female has several husbands.
 - Nevertheless, this can be an extremely uncommon occurrence.
- **Bigamy:** When one is already married additionally, the marriage continues to be valid, then married with someone else is known as bigamy plus the person committing this will be called bigamist.
 - It is considered a criminal offense in many countries, including India.

Status of Polygamy in India:

- The government data shows that polygamy cases in the country had come down to **1.4 per cent in 2019-20 as against 1.9 per cent in 2005-06.**
 - This rate has been higher in the northeastern states.
 - According to reports, in **Meghalaya, it is 6.1 per cent and in Tripura, it is 2 per cent.**
 - Polygamy is prevalent in Assam’s three districts of the **Barak Valley and the areas of Hojai and Jamunamukh.**
- This practice continues in Bihar, Jharkhand, West Bengal, and Odisha as well among some castes.
- Meanwhile, in Tamil Nadu, Telangana, Andhra Pradesh and Chhattisgarh, this practice is more prevalent among Muslims than Hindus.

Major reasons for polygamy in India:

- **Religion:** Some religions allow or encourage polygamy as a part of their doctrine or tradition.
 - For example, Islam permits a man to have up to four wives if he can treat them fairly and provide for them adequately.
- **Culture:** Some cultures accept or promote polygamy as a part of their social norms or values.
 - For example, some tribal and rural communities practice polygamy as a way of increasing their population or maintaining their lineage.
- **Economics:** Some people practice polygamy as a way of securing their economic interests or improving their social status.
 - For example, some men practice polygamy because they want to have more children who can work or earn for them.
 - Some women practice polygamy because they want to have more resources or security from their husbands.
- **Politics:** Some people practice polygamy as a way of asserting their political rights or challenging the state authority.
 - For example, some separatist groups in India practice polygamy as a way of expressing their resistance or rebellion against the Indian government.
- **Social pressures:** Some people practice polygamy because they face social pressures or expectations from their peers or elders.
 - For example, some men practice polygamy because they want to prove their masculinity or virility.
- **Personal preferences:** Some people practice polygamy because they prefer it over monogamy or celibacy.
 - For example, some men practice polygamy because they want to have variety or satisfaction in their life.

Consequences of Polygamy in India

- **For Women:** polygamy often means a lack of autonomy, dignity and security.

- They have to share their husband's attention, resources and affection with other wives, which can lead to jealousy, conflict and violence.
- They also face a higher risk of domestic abuse, sexual exploitation, reproductive health problems and mental stress.
- **For Children:** polygamy can result in neglect, deprivation and discrimination.
 - They may not receive adequate care, nutrition and education from their parents, especially if they belong to a less favoured wife.
- **For Society:** polygamy can cause social instability, inequality and disharmony.
 - It can also create gender imbalance and reduce the availability of marriageable partners for single men and women.
 - Lead to social problems such as **domestic violence, child abuse, divorce, adultery and prostitution.**
- Economic impact: Polygyny can increase the financial burden on the husband and his family.
 - The husband may have to provide for multiple households, wives and children, which may affect his savings, investments and standard of living.
 - The wives may have to compete for limited resources and may not have enough income or assets of their own.

Views of judiciary on Polygamy:

- **Parayankandiyal v. K. Devi & Others (1996):** The Supreme Court (SC) concluded that monogamous relationships were the standard and ideology of Hindu society, which scorned and condemned a second marriage.
 - Polygamy was not allowed to become a part of Hindu culture due to the influence of religion.
- **Javed & Others v. State of Haryana & Others (2003):** The SC decided that under Article 25 freedom is subjected to social harmony, dignity, and wellness.
 - Muslim law allows for the marriage of four women, but it is not compulsory.
 - This will not be violating religious practice to not marry four women.

Legality of polygamy:

- Polygamy is **permissible and legal exclusively for Muslims** in nations such as **India, Singapore, as well as Malaysia.**
- Polygamy is still recognised and practiced in nations such as **Algeria, Egypt, and Cameroon.**
 - These are the only areas in the world where polygamy is still legal.

Way Forward:

As per the **United Nations Human Rights Committee**, polygamy should be abolished in regions where it exists because it violates women's dignity and restricts their free will. Laws such as **polygamy, triple talaq and nikah halala** are not only archaic, but they are also debilitating for Muslim women. The legality of such laws needs to be challenged and subsequently discarded.

Source: [The Hindu](#)

Paper II

Women's Reservation Bill 2023

Syllabus

- **Mains – GS 2 (Governance)**

Context: Recently Women Reservation Bill has been tabled in the Lok Sabha as the One Hundred Twenty-Eight Amendment Bill 2023.

Historical Background of Women's Reservation Bill:

- **81st Constitutional Amendment Bill by Deve Gowda Govt:** The Women Reservation Bill was first introduced in 1996 as 81st Constitutional Amendment Bill.
 - The bill was referred to the select committee of parliament headed by Geeta Mukherjee.
 - However the Bill lapsed with the dissolution of the Lok Sabha as no consensus could be formed over reservation for OBC women.
- The Bill was **reintroduced by the NDA government** in the 13th Lok Sabha in 1999 and was subsequently introduced twice in the year 2003.
 - However the bills could not be passed and hence they lapsed.
- The UPA government in 2004 included reservation bill in its **Common Minimum Programme** and tabled it in Rajya Sabha to prevent it from lapsing again.

- Women's Reservation Bill introduced as **108th Constitutional Amendment Bill 2008** was passed in the Rajya Sabha in 2010 and lapsed in the Lok Sabha.
 - RJD, the JD(U) and the SP were its most vocal opponents.
 - They demanded 33% reservation for backward groups within the 33% quota for women.

Key features of the Bill 2023:

- **Reservation for women:** The Bill reserves, as nearly as may be, **one-third of all seats** for women in **Lok Sabha, state legislative assemblies**, and the **Legislative Assembly of the National Capital Territory of Delhi**.
 - This will also apply to the seats reserved for **SCs and STs in Lok Sabha and states legislatures**.
- **Commencement of reservation:** The reservation will be effective after the census conducted after the commencement of this Bill has been published.
 - **Based on the census**, delimitation will be undertaken to reserve seats for women.
 - The reservation will be provided for a **period of 15 years**.
 - However, it shall continue till such date as determined by a law made by Parliament.
- **Rotation of seats:** Seats reserved for women will be rotated after each delimitation, as determined by a law made by Parliament.

Arguments in favour of the Bill:

- **Increase in the political representation of women**-According to the Inter-Parliamentary Union's **Women in Parliament' Report** (2021), India ranks lower than 140 other nations in terms of the number of women serving in their national legislatures.
 - Rwanda (61 per cent), South Africa (43 per cent) and even Bangladesh (21 per cent), are ahead of India in this matter.
- **Ability of women leadership in bringing change:** Studies on panchayats have shown the positive effect of women reservation on empowerment of women and on allocation of resources.
 - Ex-Woman Sarpanch of Dhani Mayan Khan GP in Haryana built a training centre for women and ensured that every village child went to school.
- **Step towards decriminalisation of politics**- Reserved seats for women would help in decriminalisation of Indian Politics.
 - In the present **Lok Sabha 159 MPs** have declared serious criminal cases against them including those of **rape, murder, attempt to murder, kidnapping, crimes against women**.
 - It will help in addressing **crime against women in the society**.
- **Improvement of Economic Performance and Infrastructure:** According to UN University, Women legislators improve the economic performance of their constituencies 1.8 per cent more than male legislatures.
 - Evaluation of [Pradhan Mantri Gram Sadak Yojana](#) shows the share of incomplete road projects is 22 percentage points lower in female led constituencies.
- **Increasing vote share but low representation:** Though women's vote share has increased, the number of women in positions of politics has not increased commensurately.
 - Women in India vote at par with men but their representation is very low as compared to men.
 - The bill will increase representation as well in the politics.
- **Breaking the patriarchal Mold of Indian Politics**- Indian Politics has been patriarchal with top party positions and positions of power have been occupied by male.
 - It will dismantle this patriarchal nature of Indian politics.
- **Changing Stereotypes:** Increase in women politicians will help in changing the stereotyped image of women as **only 'homemakers'** and there will be gradual acceptance of women as lawmakers.

Challenges that have hindered the passage of the Bill:

- **No separate OBC reservation:** The Bill provides separate reservation to Scheduled castes and Scheduled Tribes women within the existing quota of one third reservation of seats.
 - However OBC women which constitute 60% of women population have not been provided separate reservation within the quota.
- **No reservation in the Rajya Sabha and legislative Councils:** The Bill does not provide reservation to women in the Rajya Sabha and the legislative Councils.

- **Conflict of Interests:** Some political leaders worry that implementing the bill's reservation quota for women may result in competition for seats between women candidates and those belonging to marginalized communities.
 - This conflict of interests can create resistance to the bill, as political parties seek
- **Patriarchal norms:** Deep-rooted patriarchal norms and gender biases in Indian society continue to be significant obstacles to women's participation in politics.
 - These norms can manifest in various ways, including the belief that women are less capable of leadership or that politics is a male-dominated domain.
- **Family and societal pressures:** Women often face family and societal pressures that discourage them from pursuing a career in politics.
 - Concerns about safety, traditional gender roles, and societal expectations can dissuade women from taking an active role in politics.
- **Violence and harassment:** The political arena in India is not immune to gender-based violence and harassment.
 - Women politicians and candidates have reported instances of threats, harassment, and violence, which can act as deterrents to their participation.

Way Forward:

Therefore the **Women's Reservation Bill 2023** is not merely a legislative proposal but it is a crucial step towards **gender equality in India's political landscape**. It addresses deeply entrenched structural norms and prejudices that have hindered women's participation in politics for generations. The Bill can serve as a catalyst for change, fostering an inclusive and gender-sensitive approach within the political arena.

Source: [The Hindu](#)

One Nation One Election' system (ONOE)

Syllabus

- **Mains – GS 2 (Governance)**

Context: The 'one nation one election' proposal was mooted yet again by the government.

About 'One Nation One Election' system:

- **Current system:** The country holds separate polls for the Lok Sabha and state Assemblies in a gap of five years, i.e.
 - When the tenure of the Lower House or the state government concludes, or either of them is dissolved prematurely.
- The term of state assemblies **may not necessarily be in sync with one another or that of the Lok Sabha**.
 - As a result, the mammoth task of conducting elections goes all round the year.
- One Nation One Election proposes that **simultaneous elections be held in all states and the Lok Sabha in a gap of five years**.
- This would mean that the voters will **cast their vote for electing members of the LS and the state assemblies on a single day**, at the same time (or in a phased manner as the case may be).

Background of ONOE:

- Simultaneous elections have previously been conducted in India in 1952, 1957, 1962 and 1967.
- Soon after, this norm was discontinued following the dissolution of some Legislative Assemblies between 1968 -69.
- Since then, the Indian Electoral system holds polls to Centre and states separately.

Important articles to be amended to conduct ONOE:

- **Article 172 and Article 83** deal with the duration of the Houses of Parliament, and guarantee a five-year term to both the elected Lok Sabha and state assemblies, unless they are dissolved sooner.
- **Article 85 of the Indian Constitution** deals with the powers of the President to summon Parliamentary sessions, not exceeding a gap of more than six months.
 - The President also carries the power to adjourn either House of the Parliament and the dissolution of the Lok Sabha.
- **Article 356 of the Indian Constitution**, comes into action in case of governance and constitutional failure in a state and deals with the President' Rule.
- Amendments in the **People's Representation Act, 1951(RPA Act 1951) and the Anti Defection Law** must be made for organised conduct and stability in both Lok Sabha and state assemblies.

Arguments in favour of ONOE:

- **Reduction of Financial burden on state exchequer:** Continuous election cycles are a financial burden on the state exchequer.
 - ONOE will reduce the overall expenditure on political process by ECI.
- **Focus on governance instead of being in 'election mode':** "One nation one election" will ensure continuity of policies and programmes of the central and state governments.
 - It will reduce disruption of normal public life as political rallies will be kept to a minimum.
 - It will improve the delivery of essential services to public.
- **Better utilisation of financial resources by political parties:** Simultaneous elections will reduce the campaign expenditure of political parties and the candidates.
 - This will help smaller regional parties in better management of financial resources.
- **Reduced duration of 'model code of conduct':** Frequent imposition of the Model Code of Conduct (MCC) during polls stalls all development work for months at a time.
 - It will reduce 'policy paralysis' that results from the imposition of the Model Code of Conduct during election time.
- **Increase of administrative efficiency:** During elections the entire state machinery focuses on conducting a free and fair electoral process which impacts the everyday administration because officials are engaged in polling duties.
 - ONOE will increase efficiency of administrative system.
- **Increase of voter turnout-:** According to the Law Commission, ONOE will increase voter turnout because it will be easier for people to cast many votes all at once.
- **Reduced use of black money:** Elections involve considerable expenditure by prospective candidates most of which is black money.
 - ONOE will reduce the circulation of black money in economy.
- **Improvement in social harmony:** Frequent elections perpetuate caste, religion, and communal issues across the country as elections are polarising events that have accentuated casteism, communalism, and corruption.
 - ONOE would reduce the fault lines between communities created due to multiple elections.

Arguments against ONOE:

- **Only states are contesting:** 'India' does not have an election every year, one of India's States does.
 - So, when there are elections in a few States, 'India' is not in an election mode; some of India's States are.
 - All of India's major political parties are not in an election mode, only some are.
- **Against India's federalism:** Each of India's States has different political cultures and parties.
 - An elected Chief Minister of a State has the powers to recommend dissolution of their State legislatures and call for early elections.
 - Under a 'one election' framework, state parties will not have the right to do this.
 - These powers will be taken away from the States and only the Union government will have the powers to dictate the election schedule for every State.
- **Increase in cost:** In the short term, simultaneous elections will increase the costs for deploying far larger numbers of electronic voting machines and control units.
 - Political parties and candidates may spend a lot more money on elections than the government but that is not the tax-payers' money.
 - On the contrary, there is economic research to suggest that such election spending by parties and candidates actually benefits the economy and the government's tax revenues by boosting private consumption and serving as a stimulus.
- **Works for presidential system:** A single election calendar may work in a presidential system where the survival of the executive is not dependent upon a legislative majority.
- **Unworkable and unfeasible:** 'One nation one election' is a politically unfeasible, administratively unworkable and constitutionally unviable proposition.

Way Forward:

The concept of 'One India One Election' holds promise as a positive change, provided it is executed with meticulous attention to policies and regulations. Addressing the growing demand for skilled administrative staff and heightened security is crucial. Forming a dedicated group consisting of constitutional experts, think tanks, government officials, and political party representatives is essential to working out the intricate details of implementation.

Source: [Indian Express](#)

Bihar government's caste-based survey

Syllabus

- Mains – GS 2 (Governance)

Context: Recently in its reply to the Supreme Court on the Bihar government's caste-based survey, the Union government recently said only the Centre is entitled to conduct a census.

About Caste Census:

CENSUS 2011
15TH CENSUS OF INDIA SINCE 1872

Cost	₹ 22,000 Mn
Cost per person	₹ 18.19
No. of census functionaries	2.7 Mn
No. of languages in which schedules were canvassed	16
No. of languages in which training manuals were prepared	18
Paper utilised	8,000 MTs
Material moved	10,500 MTs

- The population of India at 1210.2 million is almost equal to the combined population of USA, Indonesia, Brazil, Pakistan, Bangladesh and Japan
- 2001-2011 is the first decade (with the exception of 1911-1921) which has added lesser population compared to the previous decade
- The population has grown by more than 181 million during the decade 2001-2011
- Overall sex ratio at the national level has increased by 7 points since Census 2001 to reach 940

POPULATION OF INDIA: 1901-2011
In million

GENDER COMPOSITION

Census	Sex Ratio	Males (mn)	Females (mn)
Census 2001	933	532.2 (51.74%)	496.5 (48.26%)
Census 2011	940	623.7 (51.54%)	586.5 (48.46%)

2011 population figures are provisional!
KBK Infographics

- The Socio-Economic and Caste Census 2011 (SECC) was conducted for the 2011 Census of India.
- The SECC 2011 was conducted in all states and union territories of India.
- SECC 2011 was the first paperless census in India conducted on hand-held electronic devices by the government in 640 districts.
- SECC 2011 was the first caste-based census since the 1931 Census of India.
- SECC 2011 was not conducted under the 1948 Census of India Act, which made information disclosure voluntary for citizens, and not a mandatory disclosure.
- Caste Census is under the administrative control of the **Ministry of Home Affairs:**

Registrar General and Census Commissioner of India.

About Census in India:

- Census in India was started in 1872 under British Viceroy Lord Mayo,
 - However, the first complete census was taken in 1881 under Lord Ripon.
- Since 1881, the Census has been undertaken every 10 years.
- It is conducted by the [Registrar General and Census Commissioner of India](#) under the Ministry of Home Affairs.
- All the censuses since 1951 were conducted under the [1948 Census of India Act](#).

Significance of Caste Census:

- **Steps towards equality:** It would help to point out those castes that are not represented in the institutions of this country so that steps towards equality can be established.
 - It would justify the extension of reservations to various communities.
- **Usage of last census data:** last caste census was in 1931 and the government still uses this as a basis to estimate demography and different caste groups.
 - There have been significant changes in the demography of this country.
- **Data unavailability:** The Rohini Commission too, faced difficulties due to the unavailability of data on various communities classified under OBCs.
 - The Commission was set up to examine the issue of sub-categorisation of OBCs.
- **Effective service delivery:** A fresh estimate of the population is necessary to ensure more effective delivery of targeted welfare.
- **State actions on caste data collection:** Karnataka, Odisha and Telangana had carried out similar counts in the name of "socio-economic surveys".
- **Popular demand:** Along with Bihar, other states like Jharkhand and Odisha are also reiterating their support for the caste census.

Criticisms associated with it:

- **Way for caste divisions:** The 21st century India should be discussing 'let's do away with caste' rather than further divide India on those lines.
 - It may "rekindle divisive feelings among people."

- **A colonial practice:** Every Census until 1931 had data on caste. So it was a colonial practice of divide and rule which drove them toward collecting such data.
 - Every Census in independent India from 1951 to 2011 has published data on Scheduled Castes and Scheduled Tribes, but not on other castes.
- **Demand for reservations:** Reservations that were implemented for 10 years have continued for 75 years and a caste-based census may lead to a demand for more.
- **Constitutional Mandate:** Unlike in the case of the SCs and the STs, there is no constitutional mandate for the Registrar-General and Census Commissioner of India, to provide the census figures of the OBCs and the BCCs.
- **Feasibility of the count:** Union government contended that such an exercise was not feasible given that there are too many castes and sub-castes in each state and Union territory making it difficult to classify them.
 - People use their clan/gotra, sub-caste and caste names interchangeably.
 - The government has cited numerous administrative, operational and logistical reasons.
 - Census data enumerators are part-timers with 6-7 days of training and are “not an investigator or verifier”
 - There is a fear that such counting could endanger the census exercise itself.
- **Political agenda:** At a deeper level there are politics involved in the matter.
 - Bihar’s politics has been dominated by the Other Backward Castes (OBCs), the numerically powerful social group.

Way Forward:

The need for a caste census can be seen in the vast income disparity in the country. For instance the **2020 Oxfam report** states that the top 10% of India’s population owns 74.3 % of the total wealth; the middle 40% owns 22.9%; and the bottom 50% owns a shocking 2.8 %. This indicates unequal distribution of wealth demands a greater understanding of Indian society. The SECC will help to move to the principle of 'program-specific indicators for program-specific entitlements'. Recognizing many dimensions of poverty and tackling them with different programs, in multiple fields like health, education, sanitation, and mid-day meal can be universal; others like affordable housing and disability can be targeted.

Source: [Indian Express](#)

Educational Schemes for religious minorities

Syllabus

- **Mains – GS 2 (Governance)**

Context: There is a shift in Central govt’s policy towards minority education in the past few years.

About Religious minorities in India:

- India is home to over 30 crore (20%) people from religious minority communities.
 - These include six religions notified under Section 2(c) of the **National Commission for Minorities Act, 1992**.
- As per the **Census 2011**, the percentage of minorities in the country is about **19.3% of the total population of the country**.
 - The population of **Muslims is 14.2%**; Christians 2.3%; Sikhs 1.7%, Buddhists 0.7%, Jain 0.4% and Parsis 0.006%.
- The **Constitution of India does not define** the term minority.
- **Article 29(1) of the Indian Constitution** calls for the **Protection of interests of minorities**.
 - Any section of the citizens residing in the territory of India or any part thereof having a distinct language, script or culture of its own shall have the right to conserve the same.
- **Article 30(1) grants Right of minorities** to establish and administer **educational institutions**.
 - **All minorities**, whether based **on religion or language**, shall have the right to establish and administer educational institutions of their choice.
- **Article 350-B:** Originally, the Constitution of India did not make any provision with respect to the **Special Officer for Linguistic Minorities**.
 - But, the Seventh Constitutional Amendment Act of 1956 inserted Article 350-B in the Constitution.
- **Parliamentary Provisions:** National Commission for Minorities Act, 1992 defines a minority as “**a community notified as such by the Central government.**”

Budgetary allocation for minorities:

- The Central govt slashed the budgetary allocation for **the Ministry of Minority Affairs by 38.3%**, a drop from Rs 5,020.5 crore in 2022-23 to Rs 3,097 crore in 2023-24.

- Notably, the **2022-23 estimates** were revised to Rs 2,612.66 crore, indicating an under-utilisation of nearly 48% of funds.
- The shift in policy came despite a **significant drop in beneficiaries (7%)** between 2019 and 2022, even as funds remained underutilised.
 - During the period, the government spending on **six educational schemes for religious minorities dropped by around 12.5%**.
- For instance, **the pre-matric scholarship**, which has benefitted the maximum number of minority students, **the ministry spent Rs 43.95 crore out of the revised estimate of Rs 556 crore**.
 - Similarly, Rs 29 crore was the actual expenditure on post-matric scholarship when the budget estimate was Rs 515 crore.
- A 2022 report by the **Centre for Budget and Governance Accountability (CBGA)** highlighted a **“declining trend” in the share of the overall budget expenditure towards minorities**.
 - Even the allocation of funds for the year 2022-23 was not in line with proportional representation of minorities.

Impacts of the policy:

- The restructuring of programmes, under-utilisation of funds, and reduced budgetary allocations have impacted the **implementation and goals of educational schemes for minorities**.
- As a result of all these factors, gaps in education and economic parameters are expected to widen.
 - There are other challenges in implementation as well, including **poor coverage of beneficiaries and low unit costs**.
- According to the experts, **eliminating scholarships and limiting the scope of scholarships** will negatively affect the community and affect their enrollment rates, which are already alarming.

Welfare schemes for the educational empowerment of minorities:

- **Pre-Matric Scholarship Scheme:** to minority students from class 1 to 10 and ranged between Rs 1,000 and Rs 10,700 for each selected candidate. 30% of the scholarships were earmarked for girls.
- **Post-Matric Scholarship Scheme:** for students of class 11 and above (till Ph.D.), with a scholarship ranging between Rs 2,300 and Rs 15,000. Like the pre-matric, 30% of the post-matric scheme was also earmarked for girls.
- **Merit-cum-Means based Scholarship Scheme:** Launched in 2008, this scheme targeted professional and technical courses at undergraduate and postgraduate levels, with 30% earmarked for girl students. Eligible candidates are reimbursed full course fees,
- [Maulana Azad National Fellowship](#)
- **Padho Pardesh:** The scheme was launched to provide better opportunities for higher education abroad, providing an interest subsidy on education loans for overseas studies to students belonging to economically weaker sections of minority communities.
- **Naya Savera:** To provide free coaching to minority students of classes 11-12 with science subjects for entrance to technical and professional courses and competitive examinations.
- **Scheme for Providing Education to Madrasas and Minorities (SPEMM):** Under it recognised madrasas receive financial assistance to introduce ‘modern’ subjects such as science, mathematics, social studies, Hindi and English in their curriculum.

Way Forward:

A recent yearbook by the **Institute of Objective Students** on the **status of Muslim school dropouts** estimated that **dropout rates stand at 23.1%** as compared to **the national average rate of 18.96%**. Therefore an affirmative action is the need of the hour to improve the socio-economic status of religious minorities, particularly Muslims, who continue to lag behind the rest of the population in several areas.

Source: [The Hindu](#)

The Mediation Act, 2023

Syllabus

- **Mains – GS 2 (Governance)**

Context: Recently, the Parliament has passed the Mediation Bill 2023.

About Mediation:

- Mediation is a voluntary process in which parties try to settle disputes with the assistance of an independent third person (the mediator).
- A mediator does not impose a solution on the parties but creates a conducive environment in which they can resolve their dispute.
- The mediation process depends on the choice of parties, and there are no strict or binding rules of procedure.

Types of Mediation:

Court Referred Mediation:

- **Salem Advocate Bar Association, Tamil Nadu v. Union of India:** In the case, Supreme Court held in reference to the matter of mediation that conciliation and arbitration are mandatory for court matters.
 - This judgment has granted legal and social recognition to mediation as a dispute resolution in India.

Private Mediation :

- In private mediation, a qualified mediator is appointed by the parties on a fixed-fee basis. Both the parties come together to resolve the issue amicably.
- The decision of the mediator is not ultimate and hence not binding on the parties.

Key Features of the Bill

- **Pre-litigation mediation:** Parties must attempt to settle civil or commercial disputes by mediation before approaching any court or certain tribunals.
 - Even if they fail to reach a settlement through pre-litigation mediation, the court or tribunal may at any stage refer the parties to mediation if they request for the same.
- **Disputes not fit for mediation:** The Bill contains a list of disputes which are not fit for mediation.
 - These include disputes relating to claims against minors or persons of unsound mind, involving criminal prosecution, and affecting the rights of third parties. The central government may amend this list.
- **Applicability:** The Bill will apply to mediations conducted in India:
 - involving only domestic parties
 - involving at least one foreign party and relating to a commercial dispute (i.e., international mediation)
 - if the mediation agreement states that mediation will be as per this Bill.
 - If the central or state government is a party, the Bill will apply to commercial disputes, and other disputes as notified.
- **Mediation process:** Mediation proceedings will be confidential, and must be completed within 180 days (may be extended by 180 days by the parties).
 - A party may withdraw from mediation after two sessions.
 - Court annexed mediation must be conducted as per the rules framed by the Supreme Court or High Courts.
- **Mediators:** Mediators may be appointed by the parties by agreement, a mediation service provider (an institution administering mediation).
 - They must disclose any conflict of interest that may raise doubts on their independence.
 - Parties may then choose to replace the mediator.

Significance of Bill:

- **India as a centre of Mediation:** This legislation will help ensure that institutional mediation becomes mainstream in resolving commercial (and other) disputes between the parties, putting India on the global map as a dispute friendly jurisdiction.
 - There exists a strong correlation between **Ease of Doing Business (EoDB)** and the promotion of mediation, and **Singapore serves as a prime example of how a robust mediation ecosystem** can attract greater foreign investments.
- **Reduce pendency of Cases:** According to the Minister for Law and Justice, there are 4.43 lakh cases pending in district subordinate courts, 60.63 lakh cases in high courts and around 70,000 cases in the Supreme Court.
 - Mandating participation in pre-litigation mediation may help reduce pendency and the slow disposal rate in courts.
- **Cost-effective:** Mediation is a cost-effective dispute resolution process that also helps reduce the burden on courts by enabling out-of-court settlements.

- **Greater Control:** Mediation increases the control the parties have over the resolution.
 - Each party is directly involved in negotiating their own agreement and no settlement can be imposed upon.
- **Confidential:** Unlike the potential publicity of court proceedings, everything said at the mediation is entirely confidential to the parties (unless specifically agreed otherwise).
- **Faster outcomes:** Because mediation can be used early in a dispute, an agreement can usually be reached quicker than if pursued through the courts.

Challenges of Mediation in India:

- **Absence of Uniform Legislation:** In 2020, the Supreme Court highlighted the pressing need for a unified mediation legislation in India, emphasizing the lack of a standardized legal framework for mediation.
- **Infrastructural and Quality Control Issues:** An increased focus on mediation can strain existing mediation centers, which may lack the necessary administrative capacity to handle higher caseloads efficiently.
- **Societal Stigma:** Concerns about public perception sometimes deter parties from choosing mediation, as they fear it might be viewed as a sign of weakness or compromise.
- **Resistance from Legal Professionals:** Traditional legal practitioners may exhibit resistance to adopting mediation, viewing it as a potential threat to their practice or income.
- **Institutional Support:** While legislative reforms have been made to promote mediation in India, the infrastructure for supporting mediation at the grassroots level, including the establishment of mediation centers and training programs, is still in the developmental stage.
- **Lack of Mediation Education:** The absence of mediation education within law school curricula poses a significant obstacle to the widespread adoption of mediation as a dispute resolution method.
- **Shortage of Professional Mediators:** India currently has a limited pool of trained and experienced mediators, which presents challenges in offering mediation services across all regions and for various types of disputes.

Way Forward: Suggestive measures

- **Legal Reforms:** Continuously updating laws and regulations to support and encourage mediation, while also ensuring the enforceability of mediated settlements, is crucial.
- **Online Mediation:** Leveraging technology for online mediation platforms can make the process more accessible, especially for those in remote areas, and provide a convenient alternative to in-person sessions.
- **Institutional Support:** Establishing well-equipped and accessible mediation centers at various levels, from local communities to national levels, can provide people with convenient access to mediation services.
- **More Opening of Mediation and Arbitration Centre:** Government should facilitate opening of mediation centers.
 - Recently, Uttar Pradesh got its first mediation and arbitration centre in the form of '**Centre for Excellence in Mediation and Arbitration or CEMA**'.
- **Training and Certification:** Developing comprehensive training programs for mediators, lawyers, and judges can ensure that there is a pool of skilled professionals proficient in mediation techniques, ethical considerations, and cultural sensitivity.
- **Integration with Legal Curriculum:** Incorporating mediation education within law school curricula can prepare future legal professionals to consider mediation as a primary or complementary method for dispute resolution.

Source: [The Hindu](#)

End of Old Multilateralism – and the Beginning of a New Order

Syllabus

Mains – GS 2 (International Relations)

Context: Post-Cold War, the multilateralism is past its peak — at both the global and regional levels.

- Recent East Asia Summit in Jakarta and the G20 summit in Delhi highlight the deep and arguably irreversible crises in the old multilateral order.

About Multilateralism:

- The relationship between three or more groups of states is known as multilateralism.
 - It consists of some qualitative principles that construct the character of an institution or arrangement.
- The principles are a commitment to the diffusion of reciprocity, indivisibility among participants on interest, and a system to settle disputes.

- The **new multilateral world order** is a term that refers to the emergence of new forms of cooperation and dialogue among different countries and regions in the 21st century.
 - It is a response to the challenges and opportunities posed by **globalization, climate change, pandemics, terrorism, and other issues** that require collective action and shared solutions.

Post-Cold War Multilateralism:

- The end of the **Cold War at the turn of the 1990s** created favourable conditions for an intensive phase of multilateralism.
- Europe moved towards **rapid regional economic integration and expansion** under the banner of the European Union.
- In Asia, **the Association of Southeast Asian Nations (ASEAN)** provided the framework for intensifying regional economic and political cooperation.
- **Regionalism in Europe and Asia** was facilitated by the end of the great power rivalry in both continents.
- Russia was drawn into the **Group of Seven (G7) led by Western countries**, making it the G8.
 - Moscow was also engaged in consultations with the **NATO**.
- In Asia, China became a close partner for the US on economic and political fronts.
- This, in turn, translated into new possibilities for cooperation among major powers on global issues — such as the proliferation of weapons of mass destruction, climate change, and pandemics.

Reasons behind Decline of Existing Multilateralism:

- **Contradictions within the multilateral system:** The multilateral system itself has faced internal contradictions and challenges.
 - These **internal disagreements and conflicting interests** among member states have weakened the effectiveness of multilateral organizations and impeded consensus-building.
- **Rise of alternative security forums:** In response to China's expansionism, alternative security forums like the **Quad, AUKUS**, and trilateral compacts have emerged.
 - These forums reflect a shift away from traditional multilateral institutions, raising questions about the continuing relevance and centrality of existing regional organizations like **ASEAN**.
- **Changing perspectives of key players:** The changing perspectives of key players, such as India, have also contributed to the decline of existing multilateralism.
 - India's evolving view of the international order, shifting from concerns about a "unipolar Asia" dominated by China to a more proactive engagement with the United States and its allies, has altered the dynamics of multilateralism in the Indo-Pacific region.
- **Rise of china and its expansionism:** One of the primary reasons behind the decline of existing multilateralism is the rise of China as a global economic and military power.
 - China's expansionist policies, both in Asia and globally, challenge the existing multilateral order.
 - Its unilateral efforts to alter borders with neighbours and its assertive territorial expansionism have created tensions and destabilized regional and global institutions.
- **Impacts of Russian actions:** The Russian occupation and annexation of **Ukraine's Crimea in 2014 (and ongoing war)** marked a significant challenge to the post-Cold War security order, particularly in Europe.
 - This event disrupted multilateralism by causing rifts and conflicts in the international community.

Salient features of India's new multilateral approach?

- **Quad collaboration:** At the Jakarta summit, Indian's PM emphasizes that the Quad complements ASEAN's efforts and promotes regional stability.
- The **expansion and diversification** of the existing multilateral institutions, such as the **UN, the IMF, and the World Bank**, to include more voices and perspectives from the developing world and the Global South.
- **Focus on Re-globalisation:** External Affairs Minister S Jaishankar advocates for a diversified, democratic globalisation, moving away from a China-centric production model.
- **Collective responsibility:** Despite challenges in multilateralism, India continues to seek collective solutions, focusing on diverse issues like modernising the global tax regime.
- **Concerns of Global South:** India prioritizes the concerns of the Global South in the G-20 agenda, aiming to enhance cooperation between developed and developing nations, rather than reviving old confrontational politics.

Role of India:

- **Acting as central player:** India is emerging as a pivotal figure in shaping both regional and global dynamics, highlighted by its active participation in forums like the Indo-Pacific Quadrilateral Forum.
- **Evolution of G20 grouping:** India is pushing for the G20 to address the concerns of the Global South, signalling its desire to play a more substantial role in global economic discussions.
- **Shifting alliances:** Historically aligned with Moscow and Beijing for a multipolar world, India’s focus has shifted due to China’s increasing assertiveness, leading it closer to nations like Australia, Japan, and the US.
- **Embracing the Indo-Pacific:** India has adopted the Indo-Pacific concept and rejuvenated the Quad alliance to counterbalance China’s influence in the region.

Way Forward:

As a hosting country for G20 presidency, India can use G20 summit as an opportunity to showcase its vision and achievements as a global leader, as well as to forge consensus on important issues such as climate change, sustainable development, health security, and digital transformation. It offers the perfect platform for India to infuse partner nations with foundational ideas and pave the way for the beginning of a new world order.

Source: [Indian Express](#)

Role of Sports in the Soft Power Race

Syllabus

- **Mains – GS 2 (International relations)**

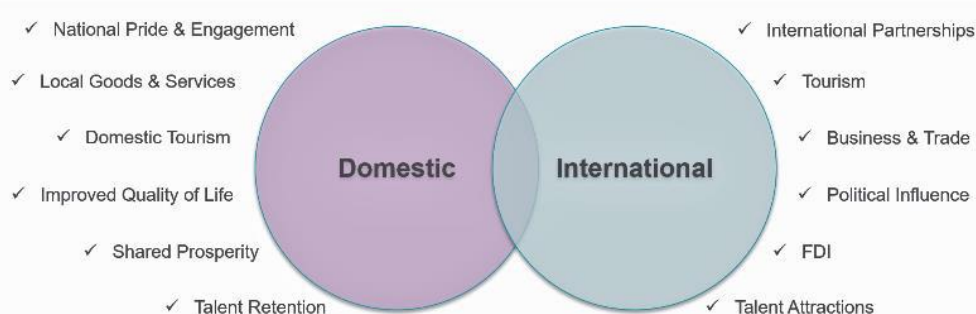
Context: The day before the opening of 19th Asian Games, Union Sports Minister Anurag Thakur cancelled his visit to China as a mark of protest to the last-minute denial of entry to three Indian Wushu players from Arunachal Pradesh.

- The three athletes — Nyeman Wangsu, Onilu Tega and Mepung Lamgu — were given the accreditation needed to travel along with the rest of the Indian team for the Games.

About soft power:

- **Joseph Nye Jr., a political scientist** coined the term soft power in 1980s.
- Unlike in case of **military hard power**, it is the power of attraction through culture, political ideas, and policies rather than coercion.
- Over the years, India has been **wielding its soft power** in the form of Yoga, Bollywood, Sufi music and the shared heritage in art, cuisine, architecture and even democratic values.
- In the recent years, countries, including India, have been investing more in **elite sports as success** in international sporting events is boosting their soft power.

Significance of sports in the soft power race:



Benefits of Soft Power: A Strong Domestic and International Nation Brand

and North Korea aren’t able to garner a completely positive perception as a consequence of their human rights record.

- Hence, brand building is a very difficult task for such countries.

- **Large sports events** generate massive viewership, providing a platform for the countries to showcase their tradition, culture and values.
 - For instance, the **Tokyo Olympic Games** was watched by more than 3.05 billion people– a **74% increase in digital viewers** compared to Rio Games 2016.
 - This shows that there is a great opportunity in using such events as a platform to boost soft power.

- The survey of French citizens’ perception of Chinese performance in the Olympics, by **Professor Dongfeng Liu**, showed that the country’s sporting achievements had a **positive effect on Chinese soft power in 2020**.

○ Despite this, countries like **China, Russia**

- **Sports as brand for soft power:** A strong nation brand and positive soft power perceptions allow a nation to promote itself as a place for people to visit, invest in, and build a reputation for their quality of goods and services.
- **Scope for domestic sector:** The soft power can encourage domestic tourism, consumption of domestic goods and services (rather than imports).

China's soft power through sports:

- China uses its superiority in elite sports to build **"people-to-people"** relations with other countries.
 - For example, athletes from African countries such as Madagascar are trained in **swimming, badminton, table tennis**, etc. in China, which helps Beijing create a positive impact on a wider population and results in better formal relations as well.
- China's **memorandum of understanding** with countries such as **Kenya** so that Chinese runners can train with **Kenyan athletes**, as they are among the best in the world when it comes to **long-distance running**.

India's tortoise-like walk due to various reasons:

- **Poor population-to-medal Talley:** India's medal tally in the Tokyo Olympics Games seven was its most decorated Olympic Games in Indian history.
 - India has won **35 medals at the Olympics** since the 1900 edition.
 - But as of 2022, China has finished **first in the Summer Olympics once, second three times, third twice and third once in the Winter Olympics**.
- **Low exposure at the school level:** Professional engagement in sports is hampered by the relatively low and scant exposure of Indians to sports at the elementary school level.
- **Need for a favourable atmosphere:** In 2016, a [NITI Aayog](#) report came up with a 20-point plan to improve India's Olympics performance.
 - The report said India still lacks a favourable atmosphere for sports to polish the skills of early-stage athletes.
 - It recommended efforts to be made at the family, community school, regional academies, and State and national levels to improve things.
- **Funding:** Ensuring competent coaches, and having adequate funding and more sports academics remain major issues even decades later.
 - A reply in Parliament (2018) said that India spends only three paise per day per capita on sports.
 - In contrast, China spends ₹6.1 per day per capita.

Government Initiatives for the development sports in the country:

- [Target Olympic Podium Scheme \(TOPS\)](#) was launched by the Ministry of Sports in 2014.
 - It seeks to improve Indian athletes' performance at the Olympic and Paralympics Games.
- **NITI Aayog recommendations:** The Government should work on a public-private partnership (PPP) model to create basic sporting infrastructure at the district level so that talent can be captured at an early stage.

Way Forward:

The soft power is a means to an end, not the end itself. It would help cement India's standing in the global arena. It is always important to remember that sports are primarily intended to be a **universal language of communication, uniting continents**, and different **peoples of the world**. This means that it is necessary to realize the **powerful potential of "sports diplomacy"**. The Government should work on a **public-private partnership (PPP)** model to create basic sporting infrastructure at the district level to capture young talents at an early stage.

Source: [The Hindu](#)

India- USA Relations

Context: Recently the US President arrived in New Delhi to attend the G-20 Summit and met Prime Minister Narendra Modi for a bilateral meeting.

Highlights of the bilateral meeting:

- **INDUS -X:** The leaders commended the **India-U.S. Defence Acceleration Ecosystem (INDUS-X)** team for establishing a robust collaboration agenda to harness the innovative work of the U.S. and Indian defence sectors to address shared security challenges.
- **UN Security Council seat:** US reaffirmed support for a reformed UN Security Council with India as a permanent member.

- **Initiative on Critical and Emerging Technology (iCET):** Both the countries intend to undertake a midterm review of iCET in September 2023 to continue to drive momentum toward the next annual iCET review, co-led by the **National Security Advisors of both countries, in early 2024.**
- **India-U.S. Global Challenges Institute:** The leaders welcomed the signing of an MoU between Indian universities, represented by the **Council of Indian Institutes of Technology (IIT Council), and the Association of American Universities (AAU)** to establish the India-U.S. Global Challenges Institute.
- **Technology Transfer:** The leaders commenced negotiations for a commercial agreement between **GE Aerospace and Hindustan Aeronautical Limited (HAL)** to manufacture **GE F-414 jet engines** in India.

About India- USA Relations:

Historical:

- **During the Cold War,** India pursued a **non-aligned foreign policy** and maintained a distance from both the **US and the Soviet Union.**
- In the early 1990s, India began to open up its markets to foreign investment, including from the US, and undertook significant economic reforms.
 - This led to a gradual improvement in relations between the two countries.
- The two countries have also increased their defence ties, with the **US becoming India's second-largest arms supplier after Russia.**
- In recent decades, India's growing strategic importance as a counterweight to China has led to closer ties with the US, particularly in the security and defence domains.

Political:

- India has joined the US-led **Indo-Pacific Economic Framework for Prosperity (IPEF).**
- **India-U.S. 2+2 Ministerial Dialogue:** It is led by the heads of foreign and defence ministries of India and the U.S.
 - Two successful rounds of this Dialogue have been held so far.
- **India-U.S. Commercial Dialogue:** The India-U.S. Commercial Dialogue is led by the Minister of Commerce and Industry (CIM) and the U.S. Secretary of Commerce.
- **India – U.S. Economic and Financial Partnership:** The India – U.S. Economic and Financial Partnership is led by the Finance Minister (FM) and the U.S. Secretary of the Treasury.

Trade and commerce:

- The U.S. has emerged as **India's biggest trading partner** in 2022-23 on account of increasing economic ties between the two countries.
 - The bilateral trade has increased by 7.65% to USD 128.55 in 2022-23 as against USD 119.5 billion in 2021-22.
- **Exports to the U.S.** rose by 2.81% to USD 78.31 billion in 2022-23 as against USD 76.18 billion in 2021-22, while **imports grew** by about 16% to USD 50.24 billion.
- In 2021-22, India had a trade surplus of USD 32.8 billion with the US.
- The U.S. is the largest destination for India's merchandise exports, while it ranks as India's **third-largest merchandise import supplier**, after China and the European Union.

Defence Cooperation:

- Both have strong defence cooperation, which is based on the **"New Framework for India US Defence Cooperation"** that was renewed in 2015 for a period of ten years.
- Several defence agreements have been signed, such as the **Logistics Exchange Memorandum of Association in 2016, the Communications Compatibility and Security Agreement in 2018, the Industrial Security Agreement in 2019, and the Basic Exchange and Cooperation Agreement in 2020.**
- The two countries conduct a number of **bilateral military exercises** such as **Yudh Abhyaas and Vajra Prahari**, and also participate in defence exchanges to deepen their military-to-military cooperation.
- In 2019, the two countries conducted a tri-services exercise called **Tiger Triumph.**
- Another grouping in the **Middle East - I2U2** involving **India, Israel, UAE and the US** is being termed as the **new Quad** along with the existing **QUAD** grouping.

Education partnership:

- It is an important pillar of India-US ties and both the countries share strong linkages and history of higher education collaborations.

- The **United States Educational Foundation in India (USEFI)** was set up after a bilateral agreement on education exchange was signed between India and the US on February 2, 1950

Increased diaspora:

- The number of Indians and Indian Americans in the U.S. is estimated at around 4 million, which accounts for almost **1% of the total U.S. population.**
- Indian diaspora in America over the years have increased. It has contributed to income creation in the USA through knowledge-based employment and also to Indian economic growth through remittance.
- Growing financial and political clout of the affluent Asian Indian diaspora is noteworthy.

Challenges associated with the relations:

- **Trade:** Recently India and US confronted each other regarding tariffs and protectionist policies.
 - US has continuously accused India of high tariffs and India have accused USA of restriction to US markets and high tariffs on Indian products.
- **Intellectual Property Rights:** US has continuously criticised India for its IPR policies. It has accused India of acting against Intellectual properties of major companies especially pharmaceutical over generic drugs.
- **Continuous support to Pakistan:** Although US has reduced support to Pakistan, it has still provided monetary support to Pakistan.
 - In February 2016, USA intended to provide Pakistan eight **nuclear-capable F-16 fighters and assorted military goods.**
- **Relations with Russia:** India is all time friend of Russia while USA is its all-time rivalry.
 - In 2018, India inked the historic agreement worth with Russia to procure four **S-400 surface-to-air missile defence system** ignoring [America's CAATSA](#) act.
 - With she U.S. threatened India with sanctions over India's decision.
- **Relations with Iran:** India has continuously bought oil from Iran despite of US sanctions on Iran.
 - The United States threatened India with sanctions over India's decision to buy oil from Iran.
 - But recently it exempted India from sanctions that allowed India to buy oil from Iran.

Way Forward:

Therefore, it is in the mutual interest for both India and USA to rise above differences and ensure continuous cooperation to establish a peaceful, progressive and multilateral world. The partnership between India and US is simply one of the most consequential in the world.

Source: [The Hindu](#)

India – Saudi Arabia Relations

Context: Recently, India and Saudi Arabia have cooperated in various sectors such as energy, trade, and culture.

About India – Saudi Arabia Relations:**Political relations:**

- The establishment of diplomatic relations in 1947 was followed by high-level visits from both sides.
- The historic visit of **King Abdullah to India in 2006** was a watershed moment that resulted in the signing of the '**Delhi Declaration**', imparting a fresh momentum to the bilateral relationship.
- Saudi Arabia and India signed the **Riyadh Declaration** to enhance the strategic partnership covering security, economic, defense, technology and political areas and joint combat of terrorism.

Economic Cooperation, Trade and Investment:

- India is the **second largest trade partner** of Saudi Arabia, while Saudi Arabia is the **fourth largest trade partner** of India.
- Saudi Arabia is currently **India's second-largest supplier of crude oil** (Iraq has been India's top supplier).
- India imports around **18% of its crude oil** requirement and around 22% of its Liquefied Petroleum Gas (LPG) requirement from Saudi Arabia.
- **India's imports** from Saudi Arabia reached USD 34.01 billion and **exports to Saudi Arabia** were worth USD 8.76 billion.

Defense and security cooperation:

- **AL – Mohed AL – Hindi** is the maiden **bilateral naval exercise** between India and Saudi Arabia.
- Riyadh has largely shown an understanding of **India's terrorism-related concerns**, and has agreed to work with India in countering the global menace.

Cultural Relations

- India successfully participated as ‘**Guest of Honour**’ in the 32nd edition of the prestigious **Saudi National Festival of Heritage and Culture** in 2018.
- Yoga was announced as a ‘**sports activity**’ in Saudi Arabia.
- **Haj pilgrimage** is another important component of bilateral relations.

Indian Diaspora:

- The approximately **2.7 million strong Indian community** is the largest expatriate community in the Kingdom.
- They send remittances of over US \$11 billion annually to India.

Challenges:

- The politics of the Middle East is complex and multidimensional so requires a collective and united effort.
- The **Saudi Arabia-Turkey rivalry** could create problems for India.
- **Saudi Arabia-Iran Rivalry:** India has close relations with both Saudi Arabia and Iran.
 - However, India is yet to work out a way to balance its ties with Iran on the one hand and Saudi Arabia and the United States on the other.
- **Hike in taxes:** An astronomical hike in the ‘**expatriate dependent fee**’ or **family tax**, in Saudi Arabia is forcing thousands of Indians working in the kingdom to send their families back home.
- **The Kafala system:** The Kafala system requires all migrant workers to have a sponsor in the country where he or she is to work in order that a valid visa and residence permit may be issued.
 - This practically places the migrant worker at the mercy of his or her employer, leading to his/her exploitation.

Way Forward:

- **Economic Reform:** Economic reform programs (Vision 2030) are underway in Saudi Arabia, for which it needs India’s economic as well as technological assistance.
 - Saudi Arabia plays an important role in **India’s energy security** while India is a vital partner in **Saudi Arabia’s food security**.
- **Investments:** Saudi investment of around \$100 billion is in the pipeline in areas ranging from energy, refining, petrochemicals and infrastructure to agriculture, minerals and mining.
 - It is one of the largest consumers of hydrocarbons in the world and this makes India an attractive investment destination for the world.
- **Countering Militias:** Saudi Arabia appears to have limited experience in countering threats from groups like Houthi militias.
 - This is an area where India’s expertise in fighting such threats could be imparted to the Saudi side, by enhancing joint military training programs.

Source: [The Hindu](#)

India-Brazil relations
Syllabus

- **Mains – GS 2 (International Relations)**

Context: Aiming for United Nations Security Council (UNSC) reforms, India and Brazil recently agreed to conduct regular bilateral meetings.

About India-Brazil relations:**Historical ties:**

- Pedro Alvares Cabral, a Portuguese explorer landed on the **East Coast of Brazil** in 1500, two years after **Vasco de Gama had landed in India**.
- Between the 16th and 18th centuries, **Brazil and Goa**, both outposts of the Portuguese imperialist empire, had bilateral exchanges that are reflected in food and dressing as well as local traditions.
- The ‘**Ongole**’ strain from **Andhra Pradesh** led to the production of the **zebu variety known in Brazil as ‘Nelore’**.

Political:

- The strategic partnership established in 2006 between Brazil and India has deepened, with both countries cooperating closely within **BRICS, IBSA, G4, G20**, and the wider multilateral context of the United Nations.

- **Brazil and India along with Germany and Japan** jointly pursued aspirations of permanent seats in the [UN Security Council](#) and worked towards a multipolar world where large developing countries can frame global rules and democratise international institutions.
- Both countries played a pivotal role as leaders of the **Global South or South-South cooperation**.
- The Brazilian foreign policy of reciprocal multilateralism is in concurrence with India's policy of strategic autonomy.

India-Brazil trade relation:

- Trade between Brazil and India increased to \$7.02 billion in 2021, with Brazilian exports worth \$4.8 billion and imports from India valued at \$6.7 billion.
- In 2021, India became the **world's 5th largest trading partner of Brazil** (2nd in Asia), and the **5th largest source of Brazilian imports** and the 13th largest destination of Brazilian exports.
- **Major Indian exports** to Brazil includes processed Petroleum products, Agro-chemicals (insecticides, fungicides), Chemicals, Pharmaceutical, Textured filament yarn, and Unwrought Aluminum.
- **Brazilian exports to India** included Crude oil, soya oil, Gold (non-monetary), cane sugar, cotton, gum, wood and turpentine oils, chemicals (carboxylic acids) and iron ore and concentrates.
- Brazil played a crucial role in the **India-MERCOSUR Preferential Trade Agreement (PTA)** that improves India's access to the large South American market.

Defence and Security Cooperation:

- **India and Brazil signed an agreement in 2003** for cooperation in defence.
- **Meetings of Joint Defence Committee (JDC)** are held as an institutionalized mechanism for defence cooperation.
- Brazilian firearms company **Taurus Armas SA** signed a joint venture with **Jindal Defence (part of O P Jindal Group)** to produce and sell small arms in India.
- An MoU on cooperation in the area of **Cyber Security between CERT-In** and its counterpart agency was signed during the **State Visit of President Bolsonaro in January 2020**.

Cultural Cooperation

- Brazil has a strong community of **Yoga and Ayurveda** practitioners.
 - The **Brazilian Association of Ayurveda (ABRA)** is a non-profit association with offices in 9 states of Brazil and has members all over Brazil.
- **Mahatma Gandhi** is highly regarded in Brazil and the government and NGOs are trying to inculcate the philosophy of non-violence among students, youth and police.
- A **Cultural Exchange Programme (CEP)** for the years 2020-2024 was signed during the **State Visit of President Bolsonaro** to India in January 2020.

Challenges in the bilateral relationship between India and Brazil:

- **Trade competition:** Both India and Brazil are major exporters of agricultural products such as sugar and meat, which can create competition and trade friction between the two countries.
- **China's trade dominance:** Furthermore, there are concerns as China, which is **Brazil's largest trading partner**, can have an impact on relations between India and Brazil.
- **Sugarcane subsidy:** Brazil's complaint to the World Trade Organization about India's subsidies to sugarcane farmers.
 - This has led to tensions between the two countries due to Brazil's concerns over India's agricultural policies that could negatively impact its economic interests.
- **Limited people-to-people contact:** India and Brazil have a limited number of people-to-people contacts, including business, cultural, and educational exchanges.
- **Differences in strategic priorities:** India and Brazil are both emerging powers that seek to enhance their global influence, but their approaches to regional and global issues may differ.

Way Forward:

The decade long bilateral strategic partnership between India and Brazil is based on a **common global vision, shared democratic values, and a commitment to foster economic growth** with social inclusion for the welfare of the people of both countries. With their uniting stance on various multilateral and plurilateral forums, the two countries are considered to be important for the creation of new world order.

Source: [The Hindu](#)

India – Canada Relations

Syllabus

- **Mains – GS 2 (International Relations)**

Context: Recently Canadian trade negotiations with India have been postponed indefinitely due to suspension and concerns over pro-Khalistan activities.

About India – Canada Relations:

Political:

- India established diplomatic relations with **Canada in 1947**.
- **Prime Minister of India's visit to Canada in April 2015** elevated the bilateral relation to a strategic partnership.
- India and Canada share commonalities in **Parliamentary structure and procedures**.
 - After the general election in October 2019, Mr Raj Saini, MP from the House of Common has been appointed as the **Chair of the Canada-India Parliamentary Association**.
- In India, Canada is represented by the **High Commission of Canada** in New Delhi.
- India is represented in **Canada by a High Commission** in Ottawa and by consulates in Toronto and Vancouver.

Commercial relations:

- An annualised **Trade Ministers dialogue** has been institutionalised to review trade and economic relations.
- Both sides are engaged in technical negotiations for a **Comprehensive Economic Partnership Agreement (CEPA)** including trade in goods, services, investment, trade facilitation etc.
- India is Canada's **9th largest export market**
- **India exports include** gems, jewellery and precious stones, pharmaceutical products, readymade garments, light engineering goods, iron & steel articles, etc.
- **India's import from Canada** include pulses, newsprint, wood pulp, asbestos, potash, iron scrap, copper, minerals and industrial chemicals, etc.

Science and Technology:

- **ISRO and CSA (Canadian Space Agency)** have signed MOUs for cooperation in the field of exploration and utilization of outer space and two Implementation Arrangements specifically addressing satellite tracking and space astronomy has also been signed.
- **ANTRIX**, the Commercial arm of ISRO has launched many Canadian Satellites.
- Department of Biotechnology under **IC-IMPACTS program** implements joint research projects in health care, Agri-biotech and waste management.
- **Department of Earth Science and Polar Canada** have started a programme for exchange of knowledge and scientific research on **Cold Climate (Arctic) Studies**.

Security and Defence:

- India and Canada have signed a *Mutual Legal Assistance Treaty* in 1994 (operationalised in 1998) and **Extradition Treaty in 1987**.
- There is robust cooperation on counter terrorism issues particularly through the framework of the **JWG on Counter Terrorism**.
- India and Canada collaborate closely in international fora, particularly through the [United Nations](#), [Commonwealth Nations](#) and [G-20](#).

Indian diaspora:

- Canada hosts one of the largest Indian diasporas in the world, numbering 1.6 million (PIOs and NRIs) which account for more than 4% of its total population.
 - The diaspora has done commendably well in every sector in Canada.
- In the field of politics, in particular, the present House of Commons (total strength of 338) has 22 Members of Parliament of Indian origin.

Challenges associated with the relations:

- **Sikh extremism:** Sikhs constitute a significant proportion of the Indian diaspora; they make up less than one percent (a little over 500,000) of Canada's total population.
 - The issue of Sikh separatist groups operating in Canada has become a growing source of tension between India and Canada.

- **The Ontario Provincial Parliament** adopted a resolution terming the **1984 anti-Sikh riots as 'genocide'** and many other Canadian leaders also support that even today.
- **India's structural impediments:** India still has to overcome structural impediments such as complex labour laws, market protectionism, and bureaucratic regulations.
- **Inadequate trade:** While India–Canada economic relations have made some progress; Canada remains an insignificant trading partner for India.

Way Forward:

There is enough potential for both India and Canada to boost the cooperation and take their relations to next level. But it requires Canadian effort by widening their Indian perspective. This can happen if India by diverting the talks from politically contentious issues. The Indian media, the government and even politicians in Punjab need to realise that Sikhs based in **Canada, the U.K. and the U.S.** may have different political views. Similarly, non-violent support for a cause cannot be labelled as a militant activity.

Source: [The Hindu](#)

East Asia Summit (EAS) and its significance

Syllabus

- **Mains – GS 2 (International Relations)**

Context: Recently the Prime Minister attended the 18th East Asia Summit (EAS) was held in Jakarta.

Key highlights of the [18th East Asia Summit \(EAS\)](#):

- **Leaders' Declaration on ASEAN:** At the 18th EAS, the Leaders' Declaration on ASEAN as an Epicentrum of Growth was adopted.
 - It was discussed on building resilience against emerging challenges and future shocks through cooperation on enhancing energy security and food security, maintaining financial stability, and strengthening regional health architecture.
- **Plan of Action (POA):** The Plan of Action (POA) for the next five years outlines the priorities that include efforts on the mainstreaming and implementation of the **ASEAN Outlook on the Indo-Pacific (AOIP)**.
 - It lays emphasis on strengthening partnerships, through cross-sectoral collaborations that includes efforts in furthering the **implementation of the 2030 Agenda for Sustainable Development**.
- **Meet of ASEAN and non-ASEAN states:** The meet provided an opportunity for ASEAN member states and the **eight non-ASEAN countries** to exchange views on issues concerning the region and the world at large.

Significance of East Asia:

- **Regional Security:** Considering tension on the **Korean Peninsula, South China and in the Taiwan Strait**, among others, it is vital for **Japan, China and South Korea** to maintain a common stance and to share a common concern for security in the East Asian region.
- **Economic benefit:** It represents nearly 50 per cent of the world's population with 20 percent of global trade, and comprising 16 nations that are on a dynamic path of economic development.
- **Global Implications:** An East Asia community would play a big role in instilling a sense of responsibility in Asian countries and in leading them jointly in contributing to the resolution of global issues.

Challenges in the region:

- **Regional challenges:** While the EAS participating countries share a common perspective aimed at achieving peace and security in the Indo-Pacific, ongoing contestations like **China with other countries issue** limits cooperative and collaborative framework as envisaged originally.
- **Complex geopolitical issues:** Strengthening the EAS as a forum for dialogue and cooperation on a wide spectrum of **strategic, political, and economic matters of common interest and concern, remains complex**.
 - This stems from the existing and ever-evolving multi-faceted threats and challenges which get compounded through the intense **geo-political and geo-economic discourse** being witnessed in the region.
- **Concerns over the relevance:** The deepening geo-political divide being witnessed today raises concern on the relevance of the EAS in addressing issues of human security challenges as a consequent of the **socio-economic fallout from the COVID-19 and the ongoing Ukraine-Russia war**.
- **Hampering efficacy and effectiveness:** The nature of the relations amongst the EAS participating countries, marked by confrontation and contestations, has had its impact on its efficacy and effectiveness.

Way Forward:

It was an attempt at the **18th EAS to strengthen the efficacy and effectiveness** of the institution by emphasising on an international community, built on cooperation without division and confrontation. The EAS promotes adherence to **international law and a rules-based order** in the region which includes respecting maritime rights and territorial integrity and working towards peaceful conflict resolution.

Source: [The Hindu](#)

Paper III

Gender Responsive Budgeting

Syllabus

- **Mains – GS 2 (Governance) and GS 3 (Economy)**

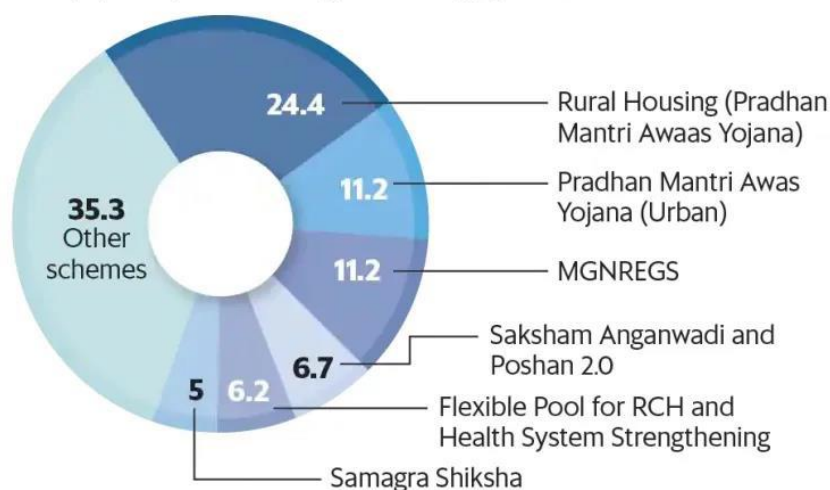
Context: Recently UNICEF India representative Cynthia McCaffrey has said the country is being looked upon as a leader in child and gender-responsive budgeting, especially in South Asia.

About Gender Responsive Budgeting (GRB):

- Gender budgeting is a fiscal strategy to achieve equality between women and men by focusing on how public resources are collected and spent.
- Gender Responsive Budgeting initiatives can help to close the gender gaps, ensuring that public money is raised and spent more effectively.

India’s Gender Responsive Budgeting:

Share (%) of top schemes in gender budget, 2023-24

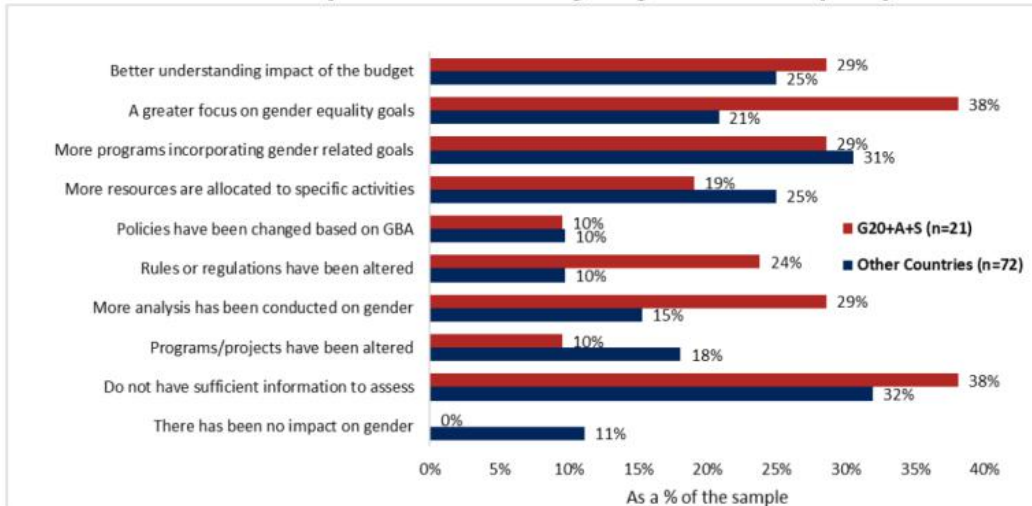


- GRB began in India in 2005-2006 as a fiscal innovation, every year since then the **Ministry of Finance** has been publishing “**Gender Budget Statements**” along with the Union Budget.
- In 2010, the **Planning Commission** clarified that in place of the Women Component Plan, the **Ministry of Finance and MoWCD** should adopt Gender Responsive Budgeting or Gender Budgeting only.
- The ‘**Gender Budgeting Handbook, 2015**’ released by the **Ministry of Women and Child Development** notes that Gender Budgeting is a tool for gender mainstreaming.
- In the **2023-24 Union budget**, the Finance Minister emphasised ‘**Nari-Shakti**’ (**woman power**) and shifted the focus from women’s development to women-led development.

Significance of Gender Responsive Budgeting:

- **Achievement gender equity and equality:** The Constitution of India not only grants equality to women, but also empowers the State to adopt measures of positive discrimination in favour of women.
- **Improving Literacy:** The Government has been successfully running the Vidhya shakti program with focus on female literacy.

Impact of Gender Budgeting on Gender Equality



- Monitoring The Achievement Of Policy Goals:** GRB is a tool to monitor the achievement of the goals of the *National Policy for Empowerment of Women 2001* and other policy goals.

- Economic Growth:** Ensures allocation of resources to address specific needs and challenges faced by women and girls.

- The **Bharatiya Mahila Bank Ltd**, first of its kind in the banking industry in India and the **Pradhan Mantri Jan Dhan Yojana** besides promoting financial inclusion are emerging as a catalyst for gender justice and equality.

Challenges need to be tackled:

- Political representation:** Women comprise only 14.44 % of the 545 members of the 17th Lok Sabha.
- Education:** According to the World Bank India report, while male literacy rate in the country is at 84.7 percent, for females, it is 77 percent.
- Economic Opportunities:** According to the Periodic Labour Force Survey 2021-22, only 32.8 percent of women between 15-29 years were part of India’s labour force in 2021-2022, while men were at 77.2 percent.
- Low budgetary allocation:** Despite having been in operation for almost two decades, budgetary expenditure on it remains a mere 4-5 percent of the total allocation in Union Budget 2023-24.
- Skewed Implementation:** **NITI Aayog paper on Gender Mainstreaming (June 2022)** has noted that only 62 out of 119 centrally-sponsored schemes are practising GB.
 - The paper noted that the record of Ministers associated with Environment and Climate Change, Urban Transformation, Skill etc. have done poorly.
- Quality gender disaggregated data:** The government agencies who do not capture gender-disaggregated information from their schemes and programmes may not be able to assess the targeted expenditure towards the empowerment of women and girls.

Government Initiatives toward Gender Responsive Budgeting:

- Safe City Project:** To ensure the safety of women by strengthening public resources.
- Samarthya Scheme:** Launched by clubbing existing women’s empowerment programmes such as the Pradhan Mantri Vandana Yojana and Swadhar Greh etc.
- [Mahatma Gandhi National Rural Employment Guarantee Scheme](#) (MGNREGS)
- [Pradhan Mantri Awaas Yojana](#)
- [Saksham Anganwadi scheme and POSHAN 2.0](#)
- [Swachh Bharat Mission](#)
- [Beti Bachao, Beti Pado](#)
- [Pradhan Mantri Ujjwala Yojana](#) (PMUY)

Way Forward:

Gender Responsive Budgeting (GRB) in India has made strides in promoting gender equality through government initiatives and budget allocations. However, challenges like disparities in education, economic opportunities, and political representation needs to be addressed as a top priority. By doing so, India can **achieve Beijing Declaration’s** principles and address deeper socio-economic issues beyond fiscal measures.

Source: [Business Standard](#)

Should Agriculture Income be taxed?

Syllabus

- Mains – GS 2 (Governance) and GS 3 (Economy)

Context: Recently, the debates were floated around exemptions and non-taxation of agricultural income in India.

- Agriculture employs about **50% of the population** contributing approximately **17% to the GDP of the country**.
- **According to Indian Constitution**, agriculture and the taxation of agricultural incomes has been a state subject.
 - Accordingly, **section 10(1) of the Income Tax Act, 1961**, exempts agricultural income from taxation by the central government.
- This has led to rich farmers and landlords immune from the tax net.

History of Taxing Agriculture income:

- The issue of taxing agricultural income (and wealth) goes back to the 1960s.
- **Seventh Schedule, entry 82 in the Union List** mentions taxes other than agricultural income, while Entry 46 in the State List mentions taxes on agricultural income.
 - Therefore, arguing that this is in the **State List is valid**.
- **Income Tax Act of 1860** (which introduced income tax in India) it taxed agricultural income till 1886.
- **Income tax act 1961** had provisions for taxing agricultural income.
- **Agricultural Income Tax Acts** are present in Bihar, Assam, Bengal, Orissa, Uttar Pradesh, Hyderabad, Travancore and Cochin and Madras and Old Mysore State.
 - Therefore, states tax some kinds of agricultural income, such as plantations.

Significance of not taxing agricultural income:

- **No revenue potential:** Around 95% of the total assets are owned by small and marginal farmers which means only 5% of the farmers will be liable to pay the tax.
 - Therefore, it will not have major revenue potential. So, the tax income would be very limited and it is not worth consideration.
- **Burden on the poor:** The income of small and marginal farmers is very low; they can hardly earn a living and thus are left with either no savings or a very small amount.
 - The average per month income of a farm household in India in 2012-13 as per the **National Sample Survey Office was just Rs. 6,491**.
 - The income-expenditure gap for a majority of farmers is in the negative.
- **Lack of documentation and records:** The small farmers are usually illiterate and uninformed and thus they are unaware of the procedure to make proper documentation of their land.
- **Reduction in credits:** If agricultural tax is imposed on farmers, it will reduce their chances of getting significant credits and it will lead to credit flowing only to rich farmers, as they'll have a higher income to show.
- **May lead to suicides:** With so many farmers committing suicide because of pending debts, low productivity and small income, imposing agriculture tax may even increase the suicide rate.
- **Fluctuating incomes and profit margins:** There is a large fluctuation in the annual income of farmers. Harvests are unpredictable as they are affected by weather, disease and pests.

Various challenges:

- **Political will:** Many states may have been reluctant to tax agriculture incomes as they do not wish to lose vote bank of farmers.
 - Moreover, India's state legislatures have typically been populated by land owners who have been blocking efforts to impose a tax on themselves.
- **Cash transactions:** In India in particular, agriculture is harder to tax as it is based largely on cash transactions which are hard to track and trace.
 - Cash transactions not routed through the banking system are difficult to verify and be used for assessment of agricultural incomes.
- **Burden small farmers:** In a country where 83% of the farming community comprises small and marginal farmers.
 - Many farmers do not hold land and work on contract. Rich farmers would pass on the burden of tax on these farmers.

- **Fraud “farmer” certificates:** There is also a significant lack of credibility about the way states issue “farmer” certificates.

Way Forward

- **A bold and dynamic approach** is needed in India whereby all the **stakeholders** to organize a conclave to debate and discuss the issues concerning taxation of agricultural income in India.
- Agricultural income taxation must be **integrated with non-agricultural income taxation**.
 - Land revenue tax hasn't quite worked and must be replaced.
- If implemented this would be an indirect tax on commodities, like an excise or sales tax, which will get subsumed under **GST**.
 - The income of the farmer will still be outside the ambit of income tax.
- The underlying argument in the current discussion is to bring more people under the tax net to expand the tax base and also curb tax evasion.

Production-Linked Incentives (PLI) Schemes and its Implications

Context: According to the recent study conducted by the **Telecom Regulatory Authority of India** (TRAI), despite the production-linked incentive scheme, manufacturing telecom hardware in India is 12-13% costlier than China.

- **Indian Networking and Telecom Equipment Manufacturing (NATEM)** companies face relative **cost disability up to 13.32%** in comparison to the companies operating in China and up to **3.22%** in comparison to the **companies operating in Vietnam**.
 - In case PLI benefits are not considered, the relative cost disability goes further up by at least 4%.
- TRAI observed that China offers programmes like **“High- and New-Technology Enterprise (HNTE)”** and **“Made in China 2025”** that provide multiple benefits to companies engaged in technological fields, including electronics production.
- But In India, subsidy schemes focus on providing incentives on the number of finished goods produced.
 - The regulatory authority has recommended the Union government to move beyond the PLI schemes.

About Production Linked Incentive Scheme (PLI):

- The PLI scheme was conceived to scale up domestic manufacturing capability, accompanied by higher import substitution and employment generation.
- **Launched:** March 2020
- Initially targeted three industries but later it was extended to 14 sectors:
 - Mobile and allied Component Manufacturing
 - Electrical Component Manufacturing and
 - Medical Devices.

Targeted Sectors:

- The 14 sectors are mobile manufacturing, manufacturing of medical devices, automobiles and auto components, pharmaceuticals, drugs, specialty steel, telecom & networking products, electronic products, white goods (ACs and LEDs), food products, textile products, solar PV modules, advanced chemistry cell (ACC) battery, and drones and drone components.

Salient features of the scheme:

- **Output-oriented:** The schemes are output-oriented rather than input-based.
 - They reward manufacturers for increasing their production and sales rather than for investing in capital or infrastructure.
- **Time-bound:** The schemes are time-bound and have a sunset clause.
 - They are valid for a period of five to six years depending on the sector.
- **Performance-based:** The schemes are performance-based and have a graded incentive structure.
 - The incentive rate varies according to the category of the manufacturer (domestic or foreign), the level of value addition, the type of product and the year of operation.
- **Flexible:** The schemes are flexible and allow manufacturers to choose their own base year, investment plan and production targets within the prescribed guidelines.
- **Aligned with the national priorities:** The schemes are aligned with the national priorities and strategic sectors.
 - They aim to reduce import dependence, promote innovation and R&D, create employment opportunities and enhance India's share in the global value chain.

Significance achievements of the PLI Scheme:

- **Increased export growth:** Under the PLI scheme, sectors such as electronics, automobiles, pharmaceuticals, white goods, and textiles have witnessed significant growth in exports.
 - For example, exports of electronic goods increased by 57.36 percent during March 2023 at USD 2.86 Billion as compared to USD 1.82 Billion in March 2022.
- **Employment creation:** The PLI scheme has played a crucial role in generating employment opportunities across sectors.
 - For example, the drone manufacturing sector alone is expected to create more than 10,000 direct jobs, while the textile sector is estimated to create over 7.5 lakh additional jobs
- **Incremental production and investments:** The PLI scheme has stimulated incremental production and investments in targeted sectors.
 - It is expected to bring in incremental investment of Rs 7,920 crore and incremental production worth Rs 1,68,000 crore.
- **Attracting investments:** The PLI scheme has successfully attracted both domestic and foreign investments in various sectors.
 - Companies have shown interest in setting up manufacturing facilities in India to leverage the incentives provided by the scheme.
 - For instance, The 20 automobile companies have proposed a total investment of around Rs. 45,000 crores (US\$ 5.95 billion).
- **Improving India's Global Manufacturing Rankings:** India's efforts towards manufacturing growth, including the PLI scheme, have been recognized globally.
 - India secured second position after China in the [Global Manufacturing Risk Index 2021](#), reflecting the progress made in the manufacturing sector.
- **Contribution to GDP:** The PLI scheme is expected to have a positive impact on India's GDP.
 - It is estimated to add 1.7% to the country's GDP by 2027, generating significant economic growth and contributing to overall prosperity.

Challenges associated with the schemes:

- **Lack of a Centralized Database:** The lack of a centralized database that captures information like increase in production or exports, number of new jobs created etc. make the evaluation process an administrative complexities.
 - This information ambiguity impacts transparency and can lead to malfeasance, further widening the fault lines and weakening the policy structure.
- **Coordinated approach:** The schemes require a coordinated approach among various ministries, departments, agencies and stakeholders to avoid duplication, overlap or conflict of policies and regulations.
 - The government needs to harmonize the PLI schemes with other existing or proposed schemes such as [Make in India](#), [Digital India](#), [Startup India](#), etc.
- **Supportive ecosystem:** The schemes require a supportive ecosystem of infrastructure, logistics, finance, skilling and market access to enable the manufacturers to scale up their production and exports.
 - The government needs to address the bottlenecks and gaps in these areas through reforms and investments.
- **Dynamic and responsive design:** The schemes require a dynamic and responsive design to adapt to the changing market conditions and consumer preferences. The government needs to review and revise the PLI schemes periodically based on feedback from the manufacturers and other stakeholders.
- **WTO Constraints:** WTO rules prevent India from tying PLI subsidies to domestic value addition.
 - Although India's aspiration to make chips is sound, chips are complex components.
 - The absence of significant domestic value addition likely stems from these constraints.

Way Forward:

The PLI schemes are a bold and ambitious step by the Govt to revitalize the manufacturing sector and make India a global hub for production and innovation thereby promoting employment generation, increase exports and decrease imports.

Therefore the success of these schemes depends on their effective implementation and coordination among various actors. If done well, these schemes can transform India's economic landscape and create a new wave of growth and development.

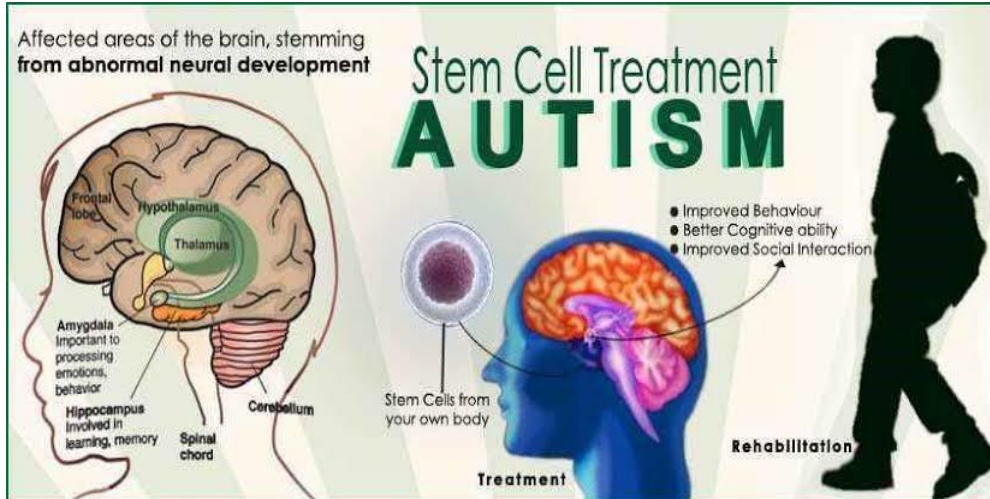
Source: [The Wire](#)

Stem Cell Therapy

Syllabus

- Mains – GS 3 (Science and Technology)

Context: The Delhi High Court recently permitted two children with [autism spectrum disorder](#) (ASD) to undergo stem cell therapy.

About stem cell therapy:

- Stem cells are **undifferentiated biological cells** that can differentiate into specialized cells and can divide to produce more stem cells.
- Treatments or therapies are used stem cells to **prevent or treat any disease** are known as **stem cell therapy**.
- Stem cells are **grown in the labs**, these stem cells are manipulated to specialize into specific types of cells, such as **heart muscle cells, blood cells**

or nerve cells etc.

- Stem cell therapy promotes the **reparative treatment of diseased, dead or injured tissue**.

Potential applications of Stem cell therapy: The therapy can be used to treat:

- Orthopedic injuries and musculoskeletal problems
- Spinal cord injuries, brain trauma and spinal stenosis
- Cardiovascular diseases, including hypertension, coronary heart disease, stroke and congestive heart failure
- Hair loss and vision impairment
- Diabetes and other pancreatic dysfunctions
- Neurodegenerative diseases such as Parkinson's, multiple sclerosis and Alzheimer's

Significance of stem cell therapy:

- **medical benefits:** It offers a lot of medical benefits in the therapeutic cloning and regenerative medicine.
 - It shows great potential in the treatment of a number of conditions like Parkinson's disease, spinal cord injuries, Alzheimer's disease, schizophrenia, cancer, diabetes and many others.
- **A better knowledge of human growth:** It helps the researchers know more about the growth of human cells and their development.
 - The stem cell research can allow the scientists to test a number of potential medicines and drugs without carrying out any test on animals and humans. The drug can be tested on a population of cells directly.
- **Early care and treatment:** The stem cell therapy also allows researchers to study the developmental stages that cannot be known directly through the human embryo and can be used in the treatment of a number of birth defects, infertility problems and also pregnancy loss.
 - A higher understanding will allow the treatment of the abnormal development in the human body.
- **Reduced risk of rejection:** The stem cell therapy puts into use the cells of the patient's own body and hence the risk of rejection can be reduced because the cells belong to the same human body.

Disadvantages:

- **Destruction of blastocysts:** The use of the stem cells for research involves the destruction of the blastocysts that are formed from the laboratory fertilization of the human egg.
- **Unknown side-effects:** Like any other new technology, it is completely unknown what the long-term effects of such an interference with nature could be
- **Limitations of adult cells:** The disadvantage of adult stem cells is that the cells of a particular origin would generate cells only of that type, like brain cells would generate only brain cells and so on.

- **Potential rejection:** If the cells used in the therapy are embryonic, then the cells will not be from the same human body and there are chances of rejection.
- **Potential use in negative activities:** It can be used to create bio-weapons or weapons of mass destruction

Way Forward:

Stem cell therapy is gaining popularity in India to treat a wide variety of medical conditions. considering the fact that therapy is frequently and worldwide offered as a universal human remedy, studies should be focused on continuous monitoring and long-term follow-up of animal research models in order to determine possible pro-tumorigenic and other detrimental effects of therapy.

Source: [Indian Express](#)

National Mission for Clean Ganga (NMCG)

Syllabus

- **Mains – GS 2 (Governance) and GS 3 (Environment)**

Context: In the seven years, since the government unveiled its ambitious NMCG, it has installed treatment plants capable of treating just 20% of the sewage.

- These plants are **capable of treating 20% of the sewage** to be generated in the five major States that lie along the river– **Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal.**
 - This is expected to increase to about 33% by 2024; and 60% by December 2026.

About National Mission for Clean Ganga (NMCG)



- It was registered as a society in 2011 under the **Societies Registration Act 1860.**
- It acted as the implementation arm of **National Ganga River Basin Authority (NGRBA)** which was constituted under the provisions of the **Environment (Protection) Act (EPA),1986.**
 - NGRBA has since been dissolved with effect from 2016 consequent to the constitution of **National Council for Rejuvenation, Protection and Management of River Ganga** which is referred as **National Ganga Council.**
- National Ganga Council under the **chairmanship of Prime Minister of India.**
- NMCG has a two-tier management structure and comprises of:
 - Governing Council
 - Executive Committee
- Both are headed by **Director General, NMCG.**

Significance of Namami Gange programme:

- **Creating sewage treatment capacity:** 48 sewage management projects are under implementation and 98 sewage projects have been completed in the basin states.
- **Biodiversity conservation:** One of NMCG’s long-term visions for Ganga rejuvenation is to restore viable populations of all endemic and endangered biodiversity of the river, so that they occupy their full historical range and fulfil their role in maintaining the integrity of the Ganga River ecosystems.
- **Creating river-front development:** 68 Ghats/Crematoria projects for construction, modernization, and renovation of 267 Ghats/Crematoria and Kunds/Ponds have been initiated.
- **River surface cleaning:** River Surface cleaning for collection of floating solid waste from the surface of the ghats and river and its disposal are afoot and pushed into service at 11 locations.

- **Afforestation:** The process involves enhancement of productivity and diversity of the forests in head water areas and all along the river and its tributaries.
- **Ganga gram:** Ministry of Drinking Water and Sanitation identified 1674 Gram Panchayats situated on the bank of River Ganga in 5 States (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal).

Challenges of the mission:

- **Sludge control:** While the containment of human waste has been largely achieved by [Swachh Bharat Mission \(SBM\)](#) through construction of toilet in Ganga grams, its safe disposal still poses a huge challenge.
 - Faecal sludge is a bigger pollutant than sewerage.
- **Sewage treatment:** Despite initiatives, there are challenges like delay in new projects because of land acquisition and other procedural requirements, poor performance of **Sewage treatment plants (STPs)** and lack of sewerage network in cities.
 - Industries find it easy to dispose their entire waste in the common drain which carries both domestic as well as industrial waste into the river.
- **Restoring the flow:** With enough flow, a river acts as self-purifying system. However, the Ganga fails this basic test except during monsoons.
 - Due to restrictions and decrease in flow, the velocity of water decreases and siltation increases and the self-purification capacity decreases.
- **Cost overruns:** The costs of the programme have increased as a result of delays in multiple projects, and ineffective financial management.
- **Governance Issues:** The Ganga Action Plans lacked the coordination of various Ministries.
 - Lack of coordination results in faulty execution, delays and cost overruns.

Way Forward:

Therefore, monetization of sludge and treated water is one of the focus areas of Namami Gange Programme under the banner of '[Arth Ganga](#)', which means linking people with Ganga through a '**Bridge of Economics**'. A targeted dissemination of information must be done to bring about the desired change. There is a need to create a "generation with cleanliness conscious" and everything else will automatically fall into place.

Source: [The Hindu](#)

Global initiatives in quantum computing: The role of international collaboration

Syllabus

- **Mains – GS 3 (Science and Technology)**

Context: Quantum computing is rapidly emerging as a transformative technology, capturing the attention of both public and private sectors worldwide.

- Its remarkable potential lies in its ability to deliver unprecedented computing speed compared to classical computers and its potential to revolutionize cybersecurity.

About Quantum Technology:

- Quantum computing is based on the **principles of Quantum mechanics** developed in the early 20th century to describe nature at the scale of atoms and elementary particles.
- It is a revolutionary approach to computation that leverages the principles of quantum mechanics to process information.
 - It differs significantly from classical computing, which is based on classical physics and uses bits to represent data as either 0 or 1.

The Global Quantum Computing Landscape

- As of 2022, the quantum computing sector has attracted substantial investments, reaching **approximately US\$35.5 billion globally**.
- This growth can be attributed to the promising leap in computing capabilities offered by quantum computers and the paradigm shift they bring to cybersecurity.

Inter-governmental quantum technology Initiatives:

- **European Union:** Quantum Technologies Flagship was established by the European Union (EU) in 2018 with a budget of approximately 1 billion euros which aims to consolidate European leadership in quantum technologies.
 - It brings together research institutions, private companies, and public entities to foster collaboration.

- **AUKUS:** AUKUS is a trilateral security arrangement formed in 2021 between **Australia, the United Kingdom (UK), and the United States (US)**.
 - The AUKUS Quantum Arrangement, initiated in 2022, aims to accelerate investments in quantum capabilities, with a focus on maintaining a strategic advantage in quantum computing and cryptography, particularly in competition with China.
- **Quadrilateral Security Dialogue:** Also known as the Quad, established a Critical and Emerging Technology Working Group in 2021.
 - Its purpose is to ensure that standards and frameworks for key technologies, including quantum computing, are governed by shared interests and values.
 - In May 2023, the Quad Investors Network (QUIN) was launched, connecting investors interested in novel technologies.
- **CERN Quantum Technology Initiative:** The European Council for Nuclear Research (CERN) initiated the Quantum Technology Initiative in 2020.
 - It focuses on developing new computing, detector, and communication systems while advancing knowledge of quantum systems and information processing.

Private Initiatives:

- **IBM:** IBM, a technological innovation leader collaborating with the **University of Tokyo and the University of Chicago** aims to develop a 100,000-qubit quantum computer over the next decade.
 - In 2022, the **Indian Institute of Technology, Madras**, joined the IBM Quantum Network, furthering quantum computing research and skills development in India.
- **Google:** Google achieved "**quantum supremacy**" in **2019** and has become a major player in quantum computing.
 - It collaborates with various quantum computing startups, including IonQ, QSimulate, and Pasqal.
 - In 2021, Google launched the Digital Future Initiative, a US\$1 billion investment over five years in Australian infrastructure, research, and partnerships.
- **D-Wave:** D-Wave, headquartered in Canada specializes in both annealing and gate-model quantum computers and has worked closely with NASA and Google to set up Quantum Artificial Intelligence Labs.
- **Infosys:** In India, Infosys has partnered with Australian quantum cybersecurity firm QuintessenceLabs to create a quantum random number generator compatible with classical encryption systems, enhancing cybersecurity capabilities.

Potential applications of quantum computing:

- **New Medicines:** Quantum computing can help simulate complex molecular interactions, allowing researchers to discover new drugs and optimize existing ones.
- **Improved Climate Predictions:** Quantum computers can process vast amounts of data, leading to more accurate climate models and better-informed policies for environmental preservation.
- **Secure Communication:** Quantum computers can enable ultrasecure communication using quantum encryption, making it nearly impossible for hackers to intercept sensitive information.
- **Enhanced AI Models:** Quantum computing can dramatically improve machine learning algorithms, enabling more efficient and accurate AI models for various applications.
- **Logistics and Supply Chains:** Quantum computing can find optimal solutions for complex optimization problems, such as routing and scheduling, to improve efficiency in logistics and supply chains.
- **Better Investment Strategies:** Quantum computing can analyze complex financial data, allowing for improved risk assessment and investment strategies in the financial sector.
- **Climate Change:** Quantum computing can enhance climate modelling and analysis, aiding in the development of effective climate change mitigation strategies.

Challenges in developing quantum computing technology:

- **Engineering larger quantum processors:** A practical QC needs at least 1,000 qubits. Currently, the largest quantum processor has 433 qubits.
 - Engineering barriers need to be overcome to create larger processors.
- **Maintaining specific conditions:** Qubits require extremely low temperatures, radiation shielding, and protection against physical shock to maintain their superposition states.
- **Error-correction:** Quantum error-correction is tricky due to the no cloning theorem, which states that a qubit's state cannot be perfectly cloned.
 - Error-correction requires entangling each qubit with thousands of physical qubits.
- **Error amplification:** Researchers must develop QCs that don't amplify errors when more qubits are added.

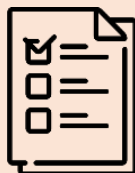
- Keeping error rates below a certain threshold is crucial, as more qubits could otherwise increase informational noise.

Way Forward:

Just like the fast-growing Artificial Intelligence market, quantum computing, as another technology, has created a wave among the countries and companies globally to get into a race and acquire a leadership position.

Therefore the need of the hour is to build sufficient quantum computational capacity, develop skills in building and operationalizing a practical size and affordable cost quantum computer, continue research into realizing the various practical applications.

Source: [ORF](#)



Practice Questions



Q1) Consider the following pairs:

Commissions	Ministry
1. Central Board of Direct Taxes	Ministry of Finance
2. National Human Rights Commission India	Ministry of Defense
3. National Commission for Protection of Child Rights	Ministry of Education

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q2) Consider the following statements

Statement-I :

Commission for Air Quality Management (CAQM) chairperson will hold the post for four years or until s/he attains the age of 65 years.

Statement-II :

CAQM has penal powers.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q3) With reference to the Dadasaheb Phalke Lifetime Achievement Award, consider the following statements:

- 1. It was established in 1969.
- 2. It is presented by the President of India.
- 3. It was first awarded to Devika Rani.

How many of the statements given above is/are correct?

- a. 1 only
- b. 1, 2 and 3 only
- c. 2 and 3 only
- d. 3only

Q4) Consider the following pairs:

Institutions	HQ
SEBI	Pune
LIC	Mumbai
RBI	New Delhi

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q5) Consider the following statements

Statement-I :

Serious Fraud Investigation Office (SFIO) investigates serious cases of fraud received from the Department of Company Affairs.

Statement-II :

It has a Regional Office in Mumbai.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q6) With reference to the CSIR PRIMA ET11, consider the following statements:

- 1. Females are observed to mate with only one partner.
- 2. IUCN status is vulnerable.
- 3. It is known for spinning frantically on water to stir up small invertebrates.

How many of the statements given above are correct?

- a. 1 and 2 only
- b. 1, 2 and 4 only
- c. 3 and 4 only
- d. 3 only

Q7) Consider the following pairs:

EXERCISE	Countries
JIMEX	Japan-India
Sampriti	India & Sri Lanka
Yudh Abhyas	India & Indonesia

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q8) Consider the following statements

Statement-I :

India Post Payment Bank (IPPB) cannot loan money.

Statement-II :

It can issue credit cards.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q9) With reference to Nilgiri tahr, consider the following statements:

1. It is listed as Endangered under the IUCN red list.
2. It is the state animal of Karnataka.
3. It is endemic to the Himalayas.

How many of the statements given above is/are correct?

- a. 2 only
- b. 1, 2 and 3 only
- c. 2 and 3 only
- d. 1 only

Q10) Consider the following pairs:

National Park	Location
Eravikulam National Park	Tamil Nadu

Similipal National Park	Madhya Pradesh
Silent Valley National Park	Karnataka

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q11) Consider the following statements

Statement-I :

UN Convention on the International Effects of Judicial Sales of Ships was adopted in 2022.

Statement-II :

The convention is also known as the Beijing Convention on the Judicial Sale of Ships.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q12) With reference to the Segur elephant corridor, consider the following statements:

1. It connects the Western and the Eastern Ghats.
2. It has the Nilgiri Hills on its northeastern side.
3. Moyar River Valley is on its southwestern side.

How many of the statements given above are correct?

- a. 1 only
- b. 1, 2 and 3 only
- c. 2 and 3 only
- d. 1 and 3 only

Q13) Consider the following pairs:

Space Missions	Agency
DISCOVERY	NASA
Aditya-L1	ISRO
MOM	JAXA

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two

- c. All three
- d. None

Q14) Consider the following statements

Statement-I :

The UNCTAD publishes the Least Developed Countries Report biannually.

Statement-II :

The second UNCTAD Conference took place in New Delhi, India in 1968.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q15) With reference to the CALIPSO mission, consider the following statements:

1. It contributes to improved air quality assessments and weather forecasting.
2. It is a joint NASA-ESA mission.
3. It uses laser pulses to measure the altitude and properties of clouds and aerosols with high precision.

How many of the statements given above is/are correct?

- a. 2 only
- b. 1, 2 and 3 only
- c. 1 and 3 only
- d. 3 only

Q16) Consider the following pairs:

Temple	Location
Sammed Shikharji Jain Temple	Jharkhand
Modhera Sun temple	Gujarat
Srisailam Temple	Kerala

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q17) Consider the following statements :

Statement-I :

Investing in disaster reduction for resilience is one of the four priorities for action of the Sendai Framework.

Statement-II :

It is the predecessor of the Hyogo Framework for Action (HFA).

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q18) With reference to the Comptroller Auditor General of India (CAG), consider the following statements:

1. His pension comes from the Consolidated Fund of India and is subject to vote.
2. He is the head of the Indian Audit and Accounts Department.
3. He has a tenure of 5 years or 60 years of age, whichever is earlier.

How many of the statements given above are correct?

- a. 2 only
- b. 1, 2 and 3 only
- c. and 3 only
- d. only

Q19) Consider the following pairs:

Tiger Reserves	Location
Melghat	Maharashtra
Sanjay Dhubri	Chattisgarh
Ranipur Tiger Reserve	Uttar Pradesh

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q20) Consider the following statements :

Statement-I :

‘Sahbhagi Dhan’ is a drought-tolerant variety of rice.

Statement-II :

'BINA Dhan-11', which is flood-tolerant.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q21) With reference to the Indian One-Horned Rhino, consider the following statements:

- 1. Its status is Least Concern on the IUCN Red List.
- 2. It is the smallest of all the rhino species.
- 3. It is in Appendix II of CITES.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None

Q22) Consider the following pairs:

Animal	IUCN Status
Gaur	Vulnerable
Indian Flying Fox	Least Concern
Indian Vulture	Critically Endangered

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q23) Consider the following statements

Statement-I :

Pterygotrigla intermedica discovered recently in Bengal, is the fourth species of the *Pterygotrigla* genus reported in India to date.

Statement-II :

Gurnards are carnivorous.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q24) With reference to the GCES Web Portal and Mobile Application, consider the following statements:

- 1. It was launched in 2017.
- 2. It provides for a real-time estimate and technology in agriculture.
- 3. It enables the primary worker to upload photos of the plot as well as of the crops through it.

How many of the statements given above is/are correct?

- a. 1 only
- b. 1, 2 and 3 only
- c. 2 and 3 only
- d. 3only

Q25) Consider the following pairs:

Disease	Pathogen
Common cold	Rhino Virus
Measles	Rubeola virus
Smallpox	Variola virus

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q26) Consider the following statements

Statement-I :

The e-Courts Mission is undertaken by the Ministry of Electronics and Information Technology.

Statement-II :

It is being implemented in association with the e-Committee Supreme Court of India and the Department of Justice.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q27) With reference to the Malaria, consider the following statements:

1. It is mostly found in tropical countries.
2. It is not preventable and curable.
3. The infection is contagious.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None

Q28) Consider the following pairs:

Type of Bipolar Disorder	Set up
Bipolar II	at least one manic episode that may be preceded or followed by hypomanic or major depressive episodes.
Cyclothymic disorder	at least two years or one year in children and teenagers with many periods of hypomania symptoms and periods of depressive symptoms
Bipolar I	at least one major depressive episode and at least one hypomanic episode, but never a manic episode.

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q29) Consider the following statements

Statement-I :

Red sand boa is endemic to India.

Statement-II :

It is ovoviviparous.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

Q30) Consider the following statements

Statement-I :

The Mera Bill Mera Adhikaar Scheme will be launched on 1st September 2023.

Statement-II :

It is available only on Android currently.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q31) Consider the following pairs:

Disease	Pathogen
Anthrax	Bacillus anthracis
Whooping cough	Clostridium tetani
Tetanus	Bordetella pertussis

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q32) Consider the following statements

Statement-I :

The National eVidhan Application (NeVA) is to serve the Members of Legislative Assemblies more effectively.

Statement-II :

Telangana was the first Digital Legislature in the country.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

- 1. Smog can comprise airborne particulate matter, mostly PM 2.5 and PM 10.
- 2. The exposure to particulate PM 10 is associated with the worsening of respiratory diseases like asthma and Chronic Obstructive Pulmonary Disease (COPD).
- 3. The combustion of gasoline, oil, diesel fuel, or wood produces much of the PM 2.5.

Q33) With reference to the Probiotics, consider the following statements:

- 1. Buttermilk is a Probiotic-rich food.
- 2. Probiotics create vitamins.
- 3. Probiotics never contain yeast.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None

Which one of the above statements is/are correct?

- a. 1 and 3
- b. 2 only
- c. 1 only
- d. 1,2, and 3

Q34) Consider the following pairs:

Ancient Sanskrit literature	Written by
Abhijnanshakuntalam	Kalidasa
Mricchakatika	Shudraka
Raghuvamsha	Tulsidasa

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q37) Consider the following pairs:

Organization	HQ
Reserve Bank of India	New Delhi
National Crime Records Bureau	Mumbai
Enforcement Directorate	Kolkata

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q35) Consider the following statements

Statement-I :

Bhoramdeo Wildlife Sanctuary (BWS) is characterized by its lush green forests, rolling hills, and the Maikal Range of the Satpura Hills.

Statement-II :

It is located in Kawardha district, Jharkhand.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q38) Consider the following statements

Statement-I :

The G20 Global Partnership for Financial Inclusion (GPII) Meeting was held in New Delhi, India.

Statement-II :

The meeting involved discussions on ongoing work of the financial inclusion agenda under the G20 India Presidency.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q39) With reference to the Shantiniketan, consider the following statements:

Q36) Consider the following statements

1. Tagore’s Ashram complex is the newest area of Shantiniketan where Maharshi Debendranath Tagore built Shantiniketan Griha, the first guest house.
2. Vishwa Bharati University was established with the principal motto and objective to create oneness in diversity.
3. The trend of Gurukul (open-air classes) is still practiced under the campus trees.

How many of the statements given above is/are correct?

- a. 1 only
- b. 2 and 3 only
- c. 1,2 and 3 only
- d. 3 only

Q40) Consider the following pairs:

Harvest Festival	State
Nuakhai	Orissa
Pongal	Kerala
Bohag Bihu	Arunachal Pradesh

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q41) Consider the following statements

Statement-I :

Central Consumer Protection Authority (CCPA) can recall goods or withdrawal services that are “dangerous, hazardous, or unsafe.

Statement-II :

It works under the administrative control of the Ministry of Commerce And Industry.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q42) Consider the following statements about ‘Pulikali’:-

1. It is performed on the fourth day of Onam celebrations.
2. It was introduced by Maharaja Rama Varma Sakthan Thampuran.
3. It is a recreational street folk art of Karnataka.

Which one of the following is correct in respect of the above statements?

- a. 1 and 2 only
- b. 1 only
- c. 1,2 and 3
- d. 2 and 3 only

Q43) Consider the following pairs:

Ramsar Wetland	Location
Kanwar Lake	Bihar
Nalsarovar	Rajasthan
Yashwant Sagar	Uttar Pradesh

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q44) Consider the following statements

Statement-I :

"Hindi Diwas" is celebrated annually on 10 January in India.

Statement-II :

The Indian constitution recognizes 22 major languages of India in what is known as “the 8th Schedule" of the Constitution.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q45) With reference to the World Trade Report 2023, consider the following statements:

1. It was launched in September,2022.
2. It was Published by WTO.
3. It shows that bilateral trade between China and the United States reached a record High.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None

Q46) Consider the following pairs:

GI Tags	State
Navara Rice	Karnataka
Kani Shawl	Jammu & Kashmir
Palakkadan Matta Rice	Kerala

How many of the above pairs are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None

Q47) Consider the following statements

Statement-I :

Electrified Flex Fuel Vehicles provide increased fuel efficiency.

Statement-II :

The world's 1st BS-6 Stage-II, Electrified Flex fuel vehicle, has been developed by Tata Motors.

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q48) With reference to the CSIR PRIMA ET11, consider the following statements:

- 1. It is a 100% Pure Electric Tractor.

- 2. It has a state-of-the-art Lithium-ion battery with Prismatic cell confirmation.
- 3. The farmers can charge the tractor using a conventional home charging socket.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None

Q49) Consider the following statements

Statement-I :

National Payments Corporation of India (NPCI) was established in 2009.

Statement-II :

It is an initiative of the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA).

Which one of the following is correct in respect of the above statements?

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement II is incorrect
- d. Statement-I is incorrect but Statement II is correct

Q50) With reference to the Article 371D, consider the following statements:

- 1. It was added to the Constitution in 1974 by the 22nd Amendment Act, of 1973.
- 2. It safeguards rights in matters of employment and education.
- 3. It gives special provisions for the state of Arunachal Pradesh.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None

ANSWERS

Ans 1	A	Ans 2	D	Ans 3	B
Ans 4	B	Ans 5	C	Ans 6	D
Ans 7	A	Ans 8	C	Ans 9	D
Ans 10	D	Ans 11	B	Ans 12	A
Ans 13	B	Ans 14	B	Ans 15	C
Ans 16	B	Ans 17	C	Ans 18	A
Ans 19	B	Ans 20	B	Ans 21	D
Ans 22	B	Ans 23	B	Ans 24	C
Ans 25	C	Ans 26	D	Ans 27	A
Ans 28	A	Ans 29	D	Ans 30	C
Ans 31	A	Ans 32	C	Ans 33	B
Ans 34	B	Ans 35	C	Ans 36	D
Ans 37	D	Ans 38	D	Ans 39	B
Ans 40	A	Ans 41	C	Ans 42	A
Ans 43	A	Ans 44	D	Ans 45	B
Ans 46	B	Ans 47	C	Ans 48	C
Ans 49	D	Ans 50	A		

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