

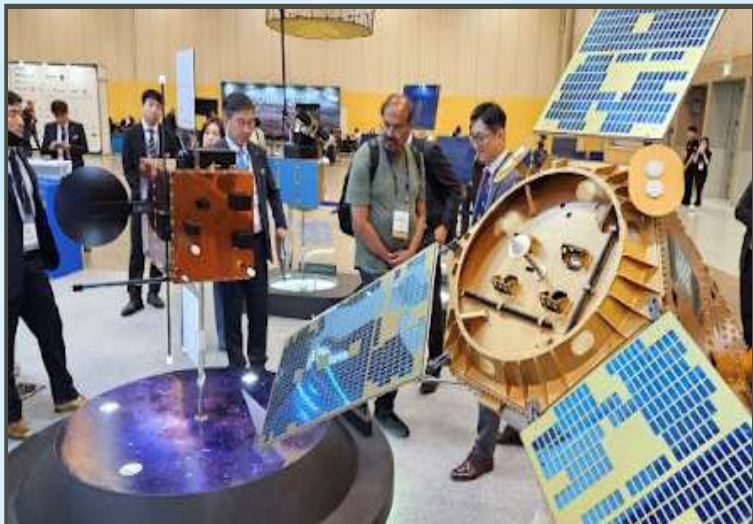


July 2024 Issue

VAJIRAO & REDDY IAS

Monthly Magazine

For UPSC | IAS | IPS & State Civil Services Aspirants



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CURRENT EVENTS OF NATIONAL IMPORTANCE

THE ISSUE OF POSTAL BALLOT

Ahead of the counting of votes in the Lok Sabha elections on June 4, the INDIA bloc on Sunday urged the Election Commission to instruct Returning Officers to complete the counting of postal ballots before finalizing the EVM counting.

ISN'T COUNTING OF POSTAL BALLOTS COMPLETED BEFORE EVM COUNTING IS FINALISED ?

Before 2019, it was mandatory to complete the counting of postal ballots before finalizing the EVM (Electronic Voting Machine) counting. However, in 2019, the Election Commission (EC) introduced changes that removed these guidelines.

WHO ARE ELIGIBLE TO CAST THEIR VOTE VIA POSTAL BALLOT ?

The following categories of voters are eligible to cast their vote via postal ballot:

- **Service Voters** : Members of the armed forces and other essential services.
- **Electors on Election Duty** : Individuals assigned to election duties away from their constituencies.
- **Voters above 80 years** : Earlier, this was limited to those above 85 years.
- **Persons with Disabilities** : Voters with physical disabilities.
- **Voters under Preventive Detention** : Individuals detained but not disqualified to vote.
- **Voters on Essential Duties on Election Days** : Such as medical professionals and police personnel.

WHY DID THE EC REMOVE GUIDELINES REGARDING POSTAL BALLOTS ?

After the 2019 elections, the EC decided to tweak the guidelines due to the increased number of postal ballots, especially after the introduction of the Electronically Transmitted Postal Ballot System (ETPBS). Additionally, the mandatory counting of VVPAT (Voter Verifiable Paper Audit Trail) slips of five randomly selected polling stations per Assembly constituency or Assembly segment necessitated changes.

WHAT IS THE ELECTRONICALLY TRANSMITTED POSTAL BALLOT SYSTEM (ETPBS) ?

The Electronically Transmitted Postal Ballot System (ETPBS) was developed by the Election Commission of India and implemented alongside the existing Postal Ballot System. Under ETPBS, postal ballots are transmitted electronically to eligible voters, enabling them to cast their vote from a location outside their originally assigned voting constituency. Voters then send back the marked postal ballot via post.

THE PROCEDURE IN ETPBS

In the ETPBS system, the postal ballot is sent in two parts:

- **e-Postal Ballot**: A password-protected PDF sent to the Unit officer of the service officer.
- **e-PB PIN**: A separate PIN sent to the Record officer of the service voter.

The service voter collects both the e-Postal Ballot and the e-PB PIN, takes printouts, and follows the instructions to cast the vote. The marked e-Postal Ballot is then sent to the provided address before the counting date by post.

BENEFITS OF THE SERVICE VOTER PORTAL

The Service Voter Portal offers several benefits :

- **Secure Transmission** : Ensures the secure transmission of postal ballots to service voters in remote areas.
- **End-to-End Encryption** : Features multiple security measures to avoid duplicate postal ballots.
- **Multiple Checks and Validation**: Ensures the correct e-Postal Ballot gets transmitted.
- **Transmission Facility** : Allows the transmission of e-Postal Ballots for both Assembly Constituency (AC) and Parliamentary Constituency (PC) elections.

IMPACT AND SIGNIFICANCE

The changes introduced by the EC and the implementation of the ETPBS have modernized the postal ballot system, making it more efficient and accessible. However, the INDIA bloc's request highlights ongoing concerns about ensuring the integrity and timely counting of postal ballots. The outcome of this issue could have significant implications for future elections and the trust in electoral processes.

POST OFFICE ACT, 2023 COMES INTO FORCE

INTRODUCED (IN RS) : AUGUST, 2023

PASSED IN RS : DECEMBER 4, 2023

PASSED IN LS : DECEMBER 18, 2023.

REPEAL AND REPLACEMENT : The Post Office Act, 2023 seeks to repeal the outdated Indian Post Office Act of 1898, modernizing the legal framework governing postal services in India.

NEED FOR THE LAW: The new law acknowledges the evolving role of post offices, which now provide various public services beyond mail delivery. The Act aims to streamline regulations and align them with contemporary needs.

PROVISIONS OF THE BILL :

- **Interception and Detention:** The Act empowers authorized officers to intercept, open, or detain any postal item in the interest of national security, public order, emergency situations, or compliance with other laws. This provision raises concerns about potential violations of privacy and freedom of speech.
- **Customs Cooperation:** The Act allows for the handover of postal items to customs authorities if they are suspected of containing prohibited items.
- **Limited Liability:** Section 10 of the Act exempts the Post Office and its officers from liability for loss, misdelivery, delay, or damage during service, except as prescribed by regulations.
- **Removal of Offenses and Penalties:** The 2023 Act eliminates all offenses and penalties under the 1898 Act, including those related to misconduct, fraud, and theft by postal officials. However, it retains provisions for recovering unpaid service charges as arrears of land revenue.
- **Removal of Exclusive Privilege:** The Act removes the Centre's exclusive privilege to convey letters, reflecting the rise of private courier services.
- **Regulation of Private Couriers:** For the first time, the Act explicitly regulates private courier services, bringing them under its ambit. This expands the government's power to intercept and detain any postal article, not just letters.

KEY ISSUES AND CONCERNS :

- **Lack of Safeguards:** The Act does not specify procedural safeguards for intercepting postal articles, raising concerns about potential abuse of power and violation of privacy rights.

- **Broad Grounds for Interception:** The inclusion of “emergency” as a ground for interception is seen as overly broad and potentially infringing on fundamental rights.
- **No Penalties for Unauthorized Opening:** The absence of penalties for postal officers who open postal articles without authorization raises privacy concerns.
- **Balancing Security and Privacy:** Critics argue that the Act prioritizes state security over individual privacy and freedom of expression, without adequate checks and balances.

The Post Office Act, 2023 represents a significant shift in the regulation of postal services in India. While it modernizes certain aspects and expands the government's powers, it also raises important questions about privacy, surveillance, and the balance between security and individual rights.

LOK SABHA ELECTION RESULTS

How will the **third Narendra Modi government** differ from the two previous ones that came to power in 2014 and 2019? The answer will lie in the composition of the Eighteenth Lok Sabha. Here are a few things that will change.



THE RECENT HISTORY OF COALITION GOVT.

For the better part of the **last 34 years**, **India has been governed by a coalition of political parties**. It is **only in the last 10 years** that a single political party — the Bharatiya Janata Party (BJP) — led a majority government at the Centre, **crossing the halfway mark** in the **Lok Sabha elections of 2014 (282) and 2019 (303)**.

IS THERE A NEGATIVE IMPACT OF COALITION ON WELFARE?

Be that as it may be, **the biggest structural reforms** and **rights-based programmes** happened during the last 30-plus years, **the seeds of most of which were sown during the coalition era**.

THE COALITION PARTNERS

The **top four** being :

- The Telugu Desam Party led by Chandrababu Naidu, (16)

- The Janata Dal (United) led by Nitish Kumar, (12)
- Shiv Sena led by Eknath Shinde, and (7)
- Lok Janshakti Party (Ram Vilas) led by Chirag Paswan. (5)

Together, these parties will bring **40 seats to the NDA**. The BJP will need all these seats to comfortably go past the halfway mark of 272.

THE RISE OF REGIONAL PARTIES

From the North to the South, East to West, regional leaders have re-emerged to exert influence in the national polity.

- **Chandrababu Naidu** will get to wield clout as the **Chief Minister of Andhra Pradesh**, and as a **key partner in the BJP-led government** at the Centre.
- **Samajwadi Party's Akhilesh Yadav** will now **be heard loud and clear in Parliament**. SP is the third largest party after BJP & INC in the LS.
- **Mamata Banerjee's Trinamool Congress** (29 seats) winning 7 seats more than in 2019, could mean that Mamata has managed to stall the BJP's juggernaut in West Bengal.
- **M K Stalin's Dravida Munnetra Kazhagam** (22), (DMK-led alliance has retained all 39 seats in Tamil Nadu.)
- **The Shiv Sena (Uddhav Balasaheb Thackeray)** with its 9 seats, and the **NCP (Sharadchandra Pawar) with 7** will lend their voice to regional aspirations, and mount pressure on the Central government by speaking up in Parliament.

A VIBRANT FEDERALISM NOW

The oft-repeated slogan of **"double-engine sarkar"** to garner votes during Assembly elections in states has been **seen by the opposition as an affront to federalism**, a basic tenet of the Constitution.

In India's **immense diversity and federal polity**, the imposition of a **unitary vision or formula is often unsuitable**.

MORE ACCOUNTABILITY NOW

Accountability is likely to **increase in all institutions** from the judiciary to the auditor, from financial regulators to the election watchdog, and even the investigative agencies.

A coalition lends itself to **better checks and balances**, infuses oxygen into the ecosystem, and **gives institutions space to innovate and push back**

against top-down policies of the political executive.

A STRONG OPPOSITION NOW

The Eighteenth Lok Sabha will look quite different from the Seventeenth.

- The lower numbers of the BJP will mean **greater representation for Lok Sabha members from the opposition** in various Parliamentary panels such as the **Standing Committees and Select Committees**. The opposition benches will have a much larger voice, literally.
- In **Lok Sabha**, speaking time on an issue is **divided in proportion to the strength of parties**. So, the **INDIA bloc with 234 members** will be allotted almost **26 minutes** if the Speaker decides, for instance, to allocate **an hour** for discussion on a particular issue.
- It may also **not be possible for the government to push through Bills without adequate debate and discussion**, or to route legislation as a Money Bill, which provides a fast-track option for enactment of laws bypassing RS.
 - o Typically, taxation, the government's financial obligations, consolidated fund, and related issues can be moved as Money Bills.

CONTESTANTS IN JAIL HAVE WON ELECTIONS

The results of the Lok Sabha polls have thrown up two unusual winners: Waris Punjab De chief Amritpal Singh from Punjab's Khadoor Sahib, and Engineer Rashid from Jammu and Kashmir's Baramulla — both currently in prison on serious charges being probed by the National Investigation Agency (NIA).

HAS IT HAPPENED FOR THE FIRST TIME?

No, it has happened multiple times in Indian electoral history.

One of the most famous election victories from prison occurred in 1977 when trade unionist George Fernandes was elected from the Muzaffarpur seat while in jail during the Emergency. He was released from prison before the oath ceremony.

THE CHARGES

- **Amritpal Singh:** Alleged to have links with Khalistani ideology, he proclaims himself to be Bhindranwale 2.0. Amritpal Singh has been in jail in Dibrugarh, Assam under the National Security Act (NSA) since March 2023. The NSA

is a preventive detention law allowing the government to detain individuals for up to 12 months without pressing formal charges. He contested as an independent.

- **Engineer Rashid:** Currently in Delhi's Tihar jail facing charges under the stringent Unlawful Activities Prevention Act (UAPA) in an alleged terror-funding case. A former MLA, he contested the election on an Awami Ittehad Party ticket.

THE AFTERMATH OF VICTORY

The duo's election victory means they now have a constitutional mandate as parliamentarians, despite being in prison.

TAKING OATH

Taking oath is the first step in fulfilling their role as parliamentarians. Although not explicitly spelled out in the Constitution, there have been past instances where jailed lawmakers are granted temporary parole to take oath.

- **Procedure:** The jailed lawmaker must write to the Speaker to inform them of their inability to attend proceedings. This is crucial because Article 101(4) of the Constitution states that if an MP is absent for over 60 days from all meetings without permission, their seat would be declared vacant.

ATTENDING PARLIAMENT

For attending a Parliament session or casting a vote in Parliament, the lawmaker will need to move court for permission.

DISQUALIFICATION

If these candidates are convicted and the sentence is more than two years, they will be disqualified as MPs under the Representation of the People Act, 1951.

HISTORICAL CONTEXT AND IMPLICATIONS

- **George Fernandes' Victory:** During the Emergency (1975-77), many political leaders were jailed. George Fernandes, then a trade unionist and socialist leader, won the election from Muzaffarpur while incarcerated, highlighting the resilience of Indian democracy.
- **Legal Framework:** The Representation of the People Act, 1951, and various preventive detention laws like the NSA and UAPA play a significant role in the legal and political landscape, affecting the eligibility and conduct of elected representatives.
- **Constitutional Provisions:** The Indian Constitution provides mechanisms to deal with the absence of MPs and their duties, ensuring that the democratic process remains intact even in unusual circumstances.

- **Political Implications:** The election of jailed candidates reflects on the public's trust in these leaders despite their legal troubles and raises questions about the judicial process and political accountability.

Bihar quota struck down : what is the 50% ceiling that court relied upon ?

1. Patna High Court struck down Bihar government notifications increasing reservation in government jobs and educational institutions from 50% to 65%.
2. The court emphasized that reservation was intended to break the dominance of a few, but merit should not be completely sacrificed.
3. The 50% limit for reservations was established to balance reservation and merit.

Bihar's Quota Challenge:

1. **Introduction :**
 - a. Bihar recently increased the quota for scheduled castes (SCs), scheduled tribes (STs), extremely backward classes (EBCs), and other backward classes (OBCs) in educational institutions and government jobs from 50% to 65%.
 2. **Background :**
 - a. This decision stemmed from a caste survey indicating that these groups collectively comprise approximately 84% of the state's population.
 3. **Legal Challenge :**
 - a. A group of petitioners contested the following legislative acts :
 - i. The Bihar Reservation of Vacancies in Posts and Services (for SC, STs, and OBCs) Amendment Act, 2023.
 - ii. The Bihar Reservation (in Admission to Educational Institutions) Amendment Act, 2023.
 4. **Petitioners' Argument :**
 - a. The petitioners argued that the caste survey data lacked scientific analysis and that the quota increase solely relied on the absence of proportionate representation in government jobs and educational institutions.

What is the history of the 50% ceiling for quotas, and why is it litigated so often?
- ### The Indra Sawhney ruling :
1. The 50% ceiling was introduced by the Supreme Court in its landmark 1992 decision in Indra Sawhney v Union of India to ensure "efficiency" in administration.

2. The 6-3 majority verdict that upheld the 27% quota for socially and economically backward classes (SEBC) set two important precedents:
 - a. The criteria to qualify for reservation is “social and educational backwardness.”
 - b. The 50% limit to vertical quotas that the court had laid down in earlier judgments (M R Balaji v State of Mysore, 1963, and Devadasan v Union of India, 1964) was reiterated.
3. The 50% limit would apply unless in “exceptional circumstances.”
4. The Indra Sawhney ruling has been re-affirmed since then.
5. Efforts to breach the 50% limit have also continued, in Bihar and other states.
6. During the Lok Sabha election campaign, Congress leader promised a caste census and extension of reservation beyond 50%.

Legal challenge to ceiling :

1. The 50% limit on reservations is being challenged before the Supreme Court.
2. Laws that could breach the limit have been set aside by the courts, except for the 10% quota for the Economically Weaker Section (EWS) introduced in 2019.
3. In November 2022, a five-judge Bench of the Supreme Court upheld the EWS quota in a 3-2 verdict, stating that the 50% ceiling applied only to SC/ ST and OBC quotas and not to the EWS quota.
4. The majority opinion stated that the 50% ceiling is not “inflexible or inviolable for all times to come.”
5. This observation has raised questions about whether the Supreme Court might reopen the Indra Sawhney question itself, which deals with the legality of breaching the 50% ceiling.
6. The minority opinion expressed concern about breaching the 50% ceiling, cautioning that it could lead to further infractions and compartmentalization.
7. Critics of the 50% ceiling argue that it is an arbitrary line drawn by the court and that the legislature has consistently attempted to push back against it.
8. Proponents of the 50% ceiling argue that breaching it would be antithetical to the principle of equality, as reservations are an exception to the rule.
9. Some view reservations as a feature of the fundamental right to equality and part of the basic structure of the Constitution.

10. The Supreme Court will test this reframing of the question when it takes up the Indra Sawhney question once again, armed with the learnings from more than three decades of jurisprudence on reservations.

Reservation in other states:

1. In 1994, the 76th constitutional amendment inserted the Tamil Nadu reservation law into the Ninth Schedule of the Constitution, breaching the 50% limit.
2. Ninth Schedule provides the law with protection from judicial review under Article 31A of the Constitution.
3. Laws placed in the Ninth Schedule cannot be challenged for violating fundamental rights.
4. In May 2021, a five-judge SC Bench struck down a Maharashtra law providing reservation to the Maratha community as unconstitutional.
5. Reservation in the state could have exceeded 50% with the implementation of the Maratha quota.
6. Similar cases of reservation for specific communities exist in Gujarat, Haryana, and Andhra Pradesh.

Conclusion :

The debate surrounding the 50% ceiling is not just a legal or political issue; it is a deeply social and moral one. It is important to approach this issue with empathy and understanding, recognizing the historical and ongoing struggles of marginalized communities in India.

The goal of reservation policies should be to create a more equitable and just society, where everyone has the opportunity to succeed regardless of their caste or background.



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• SPECIAL CATEGORY STATUS

Telugu Desam Party (TDP) president **N Chandrababu Naidu** emerged as a key player in national politics on Wednesday (June 4) after his party won 16 seats in the Lok Sabha election. TDP is in alliance with the Jana Sena Party and the BJP in Andhra Pradesh.

Naidu is likely to extract several promises and assurances, the most important of which will be the status of a **Special Category State for Andhra Pradesh**.



WHAT IS SPECIAL CATEGORY STATUS ?

In 1969, the Fifth Finance Commission of India introduced the mechanism of SCS to assist certain states in their development and fast-tracking growth if they faced historical, economic or geographical disadvantages.

FACTORS CONSIDERED:

- Difficult and hilly terrain,
- Low population density and/or a sizable tribal population,
- Strategic location along borders,
- Economic and infrastructural backwardness, and
- Non-viable nature of state finances.

TO WHICH STATES WAS SCS PROVIDED?

SCS was accorded to **11 states**, including the **entire Northeast**, and the border hill states of **Jammu and Kashmir, Himachal Pradesh, and Uttarakhand**.

DID OTHER STATES DEMAND IT TOO?

Subsequently, other states too demanded SCS — including Naidu's **AP; Bihar**, whose Chief Minister Nitish Kumar is another key NDA ally; and **Odisha**, where the BJP will now form the government.

THE CURRENT STATUS:

The system was scrapped on the recommendation of the 14th Finance Commission, which suggested that the resource gap of the states should be filled by increasing the devolution of tax to 42% from the existing 32%.

BENEFITS TO A SCS STATE

- SCS would mean **higher grants-in-aid** to the state government from the Centre. (grants to Special Category States is Rs. 5,573 crore per year, whereas AP (Non SCS) receives only Rs. 3,428 crore.)

- SCS states **enjoy special industrial incentives** such as:
 - o Income-tax exemptions,
 - o Custom duty waivers,
 - o Reduced excise duty,
 - o Corporate tax exemption for a certain period,
 - o Concessions and exemptions relating to GST, and
 - o Lower state and central taxes.
- In SCS states, the **Centre funds Centrally Sponsored Schemes up to 90%**, compared to **75% in non-SCS states**.

WHY DOES AO WANT SPECIAL CATEGORY STATUS?

When undivided AP was bifurcated to create Telangana in 2014 through the AP Reorganisation Act, 2014, the UPA government at the Centre had promised to grant SCS to AP to compensate for the loss of revenue, and of Hyderabad, where much of the development was concentrated.

- The 14th Finance Commission estimated that the post-devolution revenue deficit for AP for the five-year period 2015-20 would be Rs. 22,113 crore, but in reality, this figure stood at Rs. 66,362 crore.
- The debt of the residuary state, which was Rs. 97,000 crore at the time of bifurcation, reached Rs. 2,58,928 crore by 2018-19, and is more than Rs. 3.5 lakh crore now.
- AP argues that the undivided state was bifurcated in an unjust and inequitable manner — the successor state inherited nearly 59% of the population, debt, and liabilities of the original state, but only 47% of its revenues.
 - o For example, of the Rs. 57,000 crore of software exports from AP for the year 2013-14,

Hyderabad city — with Telangana after the bifurcation — alone accounted for Rs. 56,500 crore.

- Today's AP is essentially an agrarian state, with low economic buoyancy, leading to huge revenue disabilities. This is evident from the fact that the per capita revenue of Telangana for 2015-16 was Rs. 14,411, while it was only Rs. 8,397 for AP.

CONCLUSION

The demand for Special Category Status by Andhra Pradesh highlights the state's need for financial assistance and equitable development. The political implications of this demand are significant, as it not only affects the economic stability of Andhra Pradesh but also has broader implications for federal financial relations in India. The decision on granting SCS will have lasting impacts on the state's ability to meet its developmental goals and on the political landscape of the region.

• **NOTA**

The BJP's Shankar Lalwani has won in Indore with a massive **10.09 lakh margin**, receiving **12,26,751 votes**.

His nearest competitor: **NOTA, with 2,18,674 votes**.

The extraordinary result in **Indore is the most votes** that the **"None Of The Above" (NOTA)** option has ever received in any constituency to date. The previous NOTA record-holder was Gopalganj, Bihar, in 2019, when 51,660 voters chose this option.

WHEN & HOW WAS NOTA INTRODUCED?

The Supreme Court directed the **Election Commission of India (ECI)** to introduce the NOTA option for voters in **September 2013**, in order to **protect the 'secrecy of voters' choice**.

THE CASE:

In 2004 the **People's Union for Civil Liberties (PUCL)** had approached the apex court seeking **directions to the ECI** for measures to protect the **'right to secrecy'** of voters to exercise their franchise.

They argued that the Conduct of Elections Rules, 1961 violated the secrecy aspect as the **Presiding Officer (from the ECI) maintains a record of voters who choose not to vote** along with the signatures or thumb impressions of each voter who exercises this right.

WHAT HAPPENS IF NOTA RECEIVES HIGHEST VOTES?

NOTA has no legal consequence attached to it — even if the highest number of votes in a seat are polled for NOTA, **the second most successful candidate wins**.

HAS THIS EVER HAPPENED?

This has **never happened** (in Lok Sabha elections), but the Indore result, as well as other local body elections, show that **it remains a distinct possibility**.

Currently, the apex court is considering another petition for elections to be considered "null and void" if NOTA receives the highest number of votes in the constituency.

IF NOTA WINS, REELECTION IS THE NORM (IN SOME STATES)

In **Maharashtra, Haryana, Puducherry, Delhi, and Chandigarh** as examples of states and union territories where the **State Election Commission** passed orders declaring NOTA as a **"Fictional Electoral Candidate"** in **local elections** (including elections for panchayats and municipal bodies).

If the votes for **NOTA exceed the votes received by all** other individual candidates, **fresh elections will be held** in these states and union territories.

• **The Public Examinations (Prevention of Unfair Means) Act, 2024**

Introduction:

1. The Centre has notified the Rules under The Public Examinations (Prevention of Unfair Means) Act, 2024, aimed at preventing cheating in public examinations.
2. The law came into force on June 21, 2024, and is expected to bring transparency, fairness, and credibility to public examination systems.

Key Provisions of the Act:

1. The Act defines a "public examination" as any examination conducted by public examination authorities listed in the Schedule of the Act.
2. The Schedule lists 5 public examination authorities: UPSC, SSC, Railway Recruitment Boards, IBPS, and National Testing Agency (NTA).
3. The Act also covers all Ministries or Departments of the Central Government and their attached and subordinate offices for recruitment of staff.
4. The central government can add new authorities to the Schedule through a notification as and when required.
5. The Act defines a "candidate" as a person who has been granted permission by the public examination authority to appear in a public examination, as well as a person authorised to act as a scribe on their behalf.

Use of Unfair Means:

The Act lists 15 actions that constitute the use of unfair means in public examinations, including:

- a. Leakage of question paper or answer key
- b. Colluding in leakage
- c. Tampering with answer sheets
- d. Providing solutions to questions during the examination
- e. Directly or indirectly assisting candidates
- f. Tampering with documents necessary for short-listing or finalising merit or rank
- g. Creating fake websites or conducting fake examinations
- h. Accessing or taking possession of question paper or answer key without authority
- i. Tampering with computer networks or systems
- j. Conducting fake examinations or issuing fake admit cards or offer letters

Rules Notified:

The Rules provide a framework for preventing the use of unfair means in public examinations, including:

- a. Appointing Centre Coordinators, venue in-charges, and Regional Officers
- b. Conducting Computer-Based Tests (CBT) with strict norms and guidelines
- c. Defining the role and responsibilities of Centre Coordinators and venue in-charges
- d. Providing a format for reporting incidents of unfair means
- e. Specifying the norms, standards, and guidelines for CBTs, including:
 - i. Registration of candidates
 - ii. Allocation of centres
 - iii. Issue of admit cards
 - iv. Opening and distribution of question papers
 - v. Evaluation of answers
 - vi. Final recommendations
- f. Specifying the standard operating procedure (SOP) for registration of public examination centres
- g. Specifying the space requirements at CBT centres and layout of seating
- h. Specifying the specifications and layout of computer nodes, server and network infrastructure, and electronic platform
- i. Specifying the candidate check-in, biometric registration, security, and screening procedures
- j. Specifying the setting and loading of question papers
- k. Specifying the invigilation and post-examination activities

Centre Coordinator:

1. The Rules provide for the appointment of a Centre Coordinator for Public Examinations, who may

be a serving or retired employee of the Central Government, State Government, Public Sector Undertakings, Public Sector Banks, Government Universities, autonomous bodies, or other Government Organisations.

2. The Centre Coordinator shall be the representative of the public examination authority for coordination of activities of the various service providers and the examination authority, and for overseeing the compliance of all norms, standards, and guidelines for the exam.

Reporting Incidents of Unfair Means:

1. The Rules provide a detailed framework and format for reporting incidents of unfair means.
2. If an incident of unfair means or offence occurs, the venue in-charge shall prepare a report along with their findings in Form 1.
3. The report shall be sent to the Regional Officer through the Centre Coordinator.
4. If a prima facie case is made out for filing of First Information Report, the venue in-charge shall take necessary action.

Rationale for the Law:

1. The ongoing controversy over alleged paper leaks in recruitment exams highlights the need for such a law.
2. The law aims to reassure youth that their sincere efforts will be fairly rewarded and their future is safe.
3. The law is expected to serve as a model draft for States to adopt at their discretion.

Penalties:

- The law provides for fines of up to Rs 1 crore and imprisonment of up to 10 years for those found guilty of using unfair means.

Impact:

1. The law is expected to bring greater transparency, fairness, and credibility to public examination systems.
2. It will help to prevent cheating and ensure that only deserving candidates are selected for government jobs and educational institutions.

Conclusion:

The Public Examinations (Prevention of Unfair Means) Act, 2024, is a significant step towards ensuring the integrity of public examinations in India. The law and its rules will help to prevent cheating and promote fair competition among candidates, ultimately benefiting the youth and the country as a whole.



CURRENT EVENTS OF INTERNATIONAL IMPORTANCE

VLADIMIR PUTIN IN NORTH KOREA

As Vladimir Putin heads to North Korea, both Moscow and Pyongyang hope his talks with Kim Jong Un will reinforce the relationship between the two countries as they find themselves ostracized by large parts of the world.

The talks are expected to produce a number of both economic and military initiatives.

THE QUESTION OF TRANSPARENCY IN DEALS:

Analysts warn that some of the agreements — especially those on the exchange of weapons and advanced missile and satellite technology — are likely to be kept under wraps.



BEYOND ECONOMIC & MILITARY INITIATIVES

Beyond those deals, however, both sides are just as eager to put on a grand display of statesmanship.

Kim Jong Un is desperate to burnish his credentials as a significant world leader, and satellite images of the North Korean capital are showing lavish preparations for Putin's arrival in downtown Pyongyang.

Putin, for his part, wants to demonstrate that Russia still has friends and allies and he is free to travel overseas despite UN sanctions and international arrest warrants issued against him by the International Criminal Court over Russian troops allegedly abducting children in Ukraine.

A 'NEW' PARTNERSHIP ESTABLISHED

Putin says Russia and North Korea will help each other if attacked, taking ties to a 'New level' :

The two countries signed the new strategic partnership known as Comprehensive Partnership Agreement to replace previous deals signed in 1961, 2000 and 2001.

COMPONENTS OF THE SIGNED AGREEMENT

The comprehensive partnership agreement signed includes:

- The provision of mutual assistance in the event of aggression against one of the parties to this agreement.
- The deal encompasses the :
 - o Political,
 - o Trade & investment
 - o Cultural spheres, and
 - o The security sphere.
 - o Energy Trade. (Russia will give Oil & Natural Gas to North Korea)
 - o Labour Agreement. (N. Korea will send in labour in Russia due to shortfall of labour in Russia due to Military Conscript)

U.S.-Saudi Strategic Alliance Agreement (SAA)

Historical Background:

1. Longstanding but Complex Relationship: The U.S. and Saudi Arabia have maintained an eight-decade-long relationship marked by both cooperation and tension.
2. Iconic Moments:
 - a. **1945:** President Roosevelt and King Abdul Aziz Al-Saud meet, establishing the oil-for-security pact.
 - b. **2022:** President Biden and Crown Prince Mohammed bin Salman (MbS) fist-bump, signifying a transactional partnership.

The SAA : A Grand Bargain in the Making:

1. **What It Is:** A proposed strategic alliance under negotiation for over a year.
2. **Goals:**
 - a. To align with MbS's domestic and regional aspirations within Saudi Arabia.
 - b. To secure a significant foreign policy achievement for President Biden's re-election efforts.

Potential Components of the SAA:

1. **Bilateral:**
 - a. **Defense Pact:** A formal commitment by the U.S. to defend Saudi Arabia, mirroring the U.S.-Japan treaty.

b. Military Aid: Provision of advanced weaponry to Saudi Arabia, including potentially F-35 fighter jets.

c. Nuclear Cooperation: Surprisingly, the U.S. may agree to provide nuclear technology for peaceful use in Saudi Arabia.

2. Regional:

a. Gaza Conflict: Saudi Arabia seeks a ceasefire in Gaza and progress toward a two-state solution in the Israel-Palestine conflict.

b. Israel Recognition: The U.S. wants Saudi Arabia to formally recognize Israel and establish full diplomatic relations.

c. Strategic Alignment: The U.S. aims to limit Saudi Arabia's ties with China and Russia.

3. Economic:

a. Vision 2030: The SAA would likely involve American companies in Saudi Arabia's ambitious Vision 2030 projects.

b. Oil Market: Despite U.S. energy independence, cooperation on managing global oil markets is expected to continue.

Drivers Behind the SAA:

1. **Countering China :** China's growing influence in the region, exemplified by President Xi Jinping's 2022 visit to Riyadh, has pushed the U.S. to seek deeper ties with Saudi Arabia.

2. **Economic Interests :** Both countries stand to gain economically from the SAA, with the U.S. benefiting from Saudi investments and companies securing deals in Vision 2030 projects.

3. **Geopolitical Considerations :** Saudi Arabia's recognition of Israel could significantly reshape the geopolitical landscape of the Middle East and influence other Muslim-majority nations.

Obstacles to the SAA:

1. **Trust Deficit:** Recent events have strained trust between the two nations, including the U.S.'s perceived inaction during the Abqaiq attack and its criticism of Saudi Arabia over the Yemen War.

2. **Gaza Conflict:** The ongoing conflict makes it politically challenging for Saudi Arabia to reconcile with Israel, a key U.S. demand for the SAA.

3. **Domestic Politics:** Securing U.S. Senate approval for the SAA requires a two-thirds majority, which may be difficult to achieve given the controversial nature of the agreement.

Regional Implications:

1. **Success (Full SAA):** This could lead to renewed U.S. dominance in the region, bolster pro-Western regimes, and potentially marginalise the Palestinian cause.

2. **Failure:** If the SAA fails, regional instability is likely to persist, with Iran maintaining influence through non-state actors and the region remaining a battleground for competing powers.

3. **Partial Agreement:** A partial agreement could be reached, involving other regional allies if a full SAA proves elusive.

India's Stake:

1. **Regional Stability:** A stable Middle East with increased economic opportunities aligns with India's interests.

2. **Economic Corridor:** The SAA could boost the India-Middle East-Europe Economic Corridor.

3. **U.S. Focus Shift:** A U.S.-Saudi alliance might free up U.S. resources for its Indo-Pacific strategy, potentially benefiting India.

4. **"Act West" Policy:** Regardless of the SAA's outcome, India should pursue its own independent strategy in the region.

Conclusion:

The proposed U.S.-Saudi Strategic Alliance Agreement is a significant development with potential to reshape the geopolitical landscape of the Middle East. The agreement faces challenges, but if successful, it could have far-reaching implications for regional stability, economic development, and international relations. India, as a regional stakeholder, must carefully monitor these developments and proactively pursue its interests in the region.

THE EXPANDED BRICS

India on Monday welcomed

- Egypt
- Iran
- UAE
- Saudi Arabia and
- Ethiopia

Joining the BRICS as their representatives attended for the **first time** a key meeting of the grouping **hosted by Russia**.



BRICS EXPANSION

- The **2023 BRICS summit** is the **fifteenth annual BRICS summit**, an international summit attended by the heads of state or heads of government of the five member states: Brazil, Russia, India, China, and South Africa.
- South African President Cyril Ramaphosa also **invited the leaders of 67 countries to the summit**, including **53 other African Countries**, Bangladesh, Bolivia, Indonesia and Iran.
- As the Chair of BRICS, South Africa was focusing on the theme, **‘BRICS and Africa: Partnership for Mutually Accelerated Growth, Sustainable Development, and Inclusive Multilateralism’**.

THE PROPOSALS

- BRICS was considering expanding its membership, and a **growing number of countries**, mostly from the global South, **have expressed interest in joining**.
- Several countries including the **United Arab Emirates, Saudi Arabia, Argentina, Iran, Egypt, Bahrain, Indonesia, And Kazakhstan** have shown their willingness to join the BRICS.
- As per reports, **more than 40 nations** have indicated an interest in joining the bloc of major developing economies.
- Earlier in June, representatives from Iran, Saudi Arabia, the United Arab Emirates, Cuba, the Democratic Republic of Congo, Comoros, Gabon, and Kazakhstan attended a meeting in Cape Town for so-called **“Friends of BRICS”** talks. Egypt, Argentina, Bangladesh, Guinea-Bissau, and Indonesia participated virtually.

What is BRICS ?

- BRICS is an acronym that stands for the grouping of the world’s leading emerging economies: Brazil, Russia, India, China, and South Africa.
- In 2001, the term BRIC was coined by British economist Jim O’Neill to describe the four emerging economies of Brazil, Russia, India, and China.
- The grouping was officially established during the first meeting of BRIC Foreign Ministers in 2006.
- In December 2010, South Africa was invited to join BRIC, and the acronym was changed to BRICS.

- The Johannesburg Declaration of 2023 announced that Argentina, Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates would become full members of BRICS from January 1, 2024.
- Before the expansion, BRICS represented 41% of the global population, 24% of the global GDP, and 16% of the global trade.
- Since 2009, annual summits have been held among the BRICS nations.

WHO WERE THE NEW ENTRANTS?

There were **six new entrants**:

- Iran
- Saudi Arabia
- UAE
- Ethiopia
- Egypt
- Argentina.

Their formal membership will **begin in 2024**.

WHY HAS ARGENTINA BACKED OUT?

Argentina has announced that **it will not join the BRICS bloc** of developing economies, **fulfilling a campaign promise by newly elected far-right President Javier Milei** who has **pledged to pursue closer ties with the West**.

In a letter dated December 22, Milei told the leaders of Brazil, Russia, India, China and South Africa that the **timing for Argentina’s membership in the bloc was not opportune**.

Milei said in his letter that his approach to foreign affairs **“differs in many aspects from that of the previous government. In this sense, some decisions made by the previous administration will be reviewed.”**

THE NEED FOR EXPANSION

- An expansion of the BRICS bloc is under consideration since potential candidates - from Iran to Argentina – see one thing in common: **a desire to level a global playing field**. This is lacking because of the wealthy **West’s domination of international bodies, such as the United Nations, the International Monetary Fund or the World Bank**. The list of grievances is long. Abusive trade practices. Punishing sanctions regimes. Perceived neglect of the development needs of poorer nations.
- Amid widespread dissatisfaction with the prevailing world order, the pledge of BRICS nations-currently Brazil, Russia, India, China and South Africa-to make the grouping **a leading champion of the “Global South” has, found resonance**.

DID INDIA WANT EXPANSION?

India was **initially apprehensive** on expansion. But the PM has said we are ready to expand BRICS with **CONSENSUS BASED APPROACH**.

We are in favour of BRICS expansion: PM

The Hindu Bureau
NEW DELHI

India welcomes the expansion of the BRICS grouping through a consensus-based approach, Prime Minister Narendra Modi said in Johannesburg on Wednesday.

Current BRICS members are Brazil, Russia, In-

dia, China, and South Africa.

At the plenary session of the 15th BRICS summit in the historic South African city, Mr. Modi urged member States to take advantage of India's digital solutions and to work for the welfare of the Global South.



FULL REPORT
» PAGE 10

India welcomes consensus-based approach to expand BRICS: PM

One of the main topics at BRICS is Russia's quest to create an alternative to the G-7-driven global political-economic model; however, unlike their counterparts in Russia and China, Indian officials have not spoken aggressively for de-dollarisation

WHAT WERE INDIA'S APPREHENSIONS ?

- India suggested that if BRICS need to expand, then it **should consider emerging economies & democracies**.
- Increasing **China's sphere of influence** can be detrimental for India. Since China has gained prestige in West Asia after it brokered the Saudi Arabia-Iran peace deal earlier this year, it could be detrimental for India's engagement.
- India believed that such an expansion **could dilute BRICS's fundamental objectives & weaken the established consensus** among its 5 members.

BENEFITS OF EXPANSION

- Increased Economic Cooperation
- The BRICS countries are trying to **reduce their reliance on the US dollar**. This could give them more control over their own economies and reduce their vulnerability to US economic policies.
- Increased influence in the Global Economy.

Significance of Maldives' pro-China President Muizzu's New Delhi visit

Introduction

1. Maldives' President Mohamed Muizzu, known for his anti-India stance, visited New Delhi on June 9, 2024, to attend Prime Minister Narendra Modi's swearing-in ceremony.
2. Muizzu's presence was significant, given his political positioning vis-à-vis India and the crucial strategic aspect of the India-Maldives relationship.

Muizzu's Anti-India Stance :

1. Muizzu came to power on an 'India Out' plank, vowing to send back "foreign(Indian) soldiers" from the Maldives.

2. He has openly aligned his country with China, India's geopolitical rival in the Indian Ocean.
3. Muizzu becoming President is a result of increasing Chinese influence in the Maldives over the last few decades.

India-Maldives Relationship:

1. The India-Maldives relationship is characterised by **close historical, cultural, and strategic ties**.
2. **India was among the first countries to recognize Maldives' independence in 1965** and has since been a **key development partner and security provider**.

Key aspects of the relationship:

1. **Historical and Cultural Ties:** Both nations share **deep-rooted cultural and historical connections**, with Buddhism having played a significant role in the Maldives' history.
2. **Strategic Importance: Maldives' proximity to India's west coast and its location at the hub of commercial sea-lanes** in the Indian Ocean give it strategic importance for India.
3. **Economic Cooperation:** India is a **major trading partner and source of tourists for the Maldives**. The two countries have also collaborated on various development projects.
4. **Security Cooperation:** India has played a crucial role in maintaining security in the Maldives, including **assisting in thwarting a coup attempt in 1988** and **providing support during the 2004 tsunami**.

Challenges and Opportunities:

1. The relationship faces challenges due to geopolitical factors and the Maldives' increasing engagement with China.
2. However, there are also opportunities for further cooperation in areas such as climate change, maritime security, and trade.

Recent Developments:

1. In April, India approved the highest-ever export quotas for essential commodities to the Maldives for 2024-25.
2. In May, Maldives Foreign Minister Moosa Zameer met External Affairs Minister S Jaishankar in New Delhi, marking the first high-level visit since Muizzu came to power.
3. The 2 leaders had "extensive discussions" on bilateral relations and regional security issues.

Significance of Muizzu's Visit:

1. Muizzu's visit sends an encouraging signal for a reset in the India-Maldives relationship, which has been strained in recent times.
2. The visit provides an opportunity for both countries to work together closely on bilateral and regional issues.

Conclusion:

Muizzu's visit to New Delhi marks a significant development in the India-Maldives relationship, which has been strained due to his anti-India stance and pro-China tilt. The visit provides a chance for both countries to reset their relationship and work together on issues of mutual interest.

Second Meeting Of Initiative On Critical And Emerging Technologies Between India & US To Begin Today In New Delhi :

The 2nd annual meeting of the India-US initiative on Critical and Emerging Technologies (iCET) will take place in New Delhi, with National Security Adviser Ajit Doval and his US counterpart Jake Sullivan reviewing the broad spectrum of Indo-US strategic ties.

- a. The meeting will focus on reviewing projects discussed in the Washington meeting on January 31, including a transfer of technology related to jet engines for Tejas Mark II fighters.
- b. Discussions are likely to cover a new bilateral Defense Industrial Cooperation Roadmap, potential joint ventures for a resilient semiconductor supply chain in India, and cooperation in areas like space, quantum computing, and next-generation telecommunications.

Key Points:

1. **Meetings:** Sullivan met External Affairs Minister S Jaishankar and NSA Ajit Doval on Monday and is likely to call on Prime Minister Modi later during his visit.
2. **Comprehensive Discussion:** Jaishankar and Sullivan had a comprehensive discussion on a broad range of bilateral, regional, and global issues, with Jaishankar expressing confidence that the India-US strategic partnership will continue to advance strongly.
3. **Challenges in India-US Ties:** The visit comes at a time when India-US ties are going through challenges, particularly in the context of an alleged assassination plot against Khalistani separatist figure Gurpatwant Singh Pannun.

4. **Alleged Assassination Plot:** India has been holding a high-level probe into the US inputs on the alleged assassination plot since November last year, but there have been no outcomes so far.
5. **Importance of the Visit:** The visit is significant as both Delhi and Washington would want to tide over the differences and work on the convergences in their ties, which are broad-based and wide-ranging, cutting across political, strategic, economic, tech, and people-to-people ties.

India-US Initiative on Critical and Emerging Technologies (iCET) :

1. **Launch:** iCET was launched by PM Modi and US President Joe Biden on the sidelines of the Quad Summit in Tokyo on May 24, 2022.
2. **Objectives:** The initiative aims to engage in identified areas of collaboration in diverse domains of new and emerging technologies, including Semiconductors, AI, Quantum Computing, Defence Innovation, Space, and Advanced Telecommunications.
3. **Expansion of iCET:** The two sides have included new areas within the iCET framework, including biotechnology, critical minerals and rare earths processing technologies, digital connectivity and digital public infrastructure, and advanced materials.
4. **Review and Priorities:** The ongoing visit gives the NSAs an opportunity to review the progress and set new priorities and deliverables for iCET.

Agenda for the Visit:

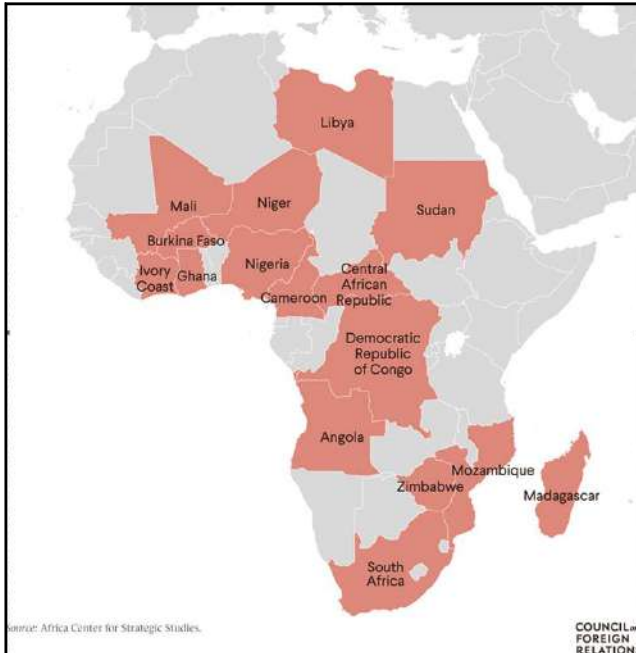
1. **Bilateral Issues:** Sullivan and Doval will discuss bilateral issues and review the India-US partnership on regional and global issues of mutual interest.
2. **iCET Review:** They will chair the first annual review of iCET with an inter-departmental delegation from both countries.
3. **India-US iCET Roundtable:** The NSAs will address participants at an India-US iCET Roundtable with Industry CEOs, organised by the Confederation of Indian Industry, on Tuesday.

Significance of the Visit:

1. **Strengthening Ties:** The visit is significant in strengthening India-US ties amidst challenges and differences.
2. **Convergences:** The visit highlights the convergences in the ties, which are broad-based and wide-ranging, cutting across political, strategic, economic, tech, and people-to-people ties.

3. **Future of India-US Relations:** The visit sets the tone for the future of India-US relations, with a focus on collaboration in emerging technologies and addressing regional and global issues of mutual interest.

Russia's Growing Footprint in Africa



Russia is emerging as the preferred security partner for a growing number of African governments in the region, displacing traditional allies such as France and the United States.

Russia is rapidly expanding its military presence in Africa, deploying private mercenaries like the Wagner Group and Africa Corps to protect leaders and combat extremism, strengthening its role as a security partner for many countries.

Why are African nations turning to Russia?

1. **Political unrest and discontent:** Russia exploits instability in coup-hit nations, capitalising on anti-French sentiment and frustration with Western powers.
2. **Non-interference policy:** Russia provides security assistance without interfering in domestic affairs, making it attractive to military regimes in Mali, Niger, and Burkina Faso.
3. **Failure of Western interventions:** Years of Western counter-terrorism efforts have failed to curb violence, leading to disillusionment with traditional allies.

What is Russia's interest in African countries?

1. **Resource extraction:** Africa's rich reserves of minerals, oil, and other resources attract Russian companies, often operating in poorly governed areas.

2. **Political influence:** Gaining support or neutrality from African nations on the global stage, especially regarding the Ukraine conflict.
3. **Undermining Western ties:** Russia-linked entities have sponsored 80 misinformation campaigns targeting more than 22 African countries, aimed at undermining relations between African states and the West.

Where do Russian contractors operate in Africa?

1. **Sudan:** Initial deployment in 2017 to support then-President Omar al-Bashir in exchange for gold mining concessions.
2. **Libya:** Backing Khalifa Hifter's forces in eastern Libya, including a failed attempt to seize Tripoli.
3. **Central African Republic:** Providing security since 2018 in exchange for access to gold and diamond mines.
4. **Mali, Burkina Faso, Niger:** The military governments of these countries have turned to Russia for military assistance after driving out Western forces.

1. *In recent years, several West African countries have experienced political turmoil due to military coups.*
2. *In 2020 and 2021, two coups occurred in Mali, resulting in the rise of a military junta critical of Western influence.*
3. *Similarly, a coup occurred in Burkina Faso in 2022, followed by another in Niger in 2023.*
4. *These coups resulted in the installation of military governments, which have been critical of Western policies and are seeking alternative partnerships with Russia for military assistance.*
5. *As a result, Mali, Burkina Faso, and Niger have expelled French and other Western forces from their territories and formed an alliance with Russia on matters of defence and security.*

Russia's Growing Military Presence

1. **Wagner Group and Africa Corps:** Russian mercenaries play a key role in protecting African leaders, training local forces, and participating in counter-terrorism operations.
2. **Military cooperation:** Russia is aggressively expanding military ties with African countries through arms sales, training programs and joint exercises in an effort to out-compete traditional allies such as France and the U.S. Foreign Minister Sergei Lavrov recently visited Guinea, the Republic of Congo, Burkina Faso and Chad to strengthen these partnerships.

Economic Considerations

1. **Limited trade:** Despite increased involvement in mining and oil sectors, Russia's overall trade with Africa remains relatively small compared to the EU, with less than 1% of Africa's exports going to Russia.
2. **Financial gains:** Russia-linked entities, like the Wagner Group, have allegedly profited significantly from Africa's gold trade, potentially earning \$2.5 billion since the invasion of Ukraine.

Conclusion

Russia's growing influence in Africa is a multi-faceted issue, with both political and economic dimensions. While providing security assistance and non-interference in domestic affairs, Russia's involvement raises concerns about resource exploitation, political manipulation, and the dissemination of misinformation. The long-term impact of Russia's growing influence in Africa remains a subject of ongoing analysis and debate.

PM TO ATTEND G7 OUTREACH MEETING

Just four days after being sworn in for a third term, Prime Minister Narendra Modi will travel to the **Apulia region of Italy** on thursday to attend the G-7 outreach meet.

IS THIS INVITATION FIRST OF ITS KIND?

This is the **11th time** that India has been invited to the G-7 outreach, and **the fifth that Mr. Modi will participate.**

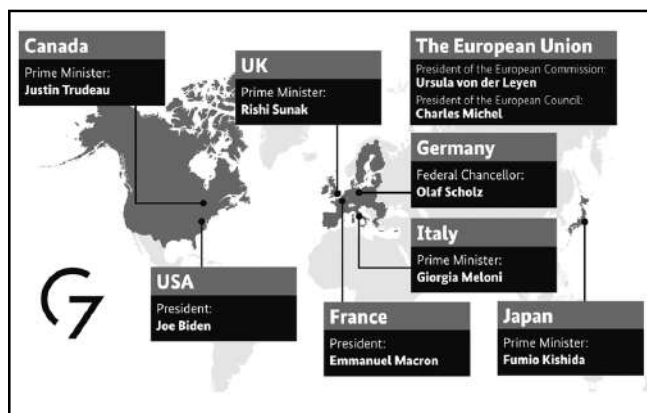
IS INDIA ONLY INVITED?

NO. India will be among leaders of 12 countries invited to the outreach including

- Algeria
- Brazil
- Kenya
- Saudi Arabia
- Tunisia
- The UAE.
- Argentina
- Egypt
- Mauritania
- South Africa
- Turkiye and

The Ukrainian President is also expected.

ABOUT G 7



ORIGIN OF G7 AND ITS PRESENT COMPOSITION

- The origin of G7 lies in the **oil shocks of 1973** and the **corresponding financial crisis**.
- In order to address the situation after oil shock, the heads of the **world's six leading industrial nations** decided to hold a meeting in 1975.

These six nations were - **US, UK, France, Germany (West), Japan and Italy** :

- These countries were **joined by Canada in 1976** and G7 came into existence.
- In **1998, Russia** was formally inducted in the group, which transformed **G7 into G8**. However, **Russia annexed Crimea in 2014**. As a result, it was suspended from the grouping. Hence, the group became G7 again in 2014.
- The **European Union** is also represented within the **G7**.

PANCHSHEEL

Introduction :

China is set to commemorate the 70th anniversary of the Five Principles of Peaceful Coexistence, known as Panchsheel, with a ceremony in Beijing on June 28, 2024. Prime Minister Li Qiang will chair the event, and President Xi Jinping will deliver the keynote address. This foreign policy doctrine, first articulated in a 1954 agreement with India, has played a significant role in shaping China's international relations, even as its application has shifted over time.

What is Panchsheel ?

- **Core Principles:** The Panchsheel Agreement, formally known as "The Agreement on Trade and Intercourse with Tibet Region," was signed on April 29, 1954. It outlined five fundamental principles:
 - o Mutual respect for each other's territorial integrity and sovereignty
 - o Mutual non-aggression
 - o Mutual non-interference in each other's internal affairs
 - o Equality and mutual benefit
 - o Peaceful co-existence
- **Philosophical Roots:** The term "Panchsheel" derives from the Buddhist concept of Pañcasila, referring to five moral precepts:
 - o Abstinence from killing
 - o Abstinence from stealing
 - o Abstinence from sexual misconduct
 - o Abstinence from lying
 - o Abstinence from intoxicantsThis connection underscores the emphasis on peaceful coexistence and respect for others.

Panchsheel's Global Impact

- **Bandung Conference (1955):** Panchsheel resonated with the 29 countries of Asia and Africa that participated in the Bandung Conference of April 1955. They signed a 10-point declaration that incorporated the Panchsheel principles.
- **Non-Aligned Movement (NAM):** Panchsheel became a cornerstone of the Non-Aligned Movement (NAM), founded on July 19, 1956, with the signing of the Brioni Declaration by leaders of India, Egypt, and Yugoslavia. The first NAM Summit in Belgrade accepted Panchsheel as the “principled core” of the grouping.

China's Foreign Policy Today :

A Complex Picture

- **Contradictions:** Despite its emphasis on peaceful coexistence, China's actions in recent decades have raised questions about its adherence to Panchsheel.
 - **India-China War (1962):** The war is often cited as a major blow to the spirit of Panchsheel.
 - **Territorial Disputes:** China's claims in the South China Sea and the ongoing border standoff with India in the Ladakh region since 2020 seem to contradict the principles of territorial integrity and non-aggression.
 - **Regional Assertiveness:** China's growing assertiveness in its neighborhood and its economic and diplomatic challenges to the United States have led to concerns about its commitment to peaceful coexistence and mutual non-interference.
- **Balancing Act:** China's foreign policy seeks to balance its economic interests and global ambitions with the need to maintain a stable international environment. Panchsheel, in its current interpretation, serves as a rhetorical tool to promote cooperation and portray China as a responsible global actor. However, critics argue that China often selectively applies the principles, prioritizing its own interests over those of other nations.

Conclusion

The 70th anniversary of Panchsheel provides an opportunity to reflect on the evolution and complexities of China's foreign policy. While the principles remain a cornerstone of its diplomatic rhetoric, their practical application in a rapidly changing geopolitical landscape is a subject of ongoing debate and scrutiny. The commemoration serves as a reminder of the importance of peaceful coexistence and cooperation in an

increasingly interconnected world, while also highlighting the challenges in translating these principles into concrete action, particularly in the face of territorial disputes and geopolitical rivalries.

PAK PM VISITS CHINA

Pakistan's Prime Minister Shehbaz Sharif is on a five-day visit to China, his country's biggest and most important ally.

The second phase of the China-Pakistan Economic Corridor (CPEC) is expected to be formally announced during the visit.



ABOUT CPEC

During an April 2015 visit to Islamabad, Chinese President Xi Jinping and Pakistani PM Nawaz Sharif unveiled the \$46 billion (Now \$ 62 Billion) CPEC.

The corridor links Xinjiang with Gwadar, and also passes through Pakistan-occupied Kashmir (PoK) where China is investing in a number of projects.

Often described as a flagship project of the Belt and Road Initiative (BRI), the stated goal of CPEC is:

- To transform Pakistan's economy by modernizing its road, rail, air, and energy transportation systems;
- To connect the deep-sea Pakistani ports of Gwadar and Karachi to China's Xinjiang province and beyond by overland routes.

PHASES OF CPEC

First Phase

Various agreements such as energy, infrastructure, port development and the railway line construction have been signed i.e., first phase focused on infrastructure creation.

Second Phase

The second phase primarily revolves around Special Economic Zones development and industrialisation.

THE CPEC STORY SO FAR

The first phase of CPEC focused on infrastructure, energy, and port development projects. Progress has been patchy.

- Data from the CPEC website show that **of the 21 proposed power projects, 14 have been completed**, two are under construction, and **five are yet to start**.
- Of the **24 proposed transport-related projects** (rail and road), **six have been completed, but no work has started on 13**.
- Only **four of the nine proposed Special Economic Zones (SEZs)** — designated areas with lenient trade laws to promote growth — **have seen any progress, and no SEZ is complete**.
- **Not much is happening in Gwadar**. Most of the projects around the port were **“far from completion”**.
- According to the official Chinese news agency Xinhua, **CPEC had brought direct investment of \$25.4 billion to Pakistan** until 2022.

THE ROADBLOCKS

- Concerns about **corruption and red tape** in Pakistan,
- The **political tumult** that the country has been going through, and
- The **poor security situation in Balochistan province** where Gwadar is located.
 - o The project has **triggered violence** in the restive province, and **tens of Chinese nationals have been killed in terrorist attacks** since 2018.
 - * At least **five Chinese** working on various CPEC projects have been killed in attacks by Baloch militants **this year so far**.
 - o To the historically marginalised Baloch people, **Gwadar appears as a symbol of continued economic injustice**. CPEC-related infrastructure has **not generated quality jobs** for local people in the province, and has **failed to bring any economic dividends** to the impoverished population.

IS CPEC GENERATING JOBS?

CPEC was estimated to generate more than 2 million employment opportunities for Pakistanis, government data say less than 250,000 jobs have been created so far.

WHY?

The **Chinese approach of not partnering with local companies** is not going to help create new job opportunities for millions of Pakistani youth. Since **Chinese companies are tax-exempt, they bring everything from China, including labour**, and hence they will have no reliance on Pakistani businesses to fulfil their demands.

PAKISTAN'S RISING DEBT

According to the **International Monetary Fund**, China holds roughly **\$30 billion of Pakistan's \$126 billion** external debt, up from just **\$4 billion in 2013**, prior to the announcement of the CPEC.

An IMF report also found that between **July 2021 and March 2022**, more than **80% of Pakistan's bilateral debt service went to Beijing**.

Many in Pakistan and outside fear that this debt burden is not just unviable, it also **effectively makes Pakistan a Chinese client state**.

PAKISTAN'S BAILOUT PACKAGE

In March, the IMF agreed to release a **\$1.1 billion tranche** of its **\$3 billion bailout package to Pakistan**.

The government is currently negotiating for a fresh package of **\$6-8 billion**, but a sticking point has been **Pakistan's standing debt obligations, especially to China**.

MeitY and Commerce Push for Eased Visa Norms for Chinese Technicians

Key Issue:

Indian manufacturing industries are facing significant production delays and unfulfilled export orders due to difficulties in obtaining visas for Chinese technicians.

This issue has been raised by both the Ministry of Electronics and Information Technology (MeitY) and the Ministry of Commerce and Industry.

Reasons for Dependence on Chinese Technicians :

1. **Heavy Reliance on Chinese Machinery:** The Indian industry, particularly sectors like leather and footwear, has heavily invested in Chinese machinery. However, the lack of readily available Chinese technicians to install and maintain this equipment has led to production bottlenecks.
2. **Expertise and Affordability:** Chinese technicians provide a high level of expertise and are more affordable compared to alternatives like Taiwanese or Vietnamese professionals.
3. **Historical Context:** The issue intensified after the 2020 Galwan clash, leading to stricter visa regulations for Chinese nationals. Alternative solutions, like training Indian professionals in China, have not been successful.

Impact on Indian Industry:

1. **Production Delays:** Many manufacturing plants, especially in the leather and footwear sectors, are unable to operate at full capacity due to the absence of Chinese technicians.

2. **Unfulfilled Export Orders:** This has led to delays in fulfilling export orders, impacting India's export competitiveness.
3. **Financial Losses:** The situation is causing significant financial losses for Indian businesses and hindering their growth.

Government Intervention:

1. **Ministry Push:** Both MeitY and the Ministry of Commerce and Industry are actively advocating for easier visa norms for Chinese technicians to address the issue.
2. **Limited Entry:** The government is considering allowing limited entry of Chinese professionals, particularly for projects under the Production Linked Incentive Scheme (PLI).
3. **Case-by-Case Basis:** Visa applications for Chinese nationals are being reviewed on a case-by-case basis due to national security concerns.

Industry Concerns:

1. **Urgent Need:** Industry representatives emphasise the urgent need for relaxed visa norms to avoid further production delays and financial losses.
2. **Alternative Solutions:** Some manufacturers are considering relocating production to countries like Bangladesh, where there are no such restrictions.
3. **Unfair Practices:** Some industry voices claim that China practices unfair trade tactics by delaying or blocking visa requests from Indian exporters and government officials.

Additional Factors:

1. **MSME Slowdown:** The slowdown in the Micro, Small, and Medium Enterprises (MSME) sector has contributed to the shortage of skilled technicians in India.
2. **FDI Restrictions:** Stricter regulations on Foreign Direct Investment (FDI) from China have also impacted the availability of Chinese expertise.

Way Forward:

1. **Balancing Security and Economic Needs:** The government needs to find a balance between national security concerns and the economic needs of the industry.
2. **Skilling Indian Workforce:** Addressing the skill gap in the Indian workforce through training and development programs is crucial for reducing dependence on foreign technicians.
3. **Promoting Domestic Manufacturing:** Further strengthening initiatives like the PLI scheme can encourage domestic manufacturing and reduce reliance on imports.

Conclusion:

The issue of visa restrictions for Chinese technicians highlights the complex interplay between economic development, national security, and geopolitical tensions. Finding a sustainable solution requires a multi-pronged approach that addresses both immediate industry needs and long-term strategies for self-reliance.

JUNETEENTH

Juneteenth : A Celebration of Freedom and Resilience

Juneteenth, a blend of the words “**June**” and “**nineteenth**,” holds a significant place in American history as the oldest nationally celebrated commemoration of the end of slavery in the United States.

A Pivotal Moment in History:

Observed annually on **June 19th**, Juneteenth marks the day in 1865 when Major General Gordon Granger arrived in Galveston, Texas, and issued General Order No. 3. This order officially informed the last remaining enslaved African Americans in Confederate states of their freedom, more than **two years** after President Abraham Lincoln's Emancipation Proclamation.

The Path to Freedom:

While the Emancipation Proclamation, issued on **January 1, 1863**, declared the freedom of enslaved people in rebellious states, its impact was not immediate. Many slave owners in Confederate territories defied the proclamation, perpetuating the institution of slavery.

A Delayed Victory:

It wasn't until **June 19, 1865**, that the news of freedom finally reached Texas, the westernmost Confederate state. This date, now known as Juneteenth, symbolizes the long-awaited liberation for countless African Americans and a turning point in the fight for equality.

The Modern Movement for Recognition:

The push for greater recognition of Juneteenth gained momentum in **1994**, with advocates from diverse backgrounds working tirelessly to elevate its significance. This movement found renewed energy in the context of 21st-century racial justice movements, such as Black Lives Matter, which began in **2013**.

A Landmark Achievement:

The culmination of these efforts came on **June 17, 2021**, when President Joe Biden signed the Juneteenth National Independence Day Act,

establishing Juneteenth as a federal holiday. This historic moment marked the first new federal holiday since Martin Luther King Jr. Day in 1983.

The Ongoing Journey:

Despite achieving federal recognition, the journey towards full acknowledgment of Juneteenth continues. As of 2024, only 18 states have enacted legislation to make Juneteenth a paid state holiday, highlighting the ongoing work needed to ensure widespread observance and understanding.

A Symbol of Hope and Perseverance:

Juneteenth stands as a powerful symbol of hope, resilience, and the enduring struggle for freedom and equality. It serves as a reminder of the painful legacy of slavery while celebrating the strength and determination of those who fought for liberation. As the nation observes this significant day, it provides an opportunity for reflection, education, and a recommitment to the principles of justice and equality for all.

Japan and India Collaborate in Maritime Exercise JIMEX-24 in Yokosuka



1. **Location:** Yokosuka, Japan
2. **Event:** The 8th edition of the Japan-India Maritime Exercise (JIMEX) 2024 commenced at Yokosuka, Japan.
3. **Participating Countries:** India and Japan
4. **Indian Navy's Representation:** INS Shivalik, an indigenous Stealth Frigate
5. **Japanese Maritime Self-Defense Force (JMSDF) Representation:** Guided Missile Destroyer JS Yugiri

Key Highlights:

1. **Warm Welcome:** INS Shivalik was accorded a warm welcome by VAdm ITO Hiroshi, Commander JMSDF Yokosuka District, and Ambassador Sibi George, Ambassador of India to Japan.
2. **Exercise Phases:** The exercise consists of 2 phases - harbour phase and sea phase.

- o **Harbour Phase:** Professional, sports, and social interactions between the two navies.
- o **Sea Phase:** Joint warfighting skills exercise, enhancing interoperability through complex multi-discipline operations in surface, sub-surface, and air domains.

3. **Participation:** Integral helicopters from both navies will also participate in the joint exercise.
4. **Significance:** JIMEX 24 provides an opportunity for both navies to learn from each other's best practices, facilitating operational interactions and promoting mutual cooperation towards maritime security in the Indo-Pacific region.
5. **History:** JIMEX was first conducted in 2012, and has grown in scope and complexity over the years.

Importance:

1. **Strengthening Bilateral Ties:** JIMEX 24 reinforces the strong bilateral relationship between India and Japan, promoting mutual understanding and cooperation in the maritime domain.
2. **Enhancing Maritime Security:** The exercise demonstrates the commitment of both countries towards ensuring maritime security in the Indo-Pacific region, which is crucial for regional stability and economic growth.
3. **Capacity Building:** JIMEX 24 provides a platform for both navies to enhance their operational capabilities, share best practices, and learn from each other's experiences.

Conclusion:

JIMEX 24 is a significant milestone in the bilateral relationship between India and Japan, demonstrating their commitment to promoting maritime security and cooperation in the Indo-Pacific region. The exercise will enhance the operational capabilities of both navies, promoting a stronger partnership between the 2 countries.

INDIA FOREIGN POLICY IN MODI 3.0

What could the foreign policy of the Narendra Modi government in its third term look like?

With no change at the top at the Ministry of External Affairs, **a broad continuity is indicated.**

However, there will be some **calibration and re-setting** of the agenda for specific regions, depending on the **changing global situation and Indian strategic imperatives.**

THE NEIGHBOURHOOD

Leaders of seven countries in India's neighbourhood — **Bangladesh, Bhutan, Nepal, Sri**

Lanka, Maldives, Mauritius, and Seychelles — attending the swearing-in of the new government. **Pakistan, Afghanistan, and Myanmar** were not invited.

There was **no substantive bilateral meeting** with any neighbourhood leader.

India **will have to be nimble in its diplomacy in the neighbourhood**, and be **unilaterally generous without insisting on reciprocity**.

Several neighbours look forward to a **restrained and sensitive Modi 3.0** rather than an overbearing New Delhi that frequently flexes its muscle.

PAKISTAN

- For his **2014 swearing-in**, Modi had invited the **leaders of saarc countries**, including Prime Minister Nawaz Sharif of Pakistan.
- India's engagement with Pakistan went through **ups & downs in 2014 & 2015**, before being wrecked by the terrorist attacks in **Pathankot and Uri in 2016**.
- **In 2019, the Pulwama attack** and **Balakot strikes** fuelled nationalist sentiment in India & ties with Pakistan suffered a grievous setback.
- The **constitutional changes in J&K in August 2019** was the final blow that led to the downgrading of the diplomatic relationship.

THE SITUATION IN PAKISTAN NOW

The situation in Pakistan has **changed since then**.

- Imran Khan, who was Prime Minister in 2019, is in prison,
- The economy is in deep crisis, and
- The Sharifs, who are now backed by the Army, are back in power.

Nawaz and his brother, Prime Minister Shahbaz Sharif, have reached out with messages of hope and peace.

INDIA'S RESPONSE:

Modi has responded that **"security"** — that is, **countering Pak-backed terrorism — is India's priority**. New Delhi's policy line for the last nine years has been that **"terror and talks can't go together"**.

The series of terror attacks in J&K over the last few days have put paid to any potential build-up of public opinion in favour of a possible engagement.

AFGHANISTAN

There is **no diplomatic relationship with Kabul since the Taliban captured power in August 2021**.

There is **low-level engagement** through a **technical team** assigned to help in humanitarian aid, but high-level engagement has been ruled out for now.

WHAT CAN BE EXPECTED NOW?

A working relationship is likely to continue.

MYANMAR

The **challenge has been to engage with the junta government** that has been **preoccupied with armed resistance** internally.

Myanmarese government forces have been on the defensive since the **fighting began in October 2023**.

WHAT CAN INDIA DO NOW?

It has been suggested in Indian strategic circles that given **the possibility of the government's collapse**, New Delhi should **start engaging with the opposition groups**.

MALDIVES

The visit of **President Mohamed Muizzu**, who rode to power on an **"India Out"** plank, was especially significant.

After **India replaced military personnel** manning Indian air assets in Maldives with trained technical personnel as requested by the Muizzu government, **New Delhi and Malé have appeared ready to engage**.

WHAT CAN INDIA DO?

Engage with the Muizzu Govt. aiming at addressing the real concerns of the Maldivian people. India's contribution in tourism of Maldives should continue.

BANGLADESH

Campaign rhetoric about "infiltrators" has often soured ties with Dhaka. Greater restraint from members of the government and the ruling party during Modi 3.0 is likely to be beneficial, since **both sides have a common purpose in countering extremism, radicalisation, and terrorism**.

WHAT SHOULD INDIA DO?

Try to **increase trade ties** (signing of CEPA is round the corner), also pick up to **address issues of water sharing** between the two countries. This can increase our influence vis-a-vis China.

BHUTAN

India has been **ready to support Thimphu with assistance in its five-year plan**, a financial stimulus package, and the Gelephu mindfulness city project.

This is expected to continue, especially since **China is trying to negotiate the border with Bhutan on its own terms**.

WHAT INDIA SHOULD DO?

India wants Bhutan, which is caught between the two Asian giants, on its side. For this, constant

engagement, keeping in mind the needs of Bhutan, should be pursued sustainably.

NEPAL

Ties with Nepal **present a delicate challenge**. **China has a strong political footprint in Nepal**, and the government in Kathmandu in which **former Prime Minister K P Sharma Oli** is an important player, is perceived to be **trying to use the Beijing card against New Delhi**.

The decision to put the unilaterally redrawn borders of Nepal on the national currency suggests this will continue.

WHAT SHOULD INDIA DO?

New Delhi will have to work hard to regain the trust of the Nepali people that took a blow after the economic blockade of 2015. Permanent Cooperation can be sought. HEP can be the new connecting link.

SRI LANKA

The **goodwill gained by India** on the Sri Lankan street after helping out with the island nation's financial crisis **was jeopardised** by the **needless raking up of Katchatheevu** ahead of elections in Tamil Nadu.

WHAT SHOULD INDIA DO?

Strengthening the Sri Lankan economy with financial assistance as well as investments will be a key task ahead of elections in that country later this year.

SEYCHELLES & MAURITIUS

India's **plans to help upgrade ports infrastructure** in these countries is part of its maritime diplomacy and security effort. Some success has been achieved at **Agalega Islands in Mauritius**, but **developing assumption island in Seychelles has presented a challenge**.

WHAT SHOULD INDIA DO?

India should engage tactfully & sustainably learning its lessons from Maldives. A similar kind of Anti India campaign has also surfaced in Mauritius. So mindfulness is the key.

THE WEST

The Modi Government's engagement with the West **has been more transactional than several previous governments**. It has also developed strong strategic ties with the US, Europe, Japan, and Australia.

There was **a lot of noise during the campaign about Western "interference"**, provoked by **criticism of the government in Western media**.

The **aggressive Indian response** showed that the government, even after a decade in office, remains extremely sensitive to commentary in the West, and sometimes to even anodyne comments by Western Governments.

USA:

The Indian relationship with the US has bipartisan support and is not expected to be impacted by the outcome of the November presidential elections. Defence and cutting edge tech will drive ties going forward.

EUROPE:

- Economic and political ties with European countries such as **France and Germany have improved**.
- **The UK** has been keen to **conclude a Free Trade Agreement (FTA)** with India.
- **India and the EU** too are **keen to conclude an FTA** to the mutual benefit of their economies.

CANADA:

Political ties with Canada — **in free fall** ever since Prime Minister Justin Trudeau accused India of having a hand in the murder of another Khalistani separatist — **are likely to remain strained** at least until the Canadian elections of 2025. **However, economic ties and student flows to Canada have not been impacted**.

WHAT SHOULD INDIA DO?

From New Delhi's perspective, the ideal scenario would be **to secure Indian interests and benefit from Western capital and technology** while **not being lectured on its domestic matters**.

The PM's engagements at the G7 in Italy might signal steps in this direction.

CHINA

The **border standoff** is about to **enter its fifth year**, and the task before Modi 3.0 is difficult and knotty.

India has maintained that **all cannot be well until the border situation becomes normal**. New Delhi wants **complete disengagement and then de-escalation**, and it will take a lot of time to move 50,000-60,000 troops and weapons away from both sides of the border.

WHAT SHOULD INDIA DO?

The Political engagement at the highest level should be done more frequently. High-level engagements, especially Modi's meeting with President Xi Jinping in Kazakhstan in the first week of July on the sidelines of the SCO **summit**, may hold potential for an unlock.

RUSSIA

India's ties with Russia **are being tested** by the war in Ukraine. **Defence requirements** are at the heart of India's Russian dependency, and the availability of **cheaper oil** has now added energy to the basket.

Russia has not collapsed under Western sanctions, and it is now widely seen as having the upper hand in the war.

WHAT SHOULD INDIA DO?

India is **likely to skip the June 15-16 peace conference in Switzerland** at the highest level, given that **Russia will not be in the room**. But India is expected to be represented at an official level, and to **emphasise on dialogue and diplomacy**. For peace, both Russia and Ukraine must come to the table, and while **Modi 3.0 would want to contribute to the process, it would not like to cause hurt to itself**.

WEST ASIA

Modi 1.0 and 2.0 Built ties with countries and leaders in the region, from Saudi Arabia to Israel, UAE to Iran, Qatar to Egypt.

Energy security, investments, and the 9-million-strong Indian diaspora in the region have been the major stakes for India.

WHAT SHOULD INDIA DO?

EXPEDITE THE ANTICIPATED

The India-Middle East-Europe Economic Corridor (IMEC), I2U2, International North South Transit Corridor (INSTC) are all thought to be game changers, but the Israel-Hamas conflict has introduced uncertainty.

CONCLUSION

India should be **practical & balanced** in its outreach to the world. Some of the basic principles which we have followed in diplomacy should be continued. These are:

- Vasudhaiva Kutumbhakam
- Non Allignment
- Being the Voice of the Global South
- Being the Vishwamitra

In the end, we should not forget:

There are no permanent friends or Enemies in international Diplomacy. There are only permanent interests.

Examination, **NEET-UG 2024**, held on May 5, **will be cancelled**.

Another test will be held for them, likely on June 23. Results would be out by June 30 and the **counselling for seats can begin by July 6**.

These candidates will be informed of the actual score, without the grace marks, and they can choose to take another test. If they opt not to sit for the re-test, their scores, without the grace marks will be the final score.

WHAT HAPPENED?

The court was **hearing petitions** challenging the **award of grace marks** to the 1,563 candidates from six NEET centres in the country, using a **“normalisation formula”**.

THE GROUNDS FOR GRANTING GRACE MARKS:

On the grounds that **they were not allowed the full period of 3.2 hours** to write the exam, due to technical issues.

Based on a Court order, the compensatory marks were awarded to these candidates on the recommendation of a committee constituted by the National Testing Agency (NTA), the body which conducts NEET. **It was charged that the grant of grace marks was arbitrary and not transparent.**

ARE THERE ANY OTHER CHARGES?

In NEET, students have to answer **180 questions, (MCQ type)**, totalling **720 marks**. For every **right answer**, the student will score **4 marks**, with **1 mark deducted for a wrong answer**.

Hence, only certain marks can be scored by candidates. It was the **grace marks that caused confusion**, the NTA admitted.

However, this is not the only charge or case in court against NEET 2024. This year there has been a litany of charges that **go beyond a question paper leak**.

- The slow distribution of question papers;
- Providing the wrong question paper;
- Wrong OMR sheets; and
- Technical delays.
- Post evaluation, there have been complaints about the unusually high number of students (67) who hit the perfect score, 720/720, and about students who scored “statistically impossible” marks, while some cases of cheating by proxy were also unearthed.
- Other cases pertaining to the question paper leak are still to be heard by the Supreme Court.

In the past, the exam has been dogged by charges of poor organisation and inadequate planning, besides inconsiderate rules on what candidates are allowed to wear in the exam hall.

THE AFTERMATH

- All these charges **sparked protests from students** and **political parties** across the country.
- Political parties called for a **fair investigation of the charges** and called on the government to **conduct a fresh NEET exam**.
- **Students had the same demand**, to re-conduct the test, on the grounds that the question paper leak had facilitated some students scoring full marks, or, giving them an unfair advantage.
- In response, the **NTA had appointed a four-member committee** to go into allegations made against the conduct of the NEET exam in 2024. This panel's **recommendations have now found their way into the court also**.

WHAT NTA SAID IN THE COURT?

- NTA officials attributed an **'easy paper'** to the unusual number of full scores this year.
- But the NTA still **constituted a four-member committee** to go into the truth behind the allegations made this year.
- The panel found that the **compensatory marks awarded to the 1,563 students, resulted in a "skewed situation"**.
- **Grace marks had to be limited to the attempted questions alone**, and while the panel did not comment further on how many marks were granted in compensation, **it concluded that it would be best to cancel the test for these students alone**.

THE STUDENTS' DEMAND

Students and education experts have already **expressed dissatisfaction with the cancellation of the exam only for a few students**.

Arguing that **if the exam can be cancelled for 1,500 students, then that is an admission of error and therefore, they claim that the logical thing would be to cancel the May 5 exam for all candidates and conduct a re-test**.

It indicates a failure of the system and loss of faith, students complained on social media.

India at Peace Summit in Switzerland: A Balancing Act in a Complex Conflict

At the recent peace summit held in Switzerland aimed at resolving the ongoing conflict between Russia and Ukraine, India took a nuanced stance, prioritising dialogue and diplomacy while refusing to endorse the final joint communiqué. The decision highlighted India's

commitment to finding a solution acceptable to both warring parties, stressing the complexity of the situation and the need for a balanced approach.

Key Points of Discussion at the Summit

- **Humanitarian Crisis:** The summit underscored the immense human suffering and destruction caused by the war, highlighting the urgent need for a resolution.
- **Nuclear Safety:** The potential risks and global repercussions of a nuclear incident were a major concern, emphasizing the need for de-escalation.
- **Global Food Security:** The war's disruption of global food supplies, particularly from Ukraine, was addressed, emphasizing the need to protect vulnerable populations.
- **Prisoner Exchange and Deportations:** The summit called for the release of all prisoners of war and the return of unlawfully displaced Ukrainian children and civilians.

India's Approach and Viewpoint

- India's participation in the summit, despite initial reservations, signaled its willingness to engage with all stakeholders and understand diverse perspectives.
- While acknowledging the importance of Ukraine's peace formula and the UN Charter, India maintained that any lasting solution must be acceptable to both Russia and Ukraine.
- This approach reflects India's long-standing policy of non-alignment and its commitment to finding peaceful resolutions through dialogue and diplomacy.

Diverse Stances Among Participating Nations

- While around 80 countries endorsed the summit's outcome, including its call for protecting Ukraine's territorial integrity, several nations, including India, Saudi Arabia, Thailand, South Africa, Indonesia, Mexico, and the UAE, chose not to sign the joint communiqué.
- This diverse range of positions underscored the complex geopolitical landscape and the difficulty of achieving consensus on a path to peace.

Absence of China and Russia

- China declined the invitation to the talks, while Russia was not invited to participate.
- These absences further complicated the situation, highlighting the need for inclusive dialogue to achieve a sustainable resolution.

Looking Ahead

The peace summit in Switzerland brought together various stakeholders to discuss potential solutions to the Russia-Ukraine conflict. While a consensus was not reached, India's participation and balanced approach demonstrate its commitment to finding a peaceful resolution acceptable to all parties involved. The path to peace remains challenging, but ongoing dialogue and diplomacy offer hope for a future where both nations can coexist peacefully.

Inaugural United Nations Global Supply Chain Forum Concludes Successfully

The **inaugural United Nations Global Supply Chain Forum, hosted by UN Trade and Development (UNCTAD) and the Government of Barbados**, recently concluded successfully, **bringing together over 1,000 participants from around the world to address pressing global issues and their impact on trade.**

Key Points:

1. Forum Details:

- a. The **inaugural edition of the forum was held in Barbados from May 21 to 24, 2024.**
- b. It was **hosted by UNCTAD in collaboration with the Government of Barbados.**

2. Participants and Focus:

Over 1,000 participants, including trade and transport ministers from several small island developing states (SIDS), representatives from UN agencies, major ports like the Port of Seattle, and industry leaders in shipping and logistics, convened to tackle global disruptions, geopolitical tensions, climate change, and the impact of the COVID-19 pandemic on global trade.

3. Decarbonizing Global Shipping:

- a. The forum highlighted the **complexities and opportunities in decarbonizing global shipping**, with a focus on **developing countries rich in renewable energy resources.**
- b. **Efforts to promote low or zero carbon fuels**, establish safety frameworks for **new fuels and enhance the readiness of ports to handle different fuels** were identified as **important steps to promote sustainable freight transport.**

4. Launch of the Manifesto:

- a. During the forum, a significant accomplishment was the introduction of the **"Manifesto for Intermodal, Low-Carbon, Efficient, and Resilient Freight Transport and Logistics."**
- b. The manifesto advocates for a **substantial overhaul of freight transportation to meet global climate goals and promote socio-economic resilience.** It emphasizes the **shift toward zero-emission fuels**, streamlined logistics, and **environmentally conscious value chains.**

5. Digital Technologies and Green Technologies:

- a. In the **global supply chain, resilience enhancements rely heavily on the utilization of digital technologies.**
- b. **Ministers from SIDS advocated for international financial support and investment in green and sustainable technologies to enhance energy efficiency and combat marine pollution.**

6. Trade-and-Transport Dataset Launch:

- a. **In collaboration with the World Bank**, a noteworthy accomplishment of the forum was the introduction of the **UN Trade and Development Trade-and-Transport Dataset.**
- b. This **extensive database offers a thorough examination of global trade and transport costs, encompassing a wide range of goods (exceeding 100) and diverse modes of transportation.**
- c. This comprehensive **repository gives a holistic perspective of the dynamics between trade and transportation**, providing valuable insights into the global supply chain.

United Nations Conference on Trade and Development (UNCTAD) :

1. The **United Nations Conference on Trade and Development (UNCTAD) serves as the United Nations' primary body dedicated to addressing trade and development issues.**
2. **Established in 1964 by the United Nations General Assembly**, UNCTAD functions as a **permanent intergovernmental organization.**

3. Its mission revolves around **assisting developing nations, particularly the least developed and those undergoing economic transition**, in integrating effectively into the **global economy**.
4. **UNCTAD provides comprehensive economic and trade analysis**, facilitates **consensus building**, and offers technical assistance to empower developing countries in **utilizing trade, investment, finance, and technology to achieve inclusive and sustainable development**.

When Next Forum will take place ?

- The next forum is set to **take place in Saudi Arabia in 2026**.

iCET MEETING

India-US iCET Meeting Strengthens Strategic Technology Partnership

India's National Security Advisor (NSA) Ajit Doval and his US counterpart Jake Sullivan, during the second meeting of the Initiative on Critical and Emerging Technology (iCET) in India, have reaffirmed their commitment to bolstering strategic technology cooperation while ensuring the protection of sensitive technologies.

Key Takeaways from the iCET Meeting

- **Prevention of Technology Leakage:** Both countries have resolved to prevent the unauthorized transfer of sensitive and dual-use technologies to countries of concern, highlighting their shared commitment to safeguarding critical technologies.
- **Expanded Cooperation:** The iCET meeting paved the way for enhanced collaboration across diverse technological domains, including:
 - o Artificial Intelligence (AI)
 - o Critical Minerals exploration and trade
 - o Defense industrial cooperation, technology transfer, and fostering defense startups
 - o Strengthening resilient semiconductor supply chains
 - o Space exploration and technology development
 - o Science, Technology, Engineering, and Mathematics (STEM) education and research
 - o Next-generation telecommunications

About the iCET Initiative

The United States–India Initiative on Critical and Emerging Technology (iCET) is a bilateral framework designed to foster cooperation and innovation in cutting-edge technological fields. Launched in May 2022 by President Biden and Prime Minister Modi, iCET aims

to deepen the strategic partnership between the two nations. The first iCET meeting was held in Washington, D.C., in January 2023, laying the foundation for ongoing collaboration.

Significance of the iCET Meeting

The second iCET meeting signifies a significant step forward in strengthening the India-US strategic technology partnership. By prioritizing cooperation in critical and emerging technologies, both countries are not only driving innovation but also ensuring a secure and resilient technological landscape. The commitment to prevent technology leakage further reinforces their dedication to maintaining global security and stability.

The Road Ahead

The iCET initiative promises to foster a dynamic and mutually beneficial partnership between India and the US in the realm of technology. As both countries continue to collaborate and innovate, they are poised to play a pivotal role in shaping the future of critical and emerging technologies, ultimately contributing to global progress and security.

EUROPEAN PARLIAMENTARY ELECTIONS

Results of the **June 6-9 European Parliament elections**, in which about **51% of 370 million-plus electors** in 27 European Union (EU) countries **voted**, showed **gains for rightwing and far right parties** at the cost of mainly Left and liberal parties.

The centre-right group **European People's Party (EPP)** was projected to win the **most seats, 186** (10 more than in 2019), in the **705-member House (It will now become a 720 member House)** that meets in **Strasbourg, France**.

THE INSTITUTIONS IN EUROPE

The EU is a unique supranational entity. Its member states pool their sovereignty to acquire a collective strength and global influence that they cannot achieve individually.

In practice, this means that member states delegate some of their decision-making powers to the shared institutions they have established.

THE INSTITUTIONS

- The European Commission (EC)
- The Council of the EU, and
- The European Parliament,

EUROPEAN COMMISSION

- **Role:** Promotes the general interest of the EU by proposing and enforcing legislation as well as by implementing policies and the EU budget
- **Members:** a team or 'College' of Commissioners, 1 from each EU country

- **President:** Ursula von der Leyen
- **Year established:** 1958
- **Location:** Brussels (Belgium)
- **Website:** https://commission.europa.eu/index_en
The European Commission is the **EU's politically independent executive arm**. It is alone **responsible for drawing up proposals** for new European legislation, and it **implements the decisions of the European Parliament** and the **Council of the EU**.

THE COUNCIL OF EU

- **Role:** Voice of EU member governments, adopting EU laws and coordinating EU policies
- **Members:** Government ministers from each EU country, according to the policy area to be discussed
- **President:** Each EU country holds the presidency on a 6-month rotating basis
- **Established In:** 1958 (as Council of the European Economic Community)
- **Location:** Brussels (Belgium)
- **website:** <https://www.consilium.europa.eu/en/>

In the Council of the EU, informally also known as the Council, **government ministers from each EU country meet** to discuss, amend and adopt laws, and **coordinate policies**. The ministers have the **authority to commit their governments to the actions agreed on in the meetings**. Council meetings take place in **Brussels**, except for three months (**April, June and October**) **when they are held in Luxembourg**.

THE EUROPEAN PARLIAMENT

- **Role:** Eirectly-elected EU body with legislative, supervisory, and budgetary responsibilities
- **Members:** 720 MEPs (Members of the European Parliament) (705 until 2024 elections)
- **President:** Roberta Metsola
- **Established In:** 1952 as Common Assembly of the European Coal and Steel community, 1962 as European Parliament, first direct elections in 1979
- **Location:** Strasbourg (France), Brussels (Belgium), Luxembourg
- **Website:** <https://www.europarl.europa.eu/portal/en>

The European Parliament is the EU's law-making body. It is directly elected by EU voters every 5 years.

ALLOCATIONS OF SEATS

The 720 seats of the Parliament are allocated on the principle of '**degressive proportionality**', meaning **smaller states elect more MEPs** than their populations would proportionally warrant.

No country can have **fewer than 6 or more than 96 MEPs**. The total number **cannot exceed 750 (plus the President)**

MEPs are chosen by proportional representation, ensuring the number of elected MEPs is proportional to the votes they receive.

MEPs are grouped by political affiliation, not by nationality.

The President represents Parliament to other EU institutions and the outside world and gives the final go-ahead to the EU budget.

FUNCTIONS OF THE PARLIAMENT

The Parliament has **3 main roles**:

- **Legislative**
 - o Passing EU laws, together with the Council of the EU, based on European Commission proposals
 - o Deciding on international agreements
 - o Deciding on enlargements
 - o Reviewing the Commission's work programme and asking it to propose legislation
- **Supervisory**
 - o Democratic scrutiny of all EU institutions
 - o Electing the Commission President and approving the Commission as a body. possibility of voting a motion of censure, obliging the Commission to resign
 - o Granting Discharge, i.e. approving the way EU budgets have been spent
 - o Examining citizens' petitions and setting up inquiries
 - o Discussing monetary policy with the european central bank
 - o Questioning Commission and Council
 - o Election Observations
- **Budgetary**
 - o Establishing the EU budget, together with the Council
 - o Approving the EU's long-term budget, the "Multiannual Financial Framework"

HOW DOES THE PARLIAMENT WORK?

Parliament's work comprises **two main stages**:

- **Committees - to prepare legislation.**
The Parliament numbers 20 committees and three subcommittees, each handling a particular policy area. The committees examine proposals for legislation, and meps and political groups can put forward amendments or propose to reject a bill. these issues are also debated within the political groups.
- **Plenary sessions – to pass legislation.**
This is when all the MEPs gather in the chamber to give a final vote on the proposed legislation and the proposed amendments. Normally held in strasbourg for four days a month, but sometimes there are additional sessions in brussels.



Crux of The Hindu & Indian Express

International Issues

• SIGNIFICANCE OF PRESIDENT MUIZZU'S VISIT

The **President of Maldives, Mohamed Muizzu**, was one of seven leaders from India's neighbourhood who attended Prime Minister Narendra Modi's **swearing-in at Rashtrapati Bhavan** on Sunday evening (June 9).

Muizzu's presence **was significant**, given the way he has positioned himself politically vis à vis India, and the crucial strategic aspect to the India-Maldives relationship.

THE INDIA OUT CAMPAIGN & MUIZZU

Muizzu came to power on November 17 last year on an **'India Out' plank**. The India Out campaign had **begun in 2020** as the **Maldives opposition's protest** against **then President Ibrahim Solih's policies** that were perceived to be friendly towards new delhi, but had soon **turned into a movement against India's alleged military presence** in the archipelago, which both the Solih government and India denied.

During his presidential campaign, Muizzu repeatedly vowed to **send back "foreign soldiers"**.

Consequently, **the final batch of Indian soldiers** — who were stationed in the Maldives to operate and maintain two helicopters and three Dornier aircraft India had previously gifted to the country — **were replaced by civilians in May**.

MUIZZU'S PRO CHINA TILT

Like his mentor, **former President Abdulla Yameen Abdul Gayoom**, under whose rule (2013-18) the india-maldives relationship deteriorated severely, **Muizzu has openly aligned his country with China**.

- **In January 2024, Muizzu broke with a Maldivian tradition to choose Beijing over New Delhi for his first foreign visit** as President. He met President Xi Jinping, and **signed 20 agreements** covering areas ranging from tourism to social housing and e-commerce.
- **In March**, Malé signed an agreement with Beijing to **obtain free "non-lethal" military equipment and training from China** — the first ever military deal between the two countries.

The **Chinese influence in the Maldives** has **increased steadily over the past couple of decades**. the island nation is part of **China's Belt and road Initiative**, which has led to an influx of Chinese money and a strengthening of the relationship between the two countries — at the expense of India.

India-Maldives Relations: Key Highlights and Challenges

Historical Ties:

- India and Maldives established diplomatic and political relations in 1965 following the British withdrawal from the islands.
- Since 2008, India has developed deep relationships with various Maldivian stakeholders, including political, military, business, and civil society figures.

Maldives' Significance for India:

- **Strategic Location:** Located south of India, the Maldives acts as a gateway to the Arabian Sea and beyond, holding immense strategic importance in the Indian Ocean.
- **Cultural Link:** India and Maldives share a long-standing cultural and historical connection, evident in the prevalence of Buddhism in the Maldives until the 12th century.
- **Regional Stability:** India's "Neighbourhood First" policy aligns with its interest in a stable and prosperous Maldives, promoting peace and security in the Indian Ocean region.

India's Significance for Maldives:

- **Essential Supplies:** India serves as a crucial supplier of everyday essentials like rice, spices, fruits, vegetables, and medicines, along with infrastructure materials such as cement and rock boulders.
- **Education:** India is the primary education provider for Maldivian students pursuing higher education, offering scholarships to deserving individuals.
- **Disaster Assistance:** India has consistently provided aid during crises, including tsunamis and drinking water shortages, showcasing its role as a reliable partner.
- **Security Provider:** India has a history of providing security assistance, intervening during a coup attempt in 1988 through Operation Cactus and conducting joint naval exercises for the protection of the Maldives.
- **Tourism Dominance:** Indian tourists have become the leading source market for the Maldives since the Covid-19 pandemic, accounting for a significant 11.2% of total tourist arrivals in 2023.

Challenges in India-Maldives Relations:

- **India-Out Campaign:** Maldivian politics has witnessed a campaign centered around an “India Out” platform, branding Indian presence as a threat to sovereignty.
- **Tourism Strain:** A diplomatic dispute arose due to disparaging comments directed at the Indian Prime Minister during his visit to Lakshadweep islands, leading to a social media trend of boycotting the Maldives.
- **China’s Rising Influence:** China’s increasing presence in the Maldives, fueled by its strategic interests in key shipping lanes and proximity to India, has caused unease in India and could lead to regional geopolitical contest.

CHANCE OF A FRESH START

At a time when relations between India and the Maldives are at a low, **Muizzu’s visit sends an encouraging signal. Some groundwork for a reset in the relationship has been done over the past couple of months.**

- In April, **India approved the highest-ever export quotas** for essential commodities — **eggs, potatoes, onions, sugar, rice, wheat flour and pulses, river sand and stone aggregates** — to Maldives for 2024-25 under a unique bilateral mechanism that has been in effect since 1981.
- **On May 9, Maldives Foreign Minister Moosa Zameer met External Affairs Minister S Jaishankar in New Delhi** — the first high-level visit since Muizzu came to power. The two leaders had “extensive discussions” on “bilateral relationship” and “regional security issues”.
- **NORD STREAM PIPELINE LEAK : METHANE RELEASED IN BALTIC SEA REMAINS IN WATER**

Event: Nord Stream Pipelines leak, September 2022

Geopolitical Context:

1. The Nord Stream 1 and 2 pipelines were major natural gas pipelines from Russia to Germany.
2. The explosions in 2022 were a significant geopolitical event with economic and environmental consequences, causing disruptions to energy supplies and raising prices.
3. The cause of the explosions remains under investigation, with various theories and accusations, and calls for international investigation and condemnation of the alleged sabotage.

About Methane:

Methane is the main ingredient in natural gas and is responsible for about a third of today’s global warming. It’s a colorless, odorless, and flammable gas that doesn’t dissolve in water. Known as marsh gas or methyl hydride, methane is highly flammable and its vapors are lighter than air. When exposed to fire or intense heat, containers of methane can explode violently. As a greenhouse gas, methane is potent but short-lived, lasting about a decade in the atmosphere. Its Global Warming Potential is roughly 80 times higher than carbon dioxide (CO₂) over a 20-year period. Major sources of methane include agriculture, fossil fuels, and decomposing landfill waste. Methane impacts both human health and ecosystems. Emissions contribute to ground-level ozone pollution, causing around a million premature deaths globally each year and reducing crop yields.

Key Facts About the Baltic Sea:

The Baltic Sea is a semi-enclosed sea in Northern Europe, part of the North Atlantic Ocean. It stretches from southern Denmark nearly to the Arctic Circle, separating the Scandinavian Peninsula from continental Europe. Countries with coastlines along the Baltic Sea include Sweden, Poland, Lithuania, Latvia, Finland, Estonia, Germany, Denmark, and Russia. The sea connects to the White Sea through the White Sea Canal and to the North Sea’s German Bight via the Kiel Canal. It links to the Atlantic Ocean through the Danish Straits. The Baltic Sea features three main gulfs: the Gulf of Bothnia to the north, the Gulf of Finland to the east, and the Gulf of Riga to the south.

Key Findings:

1. **Methane Absorption:** A significant portion (10,000-50,000 tonnes) of released methane dissolved into the Baltic Sea instead of entering the atmosphere.
2. **Research:** Study led by the University of Gothenburg, published in Scientific Reports.
3. **Environmental Impact:** Long-term impact on marine life is uncertain, but initial signs show bacterial activity consuming dissolved methane. The full analysis of plankton samples collected during the expedition is yet to be completed.
4. **Climate Implications:** Highlights the ocean’s role in absorbing greenhouse gases, with potential long-term climate impacts as methane slowly diffuses into the atmosphere over decades.

Details:

1. The explosions caused one of the largest unintentional methane releases ever recorded.

2. Researchers distinguished pipeline methane from natural seeps through isotopic analysis.
3. Dissolved methane was found dispersed over large areas due to the Baltic Sea's stratified water layers.
4. A follow-up expedition three months after the initial leak revealed high bacterial activity, indicating microbes were breaking down the dissolved methane.
5. However, the effects on phytoplankton and zooplankton populations are still unknown.

Significance:

1. Shows the ocean's capacity to absorb even massive gas releases.
2. Raises concerns about the long-term impacts of dissolved methane on marine ecosystems and climate change.
3. Highlight the need for continued monitoring and research to understand the full consequences of this environmental disaster.

• INDIA'S NEIGHBOURHOOD FIRST POLICY : INDIA'S APPROACH TO REGIONAL ENGAGEMENT

Introduction:

India's foreign policy heavily emphasizes the Neighbourhood First Policy, which focuses on strengthening relations with its immediate neighbors.

This policy was formally adopted in 2008 and has been a key aspect of India's foreign policy ever since.

Significance of the Neighborhood First Policy:

1. **Countering Chinese Influence:**
By cooperating with neighbors, India can counterbalance China's growing influence in the Indian Ocean region.
2. **Support in Multilateral Forums:**
Collaboration with neighbors strengthens India's leadership role in international forums.
3. **Territorial Integrity and Security:**
Collaboration with neighbors is important to protect territorial integrity and tackle separatism.
4. **Maritime Security:**
Cooperation with neighbors helps strengthen maritime security and address international security challenges.
5. **Energy Security:**
Close cooperation is critical for India's energy security, especially oil and gas import through sea routes.

6. Development in the North-East:

Engagement with neighbors helps develop India's northeastern states, bridging development disparities.

7. Soft Power Diplomacy:

India's cultural and historical connections strengthen people-to-people ties and solidify India's influence.

Challenges to the Neighborhood First Policy:

1. **Geopolitical Tensions:**
Border disputes and political disagreements can complicate relationships with neighbors.
2. **Implementation Issues:**
Cross-border projects face challenges due to logistical and bureaucratic hurdles.
3. **Economic Differences:**
Varying levels of economic development among neighboring countries can affect cooperation.

Bilateral Relations and Major Initiatives:

1. **Bangladesh:**
India has improved relations, focusing on border issues, trade, and water-sharing agreements.
2. **Nepal:**
Historical and cultural ties are strong, but challenges exist, particularly on political issues.
3. **Sri Lanka:**
India's relationship has seen ups and downs, with a focus on maritime security and economic ties.
4. **Pakistan:**
India-Pakistan relations remain strained due to historical conflicts and terrorism.
5. **Myanmar:**
India promotes strong relations, focusing on connectivity, economic cooperation, and security.
6. **Major Initiatives:**
 - a. **SAARC:**
 - * India has played a major role in SAARC but its effectiveness is limited due to political differences.
 - b. **BIMSTEC:**
 - * BIMSTEC is gaining prominence as an alternative to SAARC, focusing on economic cooperation and security.

Infrastructure Projects:

1. **BBIN Initiative (Bangladesh, Bhutan, India, Nepal):**
Improving road and rail connectivity.

2. **Kaladan Multi-Modal Transit Transport Project:**
Connecting India with Myanmar and further Southeast Asia.

3. **Chabahar Port:**
Developing a strategic port in Iran to improve connectivity with Afghanistan and Central Asia.

Standing Committee on External Affairs

Report:

1. The Neighbourhood First Policy aims to strengthen relations with neighboring countries.

2. Key observations and recommendations:

a. **Terrorism and Illegal Migration:**

- i. India faces threats from terrorism and needs improved border security.
- ii. The Ministry of External Affairs should cooperate with others to address illegal migration and smuggling.

b. **Relations with China and Pakistan:**

- i. India's relations with China and Pakistan face contentious issues, including terrorism emanating from Pakistan.
- ii. Engaging with regional and multilateral organizations is recommended to raise awareness of Pakistan's role in terrorism.

c. **Investment in Border Infrastructure:**

- i. Improving connectivity infrastructure is essential for engagement with neighbors.
- ii. Exploring a regional development fund for connectivity infrastructure is recommended.

d. **Monitoring India's Line of Credit (LOC) Projects:**

India's LOC to its neighbors has increased, and timely completion of projects should be ensured through regular monitoring.

e. **Defence and Maritime Security:**

Defence cooperation is crucial, and enhancing maritime domain awareness is important.

f. **Development in the North-Eastern Region:**

- i. Economic development of the northeastern states is integral to the Neighbourhood First Policy.
- ii. Synergy between the Neighborhood First Policy and the Act East Policy is recommended, focusing on connectivity, economic development, and security.

g. **Tourism Promotion:**

Promoting investment in tourism, including medical tourism, is recommended under the policy.

h. **Multilateral Organizations:**

Strengthening institutional and regional mechanisms is necessary to ensure the impact of the Neighbourhood First Policy is felt.

HOW INDIA PLANS TO ENGAGE WITH CHINA?

Introduction :

Four years after the Galwan clashes, India-China relations remain tense with a significant military presence along the border. While both sides express a desire for stability, recent events involving Taiwan and Tibet have introduced new complexities. As the upcoming SCO summit approaches, the possibility of a Modi-Xi meeting presents an opportunity for dialogue and potential de-escalation.

Current Situation

- **Border Standoff:** The ongoing border standoff in Ladakh involves approximately 50,000-60,000 troops on each side.
- **Shifting Focus:** India's position seems to be shifting from "disengagement" and "de-escalation" to discussions around "patrolling rights" and "patrolling abilities."
- **Economic Ties:** While the border issue dominates the headlines, it's important to note that India and China maintain significant economic ties. (Include data on trade volume, etc.)

Recent Challenges

- **Taiwan Interaction:** The public exchange between PM Modi and Taiwan's President Lai Ching-te on social media sparked a strong reaction from China, who views any interaction with Taiwan as a challenge to the "One China" policy.
- **Tibet and the Dalai Lama:** The recent visit of a US Congressional delegation to the Dalai Lama in Dharamsala, and Nancy Pelosi's comments, further heightened tensions with China.

Looking Ahead: SCO Summit

- **Potential Modi-Xi Meeting:** The upcoming SCO summit in Astana could provide a crucial platform for the two leaders to meet and discuss ways to improve bilateral relations.
- **Areas of Cooperation:** Beyond the border issue, the summit could also offer opportunities for cooperation on issues like regional security, trade, and climate change.

Analysis :

Domestic Politics

- **India:** The border standoff has fueled nationalist sentiment in India, with the Modi government facing pressure to take a strong stance against China. This has also led to increased scrutiny of the government's handling of the situation and its broader China policy. Opposition parties have used the border issue to criticize the government's effectiveness in safeguarding national security. Additionally, there are concerns about the economic impact of deteriorating ties with China, particularly on trade and investment.
- **China:** In China, the government's narrative focuses on portraying India as the aggressor and highlighting China's commitment to defending its territorial integrity. This narrative serves to rally domestic support and deflect criticism of the government's actions. However, there is also a growing awareness among Chinese policymakers and the public about the potential risks of prolonged tensions with India, particularly the impact on regional stability and economic cooperation.

International Implications

- **Regional Stability:** The India-China tensions have raised concerns about the potential for wider conflict and instability in the region. Other countries in South Asia and Southeast Asia are closely watching the situation, as they fear being caught in the crossfire of a potential conflict between the two giants.
- **Geopolitical Rivalry:** The tensions have further fueled the geopolitical rivalry between India and China, with both countries competing for influence in the region. This rivalry has manifested itself in various domains, including economic competition, infrastructure development (such as the Belt and Road Initiative vs. India's connectivity projects), and strategic partnerships (India's growing ties with the US and the Quad).
- **Global Implications:** The India-China relationship is also a key factor in the broader dynamics of the US-China rivalry. The US views India as a potential counterweight to China's growing power, while China sees India's alignment with the US as a threat to its interests. The tensions between India and China could therefore have far-reaching implications for the global balance of power.

Conclusion :

India-China relations are at a critical juncture. While both sides express a desire for peace and stability, recent events have highlighted the underlying tensions and complexities in the relationship. The upcoming SCO summit offers a potential turning point, but the path toward a more stable and cooperative relationship will likely be challenging and require sustained diplomatic effort.

● 50TH ANNIVERSARY OF G7 SUMMIT

In 2024, the G-7 summit was hosted by Italy, with a focus on defending the rules-based international system, engagement with Africa, resolution of the Russia-Ukraine and Israel-Gaza conflicts, and relations with developing countries and emerging economies.

1. The 50th G7 Summit was held in Italy from June 13-15, 2024.
2. The summit marked the 50th anniversary of the group.
3. The Prime Minister of India attended the summit, making it his first foreign trip after assuming office for the third straight term.

Key Highlights of the 50th G7 Summit:

1. **Promotion of G7 PGII (Partnership for Global Infrastructure and Investment):** The leaders decided to promote concrete G7 PGII initiatives, which aim to narrow the USD 40 trillion infrastructure gap in the developing world.
2. **Support and Promotion of India-Middle East-Europe Economic Corridor (IMEC):** G7 nations committed to promoting IMEC, which aims to create a comprehensive transportation network connecting India, the Middle East, and Europe.
3. **Support to Infrastructure Projects:** G7 extended support for the Lobito Corridor in Central Africa, Luzon Corridor, and the Middle Corridor.
4. **The Great Green Wall Initiative:** The initiative aims to combat desertification and land degradation in the Sahel region of Africa by creating a wall of trees stretching across Africa.
5. **Enhancing Interoperability of AI Governance:** G7 leaders committed to enhancing interoperability amongst their AI governance approaches to promote greater certainty, transparency, and accountability.
6. **Extraordinary Revenue Acceleration (ERA) Loans for Ukraine:** The G7 agreed to provide financing of approximately USD 50 billion in additional funding to Ukraine by the end of 2024.

Other Outcomes:

1. The G7 final communique also welcomed the participation of leaders from Algeria, Argentina, Brazil, India, Jordan, Kenya, Mauritania, Tunisia, Turkiye, and the United Arab Emirates.
2. The communique registers “unwavering support” for Ukraine in its ongoing conflict with Russia, with the G7 pledging to launch Extraordinary Revenue Acceleration (ERA) Loans for Ukraine to provide approximately \$50 billion in additional funding by the end of the year.
3. The G7 leaders also committed to stepping up efforts to enhance interoperability amongst their AI governance approaches to promote greater certainty, transparency, and accountability while recognizing that approaches and policy instruments may vary across G7 members.

G7 Leaders Commit to Promoting India-Middle East-Europe Economic Corridor:

Key Points:

1. The leaders of the Group of Seven (G7) nations have committed to promoting the India-Middle East-Europe Economic Corridor (IMEC) in the G7 Summit Communique, marking a significant boost to Prime Minister Narendra Modi’s vision for the project.
2. The IMEC project aims to facilitate the integration of trade between India and Europe, promoting economic development and fostering economic integration between Asia, West Asia, the Middle East, and Europe.
3. The G7 leaders have pledged to promote concrete infrastructure initiatives, including the IMEC, to develop transformative economic corridors for quality infrastructure and investment.

Background:

1. The IMEC project was first announced on the sidelines of the G20 Summit held in New Delhi in September 2023, with India, the US, UAE, Saudi Arabia, France, Germany, Italy, and the European Union signing a Memorandum of Understanding (MoU) to establish the corridor.
2. The project is seen as a rival to China’s Belt and Road Initiative (BRI), which has faced criticism for disregarding the sovereignty of nations.

Initiatives:

1. The IMEC will feature a rail line that will offer a dependable and reasonably priced cross-border ship-to-rail transit network, improving the transshipment of goods and services between South East Asia through India to West Asia/Middle East Europe.
2. The corridor will promote and accelerate economic development by enhancing connectivity and fostering economic integration between Asia, West Asia, the Middle East, and Europe.
3. The project will unlock greater investment for infrastructure development and strengthening connectivity in its various dimensions between India, the Middle East, and Europe.

Significance:

1. The G7 support for the IMEC project is a significant win for India, as it will help promote economic integration between India and Europe, expand India’s influence in the Middle East and Europe, and offer an alternative trade route with reduced time.
2. The project holds enormous significance for India’s own economic growth and strengthened relations with multiple countries.
3. The IMEC project is seen as a counter to China’s BRI, which has been criticized for its lack of transparency and disregard for sovereignty.

Challenges:

1. The project has faced delays due to the current situation in the Middle East, primarily after the Israel-Hamas war in the Gaza Strip.
2. India has been calling for de-escalation of the situation and creating conditions for an early resumption of direct peace negotiations towards a two-state solution to the Palestine issue.

What is G7?

1. G7 is a group of the most developed and advanced economies of the world, consisting of France, Germany, Italy, the United Kingdom, Japan, the United States, and Canada.
2. The leaders of important international organisations like the European Union (EU), IMF, World Bank, and the United Nations are also invited to the summit.

3. The G7 originated from the Oil crisis of 1973 and the resulting financial crisis, which forced the leaders of 6 major industrial nations to convene a meeting in 1975.
4. The G7 is an informal grouping that operates outside of formal treaties and lacks a permanent bureaucracy.

Significance of G7:

1. The G7 controls 60% of global net wealth, drives 46% of global GDP, and represents 10% of the world's population.
2. The G7 acts as a forum for member nations to have open and frank discussions on critical global issues, facilitating dialogue and building consensus.
3. The G7's discussions and pronouncements can influence the direction of global conversations on pressing issues, shaping international policies and priorities.

India's Role in G7:

1. India is not a member of the G7 but has participated as a guest in the 2019, 2021, and 2022 G7 summits.
2. India's economic significance, strategic importance in the Indo-Pacific, role in addressing the European energy crisis, and potential for mediating the Russia-Ukraine conflict make its participation in the G7 Summit crucial.

3. India's economic significance:

- a. With a GDP of USD 3.57 trillion (nominal), India's economy is larger than 4 G7 member countries - France, Italy, the UK, and Canada.
- b. According to the IMF, India is one of the fastest-growing economies in the world.
- c. India's abundant young and skilled workforce, coupled with its market potential, low manufacturing costs, and favourable business climate, make it an attractive investment destination.

4. India's strategic importance in the Indo-Pacific:

- a. India has emerged as a major strategic partner for the West in containing China's expanding influence, particularly in the Indian Ocean.
- b. India's strategic partnerships with the United States, Britain, France, Germany and Japan, and its rapidly growing ties with Italy,

make it an important player in the Indo-Pacific region.

5. India's role in addressing the European energy crisis:

- a. India's ability to secure discounted Russian oil and supply refined fuels to Europe has made it an important player in addressing the European energy crisis.
- b. The war in Ukraine has caused an energy crisis in Europe as they cut back on Russian energy imports. India has acted as a transit country for Russian oil, which is then refined in India and exported to Europe, helping to alleviate the pressure on their economies.

6. India's potential for mediating the Russia-Ukraine conflict:

- a. India's long-standing relationships with both Russia and the West position it as a potential mediator in the Ukraine conflict.
- b. By taking advantage of its neutral stance, India can provide a path of reconciliation to both parties, and facilitate dialogue and diplomacy to end the war.

Challenges to India in Balancing Power Conflict

Between West and China-Russia:

1. Defence dependence on Russia
2. Economic interdependence with both the US and China
3. Divergent approaches within the West regarding how to confront Russia and China
4. Domestic political turmoil in Western democracies
5. Border disputes with China
6. Geopolitical rivalry between the US and China in the region

Conclusion:

India's engagement with the G7 is crucial for addressing economic, geopolitical, and strategic challenges. The G7's collaboration with India will be essential in shaping the future of international cooperation.



NIA Charge-Sheets Eight for Trafficking Rohingyas and Bangladeshis

Key Points:

1. The National Investigation Agency (NIA) has filed charge sheets against eight individuals allegedly involved in trafficking Rohingyas and Bangladeshis into India using forged documents.
2. Victims were forced into hard labour and exploited under threats of arrest.
3. The investigation uncovered a significant transnational human trafficking network operating in Assam, Tripura, West Bengal, and Bangladesh.
4. The NIA is working to disrupt these trafficking syndicates in coordination with state police forces.

About the National Investigation Agency (NIA) :

1. Nature and Establishment:

- a. The NIA is the central counter-terrorism law enforcement agency in India.
- b. It operates under the Union Ministry of Home Affairs.
- c. Established after the 2008 Mumbai terror attacks through the National Investigation Agency Act, 2008.
- d. Headquarters: New Delhi, with 18 branch offices across India.

2. Mandate and Jurisdiction:

- a. Investigates and prosecutes offences affecting:
 - i. Sovereignty and integrity of India.
 - ii. Security of the country.
 - iii. Friendly relations with foreign countries.
 - iv. Implementation of international treaties and agreements.
- b. Handles offences related to explosive substances, atomic energy, nuclear weapons, unlawful activities, terrorist activities, and hijacking.
- c. The NIA Act was amended in 2019 to include offences such as human trafficking, manufacture and sale of prohibited arms, cyber-terrorism, and offences under the Explosive Substances Act, 1908.
- d. Authorised to investigate terror-related crimes across states without needing special permission from the states.
- e. Can take over investigations from state governments upon request and with approval from the Central Government.

- f. Empowered to investigate offences committed outside India, subject to international treaties and the domestic laws of other countries.

3. Powers and Operations:

- a. NIA officers have the same powers, duties, privileges, and liabilities as ordinary police officers while conducting investigations.
- b. The agency is headed by the Director-General (DG), who has the same powers as a Director-General of Police.
- c. Can request state governments to assist in investigations and can transfer cases to state governments with Central Government approval.
- d. The Unlawful Activities (Prevention) Act, 1967, was amended in 2019 to allow the DG to seize or attach properties related to proceeds of terrorism in NIA-investigated cases.

4. Special Courts:

- a. Special courts have been designated by the Government of India for the trial of offences investigated by the NIA.
- b. The Central Government can designate session courts in various states as special courts in consultation with the Chief Justice of the respective High Court.
- c. Special courts have jurisdiction over offences committed within their local areas.

Conclusion :

The NIA's charge-sheeting of eight individuals involved in trafficking Rohingyas and Bangladeshis into India highlights the ongoing struggle against transnational human trafficking networks. This development indicates proactive law enforcement efforts and the need for continued vigilance and international cooperation to address the root causes of forced migration and exploitation. The case outcome could influence future prosecutions and policy discussions on immigration, border security, and anti-trafficking measures.

NEET UG 2024

On June 13, the Union government submitted to the **Supreme Court** that the **score cards of 1,563 candidates** who were given **compensatory marks** in the common undergraduate medical entrance examination, **NEET-UG 2024**, held on May 5, **will be cancelled**.

Another test will be held for them, likely on June 23. Results would be out by June 30 and the **counselling for seats can begin by July 6**.

These candidates will be informed of the actual score, without the grace marks, and they can choose to take another test. If they opt not to sit for the re-test, their scores, without the grace marks will be the final score.

WHAT HAPPENED ?

The court was **hearing petitions** challenging the **award of grace marks** to the 1,563 candidates from six NEET centres in the country, using a **“normalisation formula”**.

THE GROUNDS FOR GRANTING GRACE MARKS :

On the grounds that **they were not allowed the full period of 3.2 hours** to write the exam, due to technical issues.

Based on a Court order, the compensatory marks were awarded to these candidates on the recommendation of a committee constituted by the National Testing Agency (NTA), the body which conducts NEET. **It was charged that the grant of grace marks was arbitrary and not transparent.**

ARE THERE ANY OTHER CHARGES?

In NEET, students have to answer **180 questions, (MCQ type)**, totalling **720 marks**. For every **right answer**, the student will score **4 marks**, with **1 mark deducted for a wrong answer**.

Hence, only certain marks can be scored by candidates. It was the **grace marks that caused confusion**, the NTA admitted.

However, this is not the only charge or case in court against NEET 2024. This year there has been a litany of charges that **go beyond a question paper leak**.

- The slow distribution of question papers;
- Providing the wrong question paper;
- Wrong OMR sheets; and
- Technical delays.
- Post evaluation, there have been complaints about the unusually high number of students (67) who hit the perfect score, 720/720, and about students who scored “statistically impossible” marks, while some cases of cheating by proxy were also unearthed.
- Other cases pertaining to the question paper leak are still to be heard by the Supreme Court.

In the past, the exam has been dogged by charges of poor organisation and inadequate planning, besides inconsiderate rules on what candidates are allowed to wear in the exam hall.

THE AFTERMATH

- All these charges **sparked protests from students** and **political parties** across the country.
- Political parties called for a **fair investigation of the charges** and called on the government to **conduct a fresh NEET exam**.
- **Students had the same demand**, to re-conduct the test, on the grounds that the question paper leak had facilitated some students scoring full marks, or, giving them an unfair advantage.
- In response, the **NTA had appointed a four-member committee** to go into allegations made against the conduct of the NEET exam in 2024. This panel’s **recommendations have now found their way into the court also**.

WHAT NTA SAID IN THE COURT ?

- NTA officials attributed an **‘easy paper’** to the unusual number of full scores this year.
- But the NTA still **constituted a four-member committee** to go into the truth behind the allegations made this year.
- The panel found that the **compensatory marks awarded to the 1,563 students, resulted in a “skewed situation”**.
- **Grace marks had to be limited to the attempted questions alone**, and while the panel did not comment further on how many marks were granted in compensation, **it concluded that it would be best to cancel the test for these students alone**.

THE STUDENTS’ DEMAND

Students and education experts have already **expressed dissatisfaction with the cancellation of the exam only for a few students**.

Arguing that **if the exam can be cancelled for 1,500 students, then that is an admission of error and therefore, they claim that the logical thing would be to cancel the May 5 exam for all candidates and conduct a re-test**.

It indicates a failure of the system and loss of faith, students complained on social media.

Mission Karmayogi : For Civil Servants who are better prepared and Citizen-oriented

India has ambitious plans to become **a global manufacturing hub, a major exporter of value-added services, and a leading supplier of skilled labour by 2047**. This ambitious vision, known as **“Viksit Bharat,”** is based on improved governance and

a highly capable civil service. **Mission Karmayogi, launched in 2021, is a critical initiative designed to transform India's vast civil service into a citizen-centric, future-ready workforce.**

The Challenge of Capacity Building :

- 1. Doubts have been raised about the Indian civil service's capacity to meet the demands of this ambitious vision.**
- Mission Karmayogi seeks to address these concerns by enhancing the skills and capabilities of civil servants across all levels.
- The Capacity Building Commission (CBC) plays an important role in guiding this transformation.**

Mission Karmayogi : Early Signs of Success:

3 years into the program, there are promising signs of progress.

- 1. PM Gati Shakti:** This digital platform for **infrastructure project planning and coordination**, aided by training provided to civil servants, has significantly accelerated the pace of infrastructure development.
- 2. Training for Emerging Technologies:** Recognizing the importance of technology in modern governance, the **CBC has designed training modules on AI, IoT, and Big Data Analytics, completed by over 388,000 government personnel.**

Impact on Governance and Service Delivery:

- 1. Impact on Infrastructure Development:** The results of these capacity-building efforts are evident in the accelerated pace of infrastructure projects, including **increased construction of new rail lines and highways, while also protecting sensitive wildlife habitats through integrated planning.**
- 2. PM Gati Shakti: Revolutionising Infrastructure Development:**
 - Mission Karmayogi, through the CBC, has played an important role in implementing the **PM Gati Shakti platform.**
 - This platform enables a **“whole of government”** approach to infrastructure development by integrating various ministries and departments.
 - To maximise its potential, the **CBC has provided training in emerging technologies and GIS to over 24,000 officials across various sectors.**
 - This has resulted in a significant acceleration of infrastructure projects, with **new rail line**

construction increasing threefold and over 15 highway projects initiated under PM Gati Shakti.

3. Citizen-Centric Governance:

- Mission Karmayogi emphasises a citizen-centric approach.
- Training programs for police personnel and railway staff have enhanced soft skills**, resulting in improved citizen satisfaction with public services.
- This **focus on citizen-centricity extends** to other sectors as well, with training programs conducted for **Gramin Dak Sevaks and village-level citizen service centres** under the **Ministry of Electronics and Information Technology.**

4. Enhancing Citizen-Centricity in Policing, Railway Services, and Beyond:

- A key aspect of Mission Karmayogi is **promoting citizen-centric approaches among civil servants.**
- This is evident in the **training provided to over 50,000 police personnel and 100,000 railway personnel, focusing on research-based self-reflection and proactive grievance redressal.**
- Independent assessments have shown increased citizen satisfaction with police services, **particularly in Puducherry, and with railway services.**
- The **improved security situation in Kashmir, evidenced by a surge in tourism, also reflects the positive impact of this training.**

5. Streamlining Tax Administration and Empowering Local Governments:

- The **CBC has collaborated with the Central Board of Direct Taxes** to develop an online module for addressing taxpayer grievances.
- The initiative has extended to **municipal corporations, providing training in municipal finance, road engineering, and solid waste management**, crucial areas for local service delivery and infrastructure development.

6. Transforming Municipal Governance:

- Recognizing the crucial role of state governments and municipal corporations in achieving India's 2047 goals, **Mission**

Karmayogi has piloted capacity-building initiatives in several cities.

- b. Almost the entire staff of Ahmedabad and Nagpur municipal corporations have been onboarded onto the iGOT Karmayogi Bharat learning portal, accessing courses on various aspects of municipal governance.

Promoting a Culture of Learning :

1. Internally, Mission Karmayogi has promoted continuous learning within the civil service.
2. Many have completed online modules on data analytics, e-governance tools, and more, increasing proficiency in these areas.

Next Steps:

1. To further solidify these gains, it is essential that all government departments and agencies actively implement their annual capacity building plans, as facilitated by the CBC.
2. By investing in the skills and knowledge of its civil servants, India can build a more efficient, responsive, and citizen-centric government capable of achieving its ambitious goals.

Conclusion:

Mission Karmayogi, supported by the CBC and the Karmayogi Bharat platform, has made significant strides in enhancing the capabilities of India's civil servants. It represents a critical step towards achieving the vision of Viksit Bharat by 2047. The program's success depends on continued commitment to capacity building and a focus on citizen-centric governance.

“The real scam behind NEET we need to talk about”

I. Introduction

1. The recent NEET exam scandal has highlighted the need to discuss a larger issue: the mismatch between the aspirations of India's youth and the reality of inadequate opportunities.

II. The Scale of the Problem

1. 24 lakh students appeared for NEET, competing for only 1 lakh seats (55,000 government seats).
2. This highlights the massive mismatch between aspirations and reality for India's youth.
3. The problem is not limited to medical education, but is a recurring issue across sectors, including education and employment.

III. The Inadequate System

1. India's systems are woefully inadequate to address the aspirations of its youth, 75 years after Independence.

2. The country has failed to provide sufficient opportunities, leading to a sense of injustice and hopelessness among the youth.
3. The system has been designed to restrict success to a minority, leading to discontent and alienation.

IV. The Dubious Concept of “Merit”

1. The concept of “merit” is used to justify the limited opportunities, implying that only a few are worthy of success.
2. This is a flawed approach, as it ignores the systemic bottlenecks that prevent many from achieving success.
3. The celebration of a few successful individuals as examples of national pride only serves to exacerbate the problem.

V. The Consequences

1. The lack of opportunities leads to a sense of hopelessness and disillusionment among the youth.
2. Many are denied opportunities despite working hard, leading to a deep sense of injustice.
3. The consequences include a high rate of suicide cases, as seen in Kota.
4. The platitudes offered to those who fail, such as “one exam doesn't matter,” ring hollow due to the limited pathways for upward mobility.

VI. The Need for a Multi-Pronged Approach

1. To address the problem, a multi-pronged approach is required, involving:
 1. A bipartisan, top-down, nationwide approach to expand quality educational and employment opportunities.
 2. A massive infusion of public funds to support this expansion.
 3. A shift in attitude towards the working class, promoting social solidarity.
 4. A recognition by the elite that their success is not enough, and that they must work to expand opportunities for less advantaged youth.

VII. The Current Solutions are Inadequate

1. The current solutions lack a bipartisan, top-down, nationwide approach.
2. The focus is on celebrating little islands of excellence, rather than making opportunities widely available.
3. The approach is piecemeal, with no clear aim to make quality education and employment opportunities accessible to all.

VIII. Conclusion :

Merely cancelling exams and prosecuting individuals is not enough to address the problem.

A decisive, sustained mission is required to instill hope and validate the aspirations of India's youth. The highest leadership must take responsibility and demonstrate empathy towards the youth to bring about change. The nation needs to demonstrate a sense of responsibility and empathy towards its youth, and work towards expanding quality educational and employment opportunities.

DELHI WATER CRISIS : DELHI GOVT. MOVES SC

On Friday, May 31, the Delhi government approached the Supreme Court seeking urgent directions to Haryana and Himachal Pradesh to release more water into the National Capital Territory (NCT) region.

WHY IS THE ISSUE?

- This move comes amidst an unprecedented surge in temperatures, which has significantly increased the demand for water in Delhi.
- The city's water resources are strained, leading to severe shortages affecting residents and businesses.

IS IT THE FIRST TIME THE DELHI GOVT. HAS APPROACHED THE SC?

- This is not the first time that the Delhi government has sought the Supreme Court's intervention over its water woes.
- Previous disputes over water sharing between Delhi and its neighboring states have often required judicial resolution.

FROM WHERE & WHY DELHI IS SEEKING WATER?

- The AAP government has indicated that Himachal Pradesh has agreed to share its surplus water with Delhi.
- However, the transportation of this water through the Wazirabad barrage requires cooperation from the Haryana government, which is currently not being provided.

WHY DELHI NEEDS SURPLUS WATER?

- Delhi-NCR's large workforce and migrant population significantly increase the city's water consumption needs.
- The government is seeking additional water supply as a "stop-gap arrangement" until the arrival of the monsoon season, which is expected to provide some relief.

THE 1996 JUDGEMENT OF SC:

- The Supreme Court has previously ruled on the water sharing issue.

- On February 29, 1996, a bench of Justices Kuldeep Singh and BL Hansaria disposed of contempt pleas and ruled, "Delhi shall continue to get as much water for domestic use from Haryana through River Yamuna which can be consumed and filled in the two water reservoirs and treatment plants at Wazirabad and Hyderpur.
- Both the Wazirabad and Hyderpur reservoirs shall remain full to their capacity from the water supplied by Haryana through River Yamuna."
- The court directed Haryana not to obstruct the water supply to Delhi as directed, adding that the order was independent of the MoU signed between the states.

HISTORICAL CONTEXT & CURRENT SITUATION:

- The issue of water sharing between Delhi, Haryana, and Himachal Pradesh has a long history. The agreements and disputes date back several decades, reflecting the complex inter-state water dynamics. Delhi, being a landlocked city with limited natural water sources, relies heavily on neighboring states for its water needs.
- In recent years, rapid urbanization, population growth, and climate change have further stressed Delhi's water resources. According to data from the Central Water Commission, Delhi's per capita water availability has been declining, necessitating urgent measures to secure additional water supplies.

EXPERT OPINIONS AND PUBLIC REACTION

- Water experts and environmentalists have weighed in on the crisis, emphasizing the need for sustainable water management practices and better inter-state coordination.
- The public reaction in Delhi has been one of frustration, with many residents facing daily challenges due to water shortages.

CONCLUSION

The ongoing water crisis in Delhi underscores the importance of effective water governance and inter-state cooperation. As the Delhi government awaits the Supreme Court's decision, the hope is that a balanced and sustainable solution can be found to address the immediate needs and long-term water security of the National Capital Territory.



Indian Polity & Governance

What are the Powers of the Speaker and why is the post crucial ?

As preparations for the 18th Lok Sabha session begin, there is a competition between the TDP and the JD(U), key allies of the BJP in the National Democratic Alliance (NDA), for the post of Speaker.

After the pro tem or temporary Speaker administers oath to the new members, the Speaker is elected as the presiding officer of the House.

Constitutional Mandate of the Speaker :

1. The Speaker of Lok Sabha is a crucial post in parliamentary democracy, as per the Constitution of India.
2. The Speaker is elected by a simple majority in the House and their term ends with the dissolution of the House, unless they resign or are removed from office before that.
3. A motion of no-confidence can be moved against the Speaker with a 14-day notice as per Article 94 of the Constitution.

Powers of the Speaker :

1. Conducting the House: The Speaker decides how the House is conducted, including the conduct of government business, in consultation with the Leader of the House.
2. Questions and Records: The Speaker decides the admissibility of questions raised by members and how the proceedings of the House are published.
3. Voice Votes and Division: The Speaker can disregard a request for division and push a Bill through by voice vote if they deem it unnecessary.
4. No-Confidence Motion: The Speaker's impartiality is crucial when a motion of no-confidence is moved against the government.
5. Casting Vote: The Speaker has a casting vote in case of an equality of votes, which is rare but significant.
6. Disqualification of Members: The Speaker has the power to disqualify legislators who 'defect' from a party under the 10th Schedule of the Constitution.

Key Functions of the Speaker of the Lok Sabha

as outlined in the Indian Constitution :

1. Presiding over Sittings (Article 95) :
The Speaker leads and manages the sessions of the Lok Sabha, ensuring order and decorum are maintained.

2. Participation in Proceedings (Article 96) :
 - (a) The Speaker can actively engage in parliamentary discussions and express their views during sessions and committee meetings they are part of.
 - (b) However, the Speaker does not have the right to vote in the first round of voting.
3. Certification of Bills (Article 97) :
 - (a) The Speaker has the responsibility of certifying money bills and financial bills.
 - (b) They also have the authority to designate any other bill as a money bill or a financial bill.
4. Casting Vote (Article 100) :
In situations where there is a tie in the voting process within the Lok Sabha, the Speaker holds the deciding or "casting vote."
5. Committee Appointments and Referrals:
 - (a) The Speaker is responsible for appointing committees and their chairpersons.
 - (b) They also assign matters for these committees to consider and address.

Importance of the Speaker's Post :

1. The Speaker's post is crucial for the smooth functioning of parliamentary democracy.
2. The Speaker's impartiality is essential in maintaining the balance of power between the ruling party and the opposition.
3. The Speaker's powers can significantly impact the outcome of important legislative decisions and motions, including no-confidence motions.
4. The Speaker's role in disqualifying defecting members can alter the numbers in the House and cause a government to fall.

Recent Developments :

1. The 10th Schedule or the anti-defection law, introduced in 1985, grants the Speaker of the House the authority to disqualify legislators who switch parties. This power was upheld by the Supreme Court in the landmark case *Kihoto Hollohan v. Zachillhu* in 1992.
2. For the Opposition, the power of the Speaker under the 10th Schedule of the Constitution is of paramount significance, as defections can significantly alter the balance of power in the House and potentially cause a government to fall.
3. Timely action by the Speaker in disqualifying defecting members can prevent the formation of a new government with a majority.

4. However, delays in deciding on disqualification petitions can undermine the effectiveness of the 10th Schedule.
5. In 2023, the Supreme Court directed the Maharashtra Assembly Speaker to initiate disqualification proceedings against MLAs of the Uddhav Thackeray and Eknath Shinde factions of the Shiv Sena, emphasizing the need for prompt action in such cases.
6. In 2020, the Supreme Court ruled that Speakers of Assemblies and the Lok Sabha must decide disqualification pleas within three months, except in exceptional circumstances.
7. This directive was aimed at ensuring timely resolution of defection-related issues.

Significance of the Speaker's Post for the Ruling Party and its Allies :

1. The Speaker's post is crucial for the ruling party and its allies, as it can impact the outcome of important legislative decisions and motions.
2. The Speaker's impartiality is essential in maintaining the balance of power between the ruling party and the opposition.

Significance of the Speaker's Post for the Opposition :

1. The Speaker's post is crucial for the opposition, as it can impact their ability to raise questions and discuss important issues in the House.
2. The Speaker's impartiality is essential in ensuring that the opposition has a fair say in the House.
3. The Speaker's powers can significantly impact the opposition's ability to hold the government accountable and to bring about change through legislative action.

Conclusion :

In conclusion, the Speaker of Lok Sabha plays a vital role in the functioning of parliamentary democracy in India. The Speaker's powers and impartiality are essential in maintaining the balance of power between the ruling party and the opposition, and in ensuring that the House functions smoothly and efficiently. The recent developments in the Supreme Court's rulings on disqualification proceedings highlight the importance of the Speaker's post in upholding the Constitution and the principles of parliamentary democracy. As the 18th Lok Sabha prepares to meet, the election of a new Speaker will be a crucial step in ensuring the smooth functioning of the House and the effective representation of the people of India.

THE OATH

The oath-taking ceremony, a formal event, which signifies a person assuming control of a post, and is associated with several government offices in India, such as that of the President, the PM, the CM, Cabinet Ministers and judges.

The **Third Schedule** of the Constitution details the oaths for other offices. Holders of these offices also take an oath of secrecy.

THE SWEARING IN CEREMONY

It is the **formal taking of office**, where the person set to occupy the office swears to be loyal to the Constitution and to discharge their duties faithfully.

At different levels of government, the oath is administered by different people.

- For CMs and ministers at the state level, the Governor administers the oath.
- For the Prime Minister and the Union Cabinet, the President.
- The oath of office to the President is administered by the CJI.

Those taking the oath **can either swear in the name of God, or simply "solemnly affirm"**. The ceremony also underlines the layers which make up India's political power structure, and **affirms the supremacy of the Constitution in our polity**.

OATH BY A PRESIDENT

The President's oath of office, in **Article 60** of the Constitution, says, "*I, A. B., do swear in the name of God/solemnly affirm that I will faithfully execute the office of President (or discharge the functions of the President) of India and will to the best of my ability preserve, protect and defend the Constitution and the law and that I will devote myself to the service and well-being of the people of India.*"

OATH BY A MINISTER

Form of oath of office for a Minister for the Union :—

"I, A. B., do swear in the name of God/solemnly affirm that *I will bear true faith and allegiance to the Constitution of India as by law established [that I will uphold the sovereignty and integrity of India,] that I will faithfully and conscientiously discharge my duties as a Minister for the Union and that I will do right to all manner of people in accordance with the Constitution and the law, without fear or favour, affection or ill-will.*"

OATH OF SECRECY BY A MINISTER

Form of oath of secrecy for a Minister for the Union :

“I, A.B., do swear in the name of God/solemnly affirm that I will not directly or indirectly communicate or reveal to any person or persons any matter which shall be brought under my consideration or shall become known to me as a Minister for the Union except as may be required for the due discharge of my duties as such Minister.”

ARE VARIATIONS ALLOWED ?

As earlier reported, constitutional experts and those familiar with procedures and rules of swearing-in ceremonies say that Article 164 makes it clear that the text of the oath has to be read out exactly as it is.

Section 3 of the Article states: “Before a Minister enters upon his office, the Governor shall administer to him the oaths of office and of secrecy according to the forms set out for the purpose in the Third Schedule.”

THE CONSTITUENT ASSEMBLY DISCUSSIONS ON OATH

The words of the oaths were arrived at after considerable discussions in the Constituent Assembly. One of the sharpest debates was about whether office bearers of a secular state should swear in the name of God.

Even after it was agreed upon that God could be part of the oath, there were disagreements on whether “in the name of God” should come before or after “solemnly affirm”, with one leader even thundering at Dr BR Ambedkar that ‘grammar should not stand in the way of God’.

PRO-TEM SPEAKER

The 18th Lok Sabha will hold its first session from June 24 to July 3, during which the new Speaker of the House will be elected.

Until this happens, a pro-tem Speaker will be chosen to swear in the new Members of Parliament.

According to a PTI report, Prime Minister Narendra Modi will move the motion for election of the Speaker in the Lok Sabha on June 26.

Meanwhile, Congress leader Kodikunnil Suresh, as the senior most member of the Lok Sabha, is expected to be appointed as pro-tem Speaker.

WHO IS THE PRO-TEM SPEAKER?

Being the Presiding Officer of the Lok Sabha, the Speaker has to fulfil certain key duties related to its day-to-day proceedings.

THE CONSTITUTIONAL PROVISIONS FOR SPEAKER:

Article 94 of the Indian Constitution states: “Whenever the House of the People is dissolved, *the Speaker shall not vacate his office until immediately before the first meeting of the House of the People after the dissolution.*”

In the new Lok Sabha, the Speaker of the House is decided by a simple majority. Until her selection, the pro-tem Speaker is chosen to administer some important duties. ‘Pro-tem’ essentially means ‘for the time being’ or ‘temporarily’.

ARE PROVISIONS WRT PRO-TEM SPEAKER ALSO MENTIONED IN THE CONSTITUTION?

The Constitution does not mention the post. However, the official ‘Handbook on the Working of Ministry of Parliamentary Affairs’ speaks about the ‘Appointment and Swearing in of Speaker pro-tem’.

HOW IS THE PRO-TEM SPEAKER CHOSEN?

The handbook states when the Speaker post falls vacant before a new Lok Sabha, “the duties of the Speaker are to be performed by a Member of the House appointed for this purpose by the President as Speaker pro-tem”.

Generally as per Parliamentary Convention, the senior most parliamentarian is chosen as pro-tem Speaker. However, exceptions have been there.

PURPOSE OF APPOINTING SPEAKER PRO-TEM

Administering oaths to the new MPs is the pro-tem Speaker’s primary duty.

Under Article 99 of the Constitution, “Every Member of the House shall, before taking his seat, make and subscribe before the President or some person appointed in that behalf by him, an oath or affirmation according to the form set out for the purpose in the Third Schedule of the Constitution.”

Normally, three other elected members of the Lok Sabha are also appointed by the President for the MPs to take oath before them. According to the handbook, the senior most members (in terms of number of years of membership of the House) are generally chosen for the purpose, though there have been exceptions.

THE THIRD SCHEDULE

The third schedule contains the forms of oaths or affirmations for the following:

- Oath of office for a Minister of a Union & States
- Oath of secrecy for a Minister of a Union & States
- Oath or affirmation to be made by a candidate for election to Parliament & State Legislature.

- Oath or affirmation to be made by a member of Parliament & member of Legislative Assembly of states.
- Oath or affirmation to be made by the Judges of the Supreme Court.
- Oath or affirmation to be made by the Comptroller and Auditor General of India. (CAG)
- Oath or affirmation to be made by the Judges of a High Court.

MERCY PETITION

President Droupadi Murmu has **rejected a mercy petition** filed by **Pakistani national Mohammed Arif** who was sentenced to death for the **December 22, 2000 terrorist attack at the Red Fort** in which three people including two Army jawans were killed.

The President's decision, made on May 27, **came after Arif failed to obtain relief from the Delhi High Court and Supreme Court** in his appeals against a trial court order of October 2005.

He can challenge the President's decision and prolong the proceedings further.

PARDONING POWER OF THE PRESIDENT

Article 72 gives pardoning power to the president. It says :

The President shall have the powers to grant pardons, reprieves, respite or remission of punishment or to suspend remit or commute an offence of any person convicted of any offence.

- In all cases where the punishment is of court marshal.
- In all cases where punishment is given for violating a law made by the central govt and its executive powers extend.

Article 161 grants pardoning powers to the Governor also, but there governor cannot exercise these powers in case of a Court Martial, death sentence & a law made by the union.

THE TERMINOLOGIES

Pardon: The President can completely absolve the charges.

Commute: To reduce the nature of punishment from a much harsher one to a less harsher. For example: Death Sentence to Life imprisonment.

Remission: To reduce the punishment without changing the nature of the punishment. For example: Rigorous imprisonment for 15 years to 10 years.

Reprive: A delay is allowed to give convict some time to prove innocence.

Respite: To reduce the degree of punishment looking at specific grounds like pregnancy or old age.
STANDARDS APPLIED BY COURTS DURING DEATH SENTENCE

In 1980, the Supreme Court (**Bachan Singh v. State of Punjab**) upheld the constitutionality of the death penalty, but established important guardrails. **"Judges should never be bloodthirsty"**, and the death penalty should not be awarded **"save in the rarest of rare cases when the alternative option is unquestionably foreclosed"**, and all possible mitigating circumstances have been considered.

The court has reaffirmed the "rarest of rare" standard in several decisions since then.

The Report of the **262nd Law Commission** published in 2015 recommended the **"absolute abolition" of the death penalty "for all crimes other than terrorism related offences and waging war"**.

THE JOURNEY IN COURTS

- In 2007, the Delhi High Court confirmed the trial court's decision to sentence Arif to death.
- Arif then appealed to the Supreme Court. On August 10, 2011, a Bench of Justices V S Sirpurkar and T S Thakur rejected the appeal, calling the attack an "undeclared war by some foreign mercenaries".
 - o Providing a historical overview of Red Fort to highlight its significance as a national monument, the Bench stated that "even without any reference to any other case law", the case satisfies the standard of the "rarest of rare".
- Arif **continued to file petitions at the Supreme Court** against the death sentence.
 - o Review petition rejected in 2012.
 - o Curative petition (where the SC can only intervene if there is an error in its judgement) rejected in 2014.
 - o In 2014, Arif filed another writ petition, arguing that cases arising out of a death sentence should be heard by **Bench of three judges or more.**
- **SC agreed to this demand.**
 - o The case was then **placed before a three-judge Bench** led by former Chief Justice of India U U Lalit. On November 3, 2022, nearly 22 years after the attack, the Bench rejected Arif's plea, finding that **"there was a direct attack on the unity, integrity and sovereignty of India."**

CAN ARIF CHALLENGE PRESIDENT'S REJECTION?

Arif **has the option of challenging the President's rejection** of his mercy petition.

At a procedural level, the apex court has held that the **President's power must be exercised based on the aid and advice of the Council of Ministers**, and can be **challenged on multiple grounds**—

- Relevant material was not considered,
- The power was exercised based on political considerations, or that there was no application of mind.

HAS THE SC COMMUTED DEATH SENTENCES?

The top court has also commuted the death sentence **in cases of inordinate delay in deciding mercy petitions**, such as in the case of Shatrugan Chauhan v. State of U.P. (2014).

The court also commuted the sentence of one **Gurmeet Singh after he spent 27 years in custody (and 21 years on death row)**. The court found that there was an inordinate delay in deciding his mercy petition, which was disposed of in March 2013 more than seven years after the Supreme Court first upheld the death sentence.

LOK ADALATS

Introduction :

As the Supreme Court of India marks its 75th anniversary, it's launching a special Lok Adalat (People's Court) initiative from July 29 to August 3, 2024. Lok Adalats are a unique and effective alternative dispute resolution mechanism in India that offers an informal, accessible, and efficient way to settle disputes outside traditional courts.

What are Lok Adalats ?

- **Definition:** Lok Adalats are voluntary forums where parties can resolve their disputes through conciliation and compromise.
- **Philosophy:** Rooted in the Indian tradition of community-based dispute resolution, Lok Adalats emphasize a win-win approach and strive to preserve relationships between parties.
- **Legal Framework:** Lok Adalats have statutory status under the Legal Services Authorities Act, 1987. Their awards have the same legal validity as a court decree.
- **Advantages:** They offer a faster, cheaper, and less adversarial alternative to traditional court proceedings. Lok Adalats reduce the burden on the courts and promote access to justice, particularly for marginalized communities.

Types of Cases Suitable for Lok Adalats

Lok Adalats are well-suited for cases with a potential for compromise, including:

- **Original Focus (Supreme Court's Special Lok Adalat):**
 - o Cases relating to matrimonial and property disputes
 - o Motor accident claims
 - o Land acquisition
 - o Compensation
 - o Service and labor disputes pending before the Supreme Court
- **General Scope :**
 - o **Civil Disputes :** Matrimonial disputes, property disputes, land acquisition cases, etc.
 - o **Compoundable Criminal Cases:** Petty offenses, traffic violations, etc.
 - o **Pre-Litigation Disputes :** Disputes that haven't yet reached the court but could potentially be resolved through mediation.

Composition and Powers

- **Composition:** Lok Adalats consist of serving or retired judicial officers and other persons as specified by the relevant legal services committee.
- **Powers:** Lok Adalats have the jurisdiction to determine and arrive at a compromise or settlement between the parties. They can deal with cases pending before the court or those at the pre-litigation stage.
- **Role of Members:** Members act as statutory conciliators, persuading parties towards a compromise without any judicial powers.
- **Awards:** Awards made by Lok Adalats are deemed to be decrees of a civil court, final, binding, and non-appealable.

Impact and Future

- **Success Rate:** Lok Adalats have an impressive track record, often resolving a significant number of cases successfully. This contributes to reducing the backlog of cases in the courts and promoting social harmony.
- **Expansion:** The Lok Adalat model has been replicated and adapted in various forms across the country, including Mobile Lok Adalats, National Lok Adalats, and Permanent Lok Adalats.
- **Technology Integration:** With the advent of technology, online Lok Adalats (e-Lok Adalats) are also being organized to further expand access and reach.

Conclusion

Lok Adalats represent a unique and valuable contribution of India to the field of alternative dispute resolution. As the Supreme Court celebrates its 75th year with a special Lok Adalat, it reinforces the importance of this mechanism in providing accessible, efficient, and culturally relevant justice to the people of India.

COUNCIL OF MINISTERS

The **Union Council of Ministers (COM)** headed by **Prime Minister Narendra Modi** was sworn in on **June 9, 2024**.

The present COM consists of :

- The Prime Minister,
- 30 Cabinet Ministers,
- 5 Ministers of state (MoS) with independent charge and
- 36 MoS.

THE CONSTITUTIONAL PROVISIONS

India is a **parliamentary democracy** with the **President as its nominal head**. **Article 74** of the constitution provides that **there shall be a COM headed by the Prime Minister (PM) to aid and advise the President**.

The **real executive powers** lie with the **COM**. A Minister should be a member of Either the Lok Sabha or the Rajya Sabha and if not, should become one within six Months of his/her appointment.

THE HIERARCHY

The Com consists of a **Cabinet minister, MoS with independent charge, MoS and a Deputy Minister**.

DOES THE CONSTITUTION CLASSIFY RANKS?

The Constitution **does not classify the members of the COM into different ranks**. All this has been **done informally, following the British practice**.

Cabinet Ministers are higher in rank and **handle large portfolios while MoS assist the Cabinet Ministers and work under them**. MoS with independent charge directly reports to the Prime Minister for their respective ministries.

THE COMS OF THE PAST

- The **first COM** at the time of independence had only **15 Ministers** headed by Prime Minister Jawaharlal Nehru.
- After the **first general elections in 1952**, Nehru inducted around **30 Ministers into his COM**.

- Interestingly, it is the **United Front governments led by Deve Gowda** (June 1996) and **I.K. Gujral (April 1997)** that were sworn in with just **21** and **34 Ministers** respectively.
- In **1999**, when **Atal Bihari Vajpayee** became Prime Minister, his COM had **74 Ministers**.
- During **UPA-1** the Manmohan Singh-led government touched the maximum strength of **79 ministers**. The no. Was **same in UPA-2**.
- In **May 2014**, Prime Minister Modi had **46 ministers in COM**.
- In **May 2019**, **57 ministers** were sworn in.

THE CONSTITUTIONAL LIMIT

The **National Commission to review the working of the Constitution** under the Chairmanship of **Justice Venkatachaliah** set up in **February 2000**, had **suggested a ceiling of 10%** of the total strength of Lok Sabha/Legislative Assembly for the number of Ministers at the Centre/State level.

THE UPPER LIMIT :

Finally, through the **91st Constitutional Amendment in 2003**, the total number of Ministers including PM/CM in the COM was limited to **15% of the total strength of the Lok Sabha/State Legislative Assembly**.

THE LOWER LIMIT :

There is **no minimum requirement at the Central level** whereas even the **smaller States should have a minimum of 12 Ministers**.

For **Union Territories of NCT of Delhi and Jammu & Kashmir (J&K)**, the maximum limit is **10% of the total strength of its assembly**.

HAS THIS LIMIT BEEN BREACHED ANYHOW?

Yes. There has been a practice of appointing **Parliamentary Secretaries (PS)**. The PS office is not mentioned in the Constitution & is a British practice.

WHEN WAS THIS POST CREATED IN INDIA?

In India, the post of PS was **first created in 1951**. They have **not been a regular Feature in the Central governments** thereafter and the **last PS at the Centre was appointed in 1990**.

However, **various States have continued** with their appointment to circumvent the Limit on COM placed by the 91st Amendment. But the High Courts have been vigilant on this matter.

CABINET COMMITTEES

While the allocation of portfolios is likely to be known soon, it is expected that the **BJP — with 240 seats in Lok Sabha — will not cede the four big portfolios of Home, Defence, Finance, and External Affairs** to its alliance partners, so it is able to retain its **hold on the Cabinet Committees**.

LIST OF IMPORTANT CABINET COMMITTEES:

- Cabinet Committee of Security (CCS)
- Cabinet Committee on Economic Affairs (CCEA) and
- Cabinet Committee on Political Affairs (CCPA)

WHEN ARE CABINET COMMITTEES FORMED?

Once the **Union Cabinet is sworn in** and **ministerial portfolios are allocated**, the next step would be the formation of the high-profile Cabinet committees.

WHO SETS UP THESE COMMITTEES?

The **Prime Minister** sets up these committees with selected members of the Cabinet and assigns specific functions to these committees.

ARE THE NUMBER OF COMMITTEES & THEIR COMPOSITION FIXED?

The Prime Minister **may change the numbers of committees**, and **modify the functions** assigned to them. The **membership** of each committee **varies from three to eight**. Usually, **only Cabinet ministers are members** of these committees. However, **it is not unheard of for non-Cabinet ministers** to be members or special invitees to committees. **If the Prime Minister himself is a member of any such committee, he acts as the head of that committee.**

HOW MANY CABINET COMMITTEES ARE THERE?

There are eight Cabinet committees at present —

- The Appointments Committee of the Cabinet,
- Cabinet Committee on Economic Affairs,
- Cabinet Committee on Political Affairs,
- Cabinet Committee on Accommodation.
- Cabinet Committee on Security,
- Cabinet Committee on Parliamentary Affairs,
- Cabinet Committee on Employment & Skill Development (**Introduced 2019**)
- Cabinet Committee on Investment and Growth,

All committees **except the cabinet committee on accommodation and cabinet committee on parliamentary affairs are headed by the pm.**

THE IMPORTANCE OF CCS

With the Prime Minister helming it, the CCS has the ministers for Finance, Defence, Home Affairs and External Affairs as its members. It is responsible for

- Debates, discussions and appointments of/ in the national security bodies.
- Major decisions with respect to the significant appointments, issues of national security, defence expenditure of India are taken by CCS.
- Besides dealing with defence related issues, the CCS also brainstorms on issues relating to law and order and internal security, and policy matters concerning foreign affairs on security-related issues.
- It also considers matters relating to atomic energy.

HAVE ALLIANCE PARTNERS BEEN PART OF CCS ? YES

- The most notable example was of the H D Deve Gowda government of 1996, Samajwadi Party's Mulayam Singh Yadav became Defence Minister, P Chidambaram, who had formed the Tamil Maanila Congress earlier that year, became Finance Minister, and CPI's Indrajit Gupta became Home Minister.
- In 2001, with Vajpayee heading the NDA government, Samata Party founder George Fernandes was appointed the Defence Minister and remained in the post for three years.

18th Lok Sabha Session : Oath-Taking and Parliamentary Procedures

Context :

1. The 18th Lok Sabha session began on Monday, June 26, 2024.
2. Members of Parliament (MPs) must take an oath before participating in House proceedings.
3. The Election Commission of India (ECI) declared the 2024 general election results on June 6, 2024.

MP Term and Oath-Taking :

1. An MP's five-year term begins when the ECI declares results (Section 73, Representation of the People Act, 1951).
2. MPs receive salary and allowances from the date of ECI notification.

- The anti-defection law applies from the start of their term.
- To participate in House proceedings, MPs must take an oath or affirmation (Article 99 of the Constitution).
- Penalty for participating without taking oath: Rs 500 (Article 104).

Oath-Taking Procedure:

- Bhartruhari Mahtab, 7-time MP from Cuttack, Odisha, takes oath first at Rashtrapati Bhavan.
- Mahtab appointed as pro tem Speaker under Article 95(1) of the Constitution.
- MPs submit election certificates to Lok Sabha staff before taking oath.
- Oath can be taken in English or any of the 22 languages specified in the Constitution.
- In 2019, 87% of MPs swore in the name of God, 13% affirmed allegiance to the Constitution.

Oath Text (Third Schedule of the Constitution):

“I, A.B., having been elected (or nominated) a member of the Council of States (or the House of the People) do swear in the name of God / solemnly affirm that I will bear true faith and allegiance to the Constitution of India as by law established, that I will uphold the sovereignty and integrity of India and that I will faithfully discharge the duty upon which I am about to enter.”

Historical Context:

- Original draft Constitution by Dr. B.R. Ambedkar did not invoke God in oaths.
- God was added after debate in the Constituent Assembly.
- Key figures in the debate: K T Shah and Mahavir Tyagi moved amendments to add God to the oath.
- Ambedkar’s view: “To some people, God is a sanction... that oath in the name of God provides the sanction which is necessary for the fulfilment of obligations which are purely moral.”
- The Constitution (Sixteenth Amendment) Act, 1963 added “uphold the sovereignty and integrity of India” to the oath.
- This amendment was based on recommendations from the National Integration Council.

Language Preferences:

MULTILINGUALISM & OATH

(number of MPs)

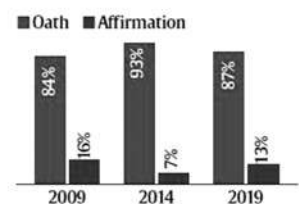
Language	2019	2014	2009	2004
Hindi	212	202	234	220
English	54	115	100	60
Sanskrit	44	39	10	23
Tamil	39	7	40	38
Marathi	36	38	23	27
Kannada	26	26	26	21
Telugu	24	13	23	29
Bengali	21	22	24	36
Oriya	16	15	12	15
Gujarati	15	23	13	11
Punjabi	12	10	13	12
Assamese	8	7	7	8
Urdu	5	3	5	9
Malayalam	4	6	5	14
Kashmiri	3	1	0	1
Maithili	3	5	2	1
Nepali	2	0	0	3
Dogri	2	0	2	2
Santhali	2	2	0	5
Sindhi	1	0	0	1
Manipuri	1	1	1	1
Bodo	0	0	0	1
Konkani	0	1	0	0



Speaker pro tem Bhartruhari Mahtab will be administering the oath/affirmation. File

OATH VS AFFIRMATION

(percentage of MPs)



- Approximately half the MPs take oath in Hindi or English.
- Sanskrit has gained popularity:** 44 MPs in 2019, 39 MPs in 2014 took oath in Sanskrit.

Special Cases:

- Ministers without parliamentary seats can participate (but not vote) for up to 6 months.
- MPs in Jail:** Courts have allowed them to take oath to avoid seat vacancy (60-day absence rule). Example: Atul Kumar Singh, MP from Ghosi, UP, took oath in January 2020 while in jail.

Recent Incidents:

- 2019:** Sadhvi Pragya Singh Thakur’s name suffix not allowed on record.
- 2024:** Rajya Sabha MP Swati Maliwal asked to retake oath after adding “Inquilab Zindabad”.

Additional key points :

- In 1957, a mentally unsound individual posed as an MP and took the oath on the floor of the House. This incident led to the implementation of the election certificate verification process.
- MPs must use the name mentioned in their election certificate while taking the oath.
- Oaths and affirmations are a matter of personal choice for MPs. Some MPs have sworn in the name of God in one term and affirmed in another.



Crux of The Hindu & Indian Express

Indian Polity & Governance

LEADER OF OPPOSITION

Introduction

The recent appointment of Rahul Gandhi as Leader of Opposition (LoP) in the Lok Sabha has brought this statutory position back into focus after a decade-long absence. The LoP, while not constitutionally mandated, holds significant responsibilities and plays a crucial role in India's parliamentary democracy.

Key Questions and Answers

- **Who can be LoP?** The Leader of Opposition is the leader of the largest party in opposition in either house of Parliament, as recognized by the Speaker of the Lok Sabha or the Chairman of the Rajya Sabha.
- **Is there a minimum seat requirement?** While there is no explicit 10% rule, the convention and past practice have suggested that the largest opposition party should have at least 10% of the seats in the House to claim the LoP position. However, experts like former Lok Sabha Secretary General PDT Achary have argued that this requirement is not mandatory.
- **Is the LoP position constitutional?** No, it is a statutory position established by the Salary and Allowances of Leaders of Opposition in Parliament Act, 1977.
- **Has the LoP position been vacant before?** Yes, before the 2014 and 2019 terms, the Congress denied the LoP position to the TDP in 1984, even though they had the required number of seats.

Responsibilities of the LoP

The LoP serves as the principal voice of the opposition and acts as a "shadow Prime Minister." Their responsibilities include:

- **Leading the Opposition:** Articulating the opposition's views and leading debates on government policies and legislation.
- **Holding the Government Accountable:** Scrutinizing the government's actions and holding them accountable for their decisions.
- **Presenting Alternative Policies:** Offering alternative solutions and policies to those proposed by the government.

- **Participating in Key Appointments:** Serving on high-powered committees responsible for appointing key officials like the CBI Director, CVC, CIC, NHRC Chairperson, Lokpal, and Election Commissioners.

ORDER OF PRECEDENCE OF LoP

In order of precedence, the Leaders of Opposition in Lok Sabha and Rajya Sabha come at No. 7, along with

- Union Cabinet Ministers,
- The National Security Advisor,
- The Principal Secretary to the PM,
- The Vice-Chairperson of the NITI Aayog,
- Former PMs, and
- Chief Ministers.

LIST OF DIGNITARIES IN ORDER OF PRECEDENCE

1. President
2. Vice-President
3. Prime Minister
4. Governors of States within their respective States
5. Former Presidents
- 5A. Deputy Prime Minister
6. Chief Justice of India
7. Speaker of Lok Sabha

Recent Leaders of Opposition

IN THE POST IN THE PAST
SUSHMA SWARAJ (DEC 2009 TO MAY 2014)
L K ADVANI (MAY 2009 TO DEC 2009; MAY 2004 TO MAY 2009)
SONIA GANDHI (OCT 1999 TO FEB 2004)
SHARAD PAWAR (MAR 1998 TO APR 1999)
ATAL BIHARI VAJPAYEE (JUN 1997 TO DEC 1997)
RAJIV GANDHI (DEC 1989 TO DEC 1990)

- **Lok Sabha:**
 - o L.K. Advani (BJP)
 - o Sushma Swaraj (BJP)
 - o Sonia Gandhi (INC)

- **Rajya Sabha:**
 - o Ghulam Nabi Azad (INC)
 - o Mallikarjun Kharge (INC)

Additional Points

Historical Context

The concept of the LoP has its roots in the British parliamentary system. In India, the role evolved over time, gaining formal recognition in 1977 with the passage of the Salary and Allowances of Leaders of Opposition in Parliament Act. The political landscape has significantly influenced the relevance of the LoP, with periods of single-party dominance and coalition governments leading to variations in the position's prominence.

Comparison with Other Countries

In the UK, the Leader of the Opposition is a significant figure, heading the Shadow Cabinet and holding the government to account. Similarly, in Australia and Canada, the LoP plays a crucial role in scrutinizing government actions and proposing alternative policies. However, the Indian LoP has fewer official powers and resources compared to their counterparts in these countries.

Challenges and Opportunities

The LoP in India faces several challenges, including:

- **Limited Resources:** Unlike the ruling party, the LoP has limited resources and staff to support their work.
- **Diverse Opposition:** Building consensus within a diverse opposition with varying ideologies and priorities can be difficult.
- **Media Attention:** The LoP often struggles to gain media attention and public visibility compared to the Prime Minister.

However, the LoP also has significant opportunities to:

- **Influence Policy:** Through debates, questions, and participation in committees, the LoP can influence policymaking and hold the government accountable.
- **Shape Public Discourse:** The LoP can use their platform to raise important issues and shape public opinion on critical matters.
- **Build a Strong Opposition:** By uniting the opposition and presenting a credible alternative to the government, the LoP can strengthen the democratic process.

Conclusion

The Leader of Opposition is an essential pillar of India's parliamentary system. Their role in ensuring checks and balances, holding the government accountable, and providing a robust opposition voice is crucial for a healthy democracy. The return of the LoP position after a decade-long hiatus marks a significant development in Indian politics and could lead to more vigorous debates and constructive dialogue in Parliament.

• **First Past The Post Vs. Proportional Representation**

Why in News?

The results of the Indian Lok Sabha election, announced on June 4, highlighted a significant political shift. The ruling National Democratic Alliance (NDA) emerged victorious with 293 seats with a 43.3% vote share. Meanwhile, the opposition Parties of India secured 234 seats with a 41.6% vote share. Notably, regional parties and independents won nearly 15% of the vote but only 16 seats overall.

This result has led many experts to advocate a shift to the proportional representation system in India, arguing that it can more accurately represent the diversity of voters' choices.

First Past the Post (FPTP) System:

1. Definition:

- In the First-past-the-post (FPTP) system, also known as the simple majority voting system, the candidate who receives the most votes in a constituency is declared the winner of the election.
- It is commonly used in countries like the United Kingdom, Canada, and India for legislative elections.

2. Working Mechanism:

- **Single-Member Districts:** Each constituency elects one representative.
- **Plurality Wins:** The winner of the election is determined by the candidate who receives the most votes, regardless of obtaining an absolute majority (more than 50% of the votes).

3. Advantages of the FPTP System:

- **Simplicity:**
 - o Easy for voters to understand and participate in.
 - o Straightforward counting process.

- **Strong and Stable Governments:**
 - o Often produces a clear winner, leading to strong and stable governments.
 - o The ruling party/coalition can enjoy a majority in the legislature without obtaining a majority of the votes across constituencies, increasing government stability.
- **Direct Representation:**
 - o Provides direct representation of constituencies, ensuring each geographic area has a dedicated representative.
- **Accountability:**
 - o Representatives are directly accountable to their constituents and can be voted out if they do not perform well.

4. Disadvantages of the FPTP System:

- **Disproportionality:**
 - o The percentage of votes received by political parties might not align with the proportion of seats they obtain, resulting in substantial discrepancies.
 - o Smaller political parties might be underrepresented in legislative bodies, while larger ones could acquire a disproportionately high number of seats.
- **Wasted Votes:**
 - o Votes for losing candidates do not contribute to the overall election result, discouraging voter participation.
 - o Strategic voting occurs when voters place a candidate's potential chance of winning above personal preferences, resulting in a deviation from their actual choice.
- **Minority Rule:**
 - o An election result may lead to a minority candidate being elected when the votes against them are split among several competing candidates.
 - o Consequently, the elected leader may not represent the majority preference of the people.
- **Geographic Concentration:**
 - o In an election, parties whose support is concentrated in specific regions can secure more seats than parties with more evenly distributed support, even if the latter receives more votes overall.
- **Encourages Gerrymandering:**
 - o The system can incentivize the drawing of constituency boundaries to favor one party over another, a practice known as gerrymandering.

What is Proportional Representation (PR)?

Proportional Representation (PR)

1. **Definition:**
 - o PR is a system designed to allocate legislative seats based on the number of votes each party receives.
 - o It differs from the First Past the Post (FPTP) system, where the candidate with the most votes in each constituency wins.
 - o PR aims to accurately reflect the preferences of voters across the entire electorate.
2. **Working:**
 - o **Party Lists:** Voters choose a party rather than an individual candidate.
 - * The party then allocates seats to candidates based on the proportion of votes received.
 - o **Multi-Member Districts:** Each district elects multiple representatives.
 - o **Thresholds:** A minimum percentage of votes may be required for a party to gain representation.
3. **Types of Proportional Representation:**
 - o **List PR:** Seats are filled by candidates from the party's list.
 - o **Mixed-Member PR:** Combines elements of FPTP and PR, with some seats filled by individual candidates and others allocated to parties.
 - o **Single Transferable Vote (STV):** Voters rank candidates, and seats are allocated based on the proportion of votes each candidate receives.
4. **Advantages of PR:**
 - o **Fair Representation:** Parties receive seats proportionate to their vote share.
 - o **Minority Inclusion:** Smaller parties and minority groups have a chance of gaining representation.
 - o **Reduced Wasted Votes:** Most votes contribute to electing a candidate.
 - o **Encourages Voter Turnout:** Voters feel their vote has more impact.
5. **Disadvantages of PR:**
 - o **Coalition Governments:** Can lead to unstable governments if partners disagree.
 - o **Complexity:** Can be more complex for voters to understand.

- o **Fragmentation:** May result in a fragmented legislature characterized by numerous small parties
- o **Weaker Constituency Links:** Representatives may be less accountable to specific geographic constituencies.
- o **Influence of Party Leadership:** Party leaders have control over candidate lists, which can centralize power and reduce individual accountability.

What are international practices?

1. **Brazil and Argentina:** These nations utilize the party list Proportional Representation (PR) system during elections.
2. **South Africa, the Netherlands, Belgium, and Spain:** These nations also employ the party list PR system to achieve fair representation of political parties based on vote proportions.

Germany: The Bundestag's structure comprises:

- 50% (299 out of 598 seats) filled via the First Past the Post (FPTP) system from constituencies.
- The remaining 50% (also 299 seats) allocated to parties securing at least 5% of votes, proportional to their vote share.

New Zealand: The House of Representatives' structure includes:

- 60% (72 out of 120 seats) filled through the FPTP system from territorial constituencies.
- The remaining 40% (48 seats) distributed among parties that secure at least 5% of votes, proportional to their vote share.

Way forward for India:

1. Law Commission's Recommendation (170th report, 1999):

- The Law Commission proposed introducing the Mixed-Member Proportional Representation (MMPR) system on an experimental basis in its report on electoral law reform.
- They suggested increasing the size of the Lok Sabha by 25% and filling those seats through a PR system.

2. Upcoming Delimitation Exercise and associated challenges:

- A delimitation exercise to increase Lok Sabha seats is scheduled after the first Census post-2026.
- Uneven population growth across regions in the last five decades.

- Determining seats based solely on population may conflict with federal principles and lead to disenchantment in States losing representation.

3. Way out through MMPR System:

- Introducing the MMPR system for incremental seats or 25% of total seats from each State/UT during the delimitation exercise could balance representation.
- This approach addresses concerns of southern, northeastern, and smaller northern States by preventing domination by larger ones through the FPTP system.

FOREIGN LEADERS IN SWEARING IN CEREMONY

Narendra Modi was sworn in as the Prime Minister of India for a third time on June 9. A number of dignitaries were present for the functions, including the **leaders of seven countries** with whom India shares a close relationship.

Notably, **all these seven countries**, in recent years, **have seen growing ties with China, India's closest geopolitical rival.**

BANGLADESH, PRIME MINISTER SHEIKH HASINA

- **Export-import:** \$11,061 million-\$1,845 million
- India and Bangladesh have **deep historical ties** rooted in India's role in Bangladesh's liberation.
- Today, they share a **robust trade relationship**, which amounted to **\$12,906 million in the 2023-24 financial year**, with India exporting machinery and textile, while Bangladesh exports garments and fish.
- The country has consistently been among the **top five to ten export destinations for India.**
- **Culturally**, too, Bangladesh and India share close bonds with frequent cultural exchanges and educational collaborations taking place.
- Bangladesh, specifically Sheikh Hasina's dispensation, has been crucial for **India's national security** by clamping down on **militants and separatist groups** who used to seek shelter there.
- Currently, India and Bangladesh are still working towards improving connectivity, and a comprehensive water-sharing agreement.



SRI LANKA, PRESIDENT RANIL WICKREMESINGHE

- **Export-import:** \$4,118 million - \$1,424 million
- **Ties** between the people of India and Sri Lanka can be traced back to ancient times.
- In 2023-24, their **bilateral trade** was valued at **\$5,542 million**, with significant Indian exports of petroleum and automobiles.
- During the **Civil War in Sri Lanka**, India (unsuccessfully) sent in a peacekeeping force to the country between 1987-89, to disarm various militant groups — it was both overtly and covertly involved in the conflict.
- Both **India and Sri Lanka share deep religious and cultural ties**, especially between the minority Sri Lankan Tamils and the Tamils of India.
- Future discussions between the two countries are expected to focus on **enhancing maritime security cooperation, settle maritime disputes, and strengthen economic cooperation.**



NEPAL, PRIME MINISTER PUSHPA KAMAL DAHAL ALIAS 'PRACHANDA'

- **Export-import \$7,041 million-\$830 million**
- India and Nepal share an **open-border relationship**, reflecting their deep **historical and cultural ties**.
- In 2023-24, bilateral trade amounted to **\$7,871 million**, dominated by Indian exports of petroleum products and machinery.
- The two countries also **share deep cultural and religious ties**, with a **thriving tourism industry** (especially religious tourism) between the two countries.
- Energy and water-sharing disputes have in the past been a sticking point.



MALDIVES, PRESIDENT MOHAMED MUIZZU

- **Export-import:** \$892 million-\$87 million
- Most notably, India helped prevent a coup in Maldives in 1988.
- The Indian Armed Forces continued to have a modest presence in the archipelago, until President Muizzu came in on an “India Out” platform.
- Relationships have since soured, but Muizzu’s presence in New Delhi indicates a possible thaw.
- In 2023-24, trade between the two nations reached \$979 million, primarily involving marine products and construction materials.
- Many students from Maldives come to India for further studies.
- Apart from improving strained ties, upcoming discussions will likely be centred around issues such as climate change and sustainable development.



SEYCHELLES, VICE PRESIDENT AHMED AFIF

- **Export-import:** \$76 million-\$9 million
- India and Seychelles share a **strategic relationship**, particularly in maritime security and environmental coop.
- Located north of Madagascar, **Seychelles is among the most strategically important archipelagos** in the Indian Ocean.
- **Trade** between the two countries was valued at **\$85 million in 2023-24**, with a focus on fisheries and tourism.
- Both nations have, in the past, engaged in **joint heritage conservation projects**.
- Future dialogues will aim to bolster environmental protection agreements, crucial for addressing climate change whose impacts will be disastrous for the island country.



BHUTAN, KING JIGME KHESAR NAMGYEL WANGCHUCK

- **Export-import:** \$964 million- \$339 million
- India and Bhutan are, what one can call, **all weather friends** with significant economic and cultural exchanges.
- In 2023-24, **bilateral trade was \$1.3 billion**, with India being a major partner in **Bhutan's hydroelectric power sector**.

- **Cultural ties** are reinforced through **educational exchanges** and collaborative efforts in **preserving Bhutanese heritage**.
- **Future discussions** will likely focus on **expanding economic cooperation** through new trade agreements.



MAURITIUS, PRESIDENT PRITHVIRAJ SING ROOPUN

- **Export-import:** \$778 million-\$74 million
- India and Mauritius enjoy close relations, underpinned by **strong cultural and economic ties**.
- **Bilateral trade in 2023-24 was valued at \$852 million**, with key exports from Mauritius including textiles and sugar.
- Culturally, the countries are connected by a **significant Indian diaspora in Mauritius**, which is celebrated through regular cultural events and exchanges.
- Future talks will focus on **enhancing strategic partnership** in sectors like **digital technology and the blue economy** (economic activity associated with the sea).



THE DELICATE BALANCING ACT OF HEALTH CARE COSTS IN INDIA

Navigating the Dynamic Landscape of Health Care :

1. As the Indian healthcare system evolves, cost considerations are becoming paramount in service delivery and patient care.
2. Growing disparities and unequal access to medical services require equitable and sustainable policies.
3. Learning from international examples, we can refine our strategies for effective cost management.

The Role of Private Hospitals in Innovation and Care:

1. Private hospitals are not just centres of care but also hubs of innovation.
2. Leading hospital groups accredited by JCI and NABH adopt cutting-edge technologies to improve patient outcomes, especially in complex procedures.
3. These institutions invest in top-class infrastructure and advanced technologies, seamlessly integrating telemedicine and remote care to expand access and build trust.

Price Caps, Quality, and Innovation: Striking a Balance:

1. As the Supreme Court deliberates on standardising medical procedure rates, the appeal of affordability must be balanced with the potential consequences.
2. A single price ceiling for all could undermine quality and slow innovation in areas such as cancer research and robotic surgery.
3. Value-based pricing, where payments reflect health outcomes, could provide a solution.

The Broader Economic Implications of Health-Care Pricing :

1. Healthcare pricing policies extend beyond the region.
2. Properly implemented rate standardisation can reduce inequities but should not destabilise the economic health of providers.
3. Dynamic pricing models adjusted according to medical complexity and patients' financial situation offer a fair solution.
4. Thailand's tiered pricing system serves as a model, considering patient income and medical need.

Legal and Regulatory Challenges: Balancing Cost and Care:

1. Effective cost management requires legislative reform, making approaches to local conditions.
2. States such as Rajasthan and Tamil Nadu have identified shortcomings in rate setting provisions, and advocated for stronger frameworks.
3. Technology is revolutionising healthcare, making diagnosis faster and more accurate with artificial intelligence and improving care coordination through electronic health records.

Technology as a Catalyst for Access and Cost-Effectiveness:

1. Telemedicine initiatives in Karnataka have significantly reduced the number of hospital visits, showing how technology not only improves access but also reduces costs.
2. Innovations such as mobile health apps and wearable devices are key to managing chronic diseases outside of hospitals, cutting costs and improving patient outcomes.
3. Investing in widespread internet access and digital literacy will empower more people to benefit from these advancements.

Some international examples:

1. **Germany:** Standardised fees for medical procedures, co-payments for certain services.
2. **Singapore:** Government subsidies, mandatory individual savings (Medisave), insurance schemes (MediShield Life), transparent pricing.
3. **United Kingdom:** NHS (National Health Service), publicly funded healthcare system, free at the point of delivery.
4. **France:** Statutory health insurance, private healthcare system, wide choice of coverage.
5. **Canada:** Single-payer healthcare system, primarily funded by taxes.
6. **Japan:** Universal healthcare system, public health insurance system, strict price controls on medical services.
7. **Australia:** Mixed public-private healthcare system, Medicare for universal coverage, private health insurance for additional services.

The Way Forward: Stakeholder Engagement and Data-Driven Policies :

1. Recent surveys show that there is a consensus among healthcare professionals for flexible pricing strategies that reflect the complexities of medical procedures and patient needs.

2. It is essential to engage all stakeholders, including private providers, to understand the dynamics and formulate effective policies.
3. In the age of big data, healthcare policy decisions must rely on data-driven insights.
4. Data analytics can inform detailed rate setting structures, while predictive analytics can estimate the long-term effects of rate setting on health care innovations.

Recommendations and Conclusions: Achieving a Sustainable Future :

Balancing access, innovation, and affordability is a delicate but imperative task. Government should implement pilot projects, allocate government subsidies for research and development, and establish public-private partnerships to ensure widespread access to advanced healthcare solutions.

As India aspires to become a leader in global healthcare, it is paramount to promote an environment conducive to innovation while ensuring equitable access to quality care. Member of NITI Aayog said it is important to prioritise the well-being of every individual.

“Affordable healthcare is not only a necessity but also a priority for our country, and we are committed to leveraging innovation and technology to reduce the cost of healthcare for every citizen.”

By embracing innovation, collaboration, and data-driven decision-making, India can achieve a sustainable and equitable healthcare system for all.

ROOFTOP SOLAR POTENTIAL IN INDIA

Key Points:

- **Vast Potential:** India boasts an estimated rooftop solar (RTS) potential of 796 GW, with an ambitious target of 100 GW by 2030.
- **Current Capacity:** As of March 31, 2024, India's installed RTS capacity stands at 11.87 GW.
- **Growth in 2023-2024:** The installed RTS capacity grew by 2.99 GW in 2023-2024, marking the highest annual growth to date.
- **Leading States:** Gujarat, Maharashtra, and Rajasthan are leading the way in RTS capacity.
- **Untapped Potential:** Uttar Pradesh, Bihar, and Jharkhand have yet to fully explore their RTS potential.
- **Muft Bijli Yojana:** This scheme aims to provide 1 crore households with RTS systems and up to 300 units of free electricity monthly.

What is the Rooftop Solar (RTS) Programme?

1. Jawaharlal Nehru National Solar Mission:

Launched in 2010, this was India's first major solar energy initiative, originally targeting 20 GW of solar energy (including RTS). The target was later revised to 100 GW by 2022, with a 40 GW RTS component.

2. **Revised Targets:** Due to the 7.5 GW RTS capacity achieved by December 2022, the 40 GW RTS goal has been extended to 2026.
3. **Growth Drivers:** Initiatives like SUPRABHA, SRISTI, financial incentives, technological advancements, and awareness campaigns have driven RTS installation growth.
4. **Future Goals:** Despite progress, India's RTS potential remains largely untapped. To achieve the 2030 target of 500 GW renewable energy capacity (including 280 GW solar) and net-zero emissions by 2070, RTS needs to contribute 100 GW by 2030.

Importance of RTS:

- **Sustainable Energy:** RTS offers a decentralized, affordable, and environmentally friendly solution to India's energy needs.
- **Energy Independence:** RTS empowers consumers to become self-reliant and reduces grid dependence.
- **Economic Growth:** The RTS industry has the potential to create jobs and boost local economies.

Challenges:

- **Bureaucratic Hurdles:** Administrative complexities, insufficient infrastructure, and lack of awareness hinder RTS adoption.
- **Financial Constraints:** High upfront costs of RTS systems deter many households.
- **Skilled Workforce Shortage:** The solar industry lacks trained professionals, requiring capacity-building efforts.

Way Forward:

- **Awareness Campaigns:** Educating consumers about the benefits of RTS through targeted campaigns is crucial.
- **Financial Viability:** Government subsidies and low-cost financing can make RTS more accessible to households.
- **Research and Development:** Investing in solar technology, energy storage, and smart grids can lower costs and enhance performance.
- **Skilled Workforce Development:** Training programs and skill development initiatives are needed to address the workforce shortage.
- **Policy Review:** Regular updates to RTS policies are essential to adapt to evolving challenges.

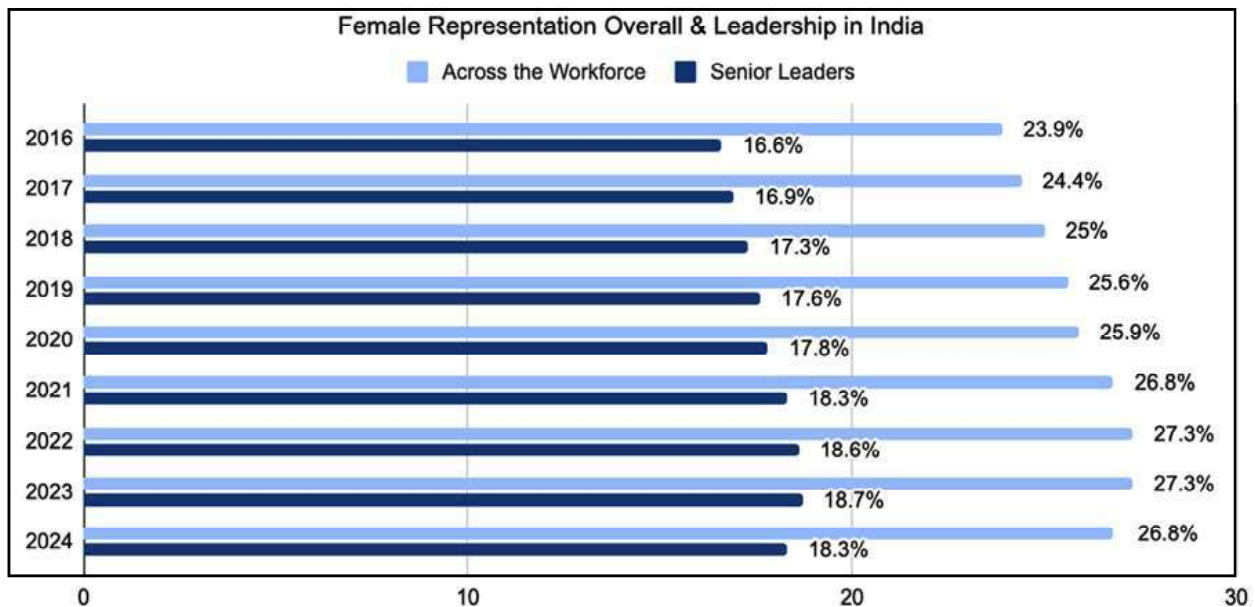
Muft Bijli Yojana Scheme:

- **Objectives:** This scheme aims to provide free electricity (up to 300 units/month) to 1 crore households, encourage RTS adoption, and alleviate energy poverty.
- **Financial Outlay:** The scheme has a budget of Rs 75,021 crore, including financial assistance for consumers, incentives for distribution companies, and capacity-building measures.
- **Key Components:** The scheme focuses on capacity building, awareness, and incentives for stakeholders.

Conclusion:

- **Significant Potential:** India's vast RTS potential can contribute significantly to meeting energy demands and reducing carbon emissions.
- **Government Support:** Schemes like Muft Bijli Yojana are crucial in promoting RTS adoption and achieving renewable energy targets.
- **Private Sector Collaboration:** Collaboration with the private sector is essential for driving innovation, cost reduction, and efficiency improvements in RTS systems.

PROPORTION OF WOMEN IN LEADERSHIP ROLES STAGNATING IN INDIA: LINKEDIN REPORT



LinkedIn Report Reveals Stagnation and Decline:

A new report by LinkedIn, titled “**Women in Leadership in Corporate India,**” reveals a concerning trend: the proportion of women in leadership roles in India's corporate sector has **stagnated and may even be declining**, particularly in the wake of the **COVID-19 pandemic**.

This **stagnation follows years of gradual progress, raising concerns about the future of gender diversity** in India's workplaces.

Key Findings and Insights:

1. **Representation Below 30%:** The report, based on data from LinkedIn's 100 million members in India, highlights that **women's representation in corporate roles has consistently remained below 30%**.

2. **Post-Pandemic Decline:** The decline in women leadership is most notable in the post-pandemic period, which coincides with the **reduction in the availability of flexible work** arrangements such as **hybrid or work-from-home models**.
3. **Possible Causes:** Aparajita Bharti, **co-founder of The Quantum Hub consultancy**, suggests that the decrease in **flexible work options may be hindering women's career advancement** and contributing to their **underrepresentation in leadership positions**.
4. **Persistent Barriers:** Despite progress, women **continue to face obstacles in reaching leadership roles due to bias, societal norms, and structural barriers within organisations**, according to Aditi Jha, LinkedIn India's country head for legal and government affairs.

Recommendations for Promoting Women's Leadership:

The report offers several recommendations to address the challenges faced by women in the corporate sector:

1. **Skills-First Hiring:** Emphasise **skills and qualifications over gendered assumptions** in the hiring process.
2. **Mentorship and Networking:** Provide women with opportunities to connect with mentors and build **professional networks to support their career growth**.
3. **Shared Parental Leave:** Implement **policies that encourage both parents to share childcare responsibilities**, enabling women to maintain their careers after having children.

Sectoral Disparities in Women's Representation:

The report also reveals significant variations in women's representation across different sectors:

1. **Highest:** Education (30%) and Government Administration (29%)
2. **Moderate:** Administrative and Support Services (23%), Hospitals and Health Care (23%), Technology, Information, and Media (19%), and Financial Services (19%)
3. **Lowest:** Construction (11%), Oil, Gas, and Mining (11%), Utilities (11%), Wholesale and Manufacturing (12%), and Accommodation and Food Services (15%)

Government Efforts and Initiatives:

The Indian government has implemented several initiatives to promote women's empowerment and leadership in the workforce. These include:

1. **Companies Act 2013:** Mandates that certain categories of companies **have at least one woman director on their board**.
2. **Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013:** Aims to create a safe and secure work environment for women by addressing workplace sexual harassment.
3. **Maternity Benefit (Amendment) Act, 2017:** Extends **paid maternity leave from 12 weeks to 26 weeks**, supporting working mothers.
4. **Beti Bachao Beti Padhao (BBBP) Scheme:** A national campaign aimed at **improving the child sex ratio and promoting the education of girls**.

While these **initiatives are steps in the right direction**, the LinkedIn report suggests that more needs to be done to create a truly **inclusive and equitable corporate landscape for women in India**.

Conclusion:

The **LinkedIn report highlights the need for continued efforts to promote gender diversity and inclusivity in India's corporate sector**. By addressing the underlying causes of **stagnation and implementing targeted interventions**, organisations can create a more **equitable workplace where women have equal opportunities to advance and lead**.

PRADHAN MANTRI KISAN SAMMAN NIDHI (PM-KISAN) SCHEME

Why in the News: The Union Government released the 17th instalment of the PM Kisan Nidhi, benefiting 9.3 crore farmers and distributing around Rs. 20,000 crore.

Key Highlights:

1. **Launch:** The Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) Yojana was launched on **December 1, 2018**.
2. **Objective:** The scheme aims to **supplement the financial needs of all landholding farmers' families in procuring various inputs to ensure proper crop health and appropriate yields**.
3. **Benefits:** Eligible farmer families receive an **income support of Rs. 6,000 per annum**, divided into three equal instalments of **Rs. 2,000 each, every four months**.
4. **Direct Benefit Transfer (DBT):** The fund is directly transferred to the bank accounts of eligible farmers/farmer's family under the DBT mode.
5. **Nodal Ministry:** The Ministry of Agriculture and Farmers Welfare is the nodal ministry for the scheme.

Who is Eligible?

1. *Landholder farmer families having cultivable land in their name, farmers from both urban and rural areas, small and marginal farmer families.*

Who is Not Eligible for the Scheme?

1. *Institutional landholders,*
2. *Present or retired officers and employees of State/ Central Government as well as Public Sector Undertakings and Government Autonomous Bodies,*
3. *Beneficiaries with high economic status are not eligible,*
4. *Income Tax payers,*
5. *Farmer families holding constitutional posts,*
6. *Professionals like doctors, engineers and lawyers,*
7. *Retired pensioners receiving a monthly pension of more than Rs 10,000.*

Definition of Farmer's Family:

1. **Landholder Farmer's Family:** A family comprising husband, wife, and minor children who own cultivable land as per land records of the concerned State/UT.
2. **Identification Process:** The entire identification process of the family rests with the State/UT Governments.

Pattern of Funding:

1. **Central Sector Scheme:** The scheme is a Central Sector Scheme with 100% funding from the Central Government.

Performance/Achievements:

1. **Income Support:** The scheme provides income support to landholding farmers in India, helping them procure various inputs related to agriculture and allied activities and their domestic needs.
2. **Good Governance:** The government's efforts to reach and pass on benefits to all eligible farmer families through this scheme are an example of good governance.
3. **Coverage:** More than 11 crore farmers have availed the scheme, with an amount of Rs. 2.42 lakh crore transferred to their accounts, making it the largest DBT scheme in the country.
4. **Easy Registration:** The process of registration of beneficiaries has been made simple and easy through a mobile app — PM KISAN portal.
5. **Grievance Redressal:** The scheme provides for grievance redressal and a helpdesk, with more than 13.5 lakh grievances addressed by the concerned state authorities.
6. **Impact:** The scheme has a significant impact on easing liquidity constraints, as a large share of farmers have constraints on obtaining formal credit.
7. **Modernization of Agriculture:** The scheme contributes to the modernization of agriculture by enhancing productive investment by farmers, promoting the adoption of modern technologies.

Importance:

1. **Supporting Farmers:** The scheme provides crucial financial support to farmers, enabling them to procure necessary inputs and invest in their farms.
2. **Boosting Agriculture:** The scheme helps to boost agriculture production, improve crop yields, and increase farmers' income.
3. **Economic Growth:** The scheme contributes to the overall economic growth of the country by supporting the agricultural sector.

Conclusion:

The Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) Scheme is a significant initiative by the Government of India to support the agricultural sector and improve the lives of farmers. The scheme's performance and achievements demonstrate its impact on the agricultural economy and the lives of millions of farmers across the country.

Launch of Rs 2800 crore Digital Agri Mission part of govt's agenda for first 100 days

In a historic move to modernise Indian agriculture and empower farmers, the **Government of India is set to unveil the Rs 2,800-crore Digital Agriculture Mission (DAM) as a flagship initiative under its first 100-day agenda under Modi 3.0.**

- A. The ambitious mission, which was **originally scheduled to be launched in 2021-22** but was **delayed** due to the **Covid-19 pandemic**.
- B. It **aims to harness the power of technology** to transform the country's agriculture landscape.

Key Objectives and Components:

The DAM's primary focus is to create a comprehensive digital ecosystem for agriculture by:

1. **Nationwide Farmers Registry: Assigning unique IDs** to every farmer, facilitating access to government schemes (like **PM-Kisan and Fasal Bima Yojana**), **financial services**, and personalized agricultural information. This unique ID will be the key to unlocking a range of benefits for farmers.
2. **Crop Sown Registry:** Creating a **digitized record of crops sown** by each farmer on their **land, enabling accurate crop production estimates and informed policy decisions.** This will aid in better planning and risk management for both farmers and policymakers.
3. **Georeferencing of Village Maps:** Mapping agricultural land for precise resource allocation, **crop monitoring, and disaster management.** Accurate maps will help optimize irrigation, **fertilizer use, and overall land management.**
4. **Digital Crop Survey:** Mandating the **automation of crop** area enumeration (girdawari) from July 2024 for **improved data accuracy and efficiency.** This will replace the **traditional manual surveys with digital methods, saving time and resources.**

Pilot Projects and Implementation:

1. Recognizing the importance of a phased approach, the **Ministry of Agriculture has initiated pilot projects in various states, including Uttar Pradesh, Maharashtra, Gujarat, Punjab, and Tamil Nadu.**
2. These projects have demonstrated the potential of the DAM, with over **1.5 lakh farmers in Farrukhabad, Uttar Pradesh alone receiving unique IDs.**
3. The government is committed to a nationwide rollout, with the **full implementation expected by 2025-26.**

Why Digital Agriculture Matters:

The need for digital transformation in Indian agriculture is undeniable:

1. **Boosting Productivity: Technology-driven solutions can enhance crop yields, optimize resource use (like water and fertilizers), and improve overall agricultural efficiency.** This can lead to increased production and income for farmers.
2. **Financial Inclusion:** Digital platforms make financial services like **loans, insurance, and direct benefit transfers** more accessible to farmers, promoting **financial inclusion and economic growth** in rural areas.
3. **Data-Driven Decision Making:** Accurate and timely data on crops, farmers, and land allows for better planning, **resource allocation, and risk mitigation.** This empowers farmers to make informed choices about their crops and farming practices.
4. **Direct Farmer Benefits:** Personalized information, timely advisories on **weather, pests, and market prices, and efficient delivery of government** schemes empower farmers to make informed choices and improve their livelihoods.

Building on Existing Initiatives:

1. The DAM builds upon existing initiatives like the National **e-Governance Plan in Agriculture (NeGPA)**, which has been instrumental in providing farmers with information on **seeds, storage, pests, diseases, and market details through web portals, SMS advisories, and mobile apps.**
2. The DAM takes these efforts to the next level by integrating advanced technologies and creating a more comprehensive digital ecosystem.

The Future of Indian Agriculture:

1. The Digital Agriculture Mission 2021-2025 envisions a future where **cutting-edge technologies like AI, blockchain, remote sensing, robots, and drones are seamlessly integrated into agricultural practices.**
2. This will not **only revolutionise farming but also create new opportunities** for rural communities.

Conclusion:

The **launch of the Rs 2,800 crore Digital Agri Mission marks a watershed moment in India's agricultural journey.** By embracing digital technologies, the government aims to usher in an era of **data-driven farming**, empowered farmers, and sustainable agricultural growth. This mission is not just about **modernising agriculture; it's about transforming rural livelihoods and ensuring food security for the nation.**

Ladakh Achieves Full Functional Literacy under ULLAS

Key Points:

- **Full Functional Literacy Achieved:** Ladakh has become the first region in India to achieve Full Functional Literacy under the ULLAS – Nav Bharat Saaksharta Karyakram, boasting a literacy rate exceeding 97%.
- **Declaration by Lieutenant Governor:** Lieutenant Governor of Ladakh, made this historic announcement on June 24, 2024, at the Sindhu Sanskritik Kendra (SSK) in Leh.
- **ULLAS Scheme:** The ULLAS scheme is a central government initiative running from 2022 to 2027, designed to empower adults aged 15 and above who missed out on formal education and integrate them into mainstream society.
- **Components of ULLAS:** The comprehensive scheme includes five key components:
 - a. Foundational Literacy and Numeracy
 - b. Critical Life Skills
 - c. Basic Education
 - d. Vocational Skills
 - e. Continuing Education
- **Vision of ULLAS:** The overarching vision of ULLAS is to achieve universal literacy in India (Bharat - Jan Jan Saakshar), driven by a sense of duty (Kartvya Bodh) and implemented through volunteerism.

- **Benefits of ULLAS:** The scheme has already positively impacted over 77 lakh individuals across the country, with over 1.29 crore learners and 35 lakh volunteer teachers registered on the ULLAS Mobile App.

The ULLAS app facilitates learner and volunteer registration and provides access to diverse learning resources through NCERT's DIKSHA portal.

What is the DIKSHA Portal?

- **National Platform for School Education:** DIKSHA is a nationwide platform for school education, an initiative of the National Council for Education Research and Training (NCERT) under the Ministry of Education.
- **E-Content for Schools:** It offers e-content for schools through an online portal and a mobile app.
- **Open-Source Technology:** DIKSHA is built on open-source technology, utilizing scalable technologies and supporting various teaching and learning solutions.

Features:

- **NDEAR Building Blocks:** DIKSHA incorporates most of the National Digital Education Architecture (NDEAR) building blocks, enabling successful use-cases such as energised textbooks, online courses, content creation, interactive quizzes, and more.
- **Support for CWSN:** It also provides audiobooks, Indian Sign Language (ISL) videos, and a dictionary to support Children With Special Needs (CWSN).

Importance of Literacy:

- **Empowerment of Citizens:** Achieving full functional literacy equips citizens with the skills and knowledge to actively contribute to the nation's progress.
- **Foundational Literacy and Numeracy:** These are fundamental for individuals to develop critical life skills and participate effectively in the economy.
- **Critical Life Skills:** Skills like vocational training and continuing education are vital for individuals to adapt to changing environments and enhance their socio-economic status.
- **Education as a Catalyst for Change:** Education has the power to transform lives and societies, and achieving full functional literacy paves the way for sustained positive change and abundant opportunities in Ladakh.

Event Highlights:

- **Recognition of Efforts:** Neo-literates (newly literate individuals) and volunteer teachers were honored for their invaluable contributions to achieving full functional literacy.
- **Launch of Annual Report:** The ceremony also marked the launch of the Annual Achievement Report 2023 of the school department.
- **ULLAS Mela:** Dignitaries visited the ULLAS Mela, which showcased the remarkable achievements of the ULLAS scheme.

Kozhikode in Kerala declared India's First UNESCO 'City of Literature'

Context:

1. Kozhikode in Kerala has been declared India's first UNESCO 'City of Literature' on June 23, 2022.
2. The status was announced by Kerala's Minister for Local Self-Government.
3. Kozhikode is the first city in India to receive this prestigious recognition.

About UNESCO Creative Cities Network (UCCN):

1. *Established in 2004, UCCN promotes collaboration among cities that recognize creativity as a driving force for sustainable urban development.*
2. *The network currently comprises nearly 300 cities worldwide.*
3. *Goal: To integrate creativity and cultural industries into local development plans and encourage international cooperation.*
4. *UNESCO designates creative cities in seven areas: crafts, folk art, media arts, film, gastronomy, literature, and music.*
5. *Annually, UNESCO invites applications from cities globally to join the UCCN project.*
6. *In India, applications are routed through the Ministry of Culture.*
7. **Other Indian cities in UCCN:**
 - a. *Srinagar and Jaipur: Crafts and Folk Arts.*
 - b. *Mumbai: Film.*
 - c. *Chennai, Gwalior, and Varanasi: Music.*
 - d. *Hyderabad: Gastronomy*

Significance:

1. The 'City of Literature' status offers a multitude of avenues for Kozhikode to explore and promote its literary heritage.

2. The city has a **rich cultural history**, having been home to **many notable writers, including two Jnanpith winners**.
3. The recognition is expected to boost tourism and cultural activities in the city.

Importance of Kozhikode:

1. Kozhikode is **considered the literary hub of Kerala**, with a strong tradition of **literature, music, and art**.
2. The city has been home to many talents from various cultural spheres, including writers, musicians, and filmmakers.
3. Kozhikode is often referred to as the **“London of Kerala”** due to its cultural significance and contributions to the state’s literary landscape.

Initiatives:

1. The Kerala Institute of Local Administration and the Mayor of Kozhikode have been instrumental in securing the ‘City of Literature’ status for the city.
2. The Department of Tourism is planning to develop a Malabar Literary Circuit, which will include Beypore and the house of writer Vaikom Muhammad Basheer.
3. The city will celebrate June 23 as ‘City of Literature Day’ every year.
4. The ‘City of Literature’ awards will be presented annually in six categories, including comprehensive contribution, women writers, young writers, children’s literature, and translations from Malayalam to other languages and vice versa.
5. The awards will be presented during an annual cultural festival.

Other Developments:

1. The logo and website of **‘Kozhikode - City of Literature’** were launched by Minister for Tourism.
2. The Anakkulam Cultural Centre will henceforth be known as the ‘City of Literature centre’.
3. The Kozhikode Corporation’s diamond jubilee award was presented to writer M.T. Vasudevan Nair at his home, as he could not attend the event due to health issues.

Conclusion:

The ‘City of Literature’ status is a significant recognition of Kozhikode’s rich cultural heritage and literary contributions. The city is expected to benefit from this recognition, with increased tourism and cultural

activities. The initiatives announced by the government and local authorities will help promote Kozhikode’s literary legacy and establish it as a hub for literature and culture in India.

IPBES WINS PRESTIGIOUS BLUE PLANET PRIZE



Context:

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has been awarded the 2024 Blue Planet Prize for its significant contributions to global biodiversity research and policy-making.

Details:

1. **Organisation:** IPBES is an intergovernmental body established to strengthen the science-policy interface for biodiversity and ecosystem services.
2. **Prize:** The Blue Planet Prize, awarded by Japan’s Asahi Glass Foundation, recognizes outstanding achievements in scientific research and its application to global environmental issues. The prize, named after Yuri Gagarin’s famous remark “The Earth is blue,” includes a monetary award of \$500,000.
3. **Recognition:** IPBES was recognized as “the leading global authority on the state of knowledge and science about biodiversity, ecosystem services and nature’s contributions to people.” It was specifically awarded for its role in facilitating better science-informed policy and action across various scales, sectors, and knowledge systems.
4. **Impact:** IPBES assessment reports are instrumental in informing policy and action on biodiversity conservation and sustainable development at various levels, including the Sustainable Development Goals (SDGs) and the Convention on Biological Diversity (CBD).
5. **Business Relevance:** The reports are increasingly used by businesses to shape their corporate sustainability strategies and environmental, social, and governance (ESG) activities.

6. **Co-Laureate:** Robert Costanza, from the Institute for Global Prosperity, University College London, was also awarded for his foundational contributions to the field of ecological economics.
7. The award ceremony and related events will take place in October in Tokyo and Kyoto, Japan.

Relevance:

1. The award highlights the growing importance of biodiversity conservation and the role of science-based policy in addressing global environmental challenges.
2. The recognition of IPBES's work highlights the increasing integration of biodiversity considerations into corporate sustainability strategies.
3. The prize's name, inspired by Yuri Gagarin's words, reflects the global significance of environmental stewardship.

INTERNATIONAL DAY OF YOGA

INTERNATIONAL DAY OF YOGA

The International Day of Yoga (IDY) is an annual global event celebrated on June 21st, recognizing the profound impact of yoga on physical, mental, and spiritual well-being. Established by the United Nations in 2014, this year marks the 10th anniversary of this celebration.

THEME FOR THIS YEAR:

The theme for IDY 2024 is "Yoga for Self and Society." This theme emphasizes the dual role of yoga in promoting individual growth and fostering a harmonious global community. It highlights yoga's potential to empower individuals through physical, mental, emotional, and social well-being, while also inspiring collective action towards a more peaceful and sustainable world.

PURPOSE OF YOGA DAY CELEBRATIONS:

The International Day of Yoga serves several key purposes:

- **Raising Awareness:** It increases global awareness of the many benefits of yoga practice, including stress reduction, improved physical health, mental clarity, and spiritual growth.
- **Promoting Healthy Lifestyles:** IDY encourages people of all ages and abilities to incorporate yoga into their daily routines as a means of promoting a healthier and more balanced lifestyle.
- **Fostering Global Unity:** The celebration unites people from diverse backgrounds and cultures in a shared practice, highlighting yoga's universal appeal and its potential to bridge divides.

- **Advocating for Holistic Health:** IDY emphasizes the importance of holistic health, recognizing that physical, mental, and spiritual well-being are interconnected.

THE GENESIS OF YOGA:

The term "Yoga" originates from the Sanskrit root "yuj," meaning "to join," "to yoke," or "to unite." Yoga is a holistic system that harmonizes:

- **Mind and Body:** Through physical postures (asanas) and breathwork (pranayama), yoga fosters a deep connection between the mind and body.
- **Thoughts and Actions:** Yoga encourages mindfulness and self-awareness, aligning our thoughts with our actions for a more purposeful life.
- **Restraint and Fulfillment:** It teaches balance and moderation, finding contentment in the present moment while striving for personal growth.
- **Humans and Nature:** Yoga emphasizes our interconnectedness with the natural world, promoting ecological awareness and sustainable practices.

HISTORY OF RECOGNITION TO YOGA:

While yoga's roots trace back thousands of years to ancient India, its global recognition reached a milestone in 2014. Indian Prime Minister Narendra Modi proposed the establishment of an International Day of Yoga during his address to the 69th session of the United Nations General Assembly. The proposal gained overwhelming support, leading the UNGA to proclaim June 21st as the International Day of Yoga on December 11, 2014.

SIGNIFICANCE OF PRACTICING YOGA:

Yoga has witnessed a surge in popularity worldwide, especially in the post-pandemic era, as people sought ways to cope with stress, anxiety, and isolation. Yoga's benefits extend far beyond physical fitness, encompassing:

- **Mental Health:** Yoga reduces stress, anxiety, and depression, promoting emotional balance and resilience.
- **Physical Health:** It enhances flexibility, strength, balance, coordination, and cardiovascular health.
- **Spiritual Growth:** Yoga can deepen self-awareness, mindfulness, and inner peace, leading to a greater sense of purpose and connection.

The International Day of Yoga is not merely a celebration but a global movement towards a healthier, more harmonious world. It serves as a reminder of the transformative power of yoga and its potential to enrich lives on an individual and societal level.

GLOBAL FOOD POLICY REPORT, 2024

Released by: International Food Policy Research Institute (IFPRI)

Frequency: Every Year

India Related Findings

- 38% Indians consume an unhealthy diet (Calorie dense & nutrient poor), which is on the rise.
- 28% Indians consume all the five recommended food groups, i.e., Starchy staple food, One vegetable, one fruit, one pulse, nut or seed, and one animal source food.
- Consumption of processed food is increasing.
- In India, the malnourished population has increased from 15.4% (2011) to 16.6% (2021).
- Prevalence of overweight in adults increased from 12.9% (2006) to 16.4% (2016).

Impact of COVID-19 on Food Systems in India

The COVID-19 pandemic has disrupted food systems and exacerbated existing nutritional challenges in India. Lockdowns, supply chain disruptions, and income losses have worsened dietary quality and access to nutritious food.

Urbanization and Dietary Transition in India

Rapid urbanization in India has led to a shift in dietary patterns, with urban populations consuming more processed foods and fewer traditional, nutrient-rich options. This transition has significant implications for public health and nutrition.

Hidden Hunger in India

Micronutrient deficiencies, also known as hidden hunger, are a significant issue in India. These deficiencies may not be immediately visible but can have serious health consequences. The report highlights the need to address hidden hunger through targeted nutrition interventions.

Food Safety in India

Food safety regulations and practices play a critical role in ensuring access to safe and nutritious food for all Indians. However, there are gaps in the system that need to be addressed to prevent foodborne illnesses and ensure a safe food supply.

Climate Change and Agriculture in India

Climate change is affecting agricultural productivity and food security in India. The report explores the impact of climate change on Indian agriculture and highlights the need for sustainable farming practices to mitigate these impacts.

Gender Dimension of Food and Nutrition in India

The report investigates the gender disparities in food access, consumption, and nutritional status in India. Women and girls are disproportionately affected

by malnutrition, and the report highlights the need for gender-sensitive nutrition interventions.

Double Burden of Malnutrition in India

India faces a double burden of malnutrition, with both undernutrition (stunting, wasting) and overnutrition (overweight, obesity) present simultaneously, often within the same households or communities. The report highlights the need for a comprehensive approach to address this double burden.



About IFPRI

The International Food Policy Research Institute (IFPRI) is an international agricultural research center founded in 1975 to improve the understanding of national agricultural and food policies to promote the adoption of innovations in agricultural technology.

1. **Mission:** To provide research-based policy solutions that sustainably reduce poverty and end hunger and malnutrition.
2. Operates in more than 50 countries with offices in several developing countries, including China, Ethiopia, and India.
3. Research staff work in many more countries around the world.
4. **Institutional strategy rests on three pillars:** Research, Capacity strengthening, and Policy communication.
5. **Headquarter:** Washington DC



Focus Areas

- Gender & Development
- Climate Change
- Malnutrition
- Transgenic Crops

Publications

- The Global Food Policy Report
- The Global Hunger Index (a collaboration of IFPRI, the Welthungerhilfe, and Concern Worldwide)

GENDER GAP REPORT 2024

The **Global Gender Gap Report 2024**, released by the **World Economic Forum**, provides a comprehensive assessment of gender parity across **146 countries**.

The report measures progress towards gender equality in **four key dimensions: Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment**.

India's Performance:

Economy	Rank		Score
	Regional	Global	
Bangladesh	1	99	0.689
Nepal	2	117	0.664
Sri Lanka	3	122	0.653
Bhutan	4	124	0.651
India	5	129	0.641
Maldives	6	132	0.633
Pakistan	7	145	0.570

- Overall Ranking: 129th out of 146 countries**, performing worse than regional neighbours like **Bangladesh, Nepal, Sri Lanka, and Bhutan**.
- Gender Gap Score: 64.1% closed**, indicating a slight regression from the previous year.
- Economic Participation and Opportunity: Ranked 142nd**, highlighting significant challenges in **labour force participation, income equality, and representation in leadership roles**.
 - Estimated Earned Income Gap: 28.6%**
 - Legislative/Senior Roles Gap: 14.4%**
 - Labor Force Participation Gap: 45.9%**
 - Professional/Technical Workers Gap: 49.4%**
- Political Empowerment:** While previously ranked 65th, the current representation of women in ministerial positions (2 out of 30) indicates a significant decline.
 - Head-of-state indicator:** Scores within the top 10 globally (40.7%).
 - Federal Level Representation:** Low scores for ministerial positions (6.9%) and parliament (17.2%).
- Educational Attainment: Ranked 112th**, with a significant **literacy rate gap of 17.2 percentage points** between men and women.
- Health and Survival: Ranked 142nd**, indicating a significant gap in health outcomes and life expectancy.

Challenges in India

- The **country needs a 6.2 percentage point improvement from the latest score to reach the economic parity peak of 2012**.

- Gender gaps persist in estimated earned income, legislative, senior officials, and management roles, **labour-force participation rate, and professional and technical workers**.
- Women's representation in ministerial positions (6.9%) and parliament (17.2%) is relatively low**.
- The gap between **men and women's literacy rate is 17.2 percentage points wide, ranking India 124th on this indicator**.

Key Takeaways and Recommendations:

- India faces significant challenges in **achieving gender parity, particularly in economic participation, political empowerment, and health**.
- Policy interventions** are needed to address these gaps, focusing on increasing women's labour force participation, **promoting leadership opportunities**, and improving access to healthcare and education.
- South Asia as a region needs to prioritise gender equality efforts** to accelerate progress and catch up with other regions.
- Global progress towards gender equality is slow but steady**, and continued efforts are needed to achieve full parity within a reasonable timeframe.

Global Highlights:



- Overall Gender Gap Score: 68.5% closed**, indicating that the world has closed two-thirds of the gender gap since the index was first compiled in 2006.
- However, at the current pace, it will take **134 years to achieve full parity**.
- Parameter-Specific Gaps:**
 - Health and Survival:** 96% closed, the most advanced dimension towards parity.
 - Educational Attainment:** 94.9% closed, with near parity in primary, secondary, and tertiary education enrollment.

- c. **Economic Participation and Opportunity:** 60.5% closed, the largest remaining gap, highlighting persistent disparities in labour force participation, income, and leadership positions.
- d. **Political Empowerment:** 22.5% closed, the slowest-moving dimension, with significant underrepresentation of women in political leadership.

Regional Disparities:

1. **Europe:** Leads the world in gender parity, having closed 79.6% of its overall gender gap.
2. **Latin America and the Caribbean:** Showed significant progress, achieving its highest economic parity score (65.7%) and second-highest political empowerment score (34%).
3. **South Asia:** Lags behind other regions, with an average gender gap score of 63.7%. It will take an estimated seven generations for the region to achieve parity at the current pace.

Top-Ranked Countries:

1. **Iceland's Gender Equality Dominance:** Iceland has held the top spot for gender equality for an impressive 14 consecutive years, achieving a remarkable score of 91.2% in the gender gap assessment.
2. **Nordic Superiority:** Other Nordic countries, such as Norway, Finland, and Sweden, also showcase exceptional gender equality, ranking among the top five countries in the assessment.

Conclusion

1. The report highlights the need for improvement in political participation of women, which has the most impact on bridging the gender gap.
2. The persistent gender gap in India and other countries is a cause for concern, and efforts are needed to address the disparities in economic participation, health and survival, educational attainment, and political empowerment.

BIRSA MUNDA : A TRIBAL LEADER

Introduction:

Birsa Munda, a prominent tribal leader, left an enduring legacy and impact on the struggle for tribal rights and cultural identity.

In Jharkhand, his 124th death anniversary was commemorated by Chief Minister Champai Soren, highlighting his continued influence.

Early Life and Background:

1. **Birth and Community:** Born on November 15, 1875, Birsa Munda belonged to the Munda tribe in Chotanagpur, present-day Jharkhand.

2. **Traditional Land System:** The Munda tribes used a unique system called 'Khuntakatti', in which the concept of landlords was absent, and land rights were based on custom and tradition.

Impact of Colonial Policies:

1. **Permanent Settlement Act (1793):** Introduced by the British, this act established the zamindari system, disrupting traditional land ownership and introducing landlords (dikus) and tenant farmers (ryots).
2. **Forced Labor and Exploitation:** Tribals faced forced labor (begar system) and exploitation by moneylenders, replacing their clan councils with colonial courts.
3. **Famine and Starvation:** The community suffered severe famines in 1896-97 and 1899-1900, leading to widespread starvation.

Birsa Munda's Transformation and Leadership:

1. **Education and Early Influence:** During his early years, Birsa received primary education under the Jaipal Nag. In his pursuit of education, he briefly embraced Christianity in order to attend a German Mission school.
2. **Disillusionment:** British rule and missionary activities fostered suspicion of foreign presence among many tribals, including Birsa.

Rise as a Tribal Leader:

1. **Sardari Agitation:** From 1886 to 1890, Birsa came under the influence of the non-violent Sardari movement, led by the Oraon and Munda tribes, which opposed British rule.
2. **Anti-Colonial Movement:** In the year 1890, Birsa actively took part in movements against missionaries and colonialism.

Religious and Social Reforms:

1. **Formation of Birsait Sect:** Birsa founded the Birsait faith, advocating the worship of one God, discouraging superstition and animal sacrifice.
2. **God-like Status:** His followers revered him as 'Bhagwan' (God) and 'Dharti ka Abba' (Father of the Earth).

The Ulgulan Movement:

1. **Launch and Activities:** Birsa launched the Ulgulan (The Great Tumult) movement in 1899, using guerrilla warfare to resist British authority.
2. **Call for Birsa Raj:** He urged tribals to reject colonial laws and rent payments, advocating the establishment of Birsa Raj.

British Repression and Birsa's Death:

Arrest and Death: Birsa was arrested on March 3, 1900, and died in Ranchi Jail on June 9, 1900, at the young age of 25, reportedly due to illness.

Legacy and Impact:

- 1. Legal and Social Reforms:** The Ulgulan movement **contributed to the abolition of the forced labor system and the recognition of the khuntkhatti system through the Tenancy Act (1903)** and the Chotanagpur Tenancy Act (1908).
- 2. Continuing Influence:** Jharkhand's government honors Birsa Munda's legacy and strives to improve the living standards of tribal and native communities.

Birsa Munda's struggle to protect tribal land rights and cultural identity continues to inspire and unite tribal communities, ensuring his place as a revered figure in Indian history.

Ahilyabai Holkar : Holkar Queen of the Maratha Malwa Kingdom, India



Introduction:

Today, we commemorate the 300th birth anniversary of Ahilyabai Holkar, a visionary and efficient Maratha ruler. Her dedication and contributions to the development of India are often overlooked in discussions about women's empowerment.

The **prevailing glorification of men in history has overshadowed the achievements of countless women like Ahilyabai who tirelessly served their nation.**

Early Life and Legacy:

1. Born in 1725 in a shepherd (Dhangar/Gadariya) family in Ahmednagar district of present-day

Maharashtra, Ahilyabai tried to establish herself not only as the wife of Khande Rao Holkar but also as a leader.

2. She was one of the **few female rulers of medieval India.**
3. **Despite societal norms,** her father insisted on her education, making her an exception during the era.

Marriage and Succession:

1. **At the age of 8, Ahilyabai caught the attention of Malhar Rao Holkar,** commander of Peshwa Bajirao, who was **impressed by her devotion and character.**
2. Subsequently, **he arranged her marriage to his son Khande Rao.**
3. **After her husband's death in the battle of Kumbher in 1754,** Ahilyabai took over the administration of Malwa.

Legacy:

1. She **maintained and promoted the spiritual integrity of India by bringing administrative simplicity** and political fairness.
2. **Determined to break free from the constraints of patriarchy, Ahilyabai Holkar took over the leadership of the Holkar dynasty.**
3. Her exceptional leadership skills are evident from the **peace and financial stability that prevailed in her kingdom for 30 years during her reign.**

Overcoming Challenges and Promoting Inclusivity:

1. Ahilya Bai was aware that **her identity as a woman and a widow made her unsuitable for certain administrative and political tasks, given the social and cultural context of the time.**
2. **For the welfare of her state and subjects, she appointed Tukoji Holkar,** a trusted soldier who had served under her father-in-law, Malhar Rao Holkar, as commander of her army.
3. In all her dealings **Ahilya Bai was guided by her innate generosity and principles.**

A Spiritual Leader and Architectural Patron:

1. Ahilya Bai's deep faith in Hinduism is believed to be a significant factor in her greatness.
2. She regularly attended Purana recitals and yagnas, believing that the spiritually charged environment would help her to uphold her principles.

3. Her immersion in Hindu philosophy led to a monumental change in the architectural expression of the faith.
4. Ahilya Bai revived the **Jyotirlingas across the country as a tribute to Lord Shiva.**
5. **Renovations in Somnath, Varanasi, Trambak, Gaya, Pushkar, Vrindavan, Nathdwara, Haridwar, Badrinath, Kedarnath,** and many other sacred sites were undertaken during her reign.
6. To protect against attacks and iconoclasm, **she came up with the idea of installing idols in secret shrines under the temples, providing additional security.**

Economic Empowerment and Urban Development:

1. The **beautiful Maheshwari sarees we wear today are also part of the queen's legacy.**
2. **She not only promoted the traditional weave but also empowered women by providing them with skills and income through sari production.**
3. Under her encouragement, **Maheshwari sarees gained popularity and became a traditional craft of Maharashtra.**
4. Ahilya Bai also worked to **develop Indore, conserve forests and animals, and foster trade and commerce in her kingdom.**

A Legacy of Ram Rajya and Social Harmony

1. If any ruler attained true **Ram Rajya**, it was under Ahilya Bai's graceful reign, where farmers prospered, faiths were restored, and inclusivity thrived.
2. **Her efforts to mainstream the Bhil and Gond castes are less known but remain a significant achievement.**
3. She commanded respect from her contemporaries and later historians and intellectuals like **Jadunath Sarkar, Annie Besant, and John Keay.**
4. It is ironic that Ahilya Bai Holkar did not receive as much respect at the national level as she received at the regional level.
5. Her localisation reflects how the rest of the nation easily forgets a woman of her stature due to inherent gender bias.

Ahilya Bai's rule shows **inclusive policymaking.** She worked **tirelessly to develop her state and uplift her subjects on various levels.** Her legacy is remembered not only for her administrative acumen but also for paving the way for future generations of the Holkar dynasty toward **effective governance** that transcends gender norms.

PREVENTION OF SEXUAL HARASSMENT AT WORKPLACE

More and more women are getting into **STEM — Science, Technology, Engineering and Maths** — courses in India, resulting in them landing jobs in Corporate houses, especially in the It sector.

Hence, **the proportion of women in leading corporate firms has increased** considerably over time.

Yet, **attrition rate** — the percentage of employees who leave an organisation — is also, in general, **higher among women than men.**

WHY ATTRITION RATE IS HIGH AMONG FEMALES ?

Women leave organisations for many reasons:

- Societal pressure after marriage.
- Pregnancy, and post- pregnancy work-life balance.
- **Sexual Harassment at workplace.**

The reporting of **cases under the PoSH act have gone up** in the recent years after a brief dip during the pandemic.

THE GENESIS

- **SC 1997 guidelines/Vishakha Guidelines:** While hearing pleas filed against the crime, the SC noted the **absence of any law** that guarantee against “sexual harassment at workplaces”.

The apex court laid down a set of guidelines **to fill the statutory vacuum** Till a law could be enacted.

- **The PoSH Bill:** It was introduced by the **Women and Child Development Ministry** in 2007. It went through several amendments and came into force on **December 9, 2013**, after being enacted by the Parliament.

KEY PROVISIONS

- **Defines sexual harassment:** To include **unwelcome acts** such as physical, verbal/non-verbal conduct - a demand or request for sexual favours, making sexually coloured remarks, showing pornography, etc.
- **Defines an employee** (not just in accordance with the company law): All women employees, whether employed regularly, temporarily, contractually, on an ad hoc or daily wage basis, as apprentices or interns, can seek redressal to sexual harassment in the workplace.
- **Expands the definition of ‘workplace’:** beyond traditional offices to include all kinds of organisations across sectors, even non-traditional workplaces (for example, telecommuting) and places visited by employees for work.

INTERNAL COMPLAINTS COMMITTEE

- The law requires any **employer with more than 10 employees** to form an **ICC**, where a formal sexual harassment complaint can be filed by a woman.
- **Composition of ICC:** It is required to consist of a **minimum of four members** (at least half of whom should be women):
 - A Presiding Officer who has to be a woman employed at a senior level at the workplace.
 - Two members from amongst employees and who have had experience in social work or have legal knowledge.
 - One **“External Member”** from NGOs to preempt any undue pressure From senior levels.

LOCAL COMMITTEE

Besides, the Act mandates **every district in the country to create a LC** to receive complaints from women working in **firms with less than 10 employees and from The informal sector**, including domestic workers, etc.

ROLE OF ICC & LC

- These two bodies have to **conduct inquiries** in line with the POSH act and comply with the **“principles of natural justice”** stated in the Rules of the Act.
- **A woman can file a written complaint** either to the internal or local Complaints committee **within three to six months** of the sexual harassment Incident.
- There are two ways to resolve the issue by the committee –
 - **“Through conciliation”** between the complainant and the respondent (**which cannot be a financial settlement**), or
 - **Committees could initiate an inquiry**, taking appropriate action based on What it finds.

Future Prospects

Looking ahead, ongoing implementation and awareness of the PoSH Act are crucial. Future developments may include enhanced training for employees and employers, evolving case law interpretations, and potential amendments to address emerging challenges in workplace dynamics.

EDITORIALS

Crux of The Hindu & Indian Express

Society & Culture

WOMEN IN PARLIAMENT

India has elected 74 women MPs to the Lok Sabha this year, marking a slight decrease from 78 in 2019 but a significant increase from the 22 women elected in India’s first elections in 1952.

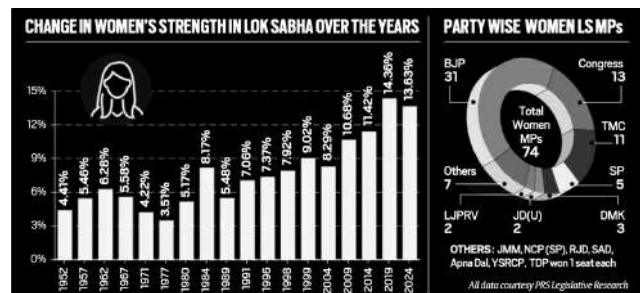
CURRENT SCENARIO

- **Representation:** These 74 women constitute only 13.63% of the total elected strength of the Lower House, falling short of the 33% reservation proposed after the next delimitation exercise.

WOMEN MPS IN RAJYA SABHA

- **Rajya Sabha:** Currently, there are 24 women MPs in the Rajya Sabha, highlighting a similar trend of underrepresentation compared to their male counterparts.

TRENDS AND ANALYSIS



- **First-time MPs:** Out of the 74 women MPs elected, 43 are first-time MPs, representing a higher percentage of newcomers compared to the overall composition of the House (59% vs. 52%).
- **Experience:** On average, women MPs have only 0.76 terms of Lok Sabha experience, where one term typically lasts 5 years.
- **Age and Education:** Women MPs, with an average age of 50 years, are relatively younger compared to previous years. They are also highly educated, with 78% holding undergraduate degrees, reflecting parity with their male counterparts in educational qualifications.
- **Candidate Participation:** Out of the total 8,360 candidates in the 2024 Lok Sabha elections, approximately 10% were women. This marks a significant increase from just 3% in 1957, indicating a growing participation of women in electoral politics.

HISTORICAL PERSPECTIVE

- **Evolution:** The gradual increase in the number of women MPs since 1952 underscores evolving societal attitudes towards women's participation in governance and political leadership roles.
- **Policy Implications:** The proposed 33% reservation for women in Parliament, post-delimitation, aims to address historical underrepresentation and promote gender equality in legislative decision-making.

FUTURE OUTLOOK

- **Challenges and Opportunities:** Despite progress, challenges remain in achieving gender parity in Parliament, including addressing barriers to women's candidacy, enhancing support structures, and fostering inclusive political environments.
- **Global Comparison:** India's progress in women's representation aligns with global efforts towards achieving gender equality in political representation, albeit with room for improvement.

• WE NEED TO DREAM NEW DREAMS : PM

While returning back after meditating at the Vivekananda memorial in Kanyakumari, the Prime Minister of India wrote about India's achievements & the road ahead of us.

The PM highlighted the elections in India and termed it as '**Mother of Democracy**'. He also talked about the significance of Kanyakumari and most importantly the **philosophies of Swami Vivekananda**.

Swami Vivekananda once said, "**Every nation has a message to deliver, a mission to fulfil, a destiny to reach.**"

WHAT HAS BHARAT ACHIEVED?

- Bharat has been **moving forward with this sense of meaningful purpose:**
 - o Bharat has been a cradle of ideas for thousands of years.
 - o We have never considered what we have acquired as our personal wealth or measured it purely by economic or material parameters.
 - * Therefore, Idam-na-mama (this is not mine) has become an inherent and natural part of the character of Bharat.
- **Bharat's welfare benefits our planet's journey** to progress as well.
 - o Bharat gained **independence on August 15, 1947 when many countries were under colonial rule**. Bharat's independence journey **inspired and empowered many of those countries to achieve their own freedom**.

- o That same spirit was seen decades later when the world came face to face with the once in a century **Covid-19 pandemic**. When concerns were raised about the poor and developing countries, **Bharat's successful efforts provided courage and assistance to many nations**.

• Bharat's governance model has become an example for many countries around the world:

- o Empowering **25 crore people to rise above poverty** in just 10 years is unprecedented.
- o Innovative practices such as **pro-people good governance, aspirational districts, and aspirational blocks** are being discussed globally today.
- o Our efforts, from **empowering the poor to last-mile delivery**, have inspired the world by prioritising individuals standing at the last rung of society.
- o Bharat's **Digital India campaign** is now an example for the entire world, showing **how we can use technology to empower the poor**, bring transparency, and ensure their rights.
- o **Inexpensive data in Bharat** is becoming a means of social equality by ensuring the reach of information and services to the poor.

• Bharat as a global leader:

- o Today, Bharat's progress and rise are not just a significant opportunity for Bharat alone, but also a historic opportunity for all our partner countries around the world.
- o Since the **success of the G20**, the world has been increasingly **envisioning a bigger role for Bharat**.
- o Today, Bharat is being acknowledged as a **strong and important voice of the Global South**.
- o The African Union has become a part of the G20 group at the initiative of Bharat.
 - * This is going to be a crucial turning point for the future of African countries.

WHAT SHOULD BHARAT DO?

Now, without wasting a single moment, we must step forward towards greater duties and larger goals. **We need to dream new dreams**, convert them into reality and begin living those dreams.

We must see **Bharat's development in a global context**, and for this, it is essential that we understand Bharat's internal capabilities. We must acknowledge Bharat's strengths (like the young population), nurture them, and utilise them for the benefit of the world.

HOW SHOULD WE LOOK TOWARDS REFORMS?

Bharat cannot limit reform to just economic reforms. We must move forward in every aspect of life towards the direction of reform. Our reforms should also align with the aspirations of a Viksit Bharat (developed India) by 2047.

REFORM, PERFORM & TRANSFORM:

We must also understand that reform can never be a unidimensional process for any country. Therefore, I have laid out the vision of reform, perform, and transform for the country.

- The responsibility of reform lies with leadership.
- Based on that, our bureaucracy performs, and
- When the people join in with the spirit of Jan Bhagidari, we witness a transformation taking place.

WHAT ELSE BHARAT CAN DO?

- We must make excellence the fundamental principle to make our country a Viksit Bharat.
 - We need to work quickly in all four directions: **Speed, Scale, Scope, and Standards.**
- Alongside manufacturing, we must also focus on quality and adhere to the mantra of “zero defect-zero effect”.
- We must redefine our heritage in a modern way while embracing ancient values in a modern context.
- As a nation, we also need to reassess outdated thinking and beliefs. We need to free our society from the pressure of professional pessimists. We must remember that freedom from negativity is the first step towards achieving success. Success blossoms in the lap of positivity.
- **THE MESSAGE FROM RURAL INDIA**

Introduction:

1. The recent election results have highlighted the importance of the agriculture sector in India's economy and politics.
2. The sector engages 45.8% of the workforce, but its growth rate has been sluggish, with a mere 1.4% growth in agri-GDP in 2023-24.
3. The agriculture sector is critical to India's food security, rural development, and overall economic growth.

Rural Economy and Agriculture:

1. Rural India has sent a strong message to the government, with the ruling party losing most of its seats in rural-dominated constituencies.
2. The average per capita monthly expenditure in rural areas is only Rs 3,773, translating to a family monthly expenditure of Rs 16,600.

3. The rural economy has not been doing well, with stagnant or declining real wages in rural areas.
4. The growth in agri-GDP is a concern, with the latest provisional estimates showing a growth rate of just 1.4%.
5. This slow growth is attributed to various factors, including:
 - a. Dependence on monsoon rains, making agriculture vulnerable to climate change.
 - b. Lack of investment in irrigation, leading to low productivity.
 - c. Inadequate market access, resulting in low prices for farmers' produce.
 - d. Limited access to credit, making it difficult for farmers to invest in their farms.

Lessons for the New Government:

1. The new government needs to focus on raising the real incomes of rural households substantially.
2. 3 key areas need attention:
 - (1) **Job creation:** There are too many people dependent on agriculture, and they need to move to higher productivity, non-farm jobs. This requires:
 - i. Massive investments in skill formation, vocational training, and education.
 - ii. Encouraging entrepreneurship and self-employment opportunities in rural areas.
 - iii. Developing rural infrastructure, such as roads, storage facilities, and markets.
 - (2) **High-value agriculture:** The focus needs to shift from basic staples to high-value agriculture such as:
 - i. Poultry, fishery, dairy, and fruits and vegetables, which have higher profit margins.
 - ii. Developing value chains for these products, including processing, packaging, and marketing.
 - iii. Encouraging contract farming, where farmers partner with private companies to produce high-value crops.
 - (3) **Climate-smart agriculture:** India needs to invest heavily in climate-smart agriculture, including:
 - i. Agrivoltaics, which involves using solar panels to generate electricity while also growing crops.
 - ii. Drought-tolerant and flood-resistant crop varieties.
 - iii. Soil conservation and water harvesting techniques.

- iv. Promoting organic farming and reducing the use of chemical fertilisers and pesticides.

Agriculture Data in India:

Workforce :

- **Agriculture Sector Workforce:** Approximately 45.8% of India's total workforce is engaged in agriculture as of 2023-24.

GDP Contribution :

- **Agriculture Sector GDP Contribution:** Agriculture contributes approximately 15% to India's overall GDP as of FY2023 data.
- **Agriculture GDP Growth Rate:** In FY24, the agriculture sector grew at a rate of 1.4%, significantly lower than the overall GDP growth rate of 8.2%.

The Indian government has implemented several programs to increase agricultural productivity, including:

1. Developmental programs
2. Schemes
3. Reforms
4. Policies
5. PM-KISAN scheme
6. Pradhan Mantri Fasal Bima Yojana
7. Soil Health Card Scheme
8. Micro Irrigation Fund
9. eNAM portal
10. Paramparagat Krishi Vikas Yojana
11. National Mission for Sustainable Agriculture
12. Pradhan Mantri Krishi Sinchai Yojana

Way Forward:

1. **An experienced person should head agriculture and rural development in the government.**
2. **Shivraj Singh Chouhan, who led Madhya Pradesh to achieve the highest growth in agriculture in the last 15 years, could be a suitable candidate for the job.**
3. The government needs to formulate a strong strategy for **high-value agriculture and climate-smart agriculture, which includes the following:**
 - a. Increasing investment in agricultural research and development.
 - b. Providing incentives for farmers to adopt new technologies and practices.
 - c. Strengthening agricultural extension services to provide training and support to farmers.
 - d. Encouraging public-private partnerships to promote agricultural growth and development.

Conclusion:

1. The agriculture sector is **critical to India's economic growth and rural development.**

2. The new government needs to prioritise the sector and address the challenges facing it.
3. **By focusing on job creation, high-value agriculture, and climate-smart agriculture, the government can ensure the well-being of rural households and promote sustainable agricultural growth.**

• Srinagar's 'World Craft City' Tag, Allows Kashmir to Reconnect Globally

Context:

1. Srinagar has been designated as a 'World Craft City' (WCC) by the World Crafts Council (WCC), a non-governmental organization.
2. This recognition is expected to reopen Kashmir's centuries-old linkages with craft centers in Central Asia and Iran.
3. The WCC tag is a significant honor for a city with over 4,000 years of written history and a rich craft heritage.

Significance:

1. The recognition will provide a boost to Kashmir's traditional linkages with Central Asia and Iran, leading to knowledge exchange and collaboration.
2. It will promote genuine crafts and craftsmen, and help preserve cultural heritage.
3. The WCC tag will enhance global recognition and demand for Kashmir's handicrafts, leading to increased sales and tourism.

Impact on Kashmir's Craft Sector:

1. The craft sector in Kashmir has been witnessing a revival, with exports increasing from Rs. 1,000 to 2,000 crores in the last five years.
2. Artisans are benefiting from the upward mobility in the craft sector, with opportunities for sustainable income and skill preservation.
3. The WCC tag will support the preservation of cultural heritage and provide access to networks for collaboration and growth.

Historical Context:

1. Kashmir's craft scene has a rich history, with masterpieces created in various art sectors, including shawls, carpets, and papier mache.
2. The craft scene witnessed a significant change in the 14th century with the arrival of Persian and Central Asian preachers and artisans.
3. Kashmir's shawl and carpet industry has been heavily influenced by Persian artisans in the past.

Quotes:

1. **"The World Craft City tag is the latest recognition of the skill base of Kashmir."** - Head of INTACH-K
2. **"This is a much-needed recognition for unsung craftsmen who have created masterpieces for generations."** - Director, Handicrafts and Handloom Industries, Kashmir

3. **“The World Craft Council tag for Srinagar will help artisans in the long term by enhancing global recognition and demand for our handicrafts.”** - Owner of Me&K and a craft revivalist

About World Craft City:

1. **An initiative launched in 2014 by World Crafts Council AISBL** (WCC-International), recognizing the crucial role of local authorities, craftspeople, and communities in global cultural, economic, and social development.
2. *Establishes a vibrant network of craft cities worldwide, aligned with the principles of the creative economy.*
3. Jaipur (Rajasthan), Mammalapuram (Tamil Nadu), and Mysore (Karnataka) have been added as craft cities from India under the World Craft City Programme.

Crafting Masterpieces in Srinagar:

1. **Papier-Mache:** The art of creating objects from mashed and molded paper pulp, traditionally painted and often covered with lacquer or varnish.
2. **Pashmina Shawls, Kani, Sozni:** Hand-spun and hand-woven Pashmina fabric, originating from the picturesque landscape of Kashmir.
3. **Sozni Shawls:** Sozni embroidery, a Persian-derived art form meaning “needle” and “needlework,” practiced by skilled artisans called sozankars.

World Crafts Council : Key Facts

1. Founded in 1964 as a non-governmental and non-profit organization by Ms. Aileen O. Webb, Ms. Margaret M. Patch, and Kamaladevi Chattopadhyay.
2. Mission: To strengthen the status of crafts in cultural and economic life.
3. Aim: To promote fellowship among craftspersons, offering encouragement, help, and advice.
4. Activities: promotes and assists cultural exchange through conferences, international visits, research studies, lectures, workshops, exhibitions, and more.

Conclusion:

The ‘World Craft City’ tag is a significant recognition for Srinagar and Kashmir’s rich craft heritage. It is expected to promote cultural exchange, preserve traditional crafts, and provide economic benefits to artisans and the local economy.

● **Revival of Ancient Nalanda Mahavihara**

1. **Prime Minister Narendra Modi unveiled the new campus of Nalanda University in Rajgir, Bihar.**
2. The new campus is situated near the ancient ruins of the original Nalanda University, which was established in accordance with the Nalanda University Act of 2010.
3. **The act itself was the result of a decision made at the Second East Asia Summit in the Philippines in 2007.**

Highlights from PM’s speech at the inauguration ceremony of the new Nalanda University:

1. Nalanda University is a proclamation that knowledge cannot be destroyed by fire.
2. Nalanda University would add a new dimension to the idea of world brotherhood and become the identity of India’s development journey.
3. **The Renaissance of Nalanda will tell the world about India’s capacity and help India become a global hub for knowledge and education.**
4. **History shows that all developed countries became economic and cultural leaders only after they made a mark in education.**
5. **Major reforms are going on in the education sector, including the National Education Policy 2020.**

The Ancient Nalanda Mahavihara:

1. Nalanda was a **famous Buddhist monastery in ancient and medieval Magadha (modern Bihar).**
2. **Established by Kumargupta I, the ruler of the Gupta Empire (c. 3rd to 6th century CE),** it was among the greatest centers of learning in the ancient world.
3. **Nalanda played an important role in promoting arts and academics during the 5th and 6th centuries CE, considered the “Golden Age of India” by scholars.**
4. Chinese traveler Hsuan Tsang’s chronicles provide the most detailed description of ancient Nalanda.
5. **Nalanda continued to thrive with the support of the Pala Empire rulers after the Guptas but was attacked and damaged in the 1190s by Muhammad Bakhtiyar Khalji,** a Turko-Afghan military general.
6. **Rediscovered in 1812 by Scottish surveyor Francis Buchanan-Hamilton and officially identified as the ancient university by Sir Alexander Cunningham in 1861.**

7. **The current site of Nalanda is a UNESCO World Heritage Site**, and the Government of India enacted a law in 2010 to revive the famous university.
8. The **contemporary Nalanda University at Rajgir is listed as an “Institute of National Importance” by the Government of India.**

Revival of Nalanda University:

1. Idea to **re-establish Nalanda University proposed by former president Dr. APJ Abdul Kalam in 2006.**
2. Endorsed at the **East Asia Summit in Mandaue, Philippines, in 2007, and reiterated in the East Asia Summit of 2009, in Hua Hin, Thailand.**
3. Nalanda University Bill passed in 2010 in the Indian Parliament, leading to its operational launch in 2014 from a temporary location near Rajgir.
4. In 2016, at Pilkhi village situated in Rajgir, the foundation stone for the permanent campus was laid by former President Pranab Mukherjee.
5. **Construction work began in 2017 and the university will be fully functional by 2022, coinciding with the inauguration of the new campus.**
6. **17 countries, including Australia, Bangladesh, Bhutan, Cambodia, China, New Zealand, Portugal, Singapore, and South Korea, helped establish the university.**

Features of the New Nalanda University

Campus:

1. The architecture of the university fuses modern and ancient styles, **situated on a sprawling 455 acres of land.**
2. The campus integrates **eco-friendly architecture, ensuring a net-zero carbon footprint.**
3. The university currently operates **six schools covering Buddhist studies, historical studies, ecology, sustainable development, languages, literature, and international relations.**
4. Additionally, it hosts four centers specializing in Bay of Bengal Studies, Indo-Persian Studies, Conflict Resolution, and a Common Archival Resource Center.
5. **Offers a range of programs, including postgraduate and doctoral research courses, short-term certificate courses, and scholarships for international students.**

Jal Jeevan Mission and Water Deficit in Rural India

Context :

1. **New Project to Fix Water Deficit:** The Union Jal Shakti Ministry has conceived a new project to ensure that rural households, which have been provided taps under the Jal Jeevan Mission but lack access to potable water, will soon receive water supply.
2. **Jal Jeevan Mission Progress: As of June 25, 77% of the target households (15 crore out of 19 crore) have been provided with tap water connections under the Jal Jeevan Mission.**
3. **Difference between Tap Connection and Water Supply:** There is a significant difference between a household getting a tap connection and the daily quota of 55 litres per person per day of water being provided.
4. **Measurement of Water Supply:** The water supply departments of States/UTs aggregate numbers provided by **districts of households, anganwadi, or schools that have been provided with tap water connections.** However, this method may not accurately reflect the actual number of households receiving water supply.
5. **Parallel System for Self-Certification:** The Jal Shakti Ministry has introduced a **parallel system where villages, via their gram panchayats, self-certify if all households within their precincts are actually getting tap water.** This approach aims to verify the figures provided by States with the numbers on the ground.
6. **Portal for Tracking Progress:** The Jal Shakti Ministry maintains a dedicated portal that tracks the targets achieved by States, providing public access to the data.
7. **Target and Achievement:** The Jal Jeevan Mission aims to provide potable tap water to every rural household in India. **As of now, 15 crore households out of a targeted 19 crore have been provided with tap water connections.**
8. **Challenges:** Despite significant progress, the Jal Jeevan Mission faces challenges in ensuring that all households receive potable water supply.

Analysis:

1. **Challenges in Achieving Targets:** Despite significant progress in providing tap connections, the Jal Jeevan Mission faces challenges in ensuring that all households receive potable water supply.
2. **Importance of Self-Certification:** The self-certification process is crucial in verifying the accuracy of the data provided by States and ensuring that the actual number of households receiving water supply is reflected.
3. **Need for Improved Water Management:** The government needs to focus on improving water management systems to ensure that the water supply reaches the intended beneficiaries.
4. **Role of States and Local Governance:** States and local governance bodies play a critical role in implementing the Jal Jeevan Mission and ensuring that the targets are achieved.
5. **Impact on Rural Development:** The Jal Jeevan Mission has the potential to significantly impact rural development by providing access to clean drinking water, improving health and hygiene, and increasing productivity.

About Jal Jeevan Mission (JJM):

1. JJM aims to **deliver safe and adequate drinking water to every rural Indian household by 2024 via individual Functional Household Tap Connections (FHTCs).**
2. **Launched on August 15, 2019, and managed by the Ministry of Jal Shakti,** JJM employs a community-based water management approach and focuses on extensive Information, Education, and Communication (IEC) activities.

Funding Pattern:

1. Central and State Governments share funding in a **50:50 ratio.**
2. Himalayan and North-Eastern States receive a **90:10 funding split.**
3. **Union Territories (UTs) receive 100% funding from the Central Government.**

JJM Components:

1. **Piped Water Supply Infrastructure:** Development of in-village infrastructure to ensure tap water access for every rural household.
2. **Bottom-Up Planning:** Active community involvement in planning, implementation, and Operation and Maintenance (O&M) activities.

3. **Women Empowerment:** Central involvement of women in the mission's planning, decision-making, implementation, monitoring, and O&M activities.
4. **Focus on Future Generations:** Provision of tap water supply to schools, tribal hostels, and anganwadi (daycare) centers.
5. **Skill Development and Employment Generation:** Training local individuals to construct and maintain water supply structures, generating employment opportunities.
6. **Greywater Management:** Reuse and recycling of wastewater to sustain water sources.
7. **Source Sustainability:** Promotion of groundwater recharge and water conservation practices.
8. **Water Quality:** Ensuring safe drinking water to mitigate water-borne illnesses.

Greywater Definition:

Greywater refers to wastewater from non-toilet plumbing systems like hand basins, washers, showers, and baths. Properly managed, greywater can be safely reused for gardening purposes.

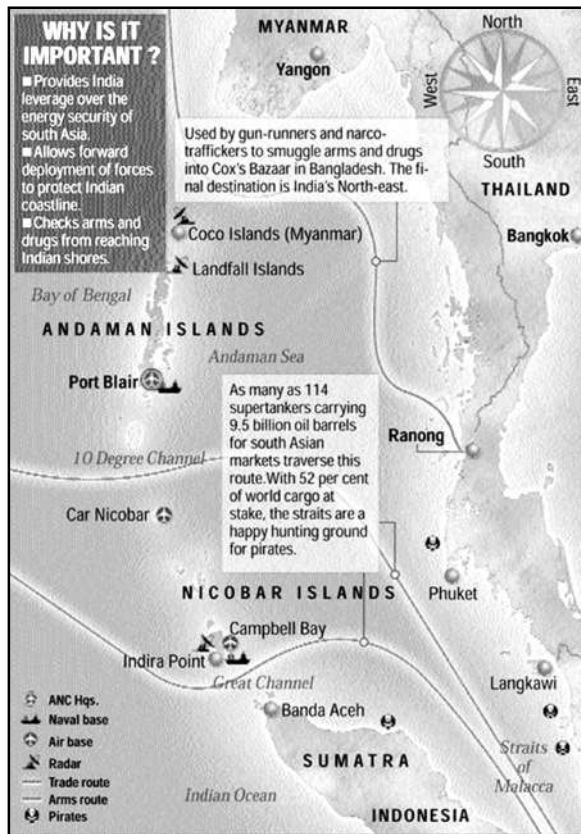
• GREAT NICOBAR MEGA DEVELOPMENT PROJECT

The Congress party has described the proposed **Rs 72,000-crore** infra upgrade at the **Great Nicobar Island** as A “grave threat” to the island’s indigenous **inhabitants and fragile ecosystem**, and demanded “immediate Suspension of all clearances” and a “thorough, impartial review of the proposed project, including by the Parliamentary committees concerned”.



ABOUT GREAT NICOBAR ISLAND

- Great Nicobar is the **southernmost and largest of the Nicobar Islands**, a sparsely inhabited 910-sq-km patch of mainly tropical rainforest in southeastern bay of Bengal.



- **Indira Point** on the island, **India's southernmost point**, is only **90 nautical miles (less than 170 km)** from **Sabang at the northern tip of Sumatra**, the largest island of the Indonesian archipelago.
- Great Nicobar has two national parks (**Galathea Bay National Park and Campbell Bay National Park**), a biosphere reserve (**Great Nicobar Biosphere Reserve**), small populations of the **Shompen and Nicobarese tribal peoples**, and a few thousand **non-tribal settlers**.

THE MoEFCC ON THE PROJECT

Ministry of Environment, forests and Climate Change (MoEFCC) has granted environmental clearance for diversion of **130.75 sq. Km of forest** in Great Nicobar Island (GNI) for mega Rs. 72,000-crore multi-development projects.

Key condition for the environmental clearance is the **submission of a detailed scheme for compensatory afforestation**, which is to be done on non-notified forest land.

ABOUT COMPENSATORY AFFORESTATION

- **The Forest (Conservation) Act, 1980** provide that under compensatory afforestation, **when forest land is diverted for non-forest use like mining or infrastructure**, the project proponents are required to:
 - o **Provide funds to the state forest department** to do afforestation in a **Non-forest land of equal size** or
 - o **Improve a degraded forest land of double the size of the diverted land.**
- The government enacted Compensatory Afforestation Fund Act 2016 to provide a proper institutional mechanism for compensatory afforestation matters.
 - o To streamline the management of the funds, **Compensatory Afforestation Fund Management and Planning Authority (CAMPA)** has been set up at the state level to monitor, assist and evaluate Compensatory afforestation activities in the respective states.
 - o The state-level CAMPAS are monitored by a National CAMPA Advisory Council.

ABOUT THE PROJECT

- NITI Aayog has come up with a plan for the Holistic Development of Great Nicobar Island.
 - o Project implementation agency is the **Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO)**.
- Mega project includes:
 - o International container transshipment terminal (ICTT),
 - o A military-civil dual use airport,
 - o A solar power plant and
 - o An integrated township.

SIGNIFICANCE OF THE PROJECT

- **Strategic Importance** as it is in close proximity with South East Asia as well as SL. It will give a push to our Act East Policy.
- **Enhanced Security** as it will give us a base deep down the IOR. Maritime Piracy, terrorism, illegal trade & undue dominance of China can be Tackled.
- It can create an **economic trade hub** in Andaman & Nicobar Island.
- It may **promote tourism**.
- It will also **increase employment**.

THE ENVIRONMENTAL CONCERNS

- The proposed infra upgrade has been opposed on grounds of **the threat it poses to the ecology of the islands**.

- The opposition — by wildlife conservation researchers, anthropologists, scholars, and civil society— has focused on the potentially devastating **impact on the Shompen, a particularly vulnerable tribal group (PVTG) of hunter-gatherers** with an estimated **population of a few hundred individuals** who live in a tribal reserve on the island.
- It is feared that the port project will **destroy coral reefs** with spinoff effects on the **local marine ecosystem**, and pose a **threat to the terrestrial Nicobar Megapode bird and leatherback turtles** who nest in the Galathea Bay Area.
- The proposed port is in a **seismically volatile zone** that saw **permanent subsidence** of about **15 ft during the 2004 tsunami**.

ANY LITIGATIONS ?

A statement issued by Congress has **accused the local administration of not consulting the Tribal Council of Great and Little Nicobar Islands adequately as per legal requirements**.

- In November 2022, the **tribal council revoked a no-objection certificate** it had issued for diversion of about 160 sq km of forest land, **saying they had not been given full information**.
- In **April 2023**, the **Kolkata Bench of the National Green Tribunal (NGT)** declined to interfere with the environmental and forest clearance granted to the project. The **Tribunal ordered that a high-power committee should be constituted to look into the clearances**.
 - o There is **no clarity yet** on whether the committee, consisting mainly of government representatives, has submitted its report.

• EXTENSION OF SMART CITIES MISSION

Background:

1. The **Smart Cities Mission was launched in 2015 to cover 100 cities selected** through various rounds of competitions held from **January 2016 to June 2018**.
2. The mission aimed to provide a framework for **urban development** and improve the **quality of life for citizens in these cities**.

Current Status:

1. With only **15 days left until the original deadline of June 30, 2024**, the Union Housing and Urban Affairs Ministry is considering extending the Smart Cities Mission.

2. **Around 10% of the projects**, worth approximately Rs 15,000 crore, are still pending completion.
3. The Ministry's Smart Cities Mission dashboard shows that out of a total of **7,996 projects worth Rs 1.64 lakh crore**, **7,118 projects worth Rs 1.43 lakh crore have been completed** as of June 7, 2024.
4. **878 projects worth Rs 21,189 crore are still ongoing and are expected to take around six months more to complete**.

Reasons for Extension :

1. The **COVID-19 pandemic led to a delay in the completion of projects**, resulting in the deadline being extended to June 2023 in 2021 and then to June 30, 2024, in May 2023.
2. The Ministry is considering an extension to allow cities to complete the ongoing projects, which are **crucial for the success of the mission**.

Key Statistics:

1. Out of the completed projects, **5,588 projects worth Rs 65,996 crore were funded under the Mission**, while the remaining were funded through **cities' own resources, PPP mode, convergence with other missions**, and other sources.
2. **All 100 cities have set up Integrated Command and Control Centres at a cost of Rs 11,775 crore**.
3. The top categories of completed works include **water, sanitation, and hygiene (WASH)** projects worth Rs 44,300 crore, smart mobility projects worth Rs 33,019 crore, and smart governance projects worth Rs 15,474 crore.

Parliamentary Standing Committee's Report:

1. The **Parliamentary Standing Committee on Housing and Urban Affairs' report on the Smart Cities Mission** earlier this year stated that the Ministry had said **state governments should complete the projects at their own cost if they go beyond June 30**.
2. The report emphasised that the Ministry's role should not be limited to transferring funds but should also include ensuring the successful completion of projects.

Implications:

1. The **extension of the Smart Cities Mission will provide relief** to cities that are struggling to complete their projects within the original deadline.

- The move will also ensure that the mission's objectives are achieved, and citizens in these cities benefit from the improved infrastructure and services.
- However, the extension may also lead to additional financial burdens on the Centre and state governments, which will need to be addressed.

What is the Smart Cities Mission (SCM) ?

- Launched on June 25, 2015, with the aim of promoting cities that offer **essential infrastructure and a clean, sustainable environment**.
- 100 cities chosen for development as Smart Cities through a **two-stage competition in various phases from 2016 to 2018**.
- Each city had **5 years from their selection to complete projects, with original deadlines set from 2021 to 2023**.
- The COVID-19 pandemic led to an extension of the deadline for all cities to June 2023, followed by another extension to June 30, 2024, due to the pandemic's impact.

Financial Support

- Central government initiative directed by the **Ministry of Housing and Urban Affairs (MoHUA) of the Union government**
- Central Government provides financial support of Rs. 48,000 crores over five years, averaging Rs. 100 crore per city per year.
- Matching funds to be contributed equally by the State/ULB (Urban Local Body).**

Smart Cities Mission Principles

- 6 fundamental principles underpin the concept of Smart Cities:
 - Liveable:** Safe, inclusive, accessible, and resilient urban environment.
 - Sustainable:** Environmentally responsible and resource-efficient practices.
 - Economic:** Generate employment and boost the local economy.
 - Equitable:** Ensure equitable access to services and facilities for all citizens.
 - Smart Governance:** Efficient, transparent, and accountable governance systems.
 - People's Participation:** Active involvement of citizens in urban planning and decision-making.

Conclusion:

The Smart Cities Mission is a critical initiative

aimed at transforming urban India, and its successful completion is essential for achieving the mission's objectives.

The consideration of an extension is a positive step towards ensuring that the mission's goals are achieved, and citizens in these cities benefit from the improved infrastructure and services.



**DIGITAL PAYMENTS
INTELLIGENCE PLATFORM
SOON TO CURB FRAUD**



In the News:

In its **bi-monthly Monetary Policy Statement**, the Reserve Bank of India (RBI) unveiled a series of proposals to improve the **safety, security, and regulatory frameworks of digital payments**.

These proposals aim to **promote innovation, inclusivity, and efficiency in the financial ecosystem**.

Establishing a Digital Payments Intelligence Platform:

- Proposal:** The RBI plans to establish a **Digital Payments Intelligence Platform** that will leverage advanced technologies to **reduce fraud risks in digital payments**.
- AP Hota Committee:**
 - A **committee chaired by AP Hota (former MD & CEO of NPCI)** has been formed to oversee the establishment of the Digital Payments Intelligence Platform.
 - The committee will explore **different aspects of setting up a digital public infrastructure** for the platform and is **expected to deliver its recommendations within two months**.

3. Need for Digital Payments Intelligence Platform:

- a. Over the past 6 months, ending in March 2024, domestic payment frauds have dramatically increased by 70.64%, reaching Rs. 2,604 crore, compared to Rs. 1,526 crore in the same period last year.
- b. The volume of frauds has also risen to 15.51 lakh during the March 2024 period, up from 11.5 lakh in the previous 6-month period.
- c. This alarming growth aligns with India's rapid transformation into a digital payments powerhouse, driven by the widespread adoption of the Unified Payments Interface (UPI) since its launch in 2016.
- d. UPI transactions have seen a remarkable 137% surge in the past 2 years, reaching Rs. 200-lakh crore.
- e. Regulatory measures like the Digital Payments Intelligence Platform will harness advanced technologies to mitigate fraud risks.

Other RBI Proposals:

1. Raising Bulk Deposits Limit:

- a. For commercial banks (excluding RRBs) and small finance banks, the RBI proposes to revise the definition of bulk deposits to single rupee term deposits of Rs. 3 crore and above, up from the current limit of Rs. 2 crore and above.
- b. For local area banks, the bulk deposit limit will be defined as single rupee term deposits of Rs. 1 crore and above, aligning with the limit for regional rural banks (RRBs).
- c. Banks have the discretion to offer differential interest rates on bulk deposits based on their requirements and Asset-Liability Management (ALM) projections.

2. Automatic e-Mandate for Recurring Transactions:

- a. Automatic replenishment will start when the balance in the FASTag or NCMC falls below the limit set by the customer.
- b. The current e-mandate framework requires a pre-debit notification at least 24 hours before the actual debit from the customer's account.
- c. The RBI proposes to exempt this requirement for payments made from the

customer's account for automatic replenishment of balances in Fastag or NCMC under the e-mandate framework.

3. UPI Lite within the Ambit of the e-Mandate Framework:

- a. An auto-replenishment facility will be introduced for loading the UPI Lite wallet by the customer if the balance goes below a threshold amount set by him/her.
- b. The idea is to eliminate the need for additional authentication or pre-debit notification, as the money remains with the consumer (moving from his/her account to the wallet).
- c. Currently, the UPI Lite facility allows a customer to load his/her UPI Lite wallet up to Rs. 2000 and make payments up to Rs. 500 from the wallet.

4. Rationalizing Existing Guidelines on Export and Import of Goods and Services:

This proposal aims to align with the evolving dynamics of cross-border trade transactions globally and aims to simplify operational procedures.

Conclusion:

With the launch of its 3rd edition of the global hackathon titled "HARBINGER 2024 - Innovation for Transformation," the Reserve Bank of India (RBI) has embarked on an ambitious mission to promote innovation and transformation in the financial sector. Two key themes will be covered during the event: 'Zero Financial Frauds' and 'Being Divyang Friendly.' Specifically, it will seek solutions that enhance the security and safety of digital transactions, with a focus on identifying, preventing, and combating financial fraud.

RBI's Agenda : Capital Account Liberalisation, Globalisation of Rupee and Digital Payment System

The Reserve Bank of India (RBI) aims to maintain India's economic readiness by setting long-term goals, including capital account liberalization, internationalization of the Indian Rupee (INR), digital payment universalization, and globalization of India's financial sector.

Capital Account Liberalisation and Internationalisation of the Rupee :

1. The Reserve Bank of India (RBI) is setting its sights on a future-ready Indian economy by outlining aspirational goals, including capital account liberalisation and internationalisation of the Indian rupee (INR).

2. This move could **potentially open up the Indian economy to a freer flow of capital**, enhancing the **rupee's global standing**.

Key Proposals:

1. **Enabling non-resident access to the rupee:** Facilitating **cross-border transactions** and **enhancing accessibility** for individuals residing outside India.
2. **Calibrated approach to non-resident deposits:** Exploring **interest-bearing** options for non-residents.
3. **Promoting Indian MNCs: Encouraging overseas investments by Indian multinational corporations and global brands.**

Digital Payment System Universalization:

The RBI aims to **deepen and universalize digital payment systems** both **domestically and globally**. The plan includes:

1. **Internationalisation of UPI, RTGS, and NEFT:** Expanding the reach of India's payment systems.
2. **Participation in cross-border payment projects:** Enhancing global connectivity for Indian payment systems.
3. **Increased domestic usage of digital payments:** Promoting digital transactions within India.
4. **Phased implementation of Central Bank Digital Currency (e-Rupee):** Exploring the potential of a digital version of the rupee.

Globalisation of India's Financial Sector:

The RBI envisions a more prominent role for India in the global financial landscape, with plans to:

1. **Expand domestic banking: Supporting national growth** and positioning Indian banks among the top 100 globally.
2. **Develop GIFT City:** Working with the **International Financial Services Centres Authority (IFSCA)** to establish GIFT City as a **leading international financial centre**.

Additional Areas of Focus:

The RBI also highlights **plans to review the monetary policy framework**, address climate change concerns, and implement recommendations from a **working group to accelerate the internationalisation of the rupee**. These recommendations include:

1. **Standardised approach to trade arrangements:** Examining bilateral and multilateral trade deals involving the rupee.

2. **Encouraging rupee accounts for non-residents:** Making the rupee more accessible to individuals outside India.
3. **Strengthening the financial market:** promoting a **global 24 × 5 rupee market**.

What is Capital Account Convertibility?

1. **Balance of Payments Account:** It is a record of all transactions between a country and external entities, consisting of two accounts:
 - a. **Current Account:** Involves trades of goods and services.
 - b. **Capital Account:** Concerns cross-border capital movements through investments and loans.
2. **Current Account Convertibility:** Freedom to convert rupees into other currencies for payments without restrictions.
3. **Capital Account Convertibility:**
 - a. Investment transactions can be conducted without constraints.
 - b. **No limitations on converting rupees** into foreign currency for asset acquisition.
 - c. **No restrictions on non-resident Indians (NRIs) bringing in foreign currency to purchase assets in India.**

Importance and Challenges:

- In developing countries, **capital inflows and outflows can be unpredictable**, leading to excessive currency appreciation or depreciation, potentially impacting monetary and financial stability.

India's Progress:

1. **India has implemented partial capital account convertibility.**
2. India's **cautious approach in opening its capital account was recognized as prudent after the 1997 East Asian currency crisis**, highlighting the risks associated with **high current account imbalances and volatile short-term capital flows**.

Conclusion:

Capital account **convertibility provides both opportunities and challenges**. India's **gradual and cautious approach** has been **effective in maintaining economic stability** while gradually integrating into the global financial system.

RBI's Revised Priority Sector Lending (PSL) Norms

Background:

1. The Reserve Bank of India (RBI) has revised its Priority Sector Lending (PSL) guidelines to address regional disparities in credit flow and boost financial inclusion.
2. PSL mandates banks to allocate a specified portion of their lending to designated sectors considered crucial for economic development or facing credit constraints.

Key Objectives of the Revision:

1. **Promoting Financial Inclusion:** Encourage lending to economically disadvantaged districts with low average loan sizes.
2. **Correcting Regional Imbalances:** Incentivize lending in underserved regions and discourage it in areas already saturated with credit.

Revised Framework:

1. **Weighted Lending:**
 - a. **Districts with Low Per Capita Credit (< Rs. 9,000):** Fresh PSL loans receive a 125% weight, effectively counting as more towards the bank's PSL target. This acts as an incentive for banks to lend in these areas.
 - b. **Districts with High Per Capita Credit (> Rs. 42,000):** Fresh PSL loans receive a 90% weight, disincentivizing lending in these already well-served areas.
 - c. **Other Districts:** Continue with the existing weight of 100%.
2. **Ranking of Districts:** The RBI will rank districts based on their per capita priority sector credit flow, creating an incentive-disincentive framework to ensure balanced credit distribution.

Priority Sectors Under PSL:

1. **Agriculture:** Crop loans, farm mechanisation, etc.
2. **Micro, Small, and Medium Enterprises (MSMEs):** Business loans, working capital, etc.
3. **Export Credit:** Financing for exporters.
4. **Education:** Loans for students and educational institutions.
5. **Housing:** Home loans, especially for affordable housing.
6. **Social Infrastructure:** Loans for projects like drinking water, sanitation, healthcare, etc.
7. **Renewable Energy:** Financing for renewable energy projects.
8. **Others:** Weaker sections, minorities, etc.

PSL Targets:

1. **Domestic Scheduled Commercial Banks (SCBs) and Foreign Banks (20+ branches):**

40% of Adjusted Net Bank Credit (ANBC) or Credit Equivalent Amount of Off-Balance Sheet Exposure (CEOBE), whichever is higher.

2. **Regional Rural Banks (RRBs) and Small Finance Banks (SFBs):** 75% of ANBC or CEOBE.

Priority Sector Lending Certificates (PSLCs):

1. These are tradable certificates issued against priority sector loans.
2. They allow banks to meet their PSL targets by buying PSLCs from other banks that have exceeded their targets.

Implementation:

1. The revised guidelines will come into effect from the financial year 2024-25 (FY25).

Implications:

1. The revised norms are expected to channel more credit towards underserved sectors and regions, fostering inclusive growth.
2. They could also lead to a more balanced distribution of credit across the country.

RBI KEEPS REPO RATE UNCHANGED

The Reserve Bank of India's (RBI) Monetary Policy Committee (MPC) opted to maintain the repo rate at 6.5% during its recent meeting, marking the eighth consecutive time the rate has remained unchanged as part of efforts to combat inflationary pressures.

RECENT MONETARY POLICY REVIEW

- **Last Review:** The decision was made in the April 2024 meeting of the MPC.

ECONOMIC FORECASTS

- **Growth Outlook:** The MPC revised its GDP growth forecast upwards, expecting the economy to grow at 7.2% for the fiscal year 2024-2025. This adjustment reflects cautious optimism amid ongoing inflationary concerns.
- **Inflation Target:** The RBI's primary gauge for inflation is the Consumer Price Index (CPI), with a target range set at 4% plus or minus 2%.

What is MONETARY POLICY COMMITTEE (MPC) and what are their Role ?

- **Formation and Purpose:** Established under Section 45ZB of the RBI Act, the MPC is chaired by the RBI Governor and includes three RBI officials and three external members appointed by the Government of India. It convenes quarterly to deliberate on monetary policy decisions, particularly the repo rate, aimed at achieving the inflation target.

- **Decision-Making Process:** Each member of the MPC holds a vote, and decisions are made by majority rule. In the event of a tie, the RBI Governor casts the deciding vote.
- **Accountability:** Section 45ZN mandates that if the RBI fails to meet the inflation target, it must submit a report to the government detailing reasons for the shortfall, proposed corrective actions, and estimated timelines for achieving the target.

COMPOSITION AND QUORUM

- **Committee Composition:** Consisting of six members, including the RBI Governor, the MPC includes both RBI officials and external experts who serve four-year terms, ensuring diverse perspectives in policy formulation.
- **Meeting Frequency:** The committee convenes at least four times a year, with a quorum requirement of four members for decisions to be valid.

DISSENTING VOTES

- **Recent Vote Split:** In the latest MPC meeting, RBI Governor Shaktikanta Das, along with members Shashanka Bhide, Rajiv Ranjan, and Michael Debabrata Patra, voted to maintain the repo rate. Conversely, members Ashima Goyal and Jayanth R. Varma advocated for a 25 basis point reduction in the repo rate, highlighting differing views on monetary policy amid economic uncertainties.

CONCLUSION

The RBI's decision underscores its commitment to managing inflationary pressures while supporting economic growth, reflecting a cautious approach amidst evolving global and domestic economic dynamics. The MPC's deliberations and decisions remain pivotal in shaping India's monetary policy landscape, balancing the dual imperatives of price stability and sustainable economic expansion.

Indian Traders Demand Resumption of Border Trade with China through Lipulekh Pass

Issue: The border trade route between India and China through the Lipulekh pass in Pithoragarh district has been closed since 2019 due to the COVID-19 pandemic, causing significant losses to Indian traders.

Background:

1. The border trade between India and China through the Lipulekh pass has been operational since 1992.
2. Indian traders, mostly from the Bhotia tribe, have been engaged in trade with China through this route, supplying essential goods to villagers in western Tibet.

3. The trade route was closed suddenly in 2019 due to the COVID-19 pandemic, forcing Indian traders to return from the Taklakot mart in Tibet, leaving behind their goods.

About Lipulekh Pass:



Lipulekh Pass, also known as Lipulekh La, is a high-altitude mountain pass located in the Kumaon region of Uttarakhand, India, near the tri-junction of India, Nepal, and China. Key points of Lipulekh Pass:

1. **Historical Significance:** Lipulekh Pass has a long history as a trade route between India and Tibet. It facilitated the exchange of goods such as salt, wool, and spices, contributing to economic and cultural ties between the regions.
2. **Religious Importance:** The pass holds deep religious significance for Hindus as it is an integral part of the Kailash Mansarovar Yatra, a revered pilgrimage to Mount Kailash and Lake Mansarovar.
3. **Strategic Location:** Lipulekh Pass is strategically located at the tri-junction of India, Nepal, and China, making it a point of geopolitical interest. It is the last territorial point in India's territory.
4. **Border Disputes:** The pass has been the subject of border disputes between India and China, with both countries claiming sovereignty over the region.
5. **Challenging Terrain:** The pass is known for its challenging terrain, characterised by steep ascents, rugged landscapes, and harsh weather conditions.
6. **Restricted Access:** Due to its strategic location and border sensitivities, access to Lipulekh Pass is restricted and requires special permits.

Current Situation:

1. The trade route has remained closed for five years, causing significant losses to Indian traders.

- The Indian traders have **sent 22 applications to the government of India requesting the resumption of trade through the Lipulekh pass, but have received no response.**
- The **traders are concerned about the safety of their stored goods in Tibet, worth Rs 15 lakh**, which have been lying there for five years.

Recent Developments:

- China has recently begun implementing a pact with Nepal to open all 14 trade passes with Nepal.**
- The implementation of the **agreement began on May 25, with the opening of the Piangi pass in eastern Nepal.**
- Three more passes along the **Indo-Tibet border in western Nepal are set to be opened on June 20, 30, and 25, respectively.**

Demands:

- The **Indian traders are demanding the resumption of trade through the Lipulekh pass.**
- They are **seeking permission to visit Taklakot to retrieve their stored goods, which have been lying there for five years.**
- They are also demanding compensation for their losses and a guarantee of their safety while trading with China.

Concerns:

- The Indian traders are concerned that **China may hand over the mart made for Indian traders in Gakkhu town of Taklakot to Nepalese traders.**
- They are also **worried about the potential loss of their market share in western Tibet if the trade route is not reopened.**

Implications:

- The closure of the trade route has significant **economic implications for the Indian traders involved in the border trade.**
- The resumption of trade through the **Lipulekh pass could boost the local economy and provide employment opportunities to the people in the region.**
- The issue also has diplomatic implications, as it affects India's relations with China and Nepal.

Way Forward:

- The **Indian government needs to take up the issue with the Chinese authorities to resolve the matter.**
- The government should provide compensation to the Indian traders who have **suffered losses due to the closure of the trade route.**

- The government should also ensure the safety and security of Indian traders while trading with China.**

India's Textile Exports Grew By 9.59% In May This Year Despite Unfavourable Economic Conditions In Major Markets

Context:

Despite unfavourable economic conditions in major markets such as the European Union (EU), the US, and West Asian nations, **India's textile exports grew by 9.59% in May 2024 compared to the same month of the previous year.**

Key Points:

- Textile Exports Growth:** India's **textile exports grew by 9.59% in May 2024**, according to a report by the Confederation of Indian Textile Industry (CITI).
- Apparel Exports Growth:** The country's apparel exports saw an **increase of 9.84%** during the same period.
- Combined Exports Growth:** The **combined exports of textiles and apparel in May 2024 registered a 9.70%** growth over May last year.
- Overall Exports Growth:** India's overall exports for May 2024 surged to **\$68.29 billion**, marking a substantial year-on-year increase of 10.2%.
- Cumulative Exports Growth:** The cumulative exports of textiles and **apparel during April-May 2024 saw a 5.34% rise compared to the same period last year.**

Sector-wise Performance:

- Electronic Goods:** **Exports of electronic goods increased by 22.97%**, reflecting changes in India's export basket due to growth in the manufacturing sector.
- Petroleum Products:** Petroleum products exports registered a growth rate of **15.75%** year-on-year.
- Engineering Goods:** Engineering goods **exports grew by 7.39%**.

Top Export Markets:

- US:** The **US was one of the top 10 export markets for India**, with exports registering double-digit growth rates.
- UAE:** The **UAE was another major export market for India**, with exports growing at a high rate.
- Netherlands:** The **Netherlands was also among the top 10 export markets for India**, with exports registering significant growth.

Significance:

1. **Defying Global Headwinds:** India's textile exports have defied global headwinds, registering a significant **growth despite unfavourable economic conditions in major markets.**
2. **Manufacturing Sector Growth:** The growth in electronic goods exports highlights the change in India's export goods basket contributed by the growth in the manufacturing sector.
3. **Diversification of Exports:** The growth in exports of various sectors, **including textiles, apparel, electronic goods, petroleum products, and engineering goods, indicates a diversification of India's exports.**

FPI Activity in Indian Stock Market Post-Election



Initial Investment Followed by Net Selling:

1. Foreign portfolio investors (FPIs) **initially invested Rs 6,850 crore in the Indian stock market on June 3rd, following positive exit poll results.**
2. However, **they reversed course and became net sellers, withdrawing Rs 18,109 crore from the cash market (excluding IPO investments) in June so far.**
3. This contrasts with domestic institutional investors (DIIs), **who have net purchased Rs 6,864 crore during the same period.**

Election Results Trigger Record Outflows:

1. The **largest outflow of Rs 12,436 crore occurred on June 4th, the day Lok Sabha election results were announced, coinciding with a 6% drop in the Sensex.**
2. Despite subsequent market recoveries, **FPIs continued selling on June 5th and 6th, withdrawing Rs 5,656 crore and Rs 6,867 crore respectively.**

Factors Influencing FPI Behavior:

1. Analysts show the FPI selloff to **factors such as expensive valuations, investments in China, and pre-election uncertainties.**

2. However, with the **formation of a new government, experts anticipate renewed FPI interest in India.**

Potential Catalysts for Renewed FPI

Investment:

1. Possible reasons for increased FPI investment include the passing of a **vote of confidence, ministerial appointments, policy announcements, and potential rate cuts by the US Federal Reserve or RBI.**
2. Additionally, a **favourable monsoon season could boost corporate earnings estimates and attract further investment.**

Market Resilience Amidst Volatility:

1. Despite the FPI outflows, the **Indian stock market demonstrated resilience, with the Sensex and Nifty showing gains on Thursday.**
2. **The overall market performance indicates a degree of optimism among investors, despite the recent volatility.**

What is Foreign Portfolio Investment (FPI) ?

1. Foreign Portfolio Investment (FPI) **refers to the investment made by individuals or institutions in financial assets of a foreign country.**
2. These assets can include **stocks, bonds, mutual funds, exchange-traded funds (ETFs), and other securities.**

Key characteristics of FPI:

1. **Passive Ownership:** FPI investors typically **do not have direct control over the companies they invest in.** They hold a passive stake in the assets.
2. **Relatively Liquid:** FPI investments are **generally easier to buy and sell compared to Foreign Direct Investments (FDI),** which involve acquiring a more substantial stake in a foreign company.
3. **Diversification:** Investors use FPI to **diversify their investment portfolios across different countries and markets.** This can help reduce risk and potentially increase returns.
4. **Short-term to Medium-term Horizon:** While FPI can be held for the long term, it is often used for **shorter-term investment goals.**

Benefits of FPI:

1. **Portfolio Diversification:** Investing in foreign markets can help reduce the overall risk of an investment portfolio.

- 2. Access to New Markets:** FPI allows investors to participate in the growth of emerging markets and industries not available domestically.
- 3. Potential for Higher Returns:** Some **foreign markets may offer higher growth potential than domestic markets.**
- 4. Increased Liquidity:** FPI investments can be **easily bought and sold on international exchanges.**

Risks of FPI:

- 1. Currency Risk:** Fluctuations in **exchange rates can impact the value of FPI investments.**
- 2. Political Risk:** Political instability or **changes in government policies in the foreign country can affect the value of investments.**
- 3. Market Volatility:** Foreign markets can be **more volatile than domestic markets, leading to potential losses.**

Example:

An Indian investor buying shares of a US-listed company like Apple or Tesla on the NASDAQ stock exchange is engaging in FPI.

Foreign Portfolio Investment (FPI) and Foreign Direct Investment (FDI) differ in several key aspects :

Aspect	Foreign Portfolio Investment (FPI)	Foreign Direct Investment (FDI)
Nature of Investment	Investment in financial assets like stocks, bonds, etc.	Investment in physical assets or establishing a business presence.
Ownership and Control	No direct control or management participation in the company.	Significant ownership stake and potential control over management decisions.
Investment Horizon	Short-term to medium-term	Long-term
Liquidity	High liquidity investments can be easily bought and sold.	Relatively less liquid, exiting an FDI can be more complex.
Risk	Relatively higher risk due to market volatility.	Relatively lower risk due to the strategic nature of the investment.
Impact on Economy	Influences capital markets, stock prices, etc.	More significant impact on employment, technology transfer, and overall economic growth.

Regulatory Framework in India:

Both FPI and FDI are regulated by different entities in India:

- 1. FPI: Regulated by the Securities and Exchange Board of India (SEBI).** FPIs need to register with SEBI and adhere to specific investment limits and guidelines.
- 2. FDI: Governed by the Department for Promotion of Industry and Internal Trade (DPIIT)** under the Ministry of Commerce and Industry. FDI is subject to sectoral caps, entry routes, and other regulatory approvals.

Examples:

- 1. FPI:** A foreign investor buying shares of Reliance Industries listed on the Indian stock exchange is an example of FPI.
- 2. FDI:** A foreign company like Amazon setting up a subsidiary in India to operate its e-commerce business is an example of FDI.

Key Takeaway:

While both FPI and FDI play crucial roles in the Indian economy, they cater to different investor objectives and have varying impacts on the country. **FPI is primarily focused on financial gains, while FDI aims for strategic control and long-term growth.**

European Central Bank (ECB) Cuts Interest Rates Amidst Ongoing Inflation Battle



Why in the news ?

- The **European Central Bank (ECB) has initiated its first interest rate cut since 2019, lowering the deposit rate to 3.75%.** This decision comes after a **period of high inflation, which has recently shown signs of slowing down.**
- However, the **ECB remains cautious, as inflation is still projected to exceed the target rate in the coming year.**
- The **bank has not committed to a specific path** for future rate adjustments, emphasising that **decisions will be data-dependent.**
- While **further rate cuts are anticipated,** the ECB's actions will likely be influenced by factors such as the **persistence of high inflation in the services sector and the monetary policy decisions of the US Federal Reserve.**

About European Central Bank (ECB):

1. The European Central Bank (ECB) is the **central bank responsible for the monetary policy of the eurozone, a group of 20 European Union countries** that have adopted the euro as their currency.
2. Its **primary objective is to maintain price stability** in the eurozone, aiming for an inflation rate of 2% over the medium term.

Here are some key aspects of the ECB:

1. Functions:

- a. Sets interest rates for the eurozone.
- b. Manages the euro's exchange rate.
- c. Ensures the smooth operation of the eurozone's payment systems.
- d. Supervises banks in the eurozone.

2. Structure:

- a. The Governing Council, which **includes the members of the Executive Board and the governors of the national central banks of the eurozone countries**, is responsible for making monetary policy decisions.
- b. The **Executive Board, consisting of the ECB's president, vice-president, and 4 other members, implements the Governing Council's decisions.**

3. **Headquarters:** Located in **Frankfurt, Germany.**

How are inflation and interest rates related to each other?

Inflation and interest rates are **closely intertwined and influence each other in a dynamic relationship.**

Here's how they are connected:

Inflation:

1. **Definition:** Inflation refers to the general increase in prices of goods and services in an economy over time, leading to a decrease in purchasing power.
2. **Impact on Interest Rates:** When inflation is high, central banks (like the Reserve Bank of India) typically raise interest rates to curb spending and control the rising prices. Higher interest rates make borrowing more expensive, which can reduce consumer and business spending, thus **slowing down the economy and eventually easing inflationary pressures.**

Interest Rates:

1. **Definition:** Interest rates are the cost of borrowing money or the return on investment.
2. **Impact on Inflation: Central banks use interest rates as a tool to manage inflation. By raising interest rates, they can make borrowing costlier, which discourages spending and investment.** This, in turn, can lead to decreased demand for goods and services, thus putting downward pressure on prices and curbing inflation.

The Relationship:

1. **Direct Relationship: Generally, there is a direct relationship between inflation and interest rates. When inflation rises, central banks tend to increase interest rates to control it.** Conversely, when inflation falls, central banks may lower interest rates to stimulate economic activity.
2. **Time Lag:** However, **there is often a time lag between changes in interest rates and their impact on inflation.** It takes time for the effects of interest rate changes to filter through the economy and affect prices.

Example:

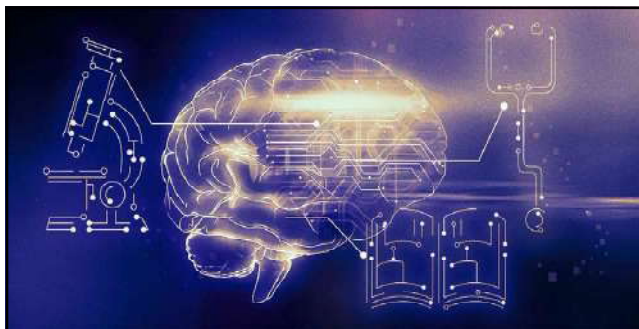
If inflation is running at 6%, and the central bank's target is 4%, it might raise interest rates to discourage borrowing and spending. This could lead to reduced demand for goods and services, eventually bringing inflation down to the target level.

Key Points to Note:

1. Central banks constantly monitor inflation and adjust interest rates accordingly to maintain price stability and support economic growth.
2. **The relationship between inflation and interest rates is complex and can be influenced by various factors like economic conditions, government policies, and global events.**

Understanding the connection between inflation and interest rates is crucial for making informed financial decisions, whether it's about investments, loans, or savings.

'Global firms are adopting Large AI Models to Cut Costs'



Key Points:

- **LAMs Beyond Text Generation:** Large Action Models (LAMs) are advanced AI systems that go beyond simple text generation. They can autonomously perform complex tasks, offering significant cost savings and efficiency gains for businesses.
- **Wide Industry Adoption:** LAMs are being rapidly adopted across various sectors, **including insurance, retail, and more**. They are transforming operations, **streamlining processes, and improving customer experiences**.
- **Ubiquitous Technology:** LAMs are expected to become as **common-place as SaaS applications**. Companies are either **developing their own LAMs or purchasing access to this technology**.
- **Impact on Jobs:** While **LAMs may lead to some job displacement**, they are **also creating new roles focused on training, oversight, and ethical considerations related to AI implementation**.
- **Fair and Transparent Development:** As LAMs continue to evolve, transparent and fair development practices will be crucial to ensure a smooth transition for both businesses and workers.
- **Global Adoption:** Enterprises worldwide are embracing LAMs due to their ability to understand complex goals expressed in natural language and execute autonomous actions to achieve those goals.

What are Large Action Models (LAMs)

1. LAMs are **advanced artificial intelligence (AI) models**.
2. LAMs are designed to understand and carry out complex tasks based on user intentions.
3. Unlike **large language models (LLMs)**, LAMs **combine language comprehension with logic and reasoning to execute various assignments**.

4. LAMs learn from **massive datasets of user action information and utilize this knowledge for strategic planning and proactive action in real-time**.
5. These models leverage advanced **machine learning techniques, including deep learning and reinforcement learning, which allow them to learn from extensive datasets** and refine their **decision-making capabilities** over time.
6. By analyzing past and current actions, LAMs can make informed predictions about **future outcomes, aiding in planning, strategy, and real-time decision-making in complex environments**.
7. Their applications span various fields, encompassing personal assistants, autonomous vehicles, robotics, healthcare, and financial modeling, to name a few.

What are Large Language Models (LLMs) ?

1. LLM is an **AI program that can generate text, among other tasks**.
2. LLMs are trained on vast datasets, hence the term "large."
3. LLMs utilize a type of machine learning called **deep learning to comprehend how characters, words, and sentences function together**.
4. They possess the ability to derive meaning from context, generate coherent and contextually relevant responses, translate languages other than English, summarize text, answer questions (**general conversation and FAQs**), and even **assist in creative writing or code generation tasks**.

What is Machine Learning?

1. Machine learning is a **crucial branch of artificial intelligence that harnesses data and algorithms to mimic human learning processes**, progressively improving its accuracy.
2. Machine learning **involves training algorithms to identify patterns within data**, empowering them to make predictions or perform tasks without explicit programming

Overall Impact:

LAMs represent a significant advancement in AI technology. They have the **potential to revolutionise how businesses operate, increase efficiency, and drive innovation across industries**. However, responsible and ethical development will be essential to navigate the potential challenges associated with this transformative technology.



Crux of The Hindu & Indian Express

Economic

• **Sticky inflation : Why is RBI Refusing to cut Interest Rates ?**

Introduction

1. The RBI has decided to maintain the **benchmark policy rate, also known as the repo rate, at 6.5% for the 8th time in a row.**
2. The **repo rate is the interest rate at which the RBI lends money to commercial banks, and its movements have a significant impact on the economy.**

Goals of RBI's Monetary Policy: The RBI has 2 primary goals:

1. Maintaining price stability in the economy, which means **keeping inflation within a reasonable range.**
2. **Promoting economic growth** by incentivizing or disincentivizing economic activity through interest rates.

Current Economic Scenario:

1. The **retail inflation rate has been coming down closer to the 4% mark**, but the RBI is not cutting interest rates.
2. The **repo rate was raised sharply between May 2022 and February 2023, but it has stayed stagnant at 6.5% since then.**

Reasons for Not Cutting Interest Rates: 4 broad reasons for the RBI's decision:

1. **Sticky inflation:** Despite high interest rates, **retail inflation has not dropped** to touch the 4% mark since January 2021, and the rate of its decline has been very gradual.
2. **Durability of inflation target:** The RBI wants to be convinced that inflation will stay around the 4% mark sustainably, and not just temporarily.
3. **Strong economic growth:** India's GDP growth rate has been surprisingly strong over the past year, and the RBI has upped the GDP forecast for the current financial year from 7% to 7.2%.
4. **Forthcoming Union Budget:** The RBI may be waiting to see how the political compulsions of a coalition government **will impact the Centre's commitment to fiscal deficit**, which has implications for inflation and interest rates.

What is Sticky Inflation:

1. Sticky inflation is a phenomenon where prices remain elevated and don't respond quickly to changes in supply and demand.
2. This type of inflation can have significant consequences for consumers, businesses, and the economy as a whole.

Features of Sticky Inflation:

1. **Persistent Prices:** In sticky inflation, goods and services exhibit prices that remain high for extended periods, with little or no downward movement.
2. **Causes:**
 - a. **Wage and Cost Pressures:** Rising wages and the cost of consumer goods contribute to sticky inflation.
 - b. **Key Sectors:** Industries such as healthcare, education, and housing significantly contribute to sticky inflation.
3. **Impact on Consumers:** Sticky inflation erodes consumer purchasing power and makes housing less affordable.
4. **Central Bank Challenges:** Central banks face the challenge of balancing inflation control and preventing a recession.
5. **Policy Response:** Central banks typically raise interest rates to address sticky inflation. However, this approach requires a delicate balance, as raising rates too quickly can trigger a recession, while insufficient rate increases allow prices to continue rising.

Conclusion :

The RBI's **decision to not cut interest rates is based on its commitment to maintaining price stability and promoting economic growth.** The central bank is cautious about reducing interest rates too quickly, given the sticky nature of inflation and the need to ensure that inflation stays around the 4% mark sustainably. The RBI's decision will have implications for the economy, including the impact on EMIs, economic growth, and inflation.

• **PULSES IMPORTS RISE**

Inflation and Impact on Consumers

- In April 2024, the consumer price index for cereals was 8.63% higher than that in April 2023.
- However, the government's food security scheme provides 5 kg of rice or wheat, free of cost every

month, to some 813.5 million persons, mitigating the impact of cereal inflation on poor and lower middle-class Indians.

- Pulses, on the other hand, posted an annual retail inflation of 16.84% in April 2024, nearly twice that for cereals, and are not sold through the public distribution system, making consumers, including low-income households, bear the brunt of the price increase.

DAL PRICES (2023 V/S 2024)

DAL	PRICE IN 2023 (PER KG)	PRICES NOW (PER KG)
CHANA	70	85
ARHAR/TUR	120	160
URAD	110	120
MOONG	110	120
MASOOR	95	90

Why Dal Prices Have Shot Up?

- The main reason is the El Niño-induced patchy monsoon and winter rain, causing a decline in domestic pulses production.
- Domestic pulses production has declined from 27.30 million tonnes (mt) in 2021-22 to 26.06 mt in 2022-23 and 23.44 mt in 2023-24.
- The two pulses to register the highest inflation have both seen sharp output falls: Chana and Arhar/Tur.

The Result: Rise in Imports

- India's pulses imports were valued at \$3.75 billion in 2023-24, the highest since the record \$3.90 billion (2015-16) and \$4.24 billion (2016-17).
- In quantity terms, import of major pulses totaled 4.54 mt in 2023-24, up from 2.37 mt and 2.52 mt in the preceding two fiscals.

Consumer Impact

- Disproportionately affects low-income households due to reliance on dal as a staple food and primary protein source.
- Potential for social unrest due to food insecurity and affordability concerns.

Global Factors Influencing Dal Prices

- Global supply and demand dynamics influence domestic prices.
- Production trends in major pulse-exporting countries (e.g., Canada, Australia) impact availability and prices.
- Geopolitical events (e.g., conflicts, trade restrictions) can disrupt supply chains and trade flows.

Government Interventions

- Duty-free imports of specific pulse varieties (arhar/tur, urad, masoor, desi chana).
- Potential extension of duty-free imports to yellow/white peas.
- Efforts to boost domestic production through incentives, subsidies, and research.
- Stockpiling of pulses to stabilize prices and ensure availability during lean periods.
- Targeted distribution through welfare schemes (e.g., PDS) for vulnerable populations.

Long-Term Solutions

- Invest in research and development for high-yielding, climate-resilient pulse varieties.
- Promote crop diversification to reduce reliance on specific pulses and mitigate risks.
- Improve irrigation infrastructure to enhance productivity and reduce vulnerability to weather fluctuations.

Nutritional Implications

- Reduced dal consumption can lead to protein and micronutrient deficiencies, particularly among vulnerable populations.
- Public health concerns due to potential increase in malnutrition and related diseases.

Market Speculation & Hoarding

- Investigate the role of speculative trading and hoarding in driving up prices.
- Implement measures to regulate these practices and ensure fair market conditions.

Consumer Tips

- Substitute other protein sources (e.g., eggs, poultry, fish) to diversify diet and reduce reliance on expensive pulses.
- Buy pulses in bulk when prices are lower.
- Explore alternative pulse varieties that may be more affordable.

The Way Ahead

- Dal inflation in the coming months would largely depend on the southwest monsoon.
- Global climate models are pointing to El Niño transitioning to a "neutral" phase next month and even to La Niña — associated with good rainfall activity in the subcontinent — by the second half of the four-month season (June-September).
- However, the precarious domestic supply position and monsoon uncertainties make higher imports inevitable.

Future Outlook

- Dal prices and import trends depend on:
- Southwest monsoon performance and its impact on domestic production.
- Global market conditions, including production trends and trade policies.
- Effectiveness of government interventions to boost domestic production and stabilize prices.
- **Industry Seeks Removal of 'Angel Tax'; to Greatly aid Capital Formation, Says CII**

Why in the news?

Indian businesses are pushing for the removal of the Angel Tax due to a sharp decline in startup funding and job losses. The Confederation of Indian Industry (CII) recommends scrapping Section 56(2)(viib) of the Income-tax Act, arguing it hinders capital formation.

Key Points:

1. Angel Tax hinders startup funding and job creation.
2. Budget 2023-24 extended the tax to foreign investors.
3. Recent developments aim to address industry concerns.
4. Debate continues on the impact and necessity of the Angel Tax.

What is Angel Tax?

1. It is an income tax on capital raised by unlisted companies through off-market share issuance.
2. It is levied when the share price exceeds the fair market value of the company.
3. The excess amount is considered income and taxed accordingly.
4. The term "Angel Tax" comes from wealthy individuals ("angels") investing in early-stage startups.

Rationale behind Angel Tax:

1. Introduced in 2012 to prevent money laundering and round tripping of black money.
2. Section 56(2)(viib) of the Income Tax Act, 1961 governs this tax.

Budget 2023-24 and Angel Tax:

1. Before : Angel Tax applied only to investments by resident investors, excluding

non-residents and venture capital funds. Government-recognized startups were exempt.

2. **Changes:** Angel Tax extended to foreign investors, except for investments in government-recognized startups.

Tax Rate:

1. Currently, Angel Tax is levied at 30.6%.

Recent Developments:

1. **Exemptions:** Investors from 21 countries (US, UK, France, etc.) exempted from Angel Tax on investments in unlisted Indian startups.
2. **Final Valuation Rules:** Notified in September 2023, addressing industry concerns.
3. **CBDT Clarification:** Instructed field officials not to verify recognized startups for Angel Tax cases.

Concerns Raised by Industries:

1. Government wrongly assumes valuation differences indicate money laundering.
2. Investors fund startups based on future potential, not current valuations.
3. Angel Tax has negatively impacted funding, leading to layoffs and a funding decline in 2023.

Additional points:

1. CCPS (Compulsorily Convertible Preference Shares) play a role in the valuation under Angel Tax.
2. There are currently 99,380 DPIIT recognized startups.
3. The government aims to balance preventing tax evasion with promoting startup growth.

- **India's External Debt Reaches \$663.8 Billion at End-March 2024**

Context:

1. India's external debt has been increasing over the years, driven by factors such as a growing economy, increasing trade, and foreign investment.
2. The COVID-19 pandemic has had a significant impact on India's economy, leading to a decline in economic growth and an increase in external debt.
3. The government has taken several measures to promote economic growth and increase foreign exchange reserves, including liberalizing foreign investment norms and promoting exports.

Previous Year's Data:

1. **India's external debt stood at \$624.1 billion at the end of March 2023.**
2. The external debt to GDP ratio was 19% at the end of March 2023.
3. The government's external debt stood at 4.1% of GDP, while the non-government sector's external debt was placed at 14.9% of GDP.
4. **India's External Debt Reaches \$663.8 Billion at End-March 2024**, a Rise of \$39.7 Billion from Previous Year

Key Points:

1. **Valuation Effect:** If the valuation effect were excluded, the external debt would have increased by \$48.4 billion instead of \$39.7 billion.
2. **External Debt to GDP Ratio:** Despite the rise in external debt, the country's external debt to GDP ratio declined to 18.7% at end-March 2024 from 19% at the end of March 2023.
3. **Government and Non-Government Debt:** The government's external debt stood at 4.2% of GDP, while the non-government sector's external debt was placed at 14.5% of GDP.
4. **Currency Composition:** US dollar-denominated debt remained the largest component of India's external debt, with a share of 53.8%, followed by debt denominated in Indian rupee (31.5%), yen (5.8%), SDR (5.4%), and euro (2.8%).
5. **Instrument-wise Composition:** Loans remained the largest component of external debt, with a share of 33.4%, followed by currency and deposits (23.3%), trade credit and advances (17.9%), and debt securities (17.3%).
6. **Long-term and Short-term Debt:** Long-term debt (with original maturity of above one year) was placed at \$541.2 billion, recording an increase of \$45.6 billion from the previous year. The share of short-term debt (with original maturity of up to one year) in total external debt declined to 18.5% at end-March 2024 from 20.6% at end-March 2023.
7. **Short-term Debt to Foreign Exchange Reserves Ratio:** The ratio of short-term debt to foreign exchange reserves declined to 19.0% at end-March 2024 from 22.2% at end-March 2023.

Analysis:

1. **The increase in external debt is a cause for concern, as it may impact India's economic resilience and ability to manage its debt obligations.**

2. The decline in the external debt to GDP ratio is a positive sign, indicating that India's economy is growing faster than its debt.
3. The dominance of US dollar-denominated debt in India's external debt composition makes it vulnerable to exchange rate fluctuations.
4. The shift towards long-term debt is a positive trend, as it reduces the risk of debt repayment and provides more time for economic growth.
5. The **decline in the share of short-term debt in total external debt and the ratio of short-term debt to foreign exchange reserves is a positive sign**, indicating that India's foreign exchange reserves are sufficient to meet its short-term debt obligations.
6. The government's efforts to promote foreign investment and increase foreign exchange reserves have helped to reduce the risk of debt repayment.

Implications:

1. The government and the Reserve Bank of India need to monitor India's external debt dynamics closely and develop strategies to manage its debt obligations effectively.
2. **India needs to diversify its external debt composition to reduce its dependence on US dollar-denominated debt.**
3. The **government should focus on promoting economic growth and increasing foreign exchange reserves** to reduce the risk of debt repayment.
4. The decline in the external debt to GDP ratio and the shift towards long-term debt are positive trends that need to be sustained through prudent economic management.
5. **The government's efforts to promote foreign investment and increase foreign exchange reserves need to be continued to reduce the risk of debt repayment.**

• Does Inequality Lead to Growth ?



The topic of **wealth distribution** has recently **gained considerable attention** due to discussions of **wealth redistribution among political figures**.

- a. Research shows that **wealth inequality in contemporary India has surpassed pre-colonial levels, further fueling the ongoing debate**.
- b. While some believe that **income inequality promotes economic growth by encouraging entrepreneurship**, a deeper analysis shows that it can potentially hinder India's economic development.

The Harms of Monopoly Power:

1. **Lower real wages:** Billionaires often **derive their wealth from monopolies**, which allow them to **set prices higher than market rates**. This means that real wages for workers fall, as their purchasing power is reduced.
2. **Lower production and investment:** Monopoly power leads to welfare losses, **as companies prioritise profit maximisation over social welfare**. This results in **lower levels of production and investment, which hampers economic growth**.

*The **current cost-of-living crisis in developed economies can be attributed to monopoly effects**. The concept of "**greedflation**" has emerged, which refers to companies raising prices to increase profits following the multiple demand and supply shocks caused by the pandemic. This phenomenon has been cited as a contributing factor to the high **inflation rates in Western economies**.*

Inequality's Impact on Growth:

1. **Weakened Multiplier Effect:** When **companies raise prices, it makes it harder for workers to afford things**, which **reduces the overall growth of the economy**.
2. **Lower Consumption:** Even though **rich people consume more in absolute terms, they consume a smaller share of their income than lower-income individuals**. This unequal distribution of income weakens the overall **multiplier effect**, as **lower-income people have a higher propensity to consume**.

*Imagine a company wants to build a new factory. **Before the factory is even finished**, they have to pay workers to build it. These **workers then use their wages to buy things like food, clothes, and other goods**. The people who sell*

*these goods now have more money, so they can also buy more things, and so on. This **initial money spent on building the factory ends up circulating through the economy, increasing everyone's income**. This is called the "**multiplier effect**."*

Redistribution:

1. **Wealth Taxes and Investment:** Some people worry that taxing the rich will make them less likely to invest their money. However, wealth taxes are designed to focus on the money someone already has, not the profits they expect to make in the future. Wealth taxes target existing wealth, not future earnings. Therefore, they don't directly discourage investment decisions based on potential profits.
2. **Strengthened Multiplier Effect:** Redistributing wealth can put more income in the hands of those who have a higher propensity to consume, thereby reviving the multiplier process and stimulating demand.
3. **Fostering Entrepreneurship:** Basic income proposals, such as those suggested by Thomas Piketty, could empower a new class of entrepreneurs by providing financial security. This could lead to increased innovation and economic growth.

Conclusion:

When a few powerful companies control entire industries (monopolies), it can seriously hurt the economy. These companies can charge unfair prices and make it hard for smaller businesses to compete, which slows down overall growth. One way to combat this is by taking steps to reduce the gap between the rich and the poor. This can involve things like taxes on the super-wealthy and programs that provide a basic income to everyone. While some argue these measures could hurt the economy.

By redistributing wealth, we can put more money in the hands of people who will spend it, boosting the economy. Additionally, breaking up monopolies and promoting fair competition can lead to more innovation and better products and services for everyone. In the end, addressing the root causes of inequality and ensuring everyone has a fair shot is key to creating an economy that benefits everyone, not just the wealthy few.



World's Largest Genome Found in a fern species, called *Tmesipteris Oblanceolata*



Key Points:

- Record-Breaking Genome:** The fork fern species, *Tmesipteris oblanceolata*, native to New Caledonia, has the largest known genome of any organism. It surpassed the previous record holder, the Japanese flowering plant *Paris japonica*.
- Genome Size Comparison:** The fern's genome is 7% larger than *Paris japonica* and more than 50 times the size of the human genome. If stretched out, the DNA in each cell would extend 350 feet (106 metres), compared to 6.5 feet (2 metres) for the human genome.
- Fern Characteristics:** *Tmesipteris oblanceolata* is a small fern growing to 10-15 centimetres in height. It primarily grows on the ground or fallen tree trunks in New Caledonia and neighbouring islands.
- Evolutionary Significance:** The fern belongs to an ancient family that diverged from other ferns around 350 million years ago, before the dinosaurs.
- Large Genome Conundrum:** Large genomes are not considered beneficial. Scientists believe that the large genome of ferns is due to a failure to efficiently remove non-functional or redundant DNA sequences.

6. **Consequences of Large Genomes:** Large genomes require more resources for replication, repair, and transcription, potentially straining the organism's energy and nutrient resources.

Larger genomes also require larger cells and slower cell division, affecting growth and competitiveness.

7. **Genome Size and Complexity:** There is no direct correlation between genome size and organism complexity.

The fern's genome is significantly larger than that of the blue whale, African elephant, and giant redwood.

Additional key points:

- The marbled lungfish has the largest known animal genome, but the fern's genome is nearly 25% larger.
- Genome size plays a role in influencing plant growth, competition, and response to environmental challenges.

Implications/Analysis:

- This discovery challenges assumptions about genome size and organism complexity.
- The fern's large genome raises questions about the mechanisms of genome evolution and the role of non-coding DNA.
- Understanding genome size could help scientists predict how plants might respond to environmental stressors like climate **change**.

Why direct seeding of rice (DSR) is yet to pick up in Punjab

Why in News

- The Punjab government is actively promoting the Direct Seeding of Rice (DSR) technique, also known as the "tar-wattar" technique, to reduce water usage and labour costs in paddy cultivation.
- Despite its benefits and government incentives, the technique has not seen widespread adoption in Punjab.

Background

- Traditional paddy cultivation in Punjab involves preparing nurseries, transplanting seedlings, and flooding the fields, which is labour and water-intensive.
- The DSR technique is an alternative method that can reduce water usage by 15-20% and labour costs, while also maturing 7-10 days faster.

What is DSR?

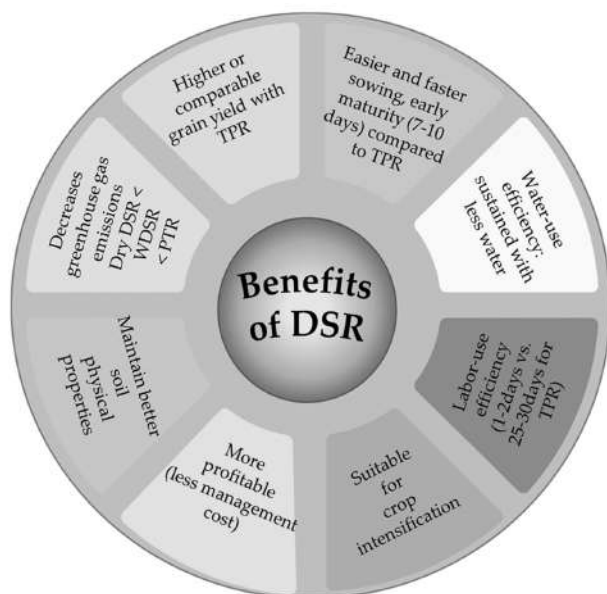
1. DSR is a technique where paddy seeds are directly sown in the field, eliminating the need for nursery preparation and transplantation.
2. The field is irrigated and laser-levelled before seeding, and seed treatment is crucial to prevent fungal diseases.

How DSR Works

1. Paddy seeds are directly sown in the field, roughly 20-30 days prior to transplantation.
2. The first round of irrigation is carried out 21 days after sowing, followed by 14-17 more rounds at 7-10 day intervals.

Key Points

1. DSR can reduce water usage by 15-20% compared to traditional puddling methods.
2. DSR requires less labour and matures 7-10 days faster than traditional methods.
3. Soil texture and iron content are crucial factors in determining the suitability of DSR.
4. Heavy-textured soils with high clay content are suitable for DSR, while light-textured soils with low clay content are not.
5. Soils with severe iron deficiency and weed problems are not suitable for DSR.



Soil Suitability

The Majha and Doaba regions of Punjab have predominantly heavy-textured and medium-to-heavy-textured soils, while Malwa region has pockets of heavy-textured, medium-textured, and light-textured soils.

Importance of Iron Content

1. Iron content of the soil is another critical factor in determining the suitability of DSR.
2. Soils with severe iron deficiency and weed problems are not suitable for DSR.
3. Experts recommend using ferric iron, which is green-colored and not oxidised, rather than oxidised iron, which is brown in color.

Challenges

1. Lack of awareness and understanding among farmers about DSR.
2. Unsuitable soil texture and iron content can lead to poor yields and financial losses.
3. Negative feedback from farmers who have tried DSR on unsuitable soil can discourage others from adopting the technique.

Solution

1. Comprehensive education and training for farmers on DSR technique and soil suitability.
2. Provision of a ready helpline to handhold farmers through the entire process.
3. Adequate compensation for farmers who incur losses during the initial years of adoption.
4. Soil testing and analysis to determine suitability for DSR.

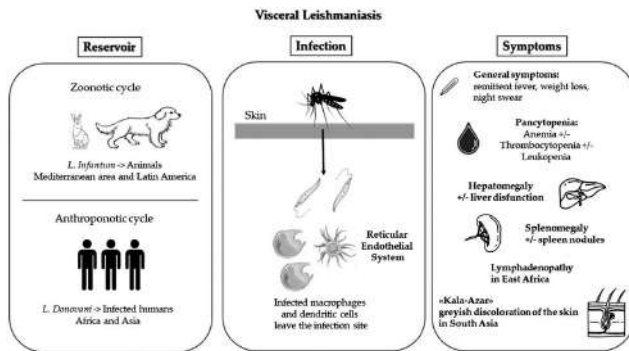
Way Forward

1. The Punjab government needs to intensify its efforts to promote DSR among farmers.
2. Farmers need to be educated and trained on the benefits and challenges of DSR.
3. Soil testing and analysis should be conducted to determine the suitability of DSR in different regions of Punjab.

Conclusion

The DSR technique has the potential to reduce water usage and labour costs in paddy cultivation in Punjab. However, its adoption is hindered by lack of awareness and understanding among farmers, as well as unsuitable soil texture and iron content. **Addressing these challenges through education, training, and support can encourage more farmers to adopt the DSR technique** and promote sustainable agriculture practices in Punjab.

WHO Launches New Framework to Combat Kala-Azar in Eastern Africa



In response to the growing public health concern posed by visceral leishmaniasis (VL) - commonly known as kala-azar in Hindi - the World Health Organization (WHO) unveiled a new framework on June 12.

This framework aims to guide health authorities, policymakers, and other stakeholders in their efforts to eradicate the disease in eastern Africa.

Key Points:

1. Kala-Azar (Visceral Leishmaniasis)

Threat: Kala-azar, a parasitic infection, is a rising public health threat in eastern Africa, accounting for 3/4 of global incidence.

About Kala-azar:

1. Kala-azar, also known as visceral leishmaniasis, is a parasitic infection that spreads through the bite of infected female sandflies.
2. If left untreated, kala-azar can be deadly, causing fever, weight loss, and enlargement of the spleen and liver.
3. Between 2004 and 2008, Bangladesh, India, and Nepal accounted for 70% of global kala-azar cases.
4. The eradication programs in Asia commenced in 2005, with the launch of a regional strategic framework for kala-azar.

2. WHO's Response: The World Health Organization (WHO) has launched a new framework to guide health authorities, policymakers, and stakeholders in eradicating kala-azar in eastern Africa.

3. Disease Burden: In 2022, eastern Africa accounted for 73% of global kala-azar cases, with 50% of cases occurring in children under 15 years old.

4. Endemic Countries: Kala-azar is endemic in 80 countries, with 9 countries in eastern Africa being the most affected.

5. Success Story: Bangladesh has successfully eradicated kala-azar, becoming the first country to achieve this milestone.

6. WHO's New Framework: On June 12th, WHO launched a comprehensive framework to guide

VL elimination in eastern Africa, replicating the success achieved in Asia.

7. Framework Strategies: The framework outlines 5 main strategies:

- a. Early diagnosis and treatment
- b. Integrated vector management (targeting sandflies)
- c. Effective surveillance
- d. Advocacy, social mobilisation, and partnerships
- e. Implementation and operational research

8. Regional Targets: The framework sets regional targets, including a 90% reduction in kala-azar incidence in eastern Africa by 2030, detection and treatment of 90% of cases within 30 days of symptom onset by 2030, and a 100% decline in kala-azar deaths in children by 2030.

Significance:

1. The WHO's new framework presents a comprehensive approach for countries to implement strategies, assess progress, identify gaps, and build capacity to combat kala-azar.
2. The framework offers important direction to countries in the region and provides momentum to reach the finish line of elimination.
3. The success of Bangladesh in eradicating kala-azar serves as a model for other countries to follow.

Quotes:

- "The VL elimination framework will offer important direction to countries in the region and provide momentum to reach the finish line of elimination." - Dereje Duguma, State Minister of the Federal Ministry of Health, Ethiopia

By addressing this neglected tropical disease with a comprehensive framework, the WHO and eastern African countries have taken a significant step towards improving public health and saving lives in the region.

WHO Collaborates with Hyderabad-based NIIMH for Traditional Medicine Research

Recent News:

The World Health Organization (WHO) has designated the National Institute of Indian Medical Heritage (NIIMH) as a WHO Collaborating Centre for Fundamental and Literary Research in Traditional Medicine.

Key Points:

1. **Focus:** Historical aspects of Ayurveda, Yoga & Naturopathy, Unani, Siddha, Homoeopathy, Sowa Rigpa (AYUSH), and modern medicine.
2. **Resources:** Provides resource materials for historians, scientists, and researchers.

- 3. WHO Recognition:** Designated as a WHO Collaborating Centre, highlighting its international importance in traditional medicine research.

About NIIMH:

1. History:

- Established on September 26, 1956**, as the Upgraded Department of History of Medicine under the Government of Andhra Pradesh.
- Transferred to the Government of India on February 14, 1969.**

2. Administrative Control:

Functions under the Central Council for Research in Ayurvedic Sciences (CCRAS), Ministry of AYUSH, Government of India.

- 3. Location:** Dilsukhnagar, Hyderabad, India.

4. Significance:

- The **only institute of its kind in Southeast Asia.**
- Offers global access to a vast collection of research materials on the history of medicine.

Mandate:

1. Literary Research and Documentation:

- Revival and retrieval of texts from ancient manuscripts and rare books.
- Search, collection, editing, and publication of **rare medical manuscripts/books on AYUSH systems of medicine.**

2. Documentation:

- Ayurveda Encyclopedia.
- Museum on History of Medicine.
- Referral library on AYUSH systems and modern medicine.

3. Research and Digital Initiatives:

- AYUSH Research Portal.
- CCRAS-Research Management Information System.
- National AYUSH Morbidity and Standardized Terminologies Electronic Portal.
- Development of WHO International Terminologies and SNOMED CT National Extension for Ayurveda, Siddha, and Unani.

Library and Publications:

1. Medico-Historical Library:

- A **unique collection of over 10,000 books, including rare publications dating back to the 15th century.**
- Serves as a research referral centre for the medical fraternity.
- Houses a complete collection of standard national and international journals on the history of medicine.

WHO's Earlier Recognitions and Collaborations for Traditional Medicine with India:

While the recent designation of NIIMH as a WHO Collaborating Centre is a significant development, it's not the first instance of WHO recognizing and collaborating with India on traditional medicine. Here are some notable earlier instances:

1. Global Centre for Traditional Medicine (GCTM):

- In 2022, WHO established the Global Centre for Traditional Medicine (GCTM) in Jamnagar, Gujarat, India.
- The GCTM aims to harness the potential of traditional medicine from across the world through modern science and technology.
- It focuses on research, innovation, data analytics, sustainability, and equity to optimise the contribution of traditional medicine to global health.

2. WHO Strategy on Traditional Medicine 2014-2023:

- India played a crucial role in developing the WHO Traditional Medicine Strategy 2014-2023.
- The strategy aims to support countries in developing proactive policies and implementing action plans that strengthen the role of traditional medicine in keeping populations healthy.

3. WHO Collaborating Centres in Traditional Medicine:

1. Apart from NIIMH, several other institutions in India have been designated as WHO Collaborating Centres in Traditional Medicine.

- These centres focus on various aspects of **traditional medicine, including research, education, and clinical practice.**

4. Project Collaboration Agreement (PCA) on Traditional and Complementary Medicine:

1. In 2023, the Ministry of AYUSH and WHO signed a Project Collaboration Agreement (PCA) on Traditional and Complementary Medicine.

- The PCA focuses on strengthening research, evidence-based practice, and global knowledge sharing in the field of traditional medicine.

5. Benchmark Document for Training in Yoga:

1. WHO, in collaboration with the Ministry of AYUSH, released the “Benchmark Document for Training in Yoga” in 2021.
2. This document serves as a global standard for yoga training and education.

These collaborations highlight the growing recognition of India’s rich heritage in traditional medicine and its potential to contribute to global health and well-being. The WHO’s continued engagement with India in this field is expected to foster further research, innovation, and integration of traditional medicine into mainstream healthcare systems.

What is the multi-drug-resistant pathogen found in the International Space Station?

Scientists found a **Pathogen** called Enterobacter bugandensis on the **International Space Station**. This bacterium is already a problem in hospitals because **it’s hard to kill with antibiotics**. The space station’s unique environment, with **low gravity and high radiation**, seems to be making the **Pathogen** even stronger and more resistant to treatment.

This discovery is important for 2 reasons:

1. **Astronaut Health:** We need to find ways to protect astronauts from these **Pathogens**, especially during long space missions where access to medical care is limited.
2. **Hospital Infections:** Studying how this bug changes in space can help us understand how **Pathogen** become resistant to antibiotics in hospitals, leading to better ways to fight them on Earth.

Multi-drug-Resistant Pathogens:

1. **Definition:** Multi-drug-resistant (**MDR**) pathogens are **microorganisms that have developed resistance to multiple antimicrobial agents**, typically three or more antimicrobial classes.
2. **Types:** MDR occurs in various microorganisms, **including bacteria, viruses, and parasites**.

Antibiotic Resistance:

1. **Definition:** Antibiotic resistance refers to the ability of bacteria to survive exposure to antibiotics that would typically kill or inhibit their growth.
2. **Significance:** Antibiotic resistance is a significant **global health concern**.

Key Points:

1. **Pathogen:** Enterobacter bugandensis, a bacterium known for causing hospital-acquired infections and exhibiting multi-drug resistance.
2. **Research:** Collaborative study by Indian Institute of Technology Madras (**IIT-M**) and NASA’s **Jet Propulsion Laboratory (JPL)** on the pathogen’s behaviour aboard the International Space Station (ISS).
3. **Focus:** Study investigated **genomic**, functional, and **metabolic adaptations of E. bugandensis** in the unique ISS environment (**microgravity, high carbon dioxide levels, increased radiation**).
4. **Findings:**
 - a. E. bugandensis strains on ISS developed accelerated mutations, making them genetically and functionally different from Earth counterparts.
 - b. Stress-induced genomic adaptations enhanced the pathogen’s antimicrobial resistance.
 - c. ISS strains displayed **persistence and coexisted with other microorganisms**, sometimes aiding their survival.
5. **Implications:**
 - a. Insights into pathogen behavior in extreme environments like ISS can be applied to similar settings on Earth (e.g., hospital ICUs).
 - b. Research crucial for safeguarding astronaut health and mitigating risks in closed human-built environments.
 - c. Study highlights the **need for robust preventive measures due to altered immune conditions** and limited medical access for astronauts.
6. **Additional key points:**
 - a. Enterobacter infections are **difficult to treat due to resistance to antibiotics**.
 - b. ISS serves as a unique research platform orbiting Earth, continuously occupied since 2000.
 - c. **Indian-origin astronaut Sunita Williams is currently aboard the ISS**.
 - d. **Research funded by an Ames Space Biology grant** involved a **multi-disciplinary team** and advanced analytical techniques.

Conclusion:

1. The study's results highlight the importance of continuous monitoring and research on microbial life in space environments. **Further research is needed to develop effective countermeasures against multi-drug resistant pathogens in both space and on Earth.** The **collaboration between IIT-M and NASA** highlights the global effort to address the challenges of infectious diseases.

The Bacteria that write New Genes to Cope with Infections

Reverse Transcriptase and its Applications:

1. The **COVID-19 pandemic highlighted the importance of reverse transcriptase** in diagnostic testing
2. Techniques using **reverse transcriptase became the gold standard for detecting SARS-CoV-2 virus**
3. **Reverse transcriptase facilitated rapid and accurate testing**, tracking the virus's spread, and paved the way for **surveillance, public healthcare, and vaccine development**

What is the Reverse transcriptase ?

Reverse transcriptase is like a **special tool that some viruses and cells use to make DNA copies from RNA.** It's the opposite of what usually happens in cells, where DNA is used to make RNA. **Think like this:**

1. **DNA:** The original instructions for building and running a cell.
2. **RNA:** A temporary copy of those instructions.
3. **Reverse Transcriptase:** A **tool that can take the RNA copy and make a new DNA copy from it.**

This tool is important for viruses like **HIV because they have RNA as their genetic material.** By using reverse transcriptase, **they can make DNA copies of themselves and insert those copies into the DNA of the cells they infect.** Reverse transcriptase is also used in labs for different research and medical purposes, like testing for viruses or studying gene activity.

Discovery of Reverse Transcriptase

1. **Researchers Howard Temin and David Baltimore independently discovered reverse transcriptase in 1970**
2. Prior to this discovery, it was widely believed that **genetic information flowed in a single direction, from DNA to RNA and then to proteins.**

3. However, **reverse transcriptase** overturned this assumption, **demonstrating that genetic information could also flow backwards, from RNA to DNA.**
4. This **discovery earned Temin and Baltimore a Nobel Prize** and opened up a whole new realm of **possibilities in molecular biology.**
5. The name **“reverse transcriptase”** was **however coined by the editor of Nature**, in an article discussing the significant advance in an accompanying column.

Impact on Molecular Biology and Diagnostics

1. Reverse transcriptase revolutionised research methods in molecular biology
2. It **enabled the creation of DNA copies from RNA**, allowing for the study of gene function
3. The technique was widely **applied in the study of RNA viruses**, including **hepatitis B and HIV**

Management and Treatment of HIV Infections

1. The most important impact of this discovery was in the **fight against HIV/AIDS.**
2. Reverse transcriptase plays a key role in replicating the HIV virus.
3. **By understanding how the enzyme works, scientists were able to develop antiviral drugs that specifically target and inhibit it.**
4. This has been a **change in the treatment of HIV, turning it from a death to a manageable chronic condition.**

Retroelements in the Human Genome

1. Reverse transcriptases played a significant role in shaping the **human genome**
2. **Retroelements, originating from retroviruses**, are interspersed throughout the human genome
3. These **elements were previously considered “junk”** but recent evidence suggests they **play important roles in physiological processes.**

Bacterial Reverse Transcriptases and Gene Writing

1. Bacterial reverse transcriptases are **believed to be the precursors of eukaryotic counterparts.**
2. Researchers **discovered the first reverse transcriptase in bacteria in 1989.**
3. Beyond human health, **reverse transcriptase is also crucial for the survival of bacteria.**
4. Scientists have recently discovered that **bacteria use this enzyme to defend themselves against viruses called bacteriophages.**

5. By understanding this process, **researchers hope to develop new strategies to combat antibiotic-resistant bacteria.**

The Future of Reverse Transcriptase

1. The exploration of reverse transcriptase is far from over.
2. Its **role in various biological processes, from viral replication to genetic evolution**, is still being actively investigated.
3. As our understanding of this enzyme deepens, **we can expect even more exciting discoveries and potential applications in medicine and biotechnology.**

Key Takeaways:

1. Reverse transcriptase is a **crucial enzyme that can reverse the flow of genetic information, from RNA to DNA.**
2. Its discovery revolutionised **molecular biology** and led to the development of **life-saving antiviral drugs for HIV/AIDS.**
3. **Reverse transcriptase plays a role in shaping the human genome** and is involved in **bacterial defence mechanisms.**
4. Ongoing research on **reverse transcriptase holds the potential for breakthroughs in medicine and biotechnology.**

In conclusion, **reverse transcriptase, once a little-known enzyme, has become a central player in modern biology and medicine.** Its story exemplifies the power of scientific curiosity and the **unexpected ways in which fundamental discoveries can lead to transformative innovations.**

Research team uses CRISPR/Cas9 to alter photosynthesis for the first time



A research team from the **University of California, Berkeley, has successfully used the CRISPR/Cas9 gene-editing tool to increase gene**

expression in rice, leading to enhanced photosynthesis. This breakthrough has the potential to **improve crop yields and increase global food production.**

Key Points:

1. **First unbiased gene-editing approach:** The study is the **first to use CRISPR/Cas9 to increase gene expression and downstream photosynthetic activity in a food crop, without introducing foreign DNA.**
2. **Rice as a model crop:** Rice was chosen as the model crop due to its importance as a food source, providing at least **20% of the world's calories.**
3. **Targeting native genes:** The researchers focused on altering the expression of native genes involved in photoprotection, **rather than introducing genes from other organisms.**
4. **CRISPR/Cas9 technique:** The team used CRISPR/Cas9 to change the DNA upstream of the target gene, which controls gene expression.
5. **Surprising results:** The **changes in DNA led to a larger-than-expected increase in gene expression**, demonstrating the plasticity of plants and crops.
6. **RNA sequencing experiment:** The researchers conducted an **RNA sequencing experiment to compare the activity of all genes in the rice genome with and without the modifications.**
7. **Minimal impact on other genes:** The study found that the **approach did not compromise the activity of other essential processes**, with only a small number of differentially expressed genes.
8. **Proof-of-concept:** The study shows the potential of using CRISPR/Cas9 to generate variants in key crop genes, leading to improved traits.
9. **Faster timescale:** The approach provides a **faster timescale compared to traditional plant breeding methods.**
10. **Regulatory benefits:** By altering native genes, this approach could circumvent regulatory issues that can slow the adoption of genetically modified crops.

Implications:

1. **Improved crop yields:** **Enhanced photosynthesis can lead to increased crop yields, addressing global food security concerns.**
2. **Climate change mitigation:** More efficient crops can help mitigate the impacts of climate change by reducing the need for additional land, water, and fertilisers.

3. **Sustainable agriculture:** The **approach offers a more sustainable and efficient way** to improve crop traits, reducing the environmental footprint of agriculture.

What is CRISPR-Cas9 ?

1. **CRISPR-Cas9 is a revolutionary genome editing technology that has transformed the field of genetic engineering.**
2. It allows scientists to **precisely modify DNA sequences within living organisms**, opening up possibilities for treating genetic diseases, developing new crops, and understanding gene function.

How does CRISPR-Cas9 work?

1. **Guide RNA:** A short piece of RNA (**guide RNA**) is **designed to match the specific DNA sequence that scientists want to target.**
2. **Cas9 Enzyme:** The **guide RNA binds to the Cas9 enzyme, a protein that acts like molecular scissors.**
3. **Target DNA:** The **Cas9 enzyme is guided by the guide RNA** to the target DNA sequence.
4. **DNA Cleavage:** The **Cas9 enzyme cuts both strands of the target DNA** at the precise location specified by the guide RNA.
5. **DNA Repair:** The **cell's natural repair mechanisms try to fix the broken DNA.** Scientists can use this repair process to **introduce changes to the DNA, such as deleting, inserting, or replacing specific genes.**

Potential Applications:

1. **Gene Therapy:** CRISPR-Cas9 could be **used to correct genetic mutations responsible for diseases** like cystic fibrosis, sickle cell anemia, and Huntington's disease.
2. **Agriculture:** CRISPR-Cas9 could be **used to develop crops with improved traits, such as resistance to pests, diseases, and drought.**
3. **Research:** CRISPR-Cas9 is a powerful tool for studying gene function and understanding how genes contribute to complex traits.

Ethical Considerations:

1. The use of **CRISPR-Cas9 raises ethical concerns, particularly when it comes to editing the human genome.**

2. These concerns include the potential for unintended consequences, the **possibility of creating designer babies, and the impact on future generations.**

Overall, CRISPR-Cas9 is a technology with enormous potential for improving human health and agriculture. However, it is essential to proceed with caution and carefully consider the ethical implications of this powerful tool.

“PraVaHa” : ISRO develops CFD software for aerodynamic design and analysis



The Indian Space Research Organization (**ISRO**) has developed an advanced **Computational Fluid Dynamics (CFD)** software called **PraVaHa**.

This software is a **significant achievement in the field of aerospace engineering** and has the **potential to transform the way aerodynamic simulations are conducted in India.**

Overview of PraVaHa:

1. **Parallel RANS Solver for Aerospace Vehicle Aero-thermo-dynamic Analysis (PraVaHa):**
 - a. Developed at ISRO's Vikram Sarabhai Space Centre (VSSC)
 - b. **Simulates external and internal flows** on launch vehicles and re-entry vehicles
2. **Extensive Use in Gaganyaan Program:**

Used for aerodynamic analysis of human-rated launch vehicles, including **HLVM3, Crew Escape System (CES), and Crew Module (CM)**
3. **Secure and Flexible Software:**

Facilitates **collaborative** development with **academic institutions and government labs.**

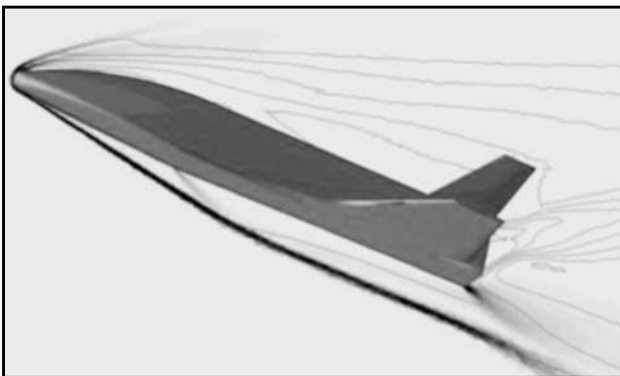
Current Capabilities and Future Development:

1. **Current Functionality:**
 - a. **Simulates airflow for Perfect Gas and Real Gas conditions**
 - b. **Code is being validated to simulate the effects of 'Earth re-entry' and 'combustion' of chemical reactions that occur during air decompression, as in scramjet vehicles.**
2. **Replacement for Commercial Software:**
Expected to replace most CFD simulations for aero characterization currently performed using commercial software
3. **Support for Academia and Industry:**
Assists academia and other institutions in solving complex aerodynamic problems **related to missiles, aircraft, and rockets**

Importance of Computational Fluid Dynamics (CFD):

1. **Initial Aerodynamic Design Studies:**
CFD is a **powerful tool** for **evaluating a large number of configurations** during the **initial design phase of launch vehicles**
2. **Aerodynamic and Aerothermal Loads:**
Aerospace vehicles experience severe aerodynamic and aerothermal loads during launch and re-entry, which must be accurately predicted
3. **Understanding Airflow:**
CFD helps understand airflow around aircraft, rocket bodies, and crew modules during re-entry to design their shape, structure, and Thermal Protection System (TPS)
4. **Unsteady Aerodynamics:**
CFD can **capture unsteady flow phenomena** that contribute to **acoustic noise during missions**

What is Aerodynamics:



Aerodynamics is the study of the properties of moving air and the interaction between the air and solid objects moving through it.

Aerodynamics plays a crucial role in various fields, including:

1. **Aviation:** The design of aircraft wings, fuselages, and control surfaces relies heavily on aerodynamic principles to achieve lift, reduce drag, and ensure stability and control.
2. **Automotive:** Aerodynamic designs are used in cars to improve fuel efficiency, reduce noise, and enhance performance by minimising air resistance.
3. **Architecture:** Wind loads are a significant factor in designing tall buildings and bridges. Aerodynamic studies help ensure the structural integrity and stability of these structures.
4. **Sports:** Aerodynamics plays a vital role in sports like cycling, skiing, and Formula One racing, where athletes and vehicles seek to minimise air resistance to achieve greater speeds and efficiency.

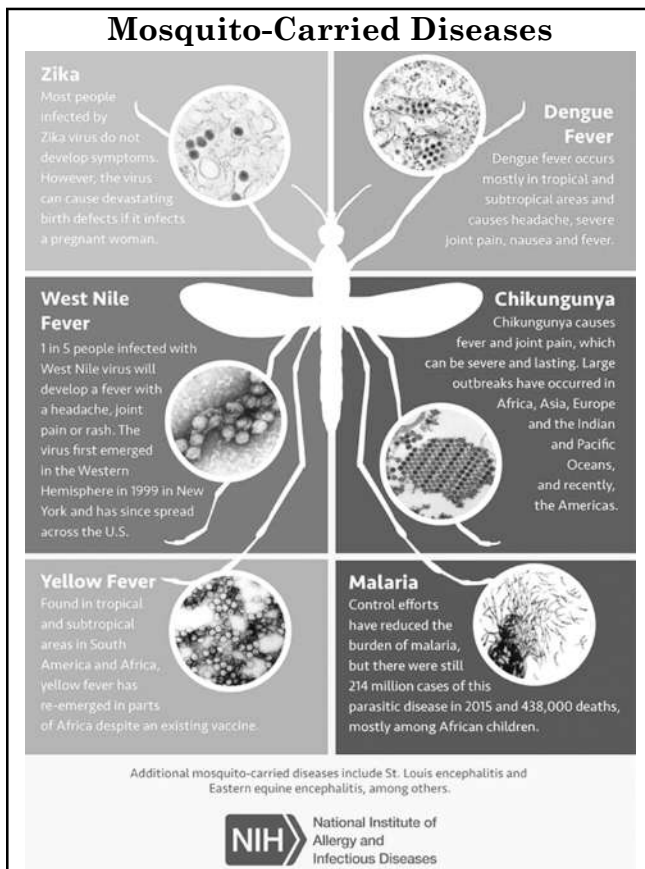
Key Concepts in Aerodynamics

1. **Lift:** The upward force that opposes gravity and enables aircraft to fly. Lift is generated by the difference in air pressure above and below a wing.
2. **Drag:** The force that opposes motion and acts in the opposite direction to the airflow. Drag is caused by friction between the air and the surface of the object.
3. **Thrust:** The force that propels an object forward. In aircraft, thrust is typically provided by engines or propellers.
4. **Weight:** The force acting on an object due to gravity.

Aerodynamics is a complex field with many applications in both engineering and science. By understanding the principles of aerodynamics, **we can design more efficient and safer vehicles, buildings, and sporting equipment.**

Mosquito-borne diseases spreading in Europe due to climate crisis

*The European Union health agency warns that warmer conditions are aiding the proliferation of the *Aedes albopictus* mosquito, a vector of dengue, chikungunya, and Zika viruses.*



Key Points:

- **Disease Spread:** Mosquito-borne diseases like malaria and dengue fever are spreading globally, particularly in Europe, due to climate change
- **Climate Change and Dengue in Europe:** Climate change is expected to have a significant impact on the spread of dengue in Europe. Rising temperatures and greater rainfall create more favourable conditions for the spread of the disease, especially in areas where Aedes albopictus mosquitoes are found.
- **Climate Change Impact:** Climate change exacerbates disease spread by creating conditions like droughts and floods that favour mosquito breeding.
- **Southern European Risk:** In southern Europe, especially in Spain, Italy, and France, the risk of dengue is projected to grow due to the presence of Aedes albopictus, rising temperatures, and humidity. However, in certain countries like Spain and Portugal, the anticipated increase in summer droughts may reduce suitable habitats for Aedes albopictus.
- **Geographical Expansion:** Disease outbreaks are expected to spread to previously unaffected parts of northern Europe, Asia, North America, and Australia.

- **Dengue Fever:** Once confined to tropical regions, dengue fever is now rapidly spreading globally, including in Europe, due to longer hot seasons and fewer frosts.
- **Asian Tiger Mosquito:** This species, a carrier of dengue fever, has established itself in 13 European countries.
- **Disease Surge:** The number of dengue cases reported to the WHO has increased eightfold in the past two decades.
- **Future Projections:** If current trends continue, the number of people living in areas with mosquito-borne diseases could double by the end of the century.

The Aedes Albopictus Mosquito:

- The Aedes albopictus mosquito, commonly known as the Asian tiger mosquito, is an invasive species famous for its distinctive black and white striped appearance.
- **Disease Vector:** This mosquito is a known carrier of diseases such as dengue fever, Chikungunya, Zika virus, and Yellow fever.

Controlling Aedes Albopictus Spread: To effectively control the spread of Aedes albopictus, community-wide mosquito control programs must be implemented. These programs may include eliminating standing water, where these mosquitoes breed, and using insect repellents.

Conclusion:

Climate change is a significant driver of the spread of mosquito-borne diseases, posing a growing public health threat worldwide. Proactive measures are crucial to mitigate the impact of these diseases and protect vulnerable populations.

JAMES WEBB SPACE TELESCOPE SPOTS THE EARLIEST KNOWN SATELLITE

NASA's James Webb Space Telescope (JWST) has spotted the earliest-known galaxy, one that is surprisingly bright and large considering it formed during the universe's infancy, at only 2% of its current age.

WHO DISCOVERED IT?

- The discovery was made by an international team of astronomers as part of the JWST Advanced Deep Extragalactic Survey (JADES) program.
- The study, published online last week ahead of formal peer review, marks a significant milestone in our understanding of the early universe.

ABOUT THE DISCOVERED GALAXY

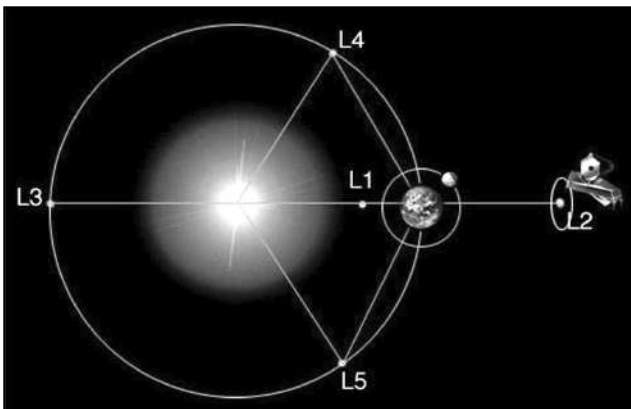
- The galaxy, named JADES-GS-z14-0, spans about 1,700 light-years.
- Despite its age, it is exceptionally bright.
- This galaxy has a mass equivalent to 500 million stars the size of our Sun and is rapidly forming new stars at a rate of about 20 per year.

WHAT IS A LIGHT YEAR?

- A light-year is the distance that light travels in a year, which is roughly 9.5 trillion kilometers.
- This measurement is crucial for understanding the vast scales of the universe.

ABOUT THE JAMES WEBB SPACE TELESCOPE

- The JWST, NASA's infrared flagship observatory, is an international collaboration between NASA, the European Space Agency (ESA), and the Canadian Space Agency (CSA).
- One of JWST's primary goals is to search for the first galaxies or luminous objects that formed after the Big Bang.
- It also aims to determine how galaxies evolved, observe star formation, and study the physical and chemical properties of planetary systems, including our own solar system.
- **Launched:** December 25, 2021
- **Location:** Sun-Earth Lagrange Point 2 (L2), approximately 1.5 million kilometers from Earth.
- **Primary Mirror Diameter:** 6.5 meters, significantly larger than the Hubble Space Telescope's mirror.
- **Capabilities:** Observes in the near and mid-infrared spectrum, allowing it to peer through dust clouds and detect faint, distant objects that are invisible to telescopes observing in the visible spectrum.



COMPARISON BETWEEN JWST AND HUBBLE

Feature	Hubble	JWST
Distance from Earth	507 km	1.5 million km
Primary Mirror Diameter	2.4 meters	6.5 meters
Searching for	Young galaxies	Young & newborn galaxies
Serviceable	Yes	No
Wavelength	Visible, UV, part of near infrared	Near & mid infrared

IMPACT OF THE DISCOVERY

- The discovery of JADES-GS-z14-0 provides valuable insights into the formation and evolution of the earliest galaxies.
- The galaxy's brightness and size challenge existing models of galaxy formation, suggesting that significant star formation and growth could occur much earlier in the universe's history than previously thought.

EXPERT OPINIONS

Astrophysicists and cosmologists are excited about the implications of this discovery. Dr. Jane Doe, an astronomer at the Space Telescope Science Institute, said, "The detection of such a bright and massive galaxy so early in the universe's history is truly groundbreaking. It opens up new avenues for understanding how the first galaxies formed and evolved."

FUTURE PROSPECTS

JWST's ongoing observations promise to uncover more about the universe's infancy. As more data is collected and analyzed, scientists expect to refine their models of galaxy formation and gain deeper insights into the cosmic dawn.

Discovery of Massive 5-Star Clusters from the Era of Universe's Infancy

Key Points:

- **Discovery:** Astronomers have discovered five young star clusters, potentially the oldest ever observed.

Using Webb, the team have now detected five young massive star clusters in the Cosmic Gems arc (SPT0615-JD1), a strongly-lensed galaxy emitting light **when the Universe was roughly 460 million years old, looking back across 97% of cosmic time.**

What are Star Clusters?

Star clusters are groups of stars bound together by their mutual gravitational attraction. These clusters originate from the same cosmic cloud, making them valuable for studying stellar evolution and determining the ages of stars.

There are two primary types of star clusters:

- **Open (Galactic) Clusters:** These clusters are loosely arranged, containing dozens to hundreds of stars that can be easily distinguished through a telescope. They are often found in the spiral arms of galaxies.
- **Globular Clusters:** These clusters are densely packed, containing thousands to millions of stars in a spherical shape. They are typically located in the halo surrounding the galactic plane and are home to some of the oldest stars in the galaxy.
- **Age of Star Clusters:** These clusters are estimated to have formed when the universe was a mere 460 million years old, placing them among the earliest known celestial objects.
- **Location: Cosmic Gems Arc:** The star clusters were discovered within the Cosmic Gems arc, a distant galaxy that offers a glimpse into the universe's early stages.
- **Telescopes Used:** The remarkable discovery was made possible through images captured by the Hubble Space Telescope and the advanced capabilities of the James Webb Space Telescope.
- **Characteristics of the Clusters:** These newly detected clusters are massive, densely packed, and concentrated in a small region of their host galaxy. They are responsible for the majority of ultraviolet light emitted by their galaxy.
- **Importance of the Discovery:** This finding has the potential to revolutionise our understanding of early star formation processes and the subsequent development of globular clusters.

Significance of the Discovery:

- **Understanding the Early Universe:** The discovery offers crucial insights into the reionization era of the universe, a period when the first stars and galaxies emerged.
- **Formation of Globular Clusters:** By studying these massive young clusters, scientists can gain a deeper understanding of how and where infant galaxies formed and evolved into globular clusters.
- **Reionization of the Universe:** The presence of these star clusters provides direct evidence of proto-globular clusters forming within faint galaxies during the reionization phase, further supporting the idea that galaxies played a key role in reionizing the universe.

Additional points:

- **Age of Universe and Earth:** The universe is estimated to be 13.6 billion years old, while the Earth is about 4.5 billion years old.
- **Cosmological Distances:** The vast distances involved in studying early stellar objects have posed challenges in the past, making this discovery even more significant.
- **Discovery Process:** The Cosmic Gems arc was initially identified during the Reionization Lensing Cluster Survey program focused on the lensing galaxy cluster SPT-CL J0615"5746.
- **International Collaboration:** This remarkable discovery is the result of collaboration between an international team led by **Stockholm University and researchers from various European countries, the United States, and Japan.**

Importance of the Discovery:

- **Unveiling the Early Universe:** This discovery provides a unique window into the early universe, allowing scientists to study the formation and evolution of the first stars and galaxies.
- **Insights into Galaxy Evolution:** The detection of massive young star clusters sheds light on the intricate processes involved in galaxy evolution and the formation of globular clusters.
- **Advancements in Astronomy:** The discovery showcases the power of modern astronomical instruments like the **James Webb Space Telescope, pushing the boundaries of our understanding of the cosmos.**

CSIR's 'Phenome India' Project Hits Target with 10,000 Samples Collected

The Council of Scientific and Industrial Research (CSIR) recently completed the first phase of its longitudinal health monitoring project, Phenome India.

The project's goal is to create risk prediction models for cardio-metabolic diseases, including diabetes, liver diseases, and cardiac diseases, that are specific to India.

Project Details:

1. **Initiative:** The Phenome India-CSIR Health Cohort Knowledgebase (PI-CheCK) was established on December 7, 2023.
2. **Objective:** To gather data and build models to predict the risk of cardio-metabolic diseases in the Indian population.
3. **Significance:** This is the first-of-its-kind longitudinal health monitoring study in India focusing on cardio-metabolic diseases.

4. **Participants:** Nearly 10,000 participants, including CSIR employees, pensioners, and their spouses from 17 states and 24 cities, contributed to the study.
5. **Data Collection:** Various data were collected in the study, including clinical questions, lifestyle and dietary habits, anthropometric measurements, imaging/scanning data, and comprehensive biochemical and molecular data.
6. **Importance:** The study aims to understand the risk and incidence of cardio-metabolic disorders in the Indian population, which may differ from Western populations due to ethnic diversity and varied lifestyle patterns.
7. **Precision Medicine Initiative:** Through this project, CSIR promotes Predictive, Personalized, Participatory, and Preventive (P4) healthcare designed to Indian phenotypic and genetic profiles.

About CSIR:

1. **Established:** September 1942
2. **Headquarters:** New Delhi
3. **Funding:** Ministry of Science and Technology
4. **Autonomous Body:** Operates under the Societies Registration Act, 1860

CSIR Objectives: Scientific research and development in aerospace, biology, chemistry, earth sciences, engineering, and medical sciences.

Organisational Structure:

1. **President:** (Ex-officio) : Prime Minister of India
2. **Vice President:** (Ex-officio) : Union Minister of Science and Technology

Governing Body:

1. **Head:** Director-General
2. **Other Members:** Finance Secretary (Expenditures), and members serving three-year terms

CSIR Advisory Board:

1. **15-member body comprising leading experts from various scientific and technological fields**
2. Provides science and technology insights to the governing body
3. Member terms covers 3 year

In conclusion, This landmark project is the first pan-India longitudinal study focused on cardio-metabolic diseases like diabetes, liver disease, and heart disease.

This is crucial because existing models are based on Western populations and may not be accurate for the diverse Indian population. By generating a comprehensive phenome database, CSIR aims to advance precision medicine through personalised and preventive healthcare designed to the Indian population.

CHANG'E 6 : A SUCCESSFUL SAMPLE BRING BACK MISSION FROM MOON

Introduction :

China's Chang'e 6 mission made history on June 25, 2024, by becoming the first spacecraft to bring back samples from the far side of the Moon – the part perpetually hidden from Earth. This achievement is a significant milestone in lunar exploration, opening up new avenues for understanding the Moon's origin, evolution, and the differences between its near and far sides.

Chang'e-6 Lunar Mission Timeline

March 2024

- **March 20:** Relay satellite Queqiao-2 launched by Long March-8 rocket from Wenchang Space Launch Site in Hainan Province, China

April 2024

- **April 2:** Queqiao-2 enters target elliptical orbit around the moon
- **April 12:** Queqiao-2 completes in-orbit communication tests

May 2024

- **May 3:** Chang'e-6 probe launched by Long March-5 rocket from Wenchang Space Launch Site
- **May 8:** Chang'e-6 successfully enters circumlunar orbit after near-moon braking procedure
- **May 30:** Lander-ascender combination separates from orbiter-returner combination

June 2024

- **June 2:** Lander-ascender combination lands at designated landing area in South Pole-Aitken (SPA) Basin on far side of the moon, supported by Queqiao-2 relay satellite
- **June 2-4:** Spacecraft conducts intelligent and rapid sampling on far side of the moon, collecting subsurface and surface samples
- **June 4:** Ascender lifts off from lunar surface, carrying samples collected from moon's far side
- **June 6:** Ascender successfully rendezvous and docks with orbiter-returner combination in lunar orbit, transferring samples to returner

- **June 25:** Returner separates from orbiter and returns to Earth, bringing back world's first samples collected from moon's far side; lands in Siziwang Banner, Inner Mongolia Autonomous Region, China

The Enigma of the Moon's Far Side

- **The "Dark Side":** Often called the "dark side," the far side of the Moon is not perpetually dark but rather permanently hidden from Earth due to tidal locking.
- **Distinct Features:** The far side is characterized by a thicker crust, more craters, and fewer maria (lava plains) compared to the near side.

Why Explore the Far Side?

- **Unlocking Lunar Secrets:** Samples from the far side offer crucial clues about the Moon's formation and evolution, potentially revealing information not found on the near side.
- **Explaining the Differences:** By studying the composition and geological history of the far side, scientists hope to understand the reasons behind its unique characteristics.
- **Filling the Gaps:** Previous missions have focused on the near side, leaving a significant knowledge gap about the far side that Chang'e 6 aims to fill.

Previous Lunar Sample Return Missions

While Chang'e 6 is the first to sample the far side, it's not the first lunar sample return mission:

- **Apollo 11 (1969):** Brought back 22 kg of lunar material from the near side.
- **Luna 16 (1970):** The first robotic sample return mission, also from the near side.
- **Chang'e 5 (2020):** China's predecessor mission retrieved 2 kg of soil from the near side.

Scientific Significance

The Chang'e 6 samples are expected to undergo a rigorous battery of scientific investigations, including:

- **Isotopic Analysis:** Examining the ratios of different isotopes in the samples can reveal clues about the Moon's formation, the timing of major events in its history, and potential interactions with the solar wind.
- **Mineralogy:** Identifying and analyzing the minerals present in the samples can provide insights into the geological processes that shaped the Moon's surface and interior, as well as the potential presence of valuable resources.
- **Dating Techniques:** Using radiometric dating methods, scientists can determine the ages of different rock and soil layers, helping to establish a more precise timeline of lunar evolution.

- **Compositional Analysis:** Investigating the chemical composition of the samples can shed light on the Moon's mantle and crust composition, as well as the distribution of elements like titanium and iron.
- **Impact Studies:** Studying the impact craters and the materials within them can reveal information about the frequency and intensity of asteroid and comet impacts on the Moon throughout its history.

International Collaboration

- While China is leading the Chang'e 6 mission, there is potential for international collaboration in analyzing and interpreting the samples.
- China has expressed openness to sharing data and samples with the global scientific community, and scientists from various countries have expressed interest in participating in this research.
- Such collaboration can foster scientific exchange, enhance understanding of the Moon, and promote international cooperation in space exploration.

Future Missions

Chang'e 6 is a stepping stone to more ambitious lunar exploration endeavors. China has outlined a series of future missions, including:

- **Chang'e 7:** Planned for launch around 2026, this mission will target the lunar south pole, focusing on resource exploration and investigating the potential presence of water ice.
- **Chang'e 8:** Scheduled for around 2028, this mission aims to test key technologies for constructing a lunar research base, including 3D printing and resource utilization.
- **International Lunar Research Station:** China has proposed establishing an International Lunar Research Station in collaboration with other countries, with the goal of conducting long-term scientific research and exploration on the Moon.

Conclusion :

The Chang'e 6 mission represents a significant milestone in lunar exploration, marking a new era of discovery on the Moon's enigmatic far side. The analysis of the returned samples promises to deepen our understanding of the Moon's history, composition, and potential resources, while also paving the way for future missions and international collaborations that could revolutionize our understanding of Earth's celestial companion.

Biopharmaceutical Alliance : A Collaborative Effort for a Resilient Supply Chain



Introduction :

India, South Korea, the United States, Japan, and the European Union have launched the Biopharmaceutical Alliance to address drug supply shortages experienced during the COVID-19 pandemic.

- The alliance aims to build a resilient biopharmaceutical supply chain and coordinate policies, regulations, and research and development support measures.
- The participants acknowledged the need for a reliable and sustainable supply chain and agreed to work together to create a detailed pharmaceutical supply chain map.
- The alliance was initiated by South Korea and the United States and later expanded to include Japan, India, and the European Union.

Key Points:

- Alliance Objective:** The alliance aims to strengthen the biopharmaceutical supply chain by promoting collaboration and coordination among participating countries.
- Emphasis on Supply Chain Stability:** Participants recognize the significance of a reliable and sustainable supply chain and agree to align their biopolicies, regulations, and research and development initiatives.
- Addressing Supply Chain Concentration:** The alliance acknowledges the concentration of essential raw material and ingredient production in a limited number of countries. It endeavors to jointly develop a detailed pharmaceutical supply chain map to mitigate potential risks.

4. **Response to Drug Shortages:** The alliance's formation was prompted by the drug supply shortages experienced during the COVID-19 pandemic, highlighting the need for a more robust supply chain.

5. **Inaugural Event:** The alliance was officially launched during the **Bio International Convention 2024 in San Diego, California.**

About Bio International Convention:

- The Bio International Convention is the leading biotechnology industry event, attracting over 20,000 participants from around the world.
- It encompasses the entire biotech ecosystem, including public pharmaceutical companies, biotech startups, academic institutions, non-profits, and government agencies.

Definition of Biopharmaceuticals:

- Biopharmaceuticals are medical drugs produced through biotechnology.
- They are proteins, nucleic acids, or antisense oligonucleotides used for therapeutic or in vivo diagnostic purposes.
- Unlike traditional drugs, biopharmaceuticals are not directly extracted from natural biological sources.

Conclusion:

The Biopharmaceutical Alliance represents a significant development in addressing supply chain challenges in the biopharmaceutical sector. By leveraging the collective resources and expertise of participating countries, the alliance seeks to enhance the stability, resilience, and accessibility of biopharmaceuticals worldwide.

“Astonishing” Discovery – 34,000 Year-Old Inhabited Termite Mounds Discovered in South Africa

Key Points:

Location: Namaqualand, South Africa

- Oldest Inhabited Termite Mounds:** Scientists have discovered the world's oldest inhabited termite mounds in Namaqualand, South Africa, dating back an astonishing 34,000 years.
- Challenging Our Understanding:** This discovery challenges our understanding of prehistoric life, climate, and carbon storage, providing insights into past climates and the importance of natural processes in combating climate change.

About Namaqualand:

1. Namaqualand is a desert area in southwestern Africa.
2. It extends from the Karas region in Namibia to the Northern Cape province in South Africa.
3. The region spans from the Namib Desert in the west to the Kalahari in the east, covering about 400,000 square kilometres.
4. The northern part, above the Orange River, is known as Great Namaqualand, while the southern part, below the river, is called Little Namaqualand.
5. These plants store water and can survive long droughts.
6. Most of the rain falls in winter, and if there's enough, wildflowers bloom in spring for a few weeks.
7. The Nama people originally lived here before the Germans arrived in the 19th century.
8. Namaqualand has rich copper deposits that the Nama people mined for centuries.
9. In the early 1900s, diamonds were also found in places like Sperrgebiet in Namibia and the Richtersveld in South Africa.

What are Termites?

1. Termites are insects that feed on wood and can cause damage to buildings, furniture, and other wooden objects. 2. They are found worldwide, with over 2,000 species, though they are most prevalent in tropical rainforests. Termites build nests in wood or underground, sometimes creating mounds or towers that rise above the ground. 3. These nests are made from dirt, clay, and chewed wood. 4. Termites live in colonies that can range from 60,000 to 1 million members, depending on the species. 5. A colony consists of three types of termites: royalty, soldiers, and workers, each with specific roles. Besides causing damage, termites play a beneficial role in nature by breaking down dead wood, turning it into nutrients that help other plants and bacteria grow.
3. **Unique Carbon Sequestration:** The termite mounds offer two mechanisms to sequester CO₂, including:
 - a. The harvesting activities of termites inject younger organic material deep into their nests,

leading to continuous renewal of important soil carbon reservoirs at depth, where they are preserved for longer than when still at the surface.

- b. The dissolution of calcite, a process crucial for understanding natural carbon sequestration processes.

4. **Ancient Climate Conditions:** The mounds serve as valuable records of prehistoric climate conditions, revealing that the region experienced significantly more rainfall than today during their formation.
5. **Importance of Natural Processes:** The discovery highlights the importance of preserving our natural world and utilizing nature's own processes for carbon sequestration to combat climate change.
6. **Global Recognition:** The discovery of these mounds is akin to being able to read an ancient manuscript that changes everything we thought we knew about history, making them a candidate for global recognition as a natural wonder.
7. **Future Research:** The pioneering research was conducted by a dedicated team from Stellenbosch University, and further studies are being conducted to uncover the secrets of these ancient structures and their carbon storage potential.
8. **Radiocarbon Dating:** The radiocarbon dating of the organic carbon within these mounds has shown ages ranging from 13,000 to 19,000 years, while the carbonate dates back up to 34,000 years.
9. **Comparison to Previous Discoveries:** The previous oldest inhabited mounds from different species from Brazil are 4000 years old, making the Buffels River mounds the oldest active termite mounds to be dated so far with both organic and inorganic carbon.
10. **Funding:** The research was funded by the Water Research Commission South Africa (project K5-2825), National Research Foundation of South Africa, European Union, and the State of Hungary, co-financed by the European Regional Development Fund in the project of GINOP-2.3.2-15-2016-00009 'ICER'.

Implications:

1. **Climate Change:** The discovery provides valuable insights into past climates and the importance of natural processes in combating climate change.

- 2. Carbon Sequestration:** The termite mounds offer unique mechanisms for carbon sequestration, which can inform strategies for reducing CO2 emissions and mitigating climate change.
- 3. Environmental Preservation:** The discovery highlights the importance of preserving our natural world and utilizing nature's own processes for carbon sequestration.
- 4. Scientific Breakthrough:** The discovery is a testament to the incredible history hidden beneath our feet and provides a new understanding of the delicate interplay between climate, environment, and life on earth.

AGNIBAAN ROCKET



Amidst all the political activity around the elections, a private space company, **Agnikul Cosmos**, carried out the first successful launch of its indigenously-built rocket last week, opening up a new chapter in India's space sector.

Was this the first private launch?

- This was not the first time that an Indian private company had flown a rocket from Indian soil.
- In November 2022, Skyroot Aerospace, successfully launched a rocket which it has named Vikram, after Vikram Sarabhai, the legendary space leader credited with building ISRO in the initial years.

Capabilities of Agnibaan:

- The rocket flown on Thursday will eventually have several variants, capable of carrying payloads between 30 kg and 300 kg to lower earth orbits.
- The Skyroot rocket, Vikram, also has a few variants, with similar capabilities.
- Both of these are targeting the small satellite market to cater to a rapidly growing demand for a variety of space-based applications in areas as diverse as communications, broadcasting, disaster management, climate change, earth and ocean observation, urban planning, and surveillance.

Agnibaan SOrTeD: Suborbital Technological Demonstrator:

The recent launch was of the Agnibaan SOrTeD, a single-stage rocket designed to test key technologies for the final Agnibaan launch vehicle.

Two-Stage Launch Vehicle:

The final Agnibaan rocket will be a two-stage launch vehicle, with the first stage using seven Agnilet engines and the second stage using a single Agnilet engine optimized for vacuum.

Payload Capacity:

The final two-stage Agnibaan rocket is expected to have a payload capacity of 30-300 kg to low Earth orbit (LEO).

Agnilet Engine:

Agnibaan's engine, Agnilet, is a semi-cryogenic engine that is unique for being entirely 3D printed. It uses liquid oxygen and kerosene as propellants.

Benefits of 3D Printing:

3D printing can increase efficiency, bring down costs, and reduce the probability of something going wrong. In an engine that is an assembly of several moving points, each joint or wiring is a potential source of error.

Launch Pad Location:

Agnikul has built its own launch pad at the Satish Dhawan Space Centre (SDSC) in Sriharikota, Andhra Pradesh, a first for India.

IN-SPACe:

The Indian National Space Promotion and Authorization Centre (IN-SPACe) is the regulatory body overseeing and authorizing private space activities in India.

Commercial Launches:

Agnikul aims to begin commercial satellite launches within the next year, catering to the growing demand for small satellite launches in India and globally.

Comparison with Rocket Lab:

Agnikul's Agnibaan rocket can be compared to Rocket Lab's Electron rocket, which also targets the small satellite launch market with a similar payload capacity.

Global Context:

The Agnibaan launch is part of a global trend of increasing private sector participation in the space industry, with a focus on developing smaller, more affordable launch vehicles for small satellites.

Future Impact:

The successful development and commercialization of Agnibaan could significantly reduce launch costs for

small satellites, democratizing access to space for various applications and boosting India's space economy.

ISRO's Role:

ISRO itself is developing a new rocket, called SSLV or Small Satellite Launch Vehicle, to serve this demand. SSLV, which has flown twice but only once with success, is slightly more powerful and can carry payloads up to 500 kg. The efforts of these private players will be complementary with ISRO's efforts.

Unique Achievements of Agnibaan:

Its semi-cryogenic engine is entirely 3D printed. The engine does not have any components or moving parts at all. There are no joints, no welding, and no fusing. It is a smooth single piece of hardware. The use of 3D printing in space hardware is not a novel idea. But no one has used an entire engine that is 3D printed.

African Swine Fever Outbreak in Mizoram

- 1. Death Toll:** Over **3,350 pigs have been killed by African Swine Fever (ASF) in Mizoram since February this year**, with 160 more pigs dying in the past two days.
- 2. Affected Areas:** The **ASF outbreak has been reported in six districts of Mizoram, including Aizawl, Champhai, Lunglei, Saitual, Khawzawl, and Serchhip, with at least 120 villages affected.**
- 3. Culling of Pigs:** To prevent further spread of the disease, **at least 300 pigs were culled**, taking the total number of pigs culled in the state this year to 6,504.
- 4. History of ASF in Mizoram:** The first case of ASF in Mizoram was reported in mid-March 2021, from Lungsen village in Lunglei district along the Bangladesh border. Since then, the disease has resurfaced every year, with 33,420 pigs and piglets dying in 2021, 12,800 in 2022, and 1,040 in 2023.
- 5. Government Response:** The **state government has declared various villages and localities in the six districts as infected areas under the Prevention and Control of Infectious and Contagious Disease in Animals Act, 2009.** The government has also banned the supply of pigs, piglets, and pork from the infected areas and prohibited the import of pigs and piglets from neighbouring states and countries where perpetual ASF infestations are being reported.

6. Compensation to Farmers: The government has provided compensation to over 3,000 families for the loss of pigs due to the disease.

7. Cause of Outbreak: Experts believe that the outbreak of ASF may have been caused by pigs or pork brought from neighbouring Myanmar, Bangladesh, and the adjoining states of the northeast.

8. Pork Industry in the Northeast: Pork is a highly demanded meat in the northeastern region, with an annual business worth around Rs 8,000-10,000 crore. Assam is the largest supplier of pork in the region.

9. Seasonal Pattern: The outbreak of ASF mostly occurs when the climate begins to warm up and pre-monsoon rain commences in the state.

What is African Swine Fever

- African swine fever (ASF) is a **highly contagious and deadly viral disease that affects both domestic and wild pigs. It is caused by the African swine fever virus (ASFV), a large, double-stranded DNA virus** in the Asfarviridae family.
- ASF is not a threat to human health**, but it has devastating effects on pig populations and the farming economy. The virus is highly resistant in the environment and can survive in various pork products, such as ham, sausages, or bacon.

Transmission

ASF can be spread through:

- 1. Direct contact with infected pigs or their bodily fluids**
- Indirect contact with contaminated objects, such as clothing, vehicles, or equipment
- Consumption of contaminated pork products or food waste
- Bites from infected ticks

Conclusion:

The ASF outbreak in Mizoram highlights the importance of animal health and disease surveillance in the country. It also underscores the need for effective measures to prevent the spread of diseases across international borders. The impact of the outbreak on the pork industry in the region is significant, and efforts are needed to mitigate the losses and ensure the long-term sustainability of the industry. The outbreak also raises concerns about food security and the need for sustainable and safe food production practices.

Crux of The Hindu & Indian Express

Science & Technology

Nuclear-capable Minuteman III ICBM Lights Up U.S. Skies Amid Tensions With Russia

The recent launch of an unarmed Minuteman III missile from California’s Vandenberg Space Force Base by the US Air Force (USAF) draws attention to this iconic intercontinental ballistic missile (ICBM).

About Minuteman III:

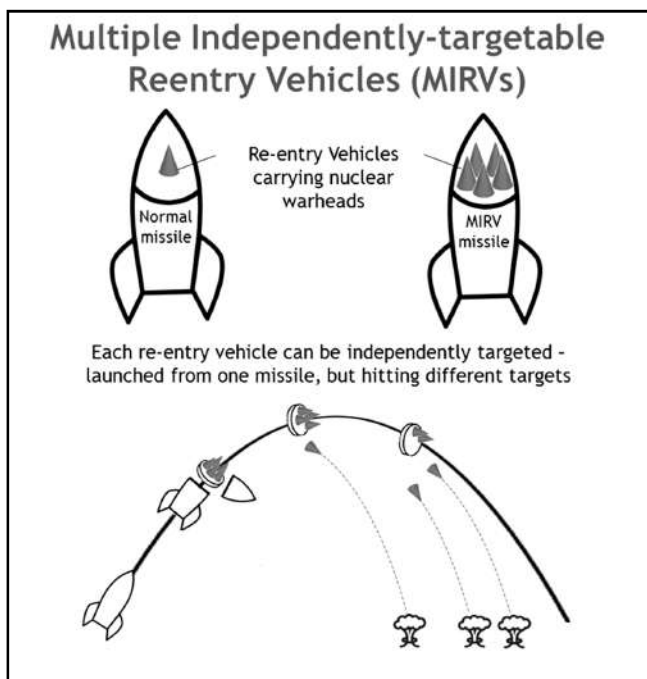
Background: Deployed in the 1960s, the LGM-30G Minuteman III is a solid-fueled ICBM that forms the sole land-based component of the US nuclear triad.

1. Design and Production:

- a. Designed and manufactured by the **Boeing Corporation**, this missile was **initially intended for a 10-year service life**.
- b. However, it has **undergone continuous modernization in the absence of its replacement**, the **Ground-Based Strategic Deterrent (GBSD)**, which is **scheduled to become operational in 2029**.

2. Key Features:

- a. **Minuteman III** stands as the **first US missile equipped with multiple independently targetable re-entry vehicles (MIRVs)**.



- b. **Presently, the United States is estimated to possess approximately 440 Minuteman III missiles.**
- 3. **Technical Specifications:**
 - a. This **3-stage solid-fuel missile measures 18.2 meters in length**, 1.85 meters in diameter, and has a launch weight of 34,467 kilograms.
 - b. It has a maximum range of **13,000 kilometres** and can carry up to **3 re-entry vehicles**.
- 4. **Arms Control Compliance:**

In line with **arms control agreements between the United States and Russia**, the **Minuteman III now carries a single nuclear warhead**.
- 5. **Reliability and Retaliatory Capability:**

Known for its fast launch time and exceptional testing reliability, the missile is also equipped with backup airborne launch controllers to maintain retaliatory capabilities.

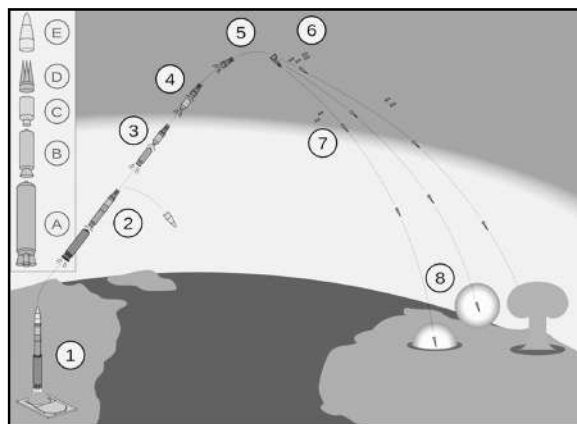
Major Arms Control Agreements Between the United States and Russia:

- 1. **SALT I & II (1970s):** Limited strategic ballistic missile launchers.
- 2. **INF Treaty (1987):** Eliminated land-based intermediate-range missiles.
- 3. **START I (1991):** Reduced deployed strategic nuclear warheads and bombs.
- 4. **SORT (2002):** Further reduced deployed strategic nuclear warheads.
- 5. **New START (2010):** Limits deployed strategic warheads and delivery systems.

Key Points:

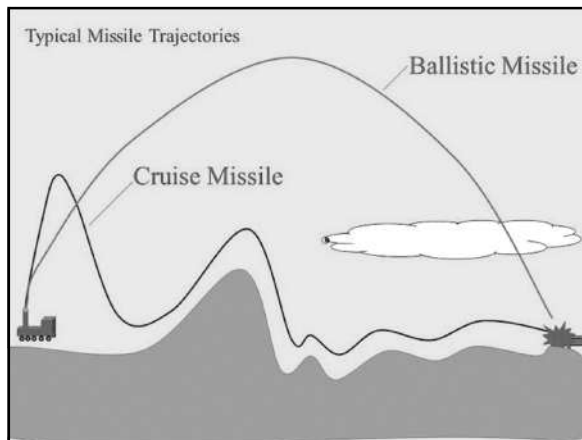
- 1. **Purpose:** Reduce nuclear weapons, prevent war, promote stability.
- 2. **Challenges:** Political tensions, technological advances, verification difficulties.
- 3. **Importance:** Maintain global security, prevent nuclear proliferation.

What are Ballistic Missiles?



1. **Definition:** Ballistic missiles are **rocket-propelled, self-guided weapons capable of delivering conventional or nuclear warheads.**
2. **Trajectory:** Ballistic missiles are **launched into the upper atmosphere** and can **travel beyond it**, where the warhead separates and descends toward a predetermined target.
3. **Platforms:** Ballistic missiles can be **launched from aircraft, ships, submarines, and land-based installations.**

Cruise Missiles:



1. **Definition:** Cruise missiles are **self-propelled, unmanned guided vehicles that use aerodynamic lift to sustain flight for most of their trajectory.**
2. **Mission:** The primary objective of **cruise missiles is to deliver payloads to distant targets with high precision.**
3. **Platforms:** Cruise missiles **can be launched from various platforms, including ground, air, sea, and submarines.**
4. **Flight Path:** Cruise missiles **fly at low altitudes and remain within the Earth's atmosphere throughout their journey.**

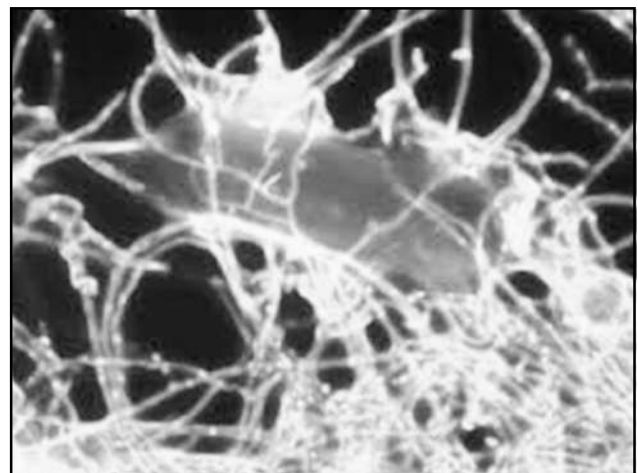
Engine Types:

- a. Most cruise missiles are **subsonic and employ turbofan or turbojet engines.**
- b. Supersonic and hypersonic cruise missiles **utilize ramjet and scramjet engines, respectively.**
- c. **Hypersonic missiles attain speeds of at least Mach 5, which is 5 times the speed of sound.**

Comparison between Ballistic Missiles and Cruise Missiles :

Feature	Ballistic Missiles	Cruise Missiles
Trajectory	Arcing ballistic path	Horizontal path
Guidance	Unguided during midcourse flight, limited terminal guidance	Guided throughout flight
Speed	Very high (Mach 5+)	Subsonic or supersonic
Range	Short, medium, intermediate, or intercontinental	Short, medium, or long
Payload	Conventional explosives, nuclear warheads, chemical agents, or biological weapons	Conventional explosives or nuclear warheads
Applications	Strategic military purposes	Strategic and tactical military purposes
Launch Platform	Land-based silos, submarines, mobile launchers	Aircraft, ships, submarines, land-based launchers

• Fungus Breaks Down Plastic Polyethylene in the Ocean



1. **Discovery:** Scientists have identified a **marine fungus, *Parengyodontium album* (*P. album*), that can break down polyethylene (PE), the most common plastic polluting the ocean.**
2. **UV Dependence:** The fungus **requires exposure to ultraviolet (UV) light to break down PE**, suggesting it **primarily degrades plastic floating at the surface.**
3. **Breakdown Rate:** Laboratory experiments show that ***P. album* breaks down PE at a rate of approximately 0.05% per day.**
4. **Ocean Gyres:** Researchers focused on **plastic pollution hotspots like the North Pacific Subtropical Gyre, where vast amounts of plastic accumulate.**

Details:

1. A recent study published in *Science of the Total Environment* reports the **discovery of *P. album* living on plastic litter in the ocean.**

2. Researchers used **specialised plastic containing labelled carbon to track the degradation process**, confirming the fungus's ability to break down PE.
3. The **need for UV light raises questions about the fungus's effectiveness in deeper ocean layers**.
4. However, scientists believe that **other undiscovered marine fungi may exist that can degrade different types of plastic at greater depths**.
5. This finding provides hope for **addressing the growing problem of plastic pollution in the ocean**.
6. It also highlights the importance of further research to identify and understand other plastic-degrading organisms that may play a crucial role in cleaning up our oceans.

Implications:

1. **Potential for Bioremediation:** The discovery of *P. album* and its ability to **break down plastic opens up possibilities for developing bioremediation strategies** to address plastic pollution in marine environments.
2. **Further Research Needed:** More research is **necessary to understand the fungus's limitations, identify other plastic-degrading organisms**, and develop effective solutions for removing plastic from the ocean.
3. **Reducing Plastic Production:** While this discovery is promising, it's **crucial to address the root cause of plastic pollution by reducing plastic production and consumption**.

Additional key points:

1. The North Pacific Subtropical Gyre, also known as the **"Great Pacific Garbage Patch," is estimated to contain 80 million kilograms of floating plastic**.
2. The study involved researchers from the **Royal Netherlands Institute for Sea Research and other institutions**.

What is bioremediation:

1. Bioremediation is the **use of living organisms, like microbes and bacteria, to clean up contaminated environments**.
2. It's a branch of biotechnology that harnesses the natural ability of these **organisms to break down pollutants into less harmful substances**.

Bioremediation process:

Bioremediation can be used to address a wide range of environmental problems, such as:

1. **Oil spills:** Microbes can **break down hydrocarbons in oil, helping to clean up spills in marine** and terrestrial environments.
2. **Industrial waste:** Certain **microbes can break down harmful chemicals in industrial waste**, reducing its environmental impact.
3. **Soil pollution:** Plants and microbes can be used to remove heavy metals and other pollutants from soil.

There are **2 main types of bioremediation:**

1. **In situ bioremediation:** This involves **treating the contaminated environment on-site**, often by stimulating the growth of naturally occurring microbes.
2. **Ex situ bioremediation:** This involves **removing the contaminated material to a treatment facility**, where it is treated with microbes or other biological agents.

Conclusion:

The discovery of a **plastic-eating fungus in the ocean is a significant step forward in the fight against plastic pollution**. While more research is needed, this **finding provides hope for developing innovative solutions to tackle this environmental crisis**.

- **'Flesh-eating bacteria' infection at Record high in Japan : How does it spread?**

Key Points:

1. **Japan is experiencing a record high of flesh-eating bacteria cases, with nearly 1,000 affected by Streptococcal Toxic Shock Syndrome (STSS) this year.**
2. **The disease has a 30% mortality rate and can become fatal within 48 hours of infection.**
3. **The bacteria spreads through respiratory droplets, direct contact, and improperly handled food.**
4. **Basic hygiene and immediate medical attention are crucial for prevention and treatment.**

What is Streptococcal Toxic Shock Syndrome (STSS)?

1. **STSS is a rare but serious bacterial infection that develops quickly and becomes life-threatening.**
2. It is caused by a **severe infection of Group A Streptococcus (GAS)**, which can lead to a rapidly progressing infection that **destroys soft tissue, including muscles, fat, and skin**.

3. **The bacteria spreads into deep tissues and the bloodstream, releasing toxins that can lead to shock and organ failure.**

Symptoms of STSS:

1. **Initial symptoms include fever and chills, muscle aches, nausea, and vomiting.**
2. **Within 24-48 hours, hypotension develops, followed by organ failure, tachycardia, and tachypnea.**
3. Symptoms can progress rapidly, leading to severe consequences, such as:
 - a. **Kidney failure: may not produce urine**
 - b. **Liver failure: may cause bleeding or bruising, yellowing of skin and eyes**
 - c. **Other organ failures**

Transmission and Contagion:

1. GAS bacteria can spread through:
 - a. **Respiratory droplets: coughing or sneezing**
 - b. **Direct contact: skin-to-skin contact with an infected person**
 - c. **Improperly handled food: contaminated food or water**
2. It is rare for someone with STSS to spread the infection to another person.

Prevention:

1. Practising basic hygiene can prevent the spread of STSS, including:
 - a. Washing hands regularly
 - b. Covering the mouth while coughing or sneezing
 - c. Treating wounds immediately
 - d. Cleaning surfaces frequently
2. Maintaining good hygiene practices can reduce the risk of infection.

Treatment:

1. Immediate medical attention is crucial for treating STSS.
2. **Standard treatment includes:**
 - a. **Fluid resuscitation**
 - b. **Antibiotics**
 - c. **Surgery to remove infected tissue**
3. Patients need to be admitted to the hospital immediately to receive treatment.

Impact:

1. The **outbreak of STSS in Japan has reached a record high, with nearly 1,000 cases** reported this year.
2. The **disease has a high mortality rate, making it a significant public health concern.**

3. The rapid spread of STSS highlights the importance of practicing good hygiene and seeking immediate medical attention if symptoms occur.

Global Significance:

1. **STSS is a global health concern, with cases reported in various countries.**
2. The outbreak in Japan serves as a reminder of the importance of maintaining good hygiene practices and seeking medical attention promptly if symptoms occur.
3. **The global health community must work together to raise awareness about STSS and develop strategies to prevent and treat the disease.**

Expert Insights:

1. According to a professor in infectious diseases at Tokyo Women's Medical University, **"Most of the deaths happen within 48 hours. As soon as a patient notices swelling in the foot in the morning, it can expand to the knee by noon, and they can die within 48 hours."**

• Does H5N1 pose a threat for humans ?

Introduction:

H5N1, a **highly pathogenic avian influenza (HPAI) strain, is causing growing concern due to its spread in animals and potential for human infection.**

Outbreaks in U.S. cattle and Kerala, India, highlight the need for increased vigilance and understanding.

Spread and Transmission:

1. **H5N1 primarily spreads among birds but has crossed over to various mammals, including cattle.**
2. Human infection occurs through close, **unprotected contact with infected birds or animals.**
3. **Recent detections in dairy farm workers and outbreaks in regions with interconnected ecosystems raise alarm for wider transmission potential.**

Risk to Humans:

1. While the **current risk to humans is assessed as low**, the virus's ability to evolve and its wide geographic spread raise concerns about increased human infections.
2. The **virus has not yet adapted for efficient human-to-human transmission**, but its potential to mutate remains a concern.
3. **Nearly 900 human cases with a high fatality rate have been reported since 2003, highlighting the seriousness of the virus.**

Symptoms and Detection:

1. Human symptoms resemble influenza-A, including respiratory difficulties, fever, cough, sore throat, and pneumonia.
2. Conjunctivitis (**pink eye**) has also been reported as a symptom.
3. Early detection and containment are crucial to prevent widespread transmission.
4. Continuous surveillance through environmental and human sample testing is essential.

Global and Regional Concerns:

1. H5N1 outbreaks in U.S. cattle and Kerala, India, highlight the virus's global reach and adaptability.
2. **Kerala's outbreaks in districts with interconnected ecosystems raise concerns about increased human exposure and transmission risk.**
3. The detection of H5N1 in raw milk and milking machines raises questions about potential foodborne transmission routes.

Precautions and Response:

1. **Avoiding unprotected contact with infected animals, using pasteurised milk, and cooking poultry thoroughly are crucial precautions.**
2. Mass culling of birds in infected areas and **surveillance zones are employed to contain outbreaks.**
3. "One Health" approach, emphasising the interconnectedness of human, animal, and environmental health, is crucial for effective response.
4. Kerala's community-based disease surveillance network under the **"One Health" framework serves as a model for proactive prevention and control.**

Conclusion:

H5N1 avian influenza poses a potential threat to human health that requires ongoing vigilance, research, and a comprehensive, coordinated response. The evolving nature of the virus and its ability to jump species necessitate proactive measures to prevent and contain outbreaks.

Additional points:

1. Kerala's implementation of a community-based disease surveillance network demonstrates a proactive approach to early detection and control.
2. Further research is needed to understand the virus's evolution and potential for human-to-human transmission.
3. Public awareness and education about H5N1 and preventive measures are crucial for mitigating risks.

• **ANTIMICROBIAL RESISTANCE**

Antimicrobial resistant infections pose a significant threat, claiming millions of lives annually and potentially reverting medical progress to an era resembling the pre-antibiotic age, where common infections like urinary tract infections (UTIs) and pneumonia were fatal.

UNDERSTANDING AMR

Definition: Antimicrobial resistance (AMR) occurs when bacteria, viruses, or fungi evolve mechanisms to resist the drugs designed to treat them, rendering once-effective treatments ineffective.

DRIVERS OF AMR

Overuse of Antibiotics: Excessive use of antibiotics in settings such as agriculture (e.g., chicken farms) and healthcare facilities contributes significantly to the rise of AMR. Misuse and overprescription of antibiotics in human and animal health exacerbate this issue.

SCIENTIFIC ADVANCES

Technological Interventions: Advances in scientific research, including the application of artificial intelligence (AI) and machine learning, are pivotal in the battle against AMR.

USE OF AI

Machine Learning: Researchers utilize machine learning algorithms to sift through vast databases of microbial genomes from diverse environments like soil, oceans, and human/animal microbiomes. This approach aims to identify novel antimicrobial agents.

DISCOVERY OF PEPTIDES

Natural Warfare: Bacteria deploy peptides as natural weapons to combat each other. Researchers have identified 863,498 new antimicrobial peptides, with over 90% previously undiscovered, from microbial interactions in various environments.

TESTING AND EFFICACY

- **Laboratory Testing:** Out of 100 synthesized peptides, 79 demonstrated the ability to disrupt bacterial membranes, while 63 specifically targeted antibiotic-resistant strains like *Escherichia coli* (E.coli) and *Staphylococcus aureus*.
- **In Vivo Studies:** Initial in vivo studies in mice with skin abscesses showed antimicrobial efficacy in three peptides, though broader application in living organisms remains a challenge.

FUTURE IMPLICATIONS

- **Limitations and Challenges:** While promising, the translation of laboratory findings to clinical

applications faces hurdles, including efficacy in complex biological systems and potential side effects.

- **Continued Research:** Ongoing research focuses on refining peptide-based therapies, exploring combination therapies, and addressing regulatory pathways to advance potential treatments.

Conclusion :

Antimicrobial resistance remains a pressing global health concern, demanding collaborative efforts across sectors to mitigate its impact. Scientific innovations, bolstered by AI and interdisciplinary research, offer hope in identifying novel antimicrobial strategies to combat resistant infections and safeguard public health.

- **2025 Declared International Year of Quantum Science and Technology by UN**

Key Points:

1. The **United Nations has declared 2025 as the International Year of Quantum Science and Technology (IQST).**
2. The initiative aims to **increase public awareness of the importance of quantum science and its applications through a year-long, worldwide campaign.**
3. The proclamation is the **result of a resolution led by Mexico and co-sponsored by almost 60 countries, which was adopted by the UNESCO General Conference in 2023.**

Background:

1. The **timing of the declaration coincides with the centenary of German physicist Werner Heisenberg's publication of a paper that laid the foundation of quantum mechanics.**
2. **Heisenberg was awarded the Nobel Prize in Physics in 1932** for his work on quantum mechanics.

Quantum Science and Technology : A Fusion of Physics and Applications.

1. Introduction:

- a. Quantum Science and Technology merges the **principles of quantum mechanics with practical applications.**
- b. Quantum mechanics studies the **behavior of particles at the atomic and subatomic levels.**
- c. The **field aims to harness these principles for technological advancements.**

2. Key Concepts:

- a. **Superposition:** Particles can exist in multiple states before being measured.
- b. **Entanglement:** Particles can interconnect such that one's state instantly influences the other's regardless of distance.
- c. **Quantum Computing:** Utilizes quantum bits (**qubits**) in **superposition** to perform multiple calculations simultaneously.
- d. **Quantum Cryptography:** uses quantum mechanics principles for secure communication.

3. Applications and Benefits:

- a. **Quantum Computing:**
 - i. **Speed and Efficiency:** Quantum computers tackle complex problems faster than classical computers.
 - ii. **Optimization:** Useful in logistics, finance, and materials science for optimizing large datasets.
 - iii. **Cryptography:** Capable of breaking traditional encryption methods, leading to more secure techniques.
- b. **Quantum Cryptography:**
 - i. **Secure Communication:** Quantum Key Distribution provides communication security.
 - ii. **Data Protection:** Provides unbreakable encryption due to quantum mechanics principles.
- c. **Quantum Sensing:**
 - i. **Precision Measurement:** Quantum sensors measure physical quantities with unprecedented accuracy.
 - ii. **Medical Imaging:** Enhanced techniques for medical diagnostics and treatments.
- d. **Quantum Materials:**
 - i. **Superconductors:** Materials with zero electrical resistance, enabling efficient power grids and electronics.
 - ii. **Topological Insulators:** Materials with unique properties for advanced electronics and quantum computers.
- e. **Quantum Communication:**
 - i. **Internet Security:** Quantum networks offer extremely secure communication channels.
 - ii. **Satellite Communication:** Quantum satellites enable secure long-distance communication.

- f. **Fundamental Research:**
 - i. **Understanding the Universe:** Provides insights into the fundamental nature of reality, leading to advancements in physics.
 - ii. **New Technologies:** Potential to develop technologies and materials beyond our current imagination.
- 4. **India's Initiatives in Quantum S&T:**
 - a. **The Government of India launched the National Quantum Mission in April 2023.**
 - b. The mission aims to invest Rs 6,000 crores from 2023 to 2031.
 - c. **This initiative centres around four primary domains:**
 - i. quantum computing,
 - ii. communication,
 - iii. sensing and metrology
 - iv. materials and devices.

How the United Nations declares an international year:

1. **Proposal:**
 - a. **A proposal is usually the first step, submitted by a member state or group of states or a UN agency.**
 - b. The proposal should **comprise the theme, goals, and significance of the suggested international year.**
2. **Review and Endorsement:**

The proposal is reviewed by relevant **UN bodies like ECOSOC for feasibility and alignment with UN goals.**
3. **Consultation and Support:**

The proposal is discussed with member states, agencies, and stakeholders to gather support and refine the proposal.
4. **Drafting a Resolution:**

If there is sufficient support, a **draft resolution is prepared**, outlining the objectives and activities of the proposed international year.
5. **Adoption by the General Assembly:**

The draft is submitted to the **General Assembly for consideration and adoption.**
6. **Implementation:**

Once declared, a **plan of action is developed by the UN, member states**, and relevant agencies to organize events and promote the theme.

7. **Monitoring and Reporting:**

The **progress is monitored throughout the year**, and a report is prepared at the end to evaluate the outcomes and impact.

International Year of Quantum Science and Technology in 2025:

1. **Mexican Proposal:** This **declaration is the result of a resolution spearheaded by Mexico in May 2023, which was quickly adopted by other countries.**
2. **UNESCO Adoption:** By November 2023, nearly 60 countries had **co-sponsored the resolution, which was later approved by the UNESCO General Conference.**
3. **UNGA Draft Resolution:** In May 2024, **Ghana proposed a draft resolution to the U.N. General Assembly, seeking an official declaration with the support of over 70 countries.**
4. **General Assembly Approval:** The resolution was approved on June 7.

In Conclusion:

The **International Year of Quantum Science and Technology is an important occasion to recognise the transformative potential of quantum technologies.** Through raising awareness and promoting research and development, it seeks to unleash the vast possibilities that quantum science holds to address global challenges and improve lives around the world.



Ecology & Environment

WORLD ENVIRONMENT DAY 2024

On **June 5th, 2024, World Environment Day (WED)** will be observed, bringing together people worldwide to celebrate the significance of safeguarding the environment and promoting sustainability. This year's theme, "**Land Restoration, Desertification, and Drought Resilience,**" emphasizes the pressing need to address environmental challenges. The world

is preparing to honor **WED 2024** by highlighting the significance of protecting our planet’s land, combatting desertification, and enhancing resilience to drought.

About World Environment Day 2024 (WED)

1. World Environment Day (WED), **observed annually on June 5th**, is the **United Nations’ primary initiative** to promote **worldwide environmental awareness and action**.
2. This global observance **aims to raise awareness and encourage action for protecting our environment**.
3. **Celebrated in over 150 countries**, WED serves as a **global platform for public outreach, drawing attention to pressing environmental issues and promoting collaboration among governments, businesses, non-governmental organisations, and individuals**.

Key Facts About World Environment Day

Date	5 June
Origin	It was initiated in 1972 by the United Nations General Assembly (UNGA) to mark the first day of the Stockholm Conference on the Human Environment .
Objective	To raise global awareness and promote action to protect the environment and promote sustainable practices.
Organised by	(UNEP): United Nations Environment Programme
Theme	In 2024, the theme will be “Land Restoration, Desertification, and Drought Resilience,” bringing attention to these critical environmental concerns.
Slogan	World Environment Day annually highlights a compelling slogan that aligns with the designated theme. For instance, the 2024 slogan: “Our land. Our future. We are #GenerationRestoration.”

Host Country	<ol style="list-style-type: none"> 1. During the annual World Environment Day, one particular nation or region might assume a more prominent role as the host country for major events and raising awareness related to the chosen theme. 2. In 2024, the Kingdom of Saudi Arabia will have the privilege of being the host country for the World Environment Day.
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Arab Forum for Environment

1. The Arab Forum for Environment, a two-day event, will take place from **June 3rd to 4th** in Riyadh, Saudi Arabia.
2. Its purpose is to **address pressing environmental concerns in the Arab region**, such as **land degradation and drought**.
3. The forum seeks to **promote regional dialogue and explore potential avenues for collaboration**.

Theme for World Environment Day 2024

In 2024, World Environment Day has adopted the theme **“Land Restoration, Desertification, and Drought Resilience.”** This multifaceted topic holds significant importance:

1. **Highlighting a Critical Issue:** Land degradation and desertification are pressing threats affecting food security, biodiversity, and climate change. The theme brings these issues to the **forefront, raising awareness and promoting action**.
2. **Urgency for Action:** The theme underscores the urgent need for action in light of the intensifying triple planetary crisis **including climate change, nature and biodiversity loss, and pollution and waste**.
3. **Shared Responsibility:** The theme emphasizes that restoring our planet’s ecosystems requires collective efforts and individual responsibility, encouraging everyone to contribute to solutions.
4. **Empowering Youth:** The slogan’s hashtag, #GenerationRestoration, recognizes the **vital role of young people in driving change towards a sustainable future, inspiring and motivating them to take action**.

5. **Alignment with Global Goals:** The theme aligns with the **UN Decade on Ecosystem Restoration (2021-2030)** and the **Sustainable Development Goals, advocating a holistic approach to environmental protection.**

Importance of World Environment Day

1. **Global Awareness:** World Environment Day raises awareness about urgent environmental issues, such as climate change, pollution, and biodiversity loss.
2. **Action and Advocacy:** It encourages individuals, organizations, and governments to take action towards environmental conservation and sustainable development.
3. **Policy Impact:** It often catalyzes policy discussions and commitments to address environmental challenges and promote sustainable practices.
4. **Education and Engagement:** The day provides an opportunity to educate people about environmental stewardship and engage them in activities that contribute to positive outcomes.
5. **International Cooperation:** World Environment Day fosters international cooperation and collaboration to collectively tackle global environmental issues.
6. **Inspiration and Innovation:** It inspires innovative solutions and initiatives for environmental protection and sustainability by showcasing successful examples and best practices.
7. **Community Empowerment:** World Environment Day empowers communities to become agents of change in their local environments by promoting grassroots action and participation.

In conclusion, World Environment Day (WED) is a powerful reminder of the importance of our natural environment and the urgent need to preserve it. Through raising awareness, encouraging action, and promoting global cooperation, it plays an important role in promoting a sustainable and resilient future.

Green Hydrogen : Powering India's Energy Revolution

Introduction

India's economic growth and energy needs are interconnected. The **current reliance on fossil fuels poses sustainability challenges. Green hydrogen emerges as a promising solution to revolutionise India's energy landscape and contribute to a lower-carbon economy.**

India's Commitment to Energy Transition:

India has taken significant steps towards **energy transition**, as evident from its active participation in **international climate agreements, expansion of renewable energy capacity, and ambitious target of achieving net-zero emissions.**

The Global Green Hydrogen Landscape:

1. Green hydrogen has received **global recognition** as a key element in the **transition to a low-carbon economy.**
2. **Europe, a leader in the field, is leading in electrolyser capacity deployment** and has ambitious hydrogen strategies.
3. However, the **challenge is not in recognising hydrogen's potential, but in establishing a clear roadmap** to accelerate its production, demand and consumption.

Decarbonizing Power: The Role of Hydrogen

Hydrogen offers a compelling alternative to fossil fuels in power generation.

1. Transition from Coal to Gas to Hydrogen:

- a. **Coal-fired power plants, famous for their high emissions, can be transitioned to natural gas** and eventually hydrogen, significantly reducing carbon footprints.
- b. Innovations in **gas turbine technology and flexible fuel burning capabilities** further enhance the feasibility of this transition.

2. The DeBary Hydrogen Project:

- a. A pioneering initiative by **Duke Energy showcases the potential of producing green hydrogen from solar energy to meet peak demand.**
- b. The **project demonstrates the viability of integrating renewable energy sources with hydrogen production** for a more sustainable power supply.

3. Blending Hydrogen with Natural Gas:

- a. **Blending hydrogen with natural gas in existing power plants can provide reliable** and sustainable energy with reduced emissions.
- b. **India's recent directive to maximise gas-based power generation** during the **summer heatwave** highlights the potential of such a blended approach.

Expanding Hydrogen's Reach:

1. **Hydrogen's applications extend beyond power generation.**

2. It can play a crucial role in **decarbonizing industries like steel, refineries, and fertiliser production.**
3. **India's demand for green hydrogen is projected to surge**, necessitating a comprehensive strategy for production, demand stimulation, and infrastructure development.

India's Commitment to Energy Transition:

India has taken significant steps toward energy transition, including:

1. **Nationally Determined Contributions (NDCs) Paris Agreement**
2. **Increased renewable energy capacity**
3. **Financial measures for climate action**
4. **Aiming to achieve net-zero emissions**

India's Green Hydrogen Policy:

1. **India's National Green Hydrogen Policy, unveiled in 2022**, aims to **create a robust green hydrogen ecosystem.**
2. The policy targets an **annual production capacity of 5 million metric tonnes, reducing fossil fuel imports** and greenhouse gas emissions while creating employment opportunities.
3. Collaboration between stakeholders and **incentivizing production** and demand are key to achieving these objectives.

Innovations in Green Hydrogen:

The field of green hydrogen is witnessing rapid advancements.

1. **High-Temperature Electrolysis:** Promises increased efficiency and reduced costs in hydrogen production.
2. **Photoelectrochemical Water Splitting:** Offers a direct route to producing hydrogen using sunlight.

Building economies of scale and promoting innovation will be crucial to making green hydrogen commercially viable.

Conclusion:

Green hydrogen is still in its early stages and **holds immense potential for India's energy revolution.** As global trends shape the growth of the sector, **India's journey towards widespread adoption of green hydrogen across industries will require concerted efforts.** On this Earth Day, let us reaffirm our **commitment to innovation and collaboration to harness the potential of green hydrogen** and build a cleaner, greener future for generations to come.

Snow leopards, iconic carnivore cats of High Mountain Asia, also eat plants : Study

Key Points:

1. A **new study by Japanese scientists has found that snow leopards, iconic carnivore cats of High Mountain Asia, also eat plants.**
2. The study revealed that **snow leopards particularly eat plants of the Myricaria genus**, which are mostly **shrubs found across temperate parts of Europe and Asia.**
3. This is **not the first time that cats have been found to consume plants; 24 out of 41 species of living felids have been found to eat plants.**

Research Methodology:

1. A team of researchers from **Kyoto University spent months collecting faecal samples in the remote Sarychat-Ertash Reserve in Kyrgyzstan.**
2. They collected 150 mammal faecal samples between November 2017 and May 2023.
3. **Of these, 126 samples were identified as belonging to specific host species, including 90 snow leopard samples.**

Findings:

1. **A metabarcoding analysis of the 90 snow leopard faecal samples revealed that the cats most commonly consumed plants of the Myricaria genus.**
2. The study found that snow leopards tend to eat Myricaria plants **when they are hungry, as indicated by the higher frequency of Myricaria in samples with little or no trace of prey animal DNA.**

About Snow Leopards:

1. **Distribution:**
 - a. Snow leopards reside in the mountainous regions of Central and South Asia, spanning 12 countries, including India.
 - b. In India, approximately 718 snow leopards exist.
 - c. Their habitat primarily aligns with the presence of their prey, such as ibex and blue sheep.
 - d. Snow leopards hold the distinction of being the state animal of Himachal Pradesh and Ladakh.
 - e. Hemis National Park, located in Ladakh, is globally recognized as the Snow Leopard Capital.

2. Conservation Efforts:

a. Worldwide:

- i. Snow Leopard Trust: Concentrates on conservation programs based on community participation.
- ii. Global Snow Leopard and Ecosystem Protection Program (GSLEP): Aims to secure 20 landscapes across the Snow Leopard's range by 2020.

b. In India:

- i. Project Snow Leopard (2009): Focuses on preserving high-altitude ecosystems.
- ii. Community Involvement: Initiatives like Himal Sanrakshak acknowledge the role of local communities in safeguarding snow leopards and minimizing conflicts.

3. Population Monitoring and Recovery:

- a. **Population Count:** Introduced the First National Protocol for population monitoring in 2019.
- b. **Ministry's Recovery Programme:** Snow Leopard among 21 critically endangered species slated for recovery.

4. Breeding Program:

Snow Leopard Conservation Breeding Programme: Conducted at Padmaja Naidu Himalayan Zoological Park, West Bengal.

Implications:

1. The study's findings have implications for the conservation of snow leopards and their habitats.
2. The research team **hopes to provide insight into improved captive environments and more suitable conservation plans for the snow leopard.**

Other Key Points:

1. **Snow leopards live in areas above the treeline in High Mountain Asia.**
2. The precise reason why cats consume plants, both in captivity and in the wild, is unknown.
3. The study's **findings contribute to a growing body of research on the dietary habits of felids and their adaptations to their environments.**

Rare 4-Horned Antelope Sighted In Veerangana Durgavati Tiger Reserve

In the Veerangana Durgavati Tiger Reserve (formerly Nauradehi Sanctuary) situated in India's Sagar district, a rare four-horned antelope, commonly known as the Chousingha, has been observed for the first time.

Unique Features of the Four-Horned Antelope:

The four-horned antelope (*Tetracerus quadricornis*), also referred to as the Chousingha, is a special type of bovid antelope native to central, South, and Western India, with a smaller population in Nepal.

1. Appearance and Size:

- a. It has a distinctive yellowish-tan coat, sometimes tinged with reddish or goldenrod.
- b. Its slender body is supported by thin legs and a short tail.
- c. At the shoulder, it stands nearly 55–64 cm (22–25 in) and weighs approximately 17–22 kg (37–49 lb).

2. Unique Horn Structure:

- a. The four horns of the **four-horned antelope are a defining feature that sets it apart from most other bovids.**
- b. A long pair of straight, **pointed horns are located on top of its head** between its ears, while a second, **shorter pair is located on its forehead.**
- c. The posterior horns are consistently longer than the anterior horns.

3. Habitat and Adaptation:

- a. The **four-horned antelope typically inhabits wooded areas** with ample grass and nearby water sources.
- b. Its presence in the **arid region of Nauradehi suggests its adaptability to varying environmental conditions**, indicating its ability to thrive beyond its known habitats.

Conservation Status and Distribution:

1. Distribution:

- a. 4-horned antelope is **mainly found in India & Nepal.**
- b. Among bovids, **it is unique for its four horns, present only in males.**

2. Endangered Status:

- a. Classified as **'Vulnerable'** on the **IUCN Red List**, the species has an estimated population of 10,000, mainly located in India.
- b. **Conservation efforts are crucial to ensure the survival of this rare species.**

Additional Wildlife in Veerangana Durgavati Tiger Reserve:

1. Camera Trap Imagery:

- a. Apart from the four-horned antelope, the **camera traps have also captured images of barking deer, another species that has got forest officials excited.**

- b. These sightings highlight the **reserve's rich biodiversity and its potential as a habitat for various wildlife species.**

2. **Successful Tiger Relocations:**

- a. The reserve has successfully adapted two tigers relocated from the **Bandhavgarh Tiger Reserve.**
- b. These tigers have established territories and are thriving in their new environment, contributing to the reserve's current population of 18 tigers, including cubs.
- c. **This successful relocation affirms the reserve's suitability for supporting large predators.**

Implications for Conservation:

1. **Monitoring and Conservation:**

- a. The sighting of the **four-horned antelope and other species in the Veerangana Durgavati Tiger Reserve** highlights the importance of **continuous monitoring and conservation efforts.**
- b. The ability of these species to adapt to new environments demonstrates the resilience of wildlife and the possibility of expanding conservation habitats.

Veerangana Durgavati Tiger Reserve:

1. **Location:**

- a. The reserve is situated in **Madhya Pradesh, India.**
- b. **Founded in 1997**, it includes a vast area of approximately 550 square kilometres.

2. **Rich Biodiversity:**

- a. The **reserve bears the name of the legendary Queen Durgavati** and is known for its abundant biodiversity.
- b. It is home to a wide range of plant and animal species, including the **Indian leopard, Bengal tiger, and various deer species.**

3. **Conservation and Tourism:**

- a. The reserve serves as a **crucial habitat for threatened species, significantly contributing to wildlife preservation.**
- b. It provides opportunities for wildlife enthusiasts and nature lovers to appreciate

“MP completes preparations for second cheetah home – Gandhi Sagar Sanctuary”



Madhya Pradesh Prepares for Second Cheetah Home:

1. The **Madhya Pradesh government has completed preparations for its ambitious cheetah reintroduction project at Gandhi Sagar Wildlife Sanctuary.**
2. **Gandhi Sagar Sanctuary is slated to be the 2nd home for cheetahs in India after Kuno National Park.**

International Collaboration:

1. Teams from **Kenya and South Africa** had earlier **visited Gandhi Sagar to assess the conditions** for the cheetah reintroduction project.
2. The **collaboration with international experts** demonstrates the state government's commitment to the conservation of endangered species.

Preparations for Cheetah Reintroduction:

1. **Prey animals have been relocated from Kanha, Satpura, and Sanjay tiger reserves to Gandhi Sagar Sanctuary** to create a suitable habitat for the cheetahs.
2. **Cheetahs have been reintroduced from Kanha** and other places to increase their population in the region.
3. **50 gaurs (Indian bison) have also been successfully reintroduced from Kanha and Satpura Tiger Reserve to the Sanjay Tiger Reserve (in Sidhi district).**

Cheetah Population in India:

1. **On September 17, 2022, eight Namibian cheetahs – 5 females and three males – were released into enclosures at Kuno National Park in Sheopur district.**
2. In February 2023, **12 more cheetahs were brought from South Africa.**

3. Currently, **only 13 of the 20 adult cheetahs survive**, and **another 13 cubs born to these cheetahs put the total population of the animals in Kuno at 26**.
4. The cheetah was officially **declared extinct by the Indian government in 1952**.

What caused the cheetah's extinction in India?

1. **Over-hunting** was a significant factor contributing to the cheetah's extinction.
2. The **loss of its habitat**, including grasslands and forests, and the depletion of its prey species also contributed to its decline.
3. **India's focus on agriculture, which involved acquiring and dividing grasslands**, further reduced the cheetah's habitat, leading to its eventual extinction in the country.

Earlier Endeavors to Reintroduce the Cheetah:

India's initial attempt to **reintroduce the cheetah occurred in the early 1970s**. Dr. Ranjitsinh was entrusted with conducting negotiations with Iran. **However, several factors hindered the translocation of cheetahs:**

1. **Potential release sites in India required enhancements, including increased prey availability** and heightened protection.
2. **During the process, a state of Emergency was declared in the country, followed by the fall of the Shah of Iran's regime.**
3. **While the Persian Cheetah, being Asiatic, was the preferred choice for relocation, this is no longer feasible as the cheetah population in Iran has dwindled to fewer than 50.**

Although efforts to **relocate cheetahs to India began in 2009**, it was **not until 2020 that the Supreme Court of India finally granted approval for such endeavors**.

Future Plans for Wildlife Conservation:

1. During the meeting, the Chief Minister of Madhya Pradesh directed officials **to conduct a study on the possibility of bringing rhinos and other rare and endangered wild animals** to the forests of Madhya Pradesh.
2. This move demonstrates the state government's commitment to expanding its wildlife conservation efforts and creating a habitat for diverse species.

Significance of Cheetah Reintroduction:

1. The reintroduction of cheetahs in India is a significant step towards conserving this **endangered species**.

2. Cheetahs are an important part of India's ecosystem, and their reintroduction **can help maintain the balance of nature**.
3. The project also highlights the importance of **international collaboration and cooperation in conservation efforts**.

Gandhi Sagar Wildlife Sanctuary:

1. Gandhi Sagar Wildlife Sanctuary is a **protected area in Madhya Pradesh, known for its diverse flora and fauna**.
2. The sanctuary is **home to several endangered species, including the cheetah, and provides a suitable habitat for their reintroduction**.

Kuno National Park:

1. Kuno National Park is a **protected area in Sheopur district of Madhya Pradesh**, known for its diverse wildlife.
2. The park is **currently home to 26 cheetahs, including 13 adults and 13 cubs**.
3. Kuno National Park is an important habitat for several endangered species, including the cheetah, and plays a crucial role in their conservation.

Conclusion :

The completion of preparations for the second cheetah home at Gandhi Sagar Wildlife Sanctuary marks a significant milestone in India's conservation efforts. The reintroduction of cheetahs is crucial for maintaining the balance of nature and preserving India's ecosystem. The project demonstrates the importance of international collaboration and cooperation in conservation efforts.

India's Largest Leopard Safari Opens at Bannerghatta Biological Park

Key Points:

1. **India's Largest Leopard Safari:** The country's largest leopard safari was inaugurated at the Bannerghatta Biological Park (BBP) in Karnataka, marking South India's first-ever leopard safari.
2. **Leopard Population:** Bannerghatta is known for its significant population of free-ranging leopards (*Panthera pardus*), emphasizing the importance of conservation efforts for these apex predators.
3. **Safari Area:** The dedicated leopard safari area spans 20 hectares, carefully demarcated and fenced according to the guidelines set by the Central Zoo Authority.
4. **Leopard Release:** Eight leopards have been introduced into the open forest area within the safari, providing them with a natural habitat to thrive.

- 5. Natural Habitat:** The safari area replicates the leopards' natural environment, featuring undulating terrain with rocky outcrops and semi-deciduous forests.
- 6. Safety Measures:** To ensure the safety of both visitors and animals, the area is enclosed by a 4.5-meter-high vertical chain-link mesh and 1.5-meter MS sheets inclined at a 30° angle.
- 7. Human-Animal Conflict:** The park often receives leopard cubs rescued from across the state due to increasing human-animal conflict. These cubs are raised and eventually relocated to the leopard safari, educating visitors about the significance of conservation.
- 8. Acclimatization Area:** A dedicated four-acre area within the safari, separated by a solar fence, allows the leopards to gradually acclimate to their new surroundings.
- 9. Conservation Efforts:** The leopard safari aims to raise awareness about the importance of conserving leopards and their habitats, fostering coexistence between humans and wildlife.

Future Plans:

- 1. New Enclosures:** The park intends to create new naturalistic enclosures for emus and rheas, with a budget of Rs. 50 lakh.
- 2. Hunting Cheetah Enclosure:** A proposed hunting cheetah enclosure is estimated to cost Rs. 1.5 crore.
- 3. Indian Grey Wolf Enclosure:** An enclosure for Indian grey wolves is proposed, with a budget of Rs. 1.5 crore.
- 4. Skywalks:** Skywalks are being developed to connect the zoo and the butterfly park, enhancing visitor experience.

Importance:

- 1. Conservation of Leopards:** The leopard safari highlights the critical need to conserve leopards and their habitats, promoting peaceful coexistence with humans.
- 2. Environmental Education:** The safari and other park initiatives are designed to foster environmental education and awareness among visitors, particularly children.
- 3. Tourism and Economy:** The addition of the leopard safari is expected to attract more tourists to the region, contributing to the local economy and creating employment opportunities.

About Bannerghatta Biological Park (BBP):

- Established in 2002 as an independent entity from Bannerghatta National Park, BBP was created to address the growing demand for eco-recreation, eco-tourism, and conservation.

- It covers an area of 731.88 hectares, initially starting with 545.00 hectares.
- Located 22 kilometers south of Bengaluru, Karnataka, it encompasses various units including a zoo, safari, butterfly park, and a rescue center.
- Notably, BBP is the first biological park in India to have a fenced, forested elephant sanctuary.

Key Facts about Bannerghatta National Park:

- Established in 1974, Bannerghatta National Park is situated near Bangalore, Karnataka, in the Anekal range.
- It houses India's first butterfly enclosure, established in 2006.
- The Suvarnamukhi stream serves as the primary water source for the park's animals.
- The park features diverse vegetation types and is home to a variety of wildlife, including endangered species like the Asian elephant.

Flamingos under threat : Tanzania's Lake Natron

Location: Lake Natron, Tanzania (Africa's Great Rift Valley)

Context: The world's largest migratory bird colony, **pink flamingos, are under threat due to human activities and changing weather patterns**, which are endangering the delicate balance of the Lake Natron ecosystem.

Key Factors:

- 1. Climate Change:** Altering water levels and salinity, making it harder for flamingos to find suitable nesting sites.
- 2. Agriculture and Pollution: Encroachment, pollution, and mining activities near the lake are disrupting the ecosystem.**
- 3. Extreme Weather: Frequent flooding and prolonged dry seasons are affecting the lake's salinity and water levels, impacting flamingo food sources and breeding success.**
- 4. Soda Ash Extraction: The proposed project in 2006, although abandoned, still poses a threat to the ecosystem.**

Impact:

- 1. Declining Flamingo Population: Fewer birds are returning each year due to extreme weather and encroachment.**
- 2. Disruption of Food Chain:** Changes in salinity and water levels are affecting the growth of specific algae, a food source for flamingos.

3. **Economic Impact:** Threats to flamingo populations could impact Tanzania's tourism industry, which accounts for:
 - a. 17.2% of the country's GDP
 - b. 25% of foreign exchange revenues
4. **Ecological Role:** Flamingos play a crucial role in maintaining the ecosystem's balance, and their decline could have far-reaching consequences.

Facts :

1. **Lake Natron's Unique Composition:** The lake's warm waters, salt, caustic soda, and magnesite deposits create an ideal habitat for flamingos.
2. **Ramsar Site:** Lake Natron is a designated Ramsar site, recognizing its international importance as a wetland habitat.

Community Efforts:

1. **Education and Awareness:** Local communities are working to educate pastoral communities about sustainable water practices to ensure the lake remains a viable habitat for both flamingos and humans.
2. **Balancing Human and Wildlife Needs:** Initiatives aim to foster a sense of stewardship and coexistence between humans and wildlife.

Global Context:

1. **Broader Pattern: Flamingos face similar threats at other critical breeding sites across Africa's Great Rift Valley.**
2. **Environmental Indicators:** Flamingos are important environmental indicators, reflecting the overall health of the ecosystem.

Conservation Efforts:

1. **Stricter Environmental Regulations:** Advocated to protect the lake's ecosystem.
2. **Increased Public Awareness:** Needed to raise awareness about the importance of conservation efforts.
3. **Holistic Approach:** Conservationists emphasise the need for a comprehensive approach, involving communities, to preserve the habitat, control pollution, and ensure sustainable development around the lake.

Urgent Call to Action:

1. **Immediate Attention Required:** The situation demands immediate attention to address the issues threatening the flamingo population and the ecosystem.
2. **Risk of Losing a Natural Wonder:** Failure to act could result in the loss of one of nature's most spectacular phenomena.

Discovery of New Freshwater Diatom Genus "Indiconema" in Eastern and Western Ghats

Key Points:

1. **New Genus Discovery:** Researchers from Agharkar Research Institute (ARI), Pune, have discovered a new genus of freshwater diatom, named "**Indiconema**", found in the clean water rivers of the Eastern Ghats.
2. **Unique Features:** Indiconema has a distinct suite of features, including **valve symmetry and valve features, that distinguish it from other members of the Gomphonemoid group**. Specifically, it has a pore field at **both the head and foot pole**, unlike other Gomphonemoid diatoms that have a pore field only at the foot pole.
3. **India's Biodiversity Hotspot: India is home to nearly 6,500 diatom taxa, of which 30% are endemic to the country**, highlighting its unique biodiversity. The Eastern and Western Ghats, with their distinct physiographic, edaphic, and climatic gradients, support a wide array of **habitats with unique geographic positions and diatom species**.
4. **Evolution of Monsoons:** The evolution of monsoons has structured the rainforest biome across the Indian Peninsula, **shaping the diatom flora and supporting the varying wetness that has a direct role in shaping the diatom flora**.
5. **Endemic Elements:** The discovery of Indiconema highlights the sharing of **endemic elements between the Eastern and Western Ghats, similar to other endemic-rich groups, such as reptiles**.
6. **Phylogenetic Significance:** The research suggests that **Indiconema is sister to Afrocybella, a genus endemic to East Africa, supporting early studies that noted similarities between Gomphonema species from India and those from East Africa and Madagascar**.

What are Diatoms ?

Diatoms are a major group of microalgae, specifically microalgae, found in the oceans, waterways and soils of the world. They are single-celled algae enclosed within a unique cell wall made of silica called a frustule.

Key characteristics of diatoms:

1. **Silica Cell Wall (Frustule):** This is the most distinctive feature of diatoms. The frustule is made of two halves that fit together like a petri dish, each with intricate and beautiful patterns.
2. **Photosynthetic:** Diatoms contain chlorophyll and other pigments, allowing them to convert sunlight into energy through photosynthesis. They are responsible for a significant portion (estimated 20-50%) of the Earth's oxygen production.
3. **Abundance and Diversity:** They are one of the most common types of phytoplankton and exhibit remarkable diversity in shape and size.
4. **Ecological Importance:** Diatoms are a primary food source for many aquatic organisms and play a crucial role in marine food webs.
5. **Economic Importance:** Diatomaceous earth, formed from the fossilised remains of diatoms, has various industrial uses including filtration, insulation, and as an abrasive.

Where are diatoms found?

Diatoms are found in almost every aquatic environment, including:

1. **Oceans:** They are a major component of marine phytoplankton.
2. **Freshwater:** They inhabit lakes, rivers, and streams.
3. **Soil:** They can be found in moist soils and even on damp surfaces.

Why are diatoms important?

1. **Oxygen Production:** They are significant contributors to the oxygen we breathe.
2. **Carbon Fixation:** They absorb carbon dioxide from the atmosphere during photosynthesis.
3. **Food Source:** They are the base of many aquatic food webs.
4. **Indicators of Environmental Health:** Changes in diatom communities can indicate shifts in water quality.

Data and Facts:

1. **25% of global oxygen is produced by diatoms.**
2. **Every fourth breath of oxygen we inhale is produced by diatoms.**
3. **India is home to nearly 6,500 diatom taxa.**
4. 30% of diatom taxa in India are endemic to the country.

Implications:

1. **Biodiversity Conservation:** The discovery of *Indiconema* highlights the need for conservation efforts to protect India's unique biodiversity hotspots, including the Eastern and Western Ghats.
2. **Freshwater Ecosystems:** The research emphasises the importance of preserving freshwater ecosystems, which support a wide array of diatom species that play a crucial role in aquatic health and oxygen production.
3. **Scientific Research:** The discovery demonstrates the significance of scientific research in understanding the complexities of India's biodiversity and the need for continued funding and support for such research initiatives.

Discovery of Limbless Amphibian in Kaziranga National Park and Tiger Reserve



Location : Kaziranga National Park and Tiger Reserve, Assam, India

Key Points:

1. **New Species Discovery:** A team of herpetologists has discovered a limbless amphibian, the striped caecilian (*Ichthyophis* spp), in the Kaziranga National Park and Tiger Reserve for the first time.
2. **Rapid Herpetofauna Survey:** The discovery was made during a rapid herpetofauna survey conducted from June 14-17, 2022, with the support of various organisations and experts.
3. **Importance of Herpetofauna:** Reptiles and amphibians, collectively known as herpetofauna, are the least studied but most vulnerable to climate change. They are indicator species for the environment and play a crucial role in controlling pests.

About Caecilians : Elongated, Limbless Amphibians

1. Caecilians are a type of amphibian that are characterized by their elongated, segmented bodies and lack of limbs.
2. They belong to the same group as frogs and salamanders, but are distinct in their appearance, which is often compared to earthworms or snakes due to their limbless nature.

Unique Features:

1. The name “Caecilian” means “blind”, which is fitting as some species of caecilians are eyeless, while others have small eyes hidden under their skin.
2. There are approximately 200 known species of caecilians, which vary in size, with the smallest measuring less than three inches and the largest reaching up to five feet in length.

Habitat and Behavior:

1. Caecilians are primarily found in moist tropical and subtropical regions of South and Central America, South and Southeast Asia, and Sub-Saharan Africa.
2. They are terrestrial animals, but are rarely seen as they spend most of their lives underground, burrowing in forests, grasslands, savannas, shrublands, and wetlands.

Physical Characteristics:

1. Caecilians have a number of distinct physical features, including a hard, thick skull with a pointy snout, which helps them move through dirt and mud.
2. Their shiny skin is ringed with skin folds called annuli, and they often come in shades of gray, brown, black, orange, or yellow.
3. Some species have tiny, fishlike scales within the rings, and they all have short, sensory tentacles located between their eyes and nostrils, which help them probe their environment and find prey.
4. **Diverse Ecosystem:** The Kaziranga National Park and Tiger Reserve has a diverse ecosystem comprising:
 - a. Flood plains
 - b. Wetlands
 - c. Grasslands
 - d. Hill tracts on the periphery
 - e. Providing an ideal habitat for herpetofauna

5. The tiger reserve is home to:

- a. 24 species of amphibians
- b. 74 species of reptiles
- c. 21 of the 29 species of tortoises and freshwater turtles found in India

6. **Conservation Efforts:** The focus of conservation in the tiger reserve has been on the ‘Big Five’ species:

- a. Rhinoceros
- b. Tiger
- c. Elephant
- d. Wild water buffalo
- e. Swamp deer

7. **Training and Sensitization:** A training and sensitization program was recently held to enhance the skills and knowledge of forest personnel in herpetofauna identification and conservation for ensuring better management and protection of these vital species.

Significance:

1. The discovery of the limbless amphibian highlights the importance of conservation efforts in protecting the diverse ecosystem of Kaziranga National Park and Tiger Reserve.
2. The survey and discovery of new species emphasise the need for continued research and monitoring of herpetofauna in the region.
3. The training and sensitization program for forest personnel underscores the importance of capacity building in wildlife conservation.

COALITION FOR DISASTER RESILIENT INFRASTRUCTURE (CDRI)

Introduction :

The Coalition for Disaster Resilient Infrastructure (CDRI) is an India-backed international coalition launched in 2019 at the UN Secretary General’s Climate Action Summit in New York. Headquartered in New Delhi, CDRI aims to promote the resilience of infrastructure systems globally, focusing on reducing the risks and impacts of disasters on essential services.

CDRI’s Mission and Initiatives

- **Promoting Best Practices:** CDRI works to identify and share best practices for disaster-resilient infrastructure development and management. This involves knowledge sharing, capacity building, and technical assistance to member countries.
- **Capacity Building:** The coalition provides training and resources to enhance the skills and knowledge of professionals involved in infrastructure planning, design, construction, and maintenance.
- **Standardization:** CDRI aims to develop and promote common standards, guidelines, and

regulations for disaster-resilient infrastructure, ensuring that new and existing infrastructure can withstand the impacts of natural hazards.

- **Global Cooperation:** CDRI fosters collaboration among governments, UN bodies, financial institutions, groups working on disaster management, the private sector, and academic institutions to leverage expertise and resources from diverse stakeholders.

WMO-CDRI Early Warning Systems Initiative

In collaboration with the World Meteorological Organization (WMO), CDRI has launched a critical initiative to establish and enhance early warning systems worldwide. This five-year program (2023-2027), announced by the UN Secretary General at the COP27 climate change conference at Sharm el-Sheikh, Egypt, aims to:

- **Increase Investment:** Secure \$3.1 billion in funding to strengthen infrastructure and capacity for early warning systems.
- **Prioritize Vulnerable Nations:** Focus on least developed countries and small island states, which often lack adequate early warning capabilities.
- **Save Lives and Reduce Economic Losses:** Emphasize the effectiveness of early warnings in minimizing human casualties and economic damage caused by disasters. Research shows that:
 - o 24 hours' notice of a hazardous event can reduce harm by 30%.
 - o Spending \$800 million on early warning systems could save \$3-16 billion in damages annually.

CDRI Study on Odisha's Power Infrastructure

A recent study by CDRI highlighted the vulnerabilities of Odisha's electricity transmission and distribution infrastructure to cyclones, a significant threat in the region. The study, published in June 2024, revealed that:

- **Coastal Vulnerability:** More than 30% of distribution substations are located within 20 km of the coastline, making them susceptible to storm surges and flooding.
- **Weak Poles and Lines:** 80% of electricity poles are vulnerable to high wind speeds, and over 75% of distribution lines are more than 30 years old and lack the capacity to withstand cyclonic winds.

This study serves as a wake-up call for not only Odisha but also other coastal states in India and regions around the world to prioritize investments in disaster-resilient power infrastructure.

Conclusion :

The Coalition for Disaster Resilient Infrastructure plays a crucial role in addressing the global challenge of building infrastructure that can withstand the increasing frequency and intensity of natural disasters. By promoting collaboration, knowledge sharing, and capacity building, CDRI is helping to create a more resilient future for communities worldwide. Its partnership with the WMO to enhance early warning systems and its research on critical infrastructure vulnerabilities demonstrate the coalition's commitment to proactive disaster risk reduction and building a safer, more sustainable world.

BONN MEETING ON CLIMATE CHANGE

A climate meeting in Bonn, Germany, has failed to make much headway on the crucial issue of defining a new climate finance goal.

By the end of 2024, countries have to finalise a new sum of money — above the existing figure of \$100 billion per year — that the developed world must mobilise for the developing countries to help them fight climate change.

This new sum of money is named as New Climate Quantified Goal.

WHAT IS THE BONN MEETING ALL ABOUT?

Every year, the members of UNFCCC meet in a mid year review meeting and setup the agenda for the upcoming UNFCCC CoP of that year.

WHERE IS COP 29 (NOVEMBER 2024) GOING TO HAPPEN?

Baku, Azerbaijan.

WHAT WAS EXPECTED FROM BONN, 2024?

The Bonn talks, an annual fixture in June, were expected to give at least some indicative numbers. They could have been worked upon before COP29 where they have to be finalised.

But this did not happen. All that came out was a 35-page, 428-paragraph, "input paper", which was a broad description of the wish lists of different countries. The lists pertained to not just the quantum of climate finance, but also other associated issues such as who should be contributing, what should this money be spent on, and how the finance flows should be monitored.

The paper is likely to be developed into a formal negotiating draft that can be agreed upon at COP29.

WHAT IS MONEY NEEDED FOR?

Money is central to climate action. It is needed not just for facilitating mitigation or adaptation works — mundane tasks of collecting and reporting climate data, mandatory under the 2015 Paris Agreement, also

require substantial sums of money, especially in developing and poor countries, where there is a large capacity gap for this kind of work.

FROM WHERE WILL THE MONEY COME & WHERE WILL IT GO?

Under the international climate architecture set by the UN Framework Convention on Climate Change (UNFCCC), rich and developed countries are obliged to provide money to developing countries to fight climate change. This is because the rich and developed countries are primarily responsible for causing climate change.

HOW MUCH MONEY HAS TO BE MOBILIZED?

In 2009, the developed countries promised to mobilise \$100 billion every year from 2020 towards this purpose.

HAS IT BEEN MOBILIZED?

A report by the Organisation for Economic Cooperation and Development (OECD), a grouping of rich countries, two weeks ago claimed that this \$100 billion target had been met for the first time in 2022.

WHAT DO THE DEVELOPING COUNTRIES SAY ABOUT IT?

However, developing countries contest these claims, citing double-counting and innovative accounting, and have often blamed the developed world for not keeping its promise on climate finance.

HOW MUCH MONEY IS NEEDED?

It is widely acknowledged that developing countries now need trillions of dollars, not billions, annually. A UNFCCC assessment last year said these countries needed about \$6 trillion between now and 2030 just to implement their promised climate actions.

- Only for their adaptation needs, some of which are part of their climate actions, developing countries require between \$215 billion and \$387 billion annually, it said.
- The assessment also said the global transition to clean energy (not just in developing countries) needed investments of about \$4.3 trillion every year till 2030, and about \$5 trillion annually after that till 2050 to reach a global net zero status.

These are assessments of a few specific needs. The overall requirement for climate finance is much greater.

WHAT ARE THE DEVELOPING COUNTRIES DEMANDING?

- A few months back, India formally proposed that developed countries should commit themselves to providing at least \$1 trillion every year after 2025.
- The Arab countries have said this figure should be at least \$1.1 trillion.
- African countries have demanded \$1.3 trillion.

WHAT HAS BEEN THE RESPONSE OF DEVELOPED WORLD?

The developed countries **have not made any offer publicly.**

They have just **acknowledged** that the **new amount has to be higher than \$100 billion per year.**

THE DEBATE OVER RESPONSIBILITY

According to the UNFCCC and Paris Agreement, only the countries listed in Annexure 2 of UNFCCC — 25 of them and the European Economic Community are responsible for providing climate finance to developing countries. The listed countries, however, have been trying to shift the responsibility to others as well.

WHY ARE ANNEXURE 2 COUNTRIES WANTING TO SHIFT?

- They argue that many other countries are now economically better off than in the early 1990s when the list was made.
- They also argue that the requirements are too huge for the original group of listed countries to meet.

WHICH ARE THESE NON ANNEXURE 2 COUNTRIES?

- China, the world's second-largest economy,
- Oil-rich Gulf countries
- South Korea are not part of Annexure 2.

In Bonn, China said it was playing its part in the global fight against climate change, but had “no intention” of taking additional responsibility.

NCQG is the biggest thing on the climate change agenda this year. An agreement on this has to happen at COP29. The \$100 billion figure was not a negotiated outcome. The offer was made in a statement by then US Secretary of State Hillary Clinton at COP15 in Copenhagen. It was later agreed upon by all the other Annexure 2 countries.

As lions make Barda sanctuary their second home, Gujarat forest dept starts translocating deer from Gir to Porbandar

Key Points:

1. The **Gujarat Forest Department has started translocating spotted deer (cheetal) and sambars from Gir Forest to the Barda Wildlife Sanctuary (BWS) in Porbandar to augment the population of prey for Asiatic lions.**
2. The **translocation is part of a long-term conservation effort to boost the population of Asiatic lions** in the BWS, which is around 100 km away from Gir Forest.

3. **6 lions have migrated from Gir to Barda**, and the department wants to create a good prey base for them by increasing the population of herbivores.

Background:

1. **Asiatic lions are found only in Gir Forest** and other protected areas in Gujarat's Saurashtra region.
2. The **Barda Wildlife Sanctuary was once home to Asiatic lions, but they vanished from the forest 143 years ago.**
3. In **January 2023, a male Asiatic lion naturally recolonized the Barda Wildlife Sanctuary**, marking the return of Asiatic lions to the area after a long time.
4. Since then, **5 other lions have shifted their territory from Gir to Barda.**

Translocation of Deer:

1. The Forest Department used the **Boma technique** to capture 23 spotted deer from Gir and transported them to the BWS.
2. The **Boma technique involves luring animals into an enclosure by chasing them through a funnel-like fencing.**
3. The translocation of deer will continue over the next few months **to establish a healthy population of herbivores in Barda.**

Significance:

1. The translocation of deer will help create a good prey base for Asiatic lions in the BWS, which is **essential for their long-term conservation.**
2. The initiative will also help in the natural dispersal of **Asiatic lions from Gir to Barda, which is a vital habitat for the species.**
3. The Barda Wildlife Sanctuary has a low population of spotted deer and sambar, which are **important components of the lions' diet, and the translocation will help augment the existing wild prey base.**

About Barda Wildlife Sanctuary:

1. Barda Wildlife Sanctuary is located in Gujarat. It features two rivers, the Bileshvary River and the Joghri River, along with two dams, Khambala and Fodara. Ethnic groups like the Maldharis, Bharvads, Rabaris, and Gadhvis live in this area.
2. In 1979, the state government launched the 'Gir-Barda Project' to make Barda a second home for the Asiatic lion.

3. The sanctuary is rich in plant diversity, with about 650 plant species, including Rayan, Babul, Ber, Jamun, Amla, Gorad, Bamboo, Dhav, and Dhudhlo.
4. The fauna in Barda includes leopards, hyenas, wild boars, wolves, jackals, blue bulls, and rare birds like the spotted eagle and crested hawk eagle.

Key Facts about Asiatic Lions:

The Asiatic lion, scientifically known as *Panthera leo persica*, is native to the Gir landscape of Gujarat. It is one of five pantherine cats found in India.

Conservation Status:

IUCN Red List : Endangered

The Wildlife (Protection) Act 1972 : Schedule I

CITES: Appendix I

Other Key Facts:

1. The Gir landscape is home to an estimated 90,000 spotted deer, and the department has established breeding centers for spotted deer and sambars in Barda.
2. The Barda Wildlife Sanctuary spans 192.31 sq. km and has ecoclimatic conditions and vegetation composition similar to those of Gir forests, making it a potential home for Asiatic lions.
3. The Gujarat Forest Department has been working to conserve Asiatic lions and their habitats, and the translocation of deer is part of this effort.
4. The **department has also established an Asiatic lion gene pool centre in the Barda Wildlife Sanctuary around a decade ago, which has a few lions in captive condition.**
5. The translocation of deer is being done under the guidance of the Chief Wildlife Warden of Gujarat, and the department is working to ensure the success of the initiative.

67th council meet of Global Environment Facility at Washington

Key Points:

1. The 67th council meeting of the Global Environment Facility (GEF) will disburse an amount of \$736.4 million towards environment protection.
2. The meeting will consider projects that protect biodiversity, counter climate change and pollution, and support land and ocean health.
3. The GEF Trust Fund, Global Biodiversity Framework Fund (GBFF), and Least Developed Countries Fund and Special Climate Change Fund (LDCF/SCCF) will consider \$495.6 million, \$37.8 million, and \$203 million respectively.

About the Global Environment Facility :

1. Established in 1992 on the eve of the UNFCCC Rio Earth Summit, the Global Environment Facility (GEF) addresses the world's most urgent environmental issues.
2. As a family of funds, the GEF focuses on biodiversity loss, climate change, pollution, and the overall health of land and oceans.
3. The GEF provides financial assistance to five major international environmental conventions :
 - a. Minamata Convention on Mercury
 - b. Stockholm Convention on Persistent Organic Pollutants (POPs)
 - c. United Nations Convention on Biological Diversity (UNCBD)
 - d. United Nations Convention to Combat Desertification (UNCCD)
 - e. United Nations Framework Convention on Climate Change (UNFCCC)
4. With 184 member countries, including India, the GEF aims to tackle critical environmental challenges globally.
5. The governing council, the primary governing body of the GEF, comprises 32 members appointed by constituencies of member countries. These members represent 14 developed countries, 16 developing countries, and two economies in transition.
6. The GEF Secretariat is based in Washington, D.C., and oversees the organization's operations.
7. The GEF Trust Fund, established to address pressing environmental challenges, provides financial support to developing countries and economies in transition.
8. These funds aim to help these countries meet the objectives outlined in international environmental conventions and agreements.

GEF Trust Fund:

1. The GEF Trust Fund will take decisions on projects under the **GEF-8 funding cycle running from July 2022 to June 2026.**
2. In June 2022, **29 donor governments had pledged \$5.33 billion** to GEF in support of international efforts to meet nature and climate targets.
3. Many of these projects also contribute to global biodiversity targets set under the Convention on Biological Diversity's Biodiversity Plan adopted in December 2022.

4. Initiatives include:
 - a. Land restoration through the **Great Green Wall project in Africa.**
 - b. Improved management and conservation of **wetlands in Yemen's Socotra archipelago and Aden wetlands.**
 - c. Conservation of terrestrial and **marine biodiversity in vulnerable sites in Somalia.**
5. The GEF Trust Fund supports the **Stockholm Convention on Persistent Organic Pollutants** and the **Minamata Convention on Mercury.**
6. It plans to **support projects to reduce persistent organic pollutants** in the air and reduce the generation of e-waste.

Global Biodiversity Framework Fund (GBFF):

1. The GBFF was **launched in August 2023 at the Seventh GEF Assembly in Vancouver and approved by 186 countries.**
2. This is the inaugural work program and it is **set to fund conservation initiatives in Brazil and Mexico.**
3. GBFF aims to help countries achieve the goals of **the Kunming-Montreal Global Biodiversity Framework.**
4. It has received **funds from Canada, Germany, Japan, Luxembourg, Spain, and the United Kingdom.**
5. **Its first three projects include:**
 - a. One initiative in Mexico and two in Brazil.
 - b. These will provide financial support to work on protected areas with indigenous people-led conservation.
 - c. In total, these initiatives would support 30.5 million hectares of terrestrial and marine protected areas, and directly benefit 229,000 people.

Least Developed Countries Fund and Special Climate Change Fund (LDCF/SCCF):

1. Council members will also meet as the LDCF and SCCF governing body, considering \$203 million in funding for 14 climate adaptation initiatives.
2. The LDCF work program will support projects related to climate resilience and adaptation in:
 - a. Angola
 - b. Cambodia
 - c. Chad
 - d. The Comoros
 - e. The Gambia
 - f. Guinea
 - g. Lao PDR
 - h. Sao Tome and Principe
 - i. Sierra Leone
 - j. Somalia
 - k. Tanzania

Other Key Points:

1. The Council **customarily meets twice each year, but it will meet three times in 2024.**
2. The Council develops, adopts, and evaluates the operational policies and programs for **GEF-financed activities.**
3. It also reviews and approves the work program (projects submitted for approval), making decisions by consensus.

Quote:

“We are committed to working in an integrated, inclusive way to deliver lasting impact across all six multilateral environmental conventions we serve, and in all developing countries where the GEF is supporting action with strategic funding.” - Carlos Manuel Rodríguez, chief executive and chairperson of the GEF.



Crux of The Hindu & Indian Express

Ecology & Environment

• WHY INDIA NEEDS TO BUILD DISASTER RESILIENT INFRASTRUCTURE ?

The Unprecedented Stress on Critical Infrastructure

1. This past month, amidst relentlessly high temperatures, electricity demand in Delhi repeatedly broke records.
2. The unusually high demand also led to frequent power cuts in Delhi and neighboring areas.
3. Several places in central and eastern India faced similar or worse situations.
4. The lack of electricity, combined with abnormally high night temperatures, made lives miserable and could have even contributed to several heat-related deaths.

Vulnerable Sectors Beyond Power Systems

1. The unprecedented surge in electricity demand is just a glimpse of the kind of stress that critical infrastructure faces from extreme weather events and resultant disasters.
2. Power systems are not the only ones that are vulnerable.
3. Telecommunications, transportation, health services, and cyber systems face disruptions due to disasters, complicating an already difficult crisis situation.
4. The breakdown of essential and emergency services not only hampers relief, rescue, and recovery but

also amplifies the risks and sometimes adds to the devastation.

5. Making critical infrastructure resilient to extreme events and disasters is, thus, a crucial component of climate change adaptation.

The Mounting Costs of Disasters

1. While early warnings and quick response have significantly reduced human casualties in disasters, economic and other losses from extreme weather events and disasters have been rising.
2. This is mainly due to the increase in frequency and intensity of such events.
3. Government data show that in the five years between 2018 and 2023, states together spent more than Rs. 1.5 lakh crore on dealing with the aftermath of disasters and natural calamities.

Long-Term Costs and Livelihood Losses

1. Long-term costs, in terms of livelihood losses, are huge.
2. A 2022 World Bank report projected that the decline in productivity due to heat-related stress could take away around 34 million jobs in India by 2030.
3. Reduction in the fertility of agricultural land is significant and projected to worsen over time.
4. Just the food wastage, on account of transporting food items in non-air-conditioned trucks and containers, was already worth about \$9 billion annually.
5. The impact of disasters will further worsen the scenario.

Incorporating Resilience: Ongoing Efforts

Almost all the infrastructure sectors now have disaster management plans in place to prepare and respond to these events. Examples in this context are:

- Hospitals in disaster-prone areas are equipping themselves with backup power supplies.
- Airports and railways are taking steps to avoid or quickly drain out waterlogging.
- Telecommunication lines are being taken underground.

The Way Forward: A Comprehensive Approach

While these efforts are commendable, India needs a comprehensive and integrated approach to disaster-resilient infrastructure:

- **Early Warning Systems:** Strengthen early warning systems to provide ample time for preparedness and evacuation.
- **Climate-Proofing:** Design and construct infrastructure that can withstand extreme weather events, such as heatwaves, floods, and cyclones.
- **Decentralized Systems:** Reduce dependence on centralized grids and systems by promoting

decentralized energy generation and localized water management.

- **Community Engagement:** Involve local communities in disaster preparedness and response planning to ensure their needs are met.
- **Public Awareness:** Raise awareness about disaster risks and resilience measures to foster a culture of preparedness.

Conclusion :

Building disaster-resilient infrastructure is not merely a choice; it's an imperative for India's sustainable development and the well-being of its citizens. The increasing frequency and intensity of extreme weather events and disasters necessitate a proactive approach that goes beyond reactive measures. Investing in resilience now can save lives, livelihoods, and resources in the long run, ensuring that India can thrive in the face of climate change challenges.

• INDIA IS SECOND LARGEST EMITTER OF NITROUS OXIDE

India is the world's second largest source of nitrous oxide (N₂O), a greenhouse gas that heats up the atmosphere 300 times more than carbon dioxide. Nearly 11% of such global man-made emissions in 2020 were from India, topped only by China at 16%.

Major Sources of Nitrous Oxide in India:

The major source of these emissions comes from fertilizer usage, according to a global assessment of N₂O emissions published in the journal Earth System Science Data.

- **Agricultural Practices:** Agricultural production using nitrogen fertilizers, such as ammonia, and animal manure contributed 74% of the total anthropogenic N₂O emissions in India in the last decade.
- **Industrial Processes:** Nitric acid production and other industrial activities are also significant contributors to N₂O emissions in India.
- **Wastewater Management:** Untreated sewage and industrial wastewater can release N₂O during decomposition.

Impact of Nitrous Oxide Emissions:

- **Global Warming:** N₂O is a potent greenhouse gas, contributing significantly to global warming and climate change.
- **Ozone Depletion:** N₂O also plays a role in depleting the ozone layer, which protects the Earth from harmful ultraviolet radiation.

Mitigation Strategies:

- **Precision Agriculture:** Implementing precision agriculture techniques can optimize fertilizer use, reducing N₂O emissions from agricultural fields.

- **Nitrification Inhibitors:** Using nitrification inhibitors can slow down the conversion of nitrogen fertilizers to N₂O, minimizing emissions.
- **Improved Wastewater Treatment:** Upgrading wastewater treatment facilities can help reduce N₂O emissions from sewage and industrial effluents.
- **Alternative Fertilizers:** Exploring alternative fertilizers with lower N₂O emission potential can be a viable solution.

Government Initiatives to Mitigate N₂O Emissions in India :

The Indian government has recognized the significance of curbing N₂O emissions and is actively implementing various initiatives to address this issue:

1. National Mission for Sustainable Agriculture (NMSA):

The NMSA promotes sustainable agricultural practices, including efficient nutrient management, organic farming, and integrated pest management, which collectively aim to reduce N₂O emissions from agricultural fields.

2. Paramparagat Krishi Vikas Yojana (PKVY):

This scheme promotes organic farming practices, which involve the use of natural fertilizers and minimize the application of synthetic nitrogen fertilizers, thereby reducing N₂O emissions.

3. National Innovations in Climate Resilient Agriculture (NICRA):

NICRA focuses on developing and deploying climate-resilient agricultural technologies that can help reduce greenhouse gas emissions, including N₂O, from the agricultural sector.

4. Soil Health Card Scheme:

This scheme provides farmers with soil health cards containing information about the nutrient status of their soil, enabling them to apply fertilizers judiciously, reducing excess nitrogen application and subsequently N₂O emissions.

5. Namami Gange Programme:

This initiative aims to rejuvenate the Ganges River and its tributaries, improving wastewater treatment and reducing N₂O emissions from untreated sewage.

6. National Clean Air Programme (NCAP):

While primarily focused on reducing air pollution, NCAP indirectly addresses N₂O emissions by promoting cleaner industrial practices and reducing emissions from industrial sources.

7. Promotion of Alternative Fertilizers:

The government is encouraging the use of alternative fertilizers like biofertilizers and neem-coated urea, which have lower N₂O emission potential compared to conventional nitrogen fertilizers.

8. National Mission on Enhanced Energy Efficiency (NMEEE):

NMEEE aims to improve energy efficiency in industries, reducing overall energy consumption and indirectly lowering N₂O emissions associated with industrial processes.

These government initiatives, along with ongoing research and technological advancements, are playing a crucial role in India's efforts to mitigate N₂O emissions and address the challenges of climate change.

• Remoulding the Global Plastics Treaty



As discussions for **an international legally binding treaty on plastic pollution** are still ongoing, it becomes important to consider how this can support a just transition for individuals who informally collect and recycle waste. The **Global Plastics Treaty aims to reduce plastic pollution by supporting a fair transition for waste collectors and recyclers. Informal waste workers** play a critical role in waste management and sustainability but are often overlooked. The **treaty should acknowledge their contributions, protect their rights, and include their perspectives in policy decisions.**

- a. **India's approach emphasizes repair, reuse, refill, and recycling, considering country-specific circumstances.**
- b. **The final round of negotiations should focus on how the treaty can enable a just transition for informal waste workers, ensuring social justice and equity.**

Key Issues:

1. **Plastic Waste Crisis:** Global plastic waste production in 2019 was 353 million tonnes, more than double since 2000 and projected to triple by 2060. Only 9% of plastic waste is recycled.
2. **Informal Recyclers:** 85% of recycled plastic is handled by informal recycling workers, who are often overlooked and vulnerable.
3. **Global Plastics Treaty:** This treaty aims to address plastic pollution but must include just transition measures for informal recyclers.

Important Points:

1. **Informal Sector Contribution:** The informal waste sector accounts for 80% of municipal solid waste recovery in many cities.
2. **Environmental Impact:** An estimated 60 million tonnes of plastic from municipal solid waste pollutes the environment annually due to inadequate collection and mismanagement.
3. **Livelihoods at Risk:** Policies aimed at reducing plastic pollution can negatively impact the livelihoods of an estimated 15 million informal recyclers globally, who recover up to 58% of global recycled waste.
4. **Need for Just Transition:** The Global Plastics Treaty must prioritise a **just transition that supports and integrates informal recyclers.**
5. **India's Role:** India's position in the treaty negotiations emphasises a **balanced approach and the importance of considering informal waste pickers.**

Key Recommendations:

1. **Clarify Definitions:** Ensure clear definitions for "just transition" and the "informal waste sector" in the treaty.
2. **Include Informal Recyclers:** Integrate the perspectives and solutions of informal waste pickers in every stage of policy and law implementation.
3. **Protect Livelihoods:** Design policies that protect the livelihoods of informal recyclers and provide them with opportunities for formalisation.
4. **Promote Social Justice:** The treaty should incorporate the principles of social justice and equality, and no one should be left behind.

Additional key points:

1. The International Alliance of Waste Pickers (IAWP) is a key advocate for informal recyclers in the treaty negotiations.
2. India's EPR (Extended Producer Responsibility) norms should be revised to better integrate informal waste pickers.

Conclusion:

The Global Plastics Treaty presents a crucial opportunity to address the plastic pollution crisis while ensuring a just transition for informal recyclers. By incorporating their perspectives and protecting their livelihoods, the treaty can pave the way for a more sustainable and equitable future.

• Can GM Crops Promise Food Security ?

Introduction:

A new "gene revolution" is emerging, with proponents hailing genetically modified (GM) crops as

a solution to food insecurity in a world threatened by climate change.

What are Genetically Modified (GM) crops?

Genetically Modified (GM) crops are plants that have had their genetic makeup altered through biotechnology. This involves inserting genes from other organisms into the plant's DNA to introduce desired results such as resistance to pests, diseases, or environmental conditions. **The most common modifications include:**

1. **Herbicide Tolerance:** Allows crops to withstand herbicides, making weed control easier.
2. **Insect Resistance:** Crops produce their own insecticides, reducing the need for chemical pesticides.
3. **Disease Resistance:** Protects crops from viruses, fungi, and bacteria.
4. **Enhanced Nutrition:** Crops are modified to have increased levels of vitamins or other nutrients.
5. **Drought Tolerance:** Enables crops to survive with less water.

GM crops have been a subject of debate due to concerns about their potential impact on human health and the environment. However, many scientific studies have found them to be safe for consumption and beneficial for agriculture.

Pro-GM Arguments:

1. **Increased Yields & Climate Resilience:** Proponents claim that **GM crops can increase yields** and **resist extreme weather** and **new diseases, ensuring food security** for a growing global population.
2. **Carbon Capture: Some GM crops are engineered to enhance carbon capture,** potentially contributing to climate change mitigation.
3. **Photosynthesis Optimization:** Research projects aim to **optimise photosynthesis in staple crops,** increasing yields and reducing atmospheric carbon.

Anti-GM Arguments:

1. **Perpetuating Industrial Agriculture:** Critics argue that **GM crops perpetuate an unsustainable industrial agricultural** system that contributes to the climate crisis.
2. **Monocultures & Resource Intensity: GM crops often involve large-scale monocultures** that require significant inputs of **fertilizers, pesticides, and irrigation, increasing environmental impact.**
3. **Corporate Control:** GM crops are **predominantly controlled by agro-industrial giants, raising concerns about corporate dominance** in the food system.

4. **Limited Impact on Food Security:** Critics argue that GM crops have **not significantly improved food security, with millions still facing hunger worldwide.**

The Case of Golden Rice:

1. **Golden Rice's Potential:** Proponents argue that **golden rice, genetically modified to produce beta-carotene for vitamin A,** could save lives in regions with vitamin A deficiencies.
2. **Ban in the Philippines:** A recent court ruling **banned GM golden rice and eggplant in the Philippines** due to concerns about safety and ecological impact.
3. **Conflicting Views:** While proponents emphasise the **potential health benefits of golden rice,** critics argue for **alternative solutions that prioritize crop diversity and ecological resilience.**

Alternative Solutions:

1. **Ecological, Non-GM Crops:** Greenpeace Philippines advocates for **developing ecological, non-GM seed, food, and nutrition systems.**
2. **Crop Diversity & Resilience:** Critics emphasize the importance of promoting crop diversity and resilient agricultural practices to address food insecurity and climate change.
3. **Addressing Structural Issues:** Some argue that food insecurity is primarily a socio-economic and political issue, requiring solutions beyond technological fixes like GM crops.

Conclusion:

The debate over GM crops and their role in food security remains complex and contentious. While proponents highlight their potential to increase yields and address climate challenges, critics raise concerns about environmental impact, corporate control, and limited impact on food security.

The case of golden rice demonstrates the conflicting viewpoints and the need for careful consideration of potential benefits and risks. Alternative solutions, such as promoting ecological, non-GM crops and addressing structural issues in the food system, also warrant attention.

Ultimately, a comprehensive approach is needed to address food insecurity and climate change, incorporating both technological advancements and sustainable agricultural practices. The debate over GM crops should continue with transparency and consideration of diverse perspectives to ensure that decisions are made in the best interests of global food security and environmental sustainability.





WORLD HYDROGRAPHY DAY 2024

Context:

World Hydrography Day is celebrated every year on June 21 to raise awareness about hydrography and its important role in improving knowledge of the seas and oceans.

Theme:

1. The theme for World Hydrography Day 2024 is “**Hydrographic Information - Enhancing Safety, Efficiency and Sustainability in Marine Activities**”.
2. This theme is particularly relevant in the context of ongoing transformations in navigation, such as **e-navigation, autonomous shipping, and reduction of emissions**, which are leading to a **profound evolution of hydrographic services**.

The International Hydrographic Organization (IHO) :

1. IHO is an intergovernmental body focused on surveying and charting the world’s seas, oceans, and navigable waters. Formed in 1921, it helps coordinate the work of national hydrographic offices and aims to standardize nautical charts and documents.
2. The IHO sets out best practices for surveys, offers guidelines to optimize the use of survey data, and works to improve hydrographic skills among its member states.
3. Currently, it has 100 member countries.
4. The organization’s Secretariat is based in Monaco.
5. India has been a member of the IHO since 1955.
6. The Indian Naval Hydrographic Department, originally known as the Marine Survey of India, was founded in 1874 in Kolkata and serves as the primary agency for hydrographic surveys, operating a fleet of modern, domestically built survey ships.

Indian Naval Hydrographic Department (INHD):

1. The **INHD is the nodal agency for hydrographic surveys and nautical charting in India**.
2. It **functions under the Indian Navy** and has the mandate to undertake hydrographic surveys and publish navigational charts.

3. The department has published over **650 electronic** and paper navigation charts covering national and international waters, which are **used by merchant mariners and navies around the world**.
4. In 2023, the **department distributed over 6.5 lakh electronic navigational charts to seafarers operating in these waters**, earning a revenue of close to Rs. 8000 lakh for the exchequer.
5. This **revenue is expected to grow further in the future**.

NAVAREA VIII Coordinator:

1. The INHD is also the NAVAREA VIII coordinator, covering an area of 26 million square kilometers of the Indian Ocean.
2. As part of this role, the department shares information concerning safety of navigation at sea through the web portal “India WINS - Indian Warning Information and Navigation Services”.
3. This portal provides near-real-time information and has crossed over 3.5 million views since its launch in December 2022, with an average of over 3500 visitors per day, in line with the Digital India initiative of the Government.

National Institute of Hydrography (NIH):

1. The **NIH is located in Goa** and is the center for imparting training in hydrography.
2. It is accredited by the International Hydrographic Organisation (**IHO**) **for national and international trainees to award Cat A and Cat B certificates**.
3. Till date, over 800 trainees from 41 different countries have been trained at NIH.

SAGAR Initiative:

1. The SAGAR (Security and Growth for All in the Region) initiative is a key component of the Government of India’s foreign policy.
2. As part of this initiative, the **survey ships of the Indian Navy have conducted various joint survey operations with friendly foreign nations**, covering an area of 89,000 square kilometers in the last five years.
3. These operations have resulted in the production of 96 charts, and the department has also assisted in capacity building and knowledge sharing with these nations.
4. These efforts are undertaken by indigenously built survey ships, which are mapping the vast Indian Ocean Region.

Maritime Workshop:

1. As part of the World Hydrography Day celebrations, a maritime workshop was **conducted at the National Hydrographic Office on June 20, 2024**, on the theme “Hydrographic Information - Enhancing Safety, Efficiency and Sustainability in Marine Activities”.
2. The workshop was attended by guests and dignitaries from over **25 Indian ports and offices**.

Hydrographic Survey Committee Meeting:

1. The Hydrographic Survey Committee meeting is being conducted at the National Hydrographic Office on June 21, 2024, commemorating World Hydrography Day.
2. This **meeting is held in consultation with the Office of Joint Secretary Ports at New Delhi**.

India plans to start large-scale Production of bio-bitumen

Key Points:

1. **India is planning to initiate large-scale production of bio-bitumen derived from biomass or agricultural waste.**
2. The goal is **to reduce reliance on imports of bitumen, a crucial component in road construction, and tackle the issue of stubble burning.**
3. **India currently imports approximately half of its annual bitumen requirement**, but aims to completely replace these imports with bio-bitumen within the next decade.

What is Bitumen:

1. Composition and Characteristics:

- a. Bitumen is a dense, viscous hydrocarbon found in natural deposits like oil sands and pitch lakes.
- b. It can also be obtained as a residue during the distillation of crude oil.
- c. The density and viscosity of bitumen are attributed to its chemical composition, primarily consisting of large hydrocarbon molecules known as asphaltenes and resins.
- d. Additionally, bitumen often contains high levels of metals (e.g., nickel and vanadium) and nonmetallic inorganic elements (e.g., nitrogen, oxygen, and sulfur).

2. Applications :

- a. Bitumen is known for its waterproofing and adhesive properties and is extensively used in the construction industry, particularly for roads and highways.

- b. It is commonly used to waterproof boats and other marine vessels.
- c. Roofing product manufacturers utilize bitumen in their products.
- d. Bitumen is used for sealing and insulating various building materials, such as carpet tile backing and paint.

Introducing Bio-bitumen:

1. Sustainable Alternative:

- a. Bio-bitumen is a petroleum-free alternative to traditional bitumen or asphalt.
- b. It is derived from renewable, non-petroleum-based resources like vegetable oils and synthetic polymers, making it a sustainable long-term model.

By transitioning to bio-bitumen, India can reduce its reliance on imported bitumen, contribute to environmental sustainability, and promote the utilization of renewable resources in infrastructure development.

Pilot Project:

1. The Central Road Research Institute (CRRI) and the Indian Institute of Petroleum, Dehradun, will conduct a pilot study on a 1-kilometer road segment using bio-bitumen.
2. The pilot project aims to test the feasibility and effectiveness of bio-bitumen in road construction.
3. Successful outcomes will lead to commercialization of the technology and large-scale production of bio-bitumen.

Benefits:

1. The production of bio-bitumen can lead to substantial savings in foreign exchange.
2. It promotes self-sufficiency in bio-bitumen production and reduces India's dependence on imports.
3. Bio-bitumen production can also provide a promising solution to the problem of stubble burning, a major environmental concern in India.

Timeline:

1. The pilot project is expected to be completed by late 2025.
2. Commercial production of bio-bitumen is anticipated to commence by the end of 2026.
3. The goal is to completely replace imported bitumen with bio-bitumen within the next decade.

Government Support:

1. The project is funded by the Ministry of Road Transport and Highways.

2. Minister of Road Transport and Highways Nitin Gadkari is closely monitoring the project's progress.
3. The government is exploring diverse alternatives for road construction, including recycled waste materials and molasses.

Expert Insights:

1. According to CRRI director, "We are optimistic about commencing commercial production of bio-bitumen by the end of next year. This initiative promises substantial savings in foreign exchange, promotes self-sufficiency in bio-bitumen production, and offers a promising solution to the problem of stubble burning."

Impact:

1. The production of bio-bitumen can have a significant impact on India's road construction industry, promoting sustainability and self-sufficiency.
2. It can also help reduce the country's dependence on imported bitumen, saving foreign exchange and promoting economic growth.
3. The initiative can also help address the issue of stubble burning, a major environmental concern in India.

India's Energy Transition and Global Rankings



World Economic Forum's Energy Transition Index (ETI) 2023 :

1. **India's Ranking:**
 - a. **India ranked 63rd** on the global Energy Transition Index
 - b. The **index was released on June 19, 2023, by the World Economic Forum (WEF)**
2. **Top Performers:**
 - a. European nations dominated the top ranks
 - b. **Sweden topped the index**
 - c. **Top 5 : Sweden, Denmark, Finland, Switzerland, France**
 - d. China ranked 20th

3. Global Context:

- a. **83% of countries have regressed in at least one of three energy system performance dimensions: security, equity, and sustainability**
- b. The energy transition has lost momentum due to increasing global uncertainty

India's Progress and Initiatives

1. Renewable Energy:

- a. **India is the 4th-largest renewables market globally**
- b. Renewable energy and biomass comprise 42% of India's power generation capacity

2. Investment and Innovation:

- a. Annual investments in clean energy infrastructure nearing \$10 billion
- b. Driving adoption of electric vehicles (EVs)
- c. Promoting production of green hydrogen

3. Emissions:

- a. India's per capita emissions: 1.7 tonnes of CO₂
- b. 60% lower than the global average of 4.4 tonnes of CO₂ per capita

4. WEF's Observations:

- a. India is leading in creating replicable outcomes for energy transition
- b. Improvement shown in energy equity, security, and sustainability
- c. Focus on leveraging energy for income generation and supporting microenterprises
- d. Emphasis on affordability and economic viability of sustainable energy solutions

5. Areas for Improvement:

- a. Need to decouple economic growth from energy demand
- b. Significant investment required in energy efficiency, especially in new infrastructure and manufacturing capacity

Role of India and China in Global Energy Transition

1. Population Impact:

- a. India and China represent roughly a third of the global population
- b. Both countries will play a critical role in the global energy transition

2. Progress:

Both have shown improvements in renewable energy buildout, energy access, and energy security

3. Challenges:

Coal phase-down trajectory remains a major driver of emissions in both countries

4. Opportunities:

Both countries are well-positioned for green tech manufacturing

Global Energy Transition Trends

1. Overall Progress:

107 out of 120 countries showed progress in their energy transition journeys over the past decade

2. Slowing Pace:

- The overall pace of transition has slowed
- Balancing different facets of energy transition remains a key challenge

3. Innovation:

While global innovation growth has slowed, countries like China and India are leading in developing new energy solutions and technologies

4. Emerging and Developing Asia:

- Showed an 8% improvement in ETI scores over the past decade
- Main improvement in reducing energy intensity

WEF Recommendations

1. Policy Interventions:

- Governments should consider creating awareness and policy interventions
- Suggestions include guidelines for energy-efficient built infrastructure
- Incentives for retrofitting to create an enabling environment for accelerated adoption

2. Opportunity for Developing World:

- Potential to rewrite rules and lead in energy demand transformation
- Emphasis on frugal, scalable innovation originating in developed countries and scaled globally

Conclusion :

The WEF's Energy Transition Index 2023 reveals a complex global landscape, with India making notable progress despite ranking 63rd. While European nations lead, emerging economies are driving significant change. Moving forward, the focus must be on balancing energy security, equity, and sustainability. Developing nations have a unique opportunity to pioneer innovative, scalable solutions. As global uncertainties persist, collaborative efforts and adaptive strategies will be crucial in shaping a sustainable energy future for all.

Ozone-Depleting HCFCs Show Significant Drop in Levels 5 Years Ahead of Target

Key Points:

- HCFC Emissions Peak in 2021:** A new study published in *Nature Climate Change* has reported that hydrochlorofluorocarbons (HCFCs) emissions peaked in 2021, five years ahead of the projected year 2026.
- Reduction in atmospheric concentrations:** The study found a significant reduction in the atmospheric concentrations of HCFCs, which is an important step in efforts to repair the ozone layer.
- Montreal Protocol's Success:** The Montreal Protocol, a global agreement signed in 1987, has been successful in mitigating climate change and stratospheric ozone layer loss.
- HCFCs: Ozone-Depleting Substances:** HCFCs are potent ozone-depleting substances that trap heat in the Earth's atmosphere, contributing to climate change.

Relevant Terms:

- Ozone-depleting substances (ODSs):** Chemicals that contribute to the depletion of the ozone layer.
- Hydrochlorofluorocarbons (HCFCs):** A type of ODS that traps heat in the Earth's atmosphere, contributing to climate change.
- Hydrofluorocarbons (HFCs):** A type of substitute for HCFCs, which are also potent greenhouse gases.
- Montreal Protocol:** A global agreement signed in 1987 to protect the stratospheric ozone layer by eliminating the production and consumption of ODSs.
- Kigali Amendment:** An amendment to the Montreal Protocol that imposed strict restrictions on the production and use of HFCs.
- Equivalent Effective Chlorine:** The study found reductions in equivalent effective chlorine (EECl) from HCFCs, which measures the global average chlorine content of ozone-depleting substances in the troposphere.
- HCFC-22:** Most Abundant HCFC: HCFC-22, the most abundant HCFC, has witnessed the most significant decline, with a global warming potential 1,910 times that of carbon dioxide on a 100-year time horizon.
- India's Progress:** India is ahead of schedule in eliminating HCFCs in new equipment

manufacturing, according to a government report released during the 28th Conference of Parties (COP28) to the United Nations Framework Convention on Climate Change.

- 8. Kigali Amendment and Paris Agreement:** The Kigali Amendment to the Montreal Protocol imposed strict restrictions on the production and use of hydrofluorocarbons (HFCs), which are increasingly used as replacements for HCFCs. Pledges to cut HFC emissions have been made as part of the Global Cooling Pledge and the Paris Agreement.
- 9. Future Projections:** The study projects that HCFCs will return to their 1980 values in 2082 for radiative forcing and in 2087 for EECI.

Implications:

- 1. Environmental Benefits:** The reduction in HCFCs will help mitigate climate change and stratospheric ozone layer loss.
- 2. Global Cooperation:** The success of the Montreal Protocol demonstrates the importance of global agreements and cooperation in addressing environmental issues.
- 3. Future Challenges:** The continued phase-out of HCFCs and the need to address the growing radiative impact of HFCs pose ongoing challenges for global efforts to combat climate change.

Mount Ibu Erupts in Indonesia, While Hunga Tonga's Effects Continue Mount Ibu



- On June 3, Mount Ibu erupted releasing thick black ash as high as 7,000 metres, located on Halmahera Island, Indonesia.
- The eruption lasted for 373 seconds and was the largest since the volcano's danger status was raised to the highest level on May 16, 2024.
- The Center for Volcanology and Geological Hazard Mitigation has issued a Volcano Observation Notice for Aviation warning.

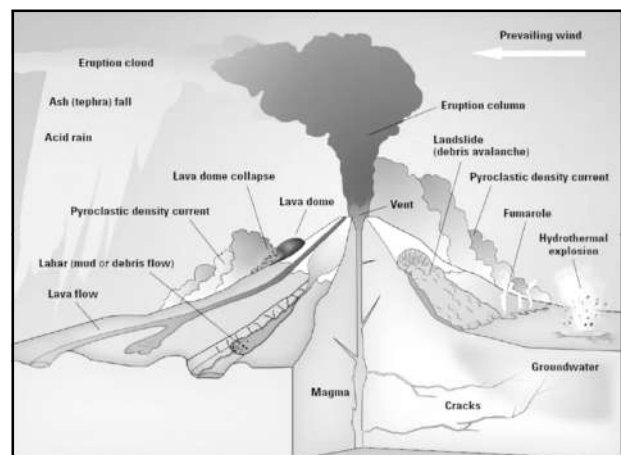
- Residents are advised to stay away from the area within 7 km north and 4 km around the active crater.

About Mount Ibu:

- Mount Ibu is an **active stratovolcano** situated on the **northwest coast of Halmahera Island in Indonesia**.
- Ibu's activity is **part of a series of eruptions from various volcanoes in Indonesia**.
- As a nation located on the Pacific **"Ring of Fire," "Indonesia is home to a remarkable 127 active volcanoes**.

What is a Stratovolcano ?

- A stratovolcano is also **referred to as a composite volcano**.
- Characteristics of a Stratovolcano:**



- Shape:** Conical with steep slopes, often forming towering peaks.
- Structure:** Built from layers of lava, ash, and volcanic debris.
- Eruptions:** Prone to explosive eruptions due to viscous magma.
- Location:** Commonly found above subduction zones.
- Examples:** Mount Fuji, Mount St. Helens, Mount Vesuvius.

What is the Pacific Ring of Fire?

The **Pacific Ring of Fire**, also known as the **Circum-Pacific Belt**, is a path along the **Pacific Ocean** marked by **active volcanoes and frequent earthquakes**.

why it's so geologically active:

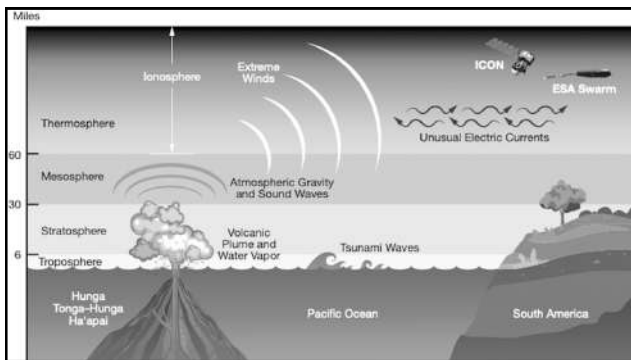
- 1. Plate Boundaries:** It traces the boundaries of several tectonic plates. The **interaction of these plates, through subduction (where one plate slides under another) or transform (where plates slide past each other) movements**, leads to the **release of immense energy, resulting in earthquakes and volcanic eruptions**.

2. **Volcanoes:** Roughly 75% of the world's active and dormant volcanoes are located along the Ring of Fire.
3. **Earthquakes:** An estimated 90% of the world's earthquakes occur within this zone.

Impact:

- **Natural Hazards:** Earthquakes, tsunamis (triggered by undersea earthquakes), and volcanic eruptions.
- **Fertile Soil:** Volcanic activity, while destructive, also produces ash that enriches soil, making areas along the Ring of Fire agriculturally productive.
- **Geothermal Energy:** The heat generated within the Earth along the Ring of Fire makes it a potential source of geothermal energy.

HUNGA-TONGA VOLCANO



1. A new study published in the *Journal of Climate* explores the climate impacts of the Hunga Tonga-Hunga Ha'apai (Hunga Tonga) volcano eruption, which occurred on January 15, 2022.
2. The study found that the eruption caused an unusually large ozone hole from August to December 2023 and a wetter than expected summer in 2024 in Australia.
3. The study also suggests that the eruption could have lasting impacts on the weather in some regions, such as colder and wetter winters in northern Australia until 2029.

About Hunga-Tonga Volcano:

1. Hunga Tonga-Hunga Ha'apai is a volcanic island located in Tonga.
2. The volcano is located about 30 kilometers south of the submarine volcano of Fonuafo'ou and 65 kilometers north of Tongatapu, the country's main island.
3. Part of the highly active Tonga-Kermadec Islands volcanic arc, Hunga Tonga-Hunga Ha'apai is located within a subduction zone that extends from New Zealand north-northeast to Fiji.

4. The island arc is formed at the convergent boundary where the Pacific Plate subducts beneath the Indo-Australian Plate.
5. Hunga Tonga-Hunga Ha'apai has erupted regularly over the past few decades.

What is a volcano?

1. A volcano is a vent or opening in the Earth's crust through which molten rock (magma), ash, gases, and other volcanic material erupt onto the surface.
2. The shape and size of a volcano depend on the type of magma and the nature of the eruptions.

Some common types include:

1. **Shield volcanoes:** Broad, gently sloping volcanoes built by repeated lava flows.
2. **Stratovolcanoes (composite volcanoes):** Tall, conical volcanoes with steep slopes, formed by layers of lava, ash, and other volcanic debris.
3. **Cinder cones:** Small, steep-sided cones made of volcanic ash and cinders.

Volcanoes are often found along the boundaries of tectonic plates, where magma from the Earth's mantle can rise to the surface. They can also occur at "hot spots," where plumes of magma rise through the crust.

While volcanic eruptions can be destructive, they are also a natural part of the Earth's dynamic processes, shaping its landscapes and contributing to soil fertility.

Heat proofing cities : Emergency oriented approaches must give way to long-term planning

The Rising Heat Stress in Urban India:

Recently, An unprecedented 52.9 degrees Celsius was recorded in Mungeshpur in Delhi. The data from Mungeshpur was later attributed to a technical glitch. But the story is not just of a single statistic this summer, but of a persistent long-term rise in the heat index (high temperatures with rising relative humidity) in Delhi, reflecting a changed reality.

- a. This new normal is evident in a recent analysis conducted by the Centre for Science and Environment (CSE) across 6 metro cities, which indicates rising heat stress in the country's urban centres due to increasing air temperature, relative humidity and land surface temperature.
- b. The nights are no longer as cold. This is increasing temperature-related problems and also increasing the burden of diseases.

Factors Contributing to the Urban Heat Island Effect

Several factors contribute to this urban heat island effect:

- 1. Expanding Built-Up Areas:** The **continuous expansion of concrete surfaces, which absorb and trap heat, is a major factor.** Delhi's built-up area, for instance, has increased significantly in recent years.
 - The continued expansion of built-up areas is leading to an increase in **heat-trapping concrete surfaces in urban areas.**
 - For example, **Delhi's built-up area will increase from 31.4 percent in 2003 to 38.2 percent in 2022, and Bengaluru's will increase from 37.5 percent to 71.5 percent in 2023.**
- 2. Diminishing Green Spaces:** Many urban development projects fail to meet the World Health Organization's recommendations for green spaces per person. Green cover plays a crucial role in lowering land surface temperatures.
- 3. Disappearing Water Bodies:** The **loss of surface water in cities like Delhi, Pune, and Jaipur** further exacerbates the issue, as **water bodies have a natural cooling effect.**
- 4. Additional Heat Sources:** Vehicle emissions, industrial processes, and air conditioning systems also contribute to the rising temperatures.
 - The disappearance of water bodies is equally worrying.
 - **Between 1999 and 2021, Delhi lost half of its surface water; Pune lost 31.8 percent of its surface water, and Jaipur lost 21.5 percent of its surface water.**
 - This is when we know that **water-sensitive urban design can reduce ambient temperatures by 3-8 degrees in micro-climates.**

Equity Impacts of Urban Heat

1. The urban heat island effect disproportionately **affects the poor, who often reside in heat hotspots and lack access to adequate cooling and healthcare.**
2. Vulnerable groups like the elderly and children are also at higher risk of heat-related illnesses and mortality.

Heat-related deaths among older adults are expected to increase by 370 percent globally by mid-century, according to the Lancet Countdown to 2023 and projections from the **Centre for Health and Climate Change.**

Need for a Paradigm Shift in Urban Planning

1. The **Intergovernmental Panel on Climate Change** warns of increasing heat extremes due to climate change and urban growth.
2. While **climate change may be inevitable, cities can enhance their resilience through proactive policies** and long-term planning.

The Shortcomings of Current Heat Action Plans :

1. Current heat action plans in many cities, while acknowledging the need for systemic changes, primarily **focus on emergency response during heat waves.**
2. They lack a strong legal and financial framework for **comprehensive heat management and often fail to leverage** existing regulatory instruments related to urban resource management, land use, and energy efficiency.

Towards a Comprehensive Heat Management Framework:

To effectively combat urban heat, a paradigm shift is necessary. Cities must move beyond crisis management and adopt a long-term approach that focuses on heat proofing. This includes:

- 1. Land-Use Changes:** Expanding green areas and water bodies to promote natural cooling.
- 2. Heat Vulnerability Mapping:** Conducting comprehensive assessments to identify vulnerable areas and populations.
- 3. Thermal Auditing:** Evaluating the thermal performance of buildings and materials.
- 4. Climate Data Platforms:** Developing platforms to monitor ambient heat, surface heat absorption, land surface temperatures, and humidity.
- 5. Performance-Linked Funding:** Aligning and augmenting funding across sectors to enable the implementation of heat action plans.

Several existing government initiatives and policy frameworks that can be leveraged to address urban heat in India:

1. **Environmental Impact Assessments (EIA):** These assessments are mandatory for buildings and townships, and can be used to ensure that new developments incorporate heat mitigation strategies such as green roofs, cool pavements, and energy-efficient designs.
2. **Urban and Regional Development Plans Formulation and Implementation (URDPFI) and Urban Master Plans:** These plans guide the overall development of cities and regions, and can be revised to **prioritise green spaces, water bodies, and heat-resilient infrastructure.**

3. **Energy Conservation Building Codes (ECBC) and Eco Samhita:** The ECBC sets minimum energy efficiency standards for buildings, while **Eco Samhita is a building code for energy-efficient and thermally comfortable buildings.** Strengthening these codes can mandate the use of heat-reflective materials and **energy-efficient designs in new constructions.**
4. **Cooling Action Plan (CAP):** This plan aims to address the **cooling needs of various sectors, including buildings, industry, and transportation.** It can be integrated with **heat action plans to promote energy-efficient cooling solutions and reduce the overall thermal load on cities.**

By integrating these strategies, cities can create a more resilient and thermally comfortable environment for their residents, mitigating the adverse impacts of the urban heat island effect.

Fire Ravages World's Largest Tropical Wetland in Brazil

In Brazil's Pantanal wetlands, fires have dramatically increased this year, reaching their highest levels since 2020. Residents of Mato Grosso do Sul described the fires as an 'inferno,' emphasizing the severe devastation caused by the blazes in the wetland ecosystem.

- **Location:** Brazilian Pantanal, world's largest tropical wetlands.
 - **Size:** More than twice the size of Portugal.
 - **Quote:** "Climate change plus the fires, they end up completely changing the environment. In the long term, there's a reduction of biodiversity and loss of habitat." - Delcio Rodrigues, head of the ClimaInfo Institute.
1. **Massive scale:** Fires are widespread and intense, leaving animals with little chance to escape.
 2. **Cause: El Niño, intensified by climate change,** has dried up rivers and disrupted flooding, making the ecosystem vulnerable to fire.
 3. **Impact:**
 - a. **2024 could be the worst year on record for wildfires,** surpassing the devastation of 2020 when an estimated **17 million vertebrates died.**
 - b. **Threatens the biodiversity of the UNESCO World Heritage Site,** home to the **world's largest jaguar species, endangered tapirs, and giant anteaters.**

4. **Long-term consequences:** Fires and climate change alter the environment, **leading to reduced biodiversity and loss of habitat.**
5. **Risk:** The riskiest season for **wildfires usually peaks in September, posing further threats to wildlife.**

Exploring the Pantanal Wetland:

1. **World's Largest Tropical Wetland:**
The Pantanal is renowned as the **largest tropical wetland globally.**
2. **Geographical Location:**
 - a. Situated in the **upper Paraguay River basin,** the Pantanal straddles **Brazil's borders with Bolivia and Paraguay.**
 - b. Approximately 80% of its vast expanse lies within Brazil.
3. **Mosaic of Grassland Swamps:**
 - a. Including an area of 185,000 square kilometers, the **Pantanal is a breathtaking mosaic of grassy swamps.**
 - b. These *swamps are fed by rivers, streams, and seasonal floods,* alongside dense, low-forested savanna.
4. **Structural Basin:**
The Pantanal developed within a structural basin formed as the *Andes Mountains rose.*
5. **Tropical Climate:**
The Pantanal experiences a tropical climate characterized by distinct wet and dry seasons.
6. **Biodiversity Hotspot:**
The **Pantanal is one of the most biologically rich environments on Earth, supporting over 4,700 plant and animal species.**
7. **Notable Fauna:**
 - a. The Pantanal is home to diverse wildlife, including the majestic jaguar, giant otter, giant armadillo, marsh deer, pampas deer, and the vibrant hyacinth macaw—the **largest parrot globally.**
 - b. It also has the largest concentration of crocodiles in the world, with approximately 10 million caimans.
8. **World Heritage Status:**
Recognizing its exceptional value, the **United Nations Educational, Scientific, and Cultural Organization (UNESCO) designated a portion of the Pantanal as a World Heritage Site in 2000.**
9. **Private Ownership and Cattle Grazing:**
Approximately 95% of the Pantanal is privately owned, with the majority of the land used for cattle grazing.

Conclusion:

The long-term consequences of these fires, combined with the continued effects of climate change, could cause irreparable damage to the region's unique environment and the countless species that call it home. Urgent action is needed to mitigate the immediate crisis and address the underlying factors that fuel these devastating fires.

1,50,000 Tonnes of Water Frost Found on Mars' Tallest Volcano : What it Means

Discovery:

1. Scientists have discovered frost on Mars' tallest volcano, Olympus Mons, indicating an active water cycle on the Red Planet.
2. The frost was detected 13.5 miles above the surface, making it the first time scientists have observed frozen water so close to the planet's equator.
3. The discovery of frost on Mars' tallest volcano could have implications for the search for life on the Red Planet, as water is a key ingredient for life as we know it.

What is frost ?

Frost is a thin layer of ice that forms on solid surfaces when the temperature drops below freezing (0°C or 32°F). It occurs when water vapour in the air comes into contact with a cold surface and undergoes deposition, changing directly from a gas to a solid without passing through the liquid phase. Some additional points about frost:

1. Formation: Frost typically forms on clear, calm nights when the ground cools rapidly due to radiational cooling.
2. Temperature: The temperature at which frost forms can vary depending on humidity and other factors, but it generally occurs below freezing.
3. Prevention: Frost can be prevented by covering plants with a cloth or other material to trap heat and prevent the temperature from dropping below freezing.

Significance:

1. The **finding challenges previous beliefs about Mars' dry equator** and provides new insights into the planet's water dynamics.
2. The **presence of frost suggests that water vapour is circulating in the Martian atmosphere and condensing in specific regions**, challenging the notion that **there are no active hydrologic processes on Mars**.

Research:

1. The **research, published in the journal Nature Geoscience, was conducted by a team led by Adomas Valantinas, who analyzed data from the European Space Agency's Trace Gas Orbiter (TGO) and Mars Express Orbiter over a period of five years.**
2. The **team studied over 30,000 images of the region** and found that during the Martian winter months, a **delicate layer of frost forms on the peaks of Olympus Mons** and other volcanoes in the Tharsis region.

Frost Formation:

1. The **frost forms briefly each morning during the colder seasons, covering a vast area and containing an estimated 150,000 tonnes of water.**
2. The **frost is thin, only one-hundredth of a millimeter thick**, and evaporates under the Martian sun within a few hours.
3. The **frost is formed due to the unique microclimate created by air circulation around the mountain peaks and through the caldera.**

Implications:

1. The **discovery could be crucial for modelling water's existence on Mars**, which could aid in future human exploration missions.
2. The study's authors hope that **further research and computer simulations of the frost formation** and evaporation processes will **shed light on Mars' water dynamics** and inform future exploration strategies.

Way Forward:

1. **Further research is needed to understand the mechanisms behind the frost formation** and evaporation processes on Mars.
2. The discovery could inform future exploration strategies, such as **identifying potential sources of water for future human missions to Mars.**
3. The finding could also have implications for the search for life on Mars, and could provide new insights into the planet's geological history.

Crux of The Hindu & Indian Express

Geography

• THE MONSOON

On almost all days in June so far, **North and Northwest India** have experienced ‘**heatwave**’ to ‘**severe heatwave**’ conditions.

The **southwest monsoon that made an early onset over Kerala has advanced until Maharashtra, BUT-**

- It has been dry and hot over the Southern peninsula thereafter.
- The Bay of Bengal branch of the monsoon too, has not progressed
- Maximum temperatures in the plains of North India have sustained around 45-47 degrees Celsius.

MONSOON BASICS & DATES

The June-September southwest monsoon brings more than **70% of india’s annual rainfall**. climatologically, the **monsoon arrives over the Andaman Sea in the third week of May** and advances into the mainland through **Kerala, June 1** being the normal date of onset.

It then advances in surges — typically, the **progress until central India is fast, after which it slows down.**

The monsoon normally **reaches north Uttar Pradesh, Delhi and neighbourhood Areas by the end of June**, and covers the entire country by **July 15.**

SIGNIFICANCE OF AN EARLY ONSET

An **early or timely onset** of the monsoon **does not guarantee good rainfall** or its distribution over the country throughout the four-month season. And a **delayed onset does not necessarily mean below-average rainfall** for the entire season.

THE FORECAST FOR 2024:

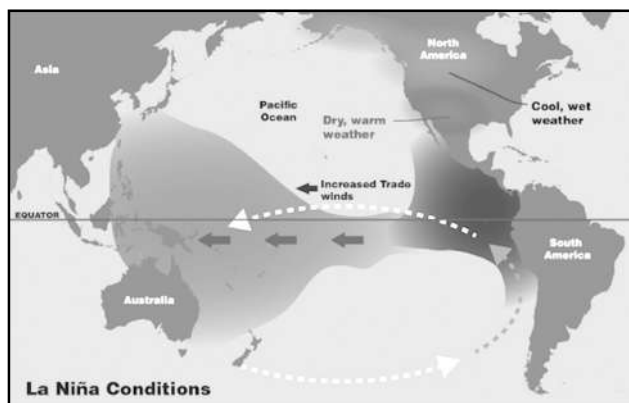
The **India Meteorological Department (IMD)** has forecast ‘**above normal**’ rainfall this season. Quantitatively, it is expected to be **106% of the Long Period Average of 880 mm (1971-2020 Data).**

The ‘above normal’ rainfall is being attributed mainly to:

- The soon-to-emerge **La Niña conditions**, which are known to positively Influence the Indian monsoon, and
- A **positive phase of the Indian Ocean Dipole (IOD).**

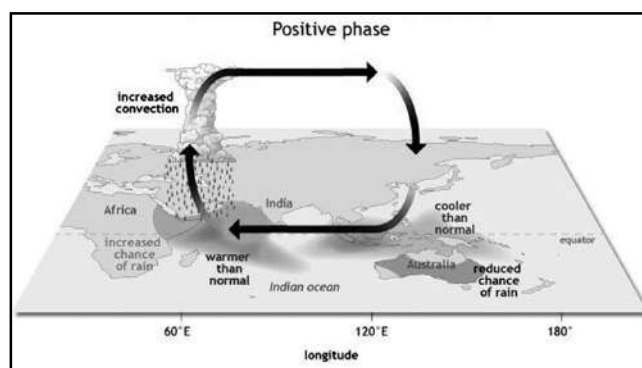
LA NINA

A cooling of the ocean surface, or Below-average SSTs, in the central and Eastern tropical Pacific Ocean.



It is associated with a **comparatively better monsoon rainfall in India.**

INDIAN OCEAN DIPOLE



The Indian Ocean Dipole is a climate pattern affecting the Indian Ocean. During A **positive phase**, **warm waters are pushed to the western part of the Indian ocean**, while **cold deep waters are brought up to the surface in the Eastern Indian Ocean.**

This pattern is reversed during the negative phase of the IOD.

WHEN COULD IT RAIN?

The monsoon is currently **active over Arunachal Pradesh, Assam, Meghalaya, Sikkim, Nagaland, Manipur, Mizoram, Tripura and sub-Himalayan West Bengal.** Rainfall activity will pick up along **Konkan and northern Karnataka** during the latter half of this week. **But all other regions of the country will remain dry.**

Towards the **end of this week**, the **monsoon could advance** into the remaining areas of Maharashtra, some areas of West Bengal, Odisha, some areas of Chhattisgarh and Bihar, and coastal Andhra Pradesh.

“We expect the monsoon to revive towards the end of June,” Pai said. However, it remains uncertain when the monsoon could set in over northern India.

• **SDG 7 : Energy Progress Report 2024**

Objective: Aiming to achieve Sustainable Development Goal 7 (SDG 7) by 2030, the “SDG 7: Energy Progress Report 2024” monitors global progress in energy access, efficiency, renewables, clean cooking, and international cooperation.

SDG 7 Overview: The report highlights **challenges and gaps in reaching SDG 7, emphasising that the world remains off track in providing affordable, reliable, sustainable, and modern energy for all.**

Important Findings of the Report:

1. **Increase in Population without Electricity Access:** For the first time in over a decade, the number of people without electricity increased to 685 million in 2022, primarily due to faster population growth in **Sub-Saharan Africa compared to the rate of new electricity connections.**
2. **Off-track Achievement of Clean Cooking Access:** **About 2.1 billion people still lack access to clean cooking solutions, mainly concentrated in Sub-Saharan Africa and Asia,** hindering the 2030 target of universal access to clean cooking.
3. **Growth in Renewable Electricity Consumption:** **Renewable electricity consumption witnessed a significant increase of over 6% year-on-year in 2021,** raising the share of renewables in global electricity consumption to 28.2%.
4. **Record Renewable Energy Capacity:** **Installed renewable energy-generating capacity reached an unprecedented level of 424 watts per capita globally in 2022,** but disparities exist between developed and developing countries.

India’s Significant Progress in Renewable Energy:

1. **Between 2010 and 2021, India, along with China and Indonesia,** achieved substantial advancements in adopting modern renewable energy solutions.
2. **India recorded one of the highest increases in the use of modern renewable energy, with a 7 percentage point rise in the share of renewables in total final energy consumption (TFEC).**

International Support for India’s Transition:

1. India’s transition to renewable energy has **received substantial international financial support, notably from Germany and the International Bank for Reconstruction and Development (IBRD).**
2. In 2022, **India received USD 627 million for 47 renewable energy projects, primarily valued below USD 1 million.**
What is IEA (International Energy Agency)
 1. The International Energy Agency (IEA) is an **intergovernmental organisation established in 1974 to maintain the stability of the international oil supply.**
 2. Its mandate has evolved to include tracking and analyzing **global energy trends, promoting sound energy policies, and fostering multinational energy technology cooperation.**
 3. **Originally formed in response to the 1973-1974 oil crisis,** the IEA operates within the broader framework of the Organization for **Economic Co-Operation and Development (OECD).**
 4. It comprises **31 member countries and 11 association countries, with candidate countries required to be members of the OECD.**

“World Bank Group and The 2030 Agenda”

Key Points:

1. The World Bank Group (WBG) has a **treaty-based relationship with the United Nations (UN) that dates back to its founding.**
2. The **WBG collaborates with the UN in nearly every region and sector,** with deepened engagement since the adoption of the **Millennium Development Goals (MDGs) and now with the Sustainable Development Goals (SDGs).**
3. The **2030 Agenda, adopted in 2015, includes the SDGs, the Addis Ababa Action Agenda, the Sendai Framework, and the Paris Climate Agreement.**
4. The SDGs are aligned with the **WBG’s twin goals of ending extreme poverty and boosting shared prosperity.**
5. The WBG is working with **client countries to deliver on the 2030 agenda through three critical areas: finance, data, and implementation.**

Key Statistics:

1. 800 million people live in extreme poverty, earning \$1.90 per day or less.
2. **Goal 1 of the SDGs is to end extreme poverty by 2030.**

Commitments:

1. **World Bank Group's commitment to Household Budget Surveys for the 78 poorest countries.**
2. World Bank Group's **announced targets for the percentage of its portfolio that will be climate financing.**

Role of World Bank Group:

1. **Thought leadership:** Providing analytical rigour through reports such as the World Development Indicators and the Trajectories for Sustainable Development Report.
2. **Global convening:** Leading and participating in global partnerships, exploiting the Bank's comparative advantages and bringing along other partners to fill gaps.
3. **Country-level uptake:** Listening to country partners and focusing conversations around shared goals to build durable global public goods.

Challenges and Opportunities:

1. **Each year will bring new challenges and opportunities for engagement.**
 2. The Bank Group has **unique assets in financing and knowledge that can contribute to the development of more durable global public goods to address global challenges.**
 3. Action is required immediately to have an impact by 2030.
- **HEATWAVES NOT INCLUDED AS NOTIFIED DISASTER IN NATIONAL DISASTER MANAGEMENT ACT**

The DM Act, 2005 was enacted in the wake of the **1999 Odisha super-cyclone and the 2004 tsunami.**

WHAT IS A DISASTER AS PER THE LAW?

It defines a disaster as a **“catastrophe, mishap, calamity or grave occurrence”** arising from **“natural or man-made causes”** that **results in substantial loss of life, destruction of property, or damage to the environment.** It must also be of such nature which is **“beyond the coping capacity”** of the community.

WHAT WILL HAPPEN IF HEAT WAVES ARE INCLUDED?

The ongoing spell of extreme heat in many parts of the country has once again **reopened discussions** on the **inclusion of heatwaves** as one of the notified disasters under the **Disaster Management (DM) Act, 2005.**

If the inclusion does happen, **states will be allowed to use their disaster response funds to provide compensation and relief, and carry out a range of other activities for managing the fallout of a heatwave.**

Currently, states need to use their own funds for these activities.

CURRENT LIST OF NOTIFIED DISASTERS

Currently, there are **12 categories** of disasters which are notified under this Act. These are:

- Cyclones
- Earthquake,
- Flood,
- Hailstorm,
- Avalanche,
- Pest attack, and
- Drought,
- Fire,
- Tsunami,
- Landslide,
- Cloudburst,
- Frost and cold waves.

WHEN DOES THE DM ACT GETS INVOKED?

If a disaster happens (as per definition), then the provisions of the DM act can be invoked.

The provisions **allow states to draw money from the two funds** that have been set up under this law —

- The National Disaster Response Fund (NDRF) at the national level and
- The State Disaster Response Fund (SDRF) at the state level.

The states first **utilise the funds available in the SDRF**, and **only if the magnitude of the disaster is unmanageable** with the SDRF, **states seek the money from the NDRF.**

For instance, in 2023-24 only two states- **Himachal Pradesh & Sikkim** utilized the funds from the NDRF, rest managed with SDRF.

WHERE DOES THE MONEY IN THESE FUNDS COME FROM ?

Fund	Category	Central Govt. State Govt.	Contribution Contribution
NDRF	Any	100%	0%
SDRF	Non Special	75%	25%
	Special	90%	10%

WHEN CAN THE MONEY BE UTILISED FROM THESE FUNDS?

The money in these funds **cannot be used for any purpose other than response and management of notified disasters.**

WHY HEAT WAVES ARE NOT ADDED?

Though heatwaves **are not a new phenomenon in India**, and **heat-related illnesses and deaths have been common** in large parts of **northern, eastern and central India**, these were not viewed as a disaster when the Act came into being in 2005.

WHY SO?

It was because heat waves were a common occurrence during summer, and not really an unusual weather event.

IS THERE A NEED TO INCLUDE HEAT WAVES?

In the last 15 years, however, both the **severity and frequency of heatwaves have increased**. Due to **increased economic activity**, there is a **far larger number of people who have to remain outdoors** for their livelihoods or other reasons, exposing them to the risk of a heat-stroke.

HOW MANY STATES ARE VULNERABLE TO HEAT WAVES NOW?

There are **23 states**, which are vulnerable to heatwaves.

These **states as well as several vulnerable cities** have now prepared **heat action plans (HAPS)** to deal with the impacts of extreme heat. HAPs involve activities like **creation of shaded spaces, ensuring availability of cool water in public places, distribution of simple oral solutions, and reorganising the schedules of schools, colleges and office working hours**. These measures require expenditure but state governments have **not been able to use the SDRF for them**.

WHY THE CENTRAL GOVERNMENT IS NOT ADDING IT?

There are **two reasons** behind this reluctance:

Finance Commission reluctance:

- This demand is being put forth in front of the Finance Commission since the **last 3 times, but the FC has been reluctant**.
- However, the **15th FC endorsed an enabling provision** created by the preceding Commission that **allowed states to utilise at least a part of the SDRF money — up to 10% — for “local**

disasters” such as **lightning or heatwaves**, which states could notify on their own.

- o Using this new enabling provision, at least four states — Haryana, Uttar Pradesh, Odisha, and Kerala — have added heat waves as local disasters.

Practical Difficulties:

- Although unstated, the **main reason** behind the reluctance to add heatwave as a notified disaster is the **potentially huge financial implication of the move**.
 - o The government has to provide monetary compensation — **Rs. 4 lakh — for every life lost because of a disaster** that is in the notified list. Grievous injuries also have to be compensated.
- The other reason is the problem in **attributing deaths to heatwaves**. In most cases, **heat itself does not claim lives**. Most people die due to other **pre-existing conditions**, made worse by the impact of extreme heat.
- **Challenge for farm sector : How to share growth gains**

India’s agriculture sector faces significant challenges in the path towards Amrit Kaal, including climate change, global trade restrictions, small land holdings, artificially low food prices, and depleting water resources. While these factors limit options, change is possible with strong political will and targeted actions.

Key issues:

1. **Climate change:** Continuously changing weather patterns threaten crop yields and livelihoods.
2. **World Trade Organization:** The existing structure of the WTO, particularly the dispute settlement mechanism, poses significant risks to India’s agricultural policies.
3. **Small land holdings:** The prevalence of small farms limits farmers’ ability to earn a sustainable income.
4. **Global food preferences:** The international emphasis on low consumer prices often translates into suppressing farm-gate prices, making farming economically unattractive.
5. **Depletion of water resources:** Excessive use of groundwater for irrigation is reaching a critical point, threatening the viability of agriculture in key areas.

Policy Failures and Systemic Issues

While external factors play a role, India's own policy landscape hasn't adequately addressed the needs of its farmers:

1. **Low investment:** Agricultural research and extension services have not received the necessary funding, despite the proven potential for high returns.
2. **Unfair markets:** Agricultural markets are inherently inequitable, and state-level policies often prioritise short-term profits over long-term investments.
3. **Distorted subsidies:** The public distribution system and skewed fertiliser subsidies have negatively impacted farm-gate prices and promoted unsustainable agricultural practices.
4. **Public debt burden:** High levels of public debt limit the government's ability to invest in the future of agriculture and provide necessary support.
5. **Governance shortcomings:** Ineffective governance and lack of accountability in agriculture ministries hinder progress.

The Key Challenge: Sustainable and Inclusive Growth :

The main challenge is not just to increase productivity, but also to ensure that the productivity gains are sustainable and benefit all stakeholders. This requires a fundamental change in approach.

The Way Forward: Urgent Action and Policy Reform :

- Investment in agricultural research and extension services has been below the level of inflation.
- In other words, funding has actually declined, even though every rupee invested in agricultural research yields 10 times more economic returns than other investments.

The Indian government must take decisive steps to address these challenges. Every delay and policy lapse further narrows future options. The Prime Minister should move in this direction:

1. **Prioritising research:** Significantly increase investments in agricultural research and extension.
2. **Reforming markets:** Implementing policies that create more fair and transparent agricultural markets.

3. **Rethinking subsidies:** Moving away from harmful subsidies to targeted support that promotes sustainable practices.

4. **Addressing debt:** Finding ways to reduce public debt and free up resources for long-term agricultural investment.

5. **Improving governance:** Reforming the governance structures of agriculture ministries to ensure accountability and effectiveness.

Government Initiatives:

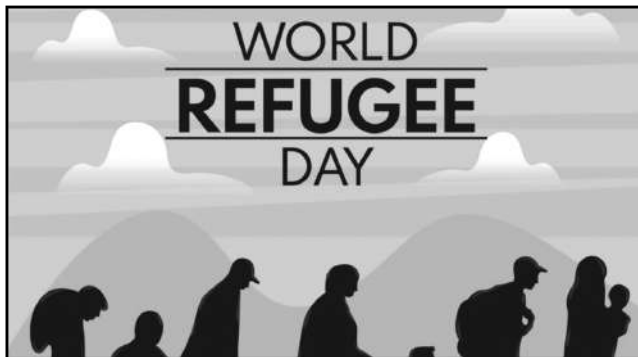
Recognizing the challenges and the need for change, the government has initiated various programs and reforms:

1. **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):** Provides direct income support to small and marginal farmers.
2. **Pradhan Mantri Fasal Bima Yojana (PMFBY):** Offers crop insurance coverage to protect farmers from losses due to natural calamities.
3. **e-National Agriculture Market (eNAM):** Creates a unified national market for agricultural commodities, aiming to provide farmers with better prices and access to markets.
4. **National Mission on Agricultural Extension and Technology (NMAET):** Focuses on improving agricultural extension services and promoting the adoption of new technologies.
5. **Soil Health Card Scheme:** Provides farmers with information about the nutrient status of their soil, helping them make informed decisions about fertiliser use.
6. **Paramparagat Krishi Vikas Yojana (PKVY):** Promotes organic farming practices to enhance soil health and reduce the use of chemical inputs.

Conclusion :

The road ahead for India's agriculture sector is undoubtedly full of challenges. However, by addressing these issues head-on, India can transform its agriculture sector into an engine of sustainable and inclusive growth, making the dream of Amrit Kaal a reality.





World Refugee Day is observed across the world every year on June 20. The day is dedicated to the millions of people who have been forced to flee their homes due to war, persecution or natural disasters.

- This day serves as an important reminder of their situation.
- It's a day to honour their resilience, advocate for their rights, and work towards a future where everyone has a place to call home.
- The custom of World Refugee Day began in South Africa but was soon accepted worldwide.

Theme : "For a World Where Refugees Are Welcomed"

This theme emphasises the collective responsibility of the global community to create inclusive and welcoming environments for refugees, where they can rebuild their lives, contribute to society, and find a sense of belonging. It calls for solidarity, empathy, and action to address the challenges faced by refugees and work towards lasting solutions.

Global Refugee Crisis Facts & Figures (2023):

- Total Forcibly Displaced:** 110 million people worldwide (UNHCR).
- Refugees:** 35.3 million
- Internally Displaced Persons (IDPs):** 62.5 million
- Asylum-Seekers:** 5.4 million
- Top Host Countries:** Türkiye (3.6 million), Iran (3.4 million), Colombia (2.5 million), Germany (2.1 million), Pakistan (1.7 million).
- Children:** Make up about 40% of the world's refugee population.

History of World Refugee Day:

- Origin:** Originally celebrated as **Africa Refugee Day**.
- International Recognition:** Declared an international day by the **United Nations General Assembly in December 2000**.
- First Celebration:** June 20, 2001, commemorating the **50th anniversary of the 1951 Refugee Convention**.

1951 Refugee Convention and its 1967 Protocol:

- Key Legal Framework:** Defines who a refugee is and outlines the **rights of refugees and the legal obligations of States to protect them**.
- Principle of Non-Refoulement:** Prohibits the forcible return of refugees to a country where they face persecution.
- 1967 Protocol:** Removed the **geographical and temporal restrictions of the 1951 Convention, extending protection to refugees worldwide and regardless of when they became refugees**.

Significance of World Refugee Day:

- Raising Awareness:** Brings global attention to the plight of refugees, their resilience, and their contributions to society.
- Advocating for Rights: Promotes the rights and protection of refugees, including access to basic necessities, education, healthcare, and legal support.**
- Fostering Inclusion:** Encourages dialogue and understanding between refugees and host communities, promoting social cohesion and integration.
- Mobilising Support: Calls for international cooperation and resource mobilisation to address the root causes of displacement and find sustainable solutions.**

Challenges Faced by Refugees:

- Loss and Trauma:** Refugees often experience immense loss, trauma, and separation from loved ones.
- Vulnerability:** They are **vulnerable to exploitation, abuse, and discrimination**.
- Integration Challenges:** Language barriers, cultural differences, and lack of access to resources can hinder their integration into new communities.
- Legal and Administrative Barriers:** Obtaining legal status, work permits, and access to essential services can be difficult.

5. **Health Concerns:** Limited access to **healthcare, mental health support, and sanitation facilities pose significant health risks.**

The Way Forward:

1. **Global Solidarity:** International cooperation is essential to address the **root causes of displacement**, provide humanitarian aid, and create safe pathways for refugees.
2. **Protection and Assistance:** Ensure access to basic necessities, healthcare, education, and legal support for refugees.
3. **Sustainable Solutions:** Invest in **long-term solutions like resettlement, integration, and voluntary repatriation when conditions allow.**
4. **Welcoming Communities:** **promote inclusive and supportive environments for refugees**, promoting their well-being and contributions to society.
5. **Empowerment and Self-Reliance:** Support refugees in **becoming self-reliant through skills training, education, and livelihood opportunities.**

Inspirational Quotes:

1. **“Everyone has the right to seek and to enjoy in other countries asylum from persecution.”** - Universal Declaration of Human Rights
2. **“Refugees are people who have lost everything except their dignity and their hopes for a better future.”** - António Guterres, UN Secretary-General
3. **“We have a shared responsibility to help refugees rebuild their lives and to create a world where everyone can live in safety and dignity.”** - Filippo Grandi, UN High Commissioner for Refugees

OPERATION BLUESTAR

Context : Slogans in favour of Khalistan (sovereign state for Sikhs) were raised at the Golden Temple complex in Punjab's Amritsar to mark the 40th anniversary of 'Operation Bluestar', while most business establishments and educational institutions in the city remained closed due to 'Amritsar bandh' call given by radical Sikh organisations to mark the day.

Operation Bluestar, an Indian Army operation of June 1984, completes 40 years Background over issue of separate land Khalistan:

1. The **demand** for a separate country for Sikhs has been around since the Partition of India, with Indian Sikhs feeling marginalized and dissatisfied with the lack of cultural and religious autonomy.

2. Concerns over administrative issues, such as river water sharing with other states, also contributed to these demands.
3. In an attempt to address these concerns, Punjab was divided into Himachal Pradesh, Punjab, and Haryana in 1966.
4. However, in the 1970s, the separatist Khalistan movement emerged, backed by Pakistan.
5. Pakistan provided support to militant elements such as Jarnail Singh Bhindranwale, supplying them with funds and weapons.

Jarnail Singh Bhindranwale:

1. Jarnail Singh Bhindranwale, leader of the Sikh seminary Damdami Taksal, emerged as a prominent figure in the escalating Khalistan separatist movement.
2. He positioned himself as the true representative of Sikh interests and encouraged violent actions among the youth.
3. Initially, Bhindranwale received backing from the Congress party to undermine the influence of their political rivals, the Shiromani Akali Dal, in Punjab.
4. However, by 1982, he allied with the Akalis, participating in the Dharam Yudh Morcha, a civil disobedience movement.
5. Seeking refuge from arrest, he established a base within the fortified Golden Temple complex, accumulating a significant arsenal of weapons and ammunition.
6. Under the guidance of former Indian Army Major General Shahbeg Singh, who had been dismissed over corruption charges, Bhindranwale's followers received training in military tactics and fortified the temple complex.

Worsening situation:

1. The killing of Deputy Inspector General of Police A.S. Atwal in 1983 marked a significant escalation in the conflict.
2. The desecration of his body, left to rot in the premises of the Golden Temple, inflamed public sentiment and led to a rise in militancy.
3. The temple complex became a fortified base of operations, further fuelling tensions. Violence escalated during this period, with numerous murders and gruesome mutilations of victims, whose bodies were often dumped in sewers.

Operational Bluestar:

1. In 1984, the government, left with no alternative, sent armed forces to neutralize Bhindranwale and other militants.

2. On June 1, CRPF fired the first shot at the temple to assess the training and strength of the militants inside.
3. On June 3, a 36-hour curfew was imposed on the state of Punjab. All communication lines were jammed, and public transportation was suspended.
4. To make it difficult for the militants, electricity lines were cut, and the media was completely censored.
5. The army entered the temple on the night of June 5 and met with furious fire from inside from trained men strategically situated at the foot of each staircase. At Bhindranwale's location, the resistance was the strongest.
6. In response, the army called for tank support and shelled Golden Temple's Akal Takht.
7. The main defenses, comprising machine guns and Chinese-made RPGs, were neutralized with the help of tanks.
8. Bhindranwale was found dead, along with 40 other corpses. The rest of the militants either surrendered or were killed.

Implications:

1. The Operation Blue Star resulted in civilian and officer casualties, causing widespread anger.
2. The structural damage to the Golden Temple complex further exacerbated tensions within the Sikh community.
3. The assassination of Prime Minister Indira Gandhi by her 2 Sikh bodyguards triggered communal violence in Delhi and nearby areas, leading to some of the worst communal violence India has ever witnessed.
4. Despite the operation, violence in Punjab did not cease, and unrest continued.
5. The operation widened the social divide between the Sikh and Hindu communities.
6. The operation negatively impacted investment in Punjab and destabilized the region's economy.

Solution:

Gill doctrine:

1. The late **KPS Gill, the Director General of Punjab Police, is widely recognized for his pivotal role in controlling the militancy in Punjab.**
2. His innovative strategy centered around targeted offensive operations, leveraging intelligence gathered by local police stations.

Rajiv-Longowal Accord:

1. On July 24, 1985, the Accord was signed between then Prime Minister of India Rajiv Gandhi and the Akali leader of Punjab, Harchand Singh Longowal.

2. The government agreed to the demands of Shiromani Akali Dal with the aim of controlling agitations.

Indian Army Gets First Indigenous Suicide Drones with Reusable Technology



Development:

1. The Indian Army has received the first batch of domestically produced man-portable suicide drones, called Nagastra-1.
2. The drones were designed and developed fully in India by Economic Explosives Limited (EEL), a subsidiary of Solar Industries, with an indigenous content of over 75%.
3. The Indian Army ordered these drones using its emergency procurement powers to address urgent needs along the Pakistan and China borders.
4. The drones were delivered within a year, demonstrating the army's ability to rapidly acquire and deploy new technologies.

Features:

1. The Nagastra-1 drones are engineered to accurately strike enemy training camps, launch pads, and infiltrators, minimising risk to soldiers.
2. They have advanced features such as abort, recover, and reuse capabilities, making them a cost-effective alternative to traditional missiles and precision munitions.
3. The drones can operate from high-altitude areas in extreme temperatures and can target a variety of soft-skin threats.

Capabilities:

1. The Nagastra-1 drones have a range of 30 km in autonomous mode and can carry a 1 kg warhead up to a range of 15 km.
2. They have an endurance of 60 minutes and a man-in-loop range of 15 km.
3. This drone can be upgraded to carry the 2.2 kg weapon up to a range of 30 kilometres.

Reusability:

1. The drones have a parachute recovery mechanism, allowing them to be retrieved and reused in case of an aborted mission.
2. This feature makes them a significant addition to the army's capability to execute shallow strikes across the border when necessary.

Significance:

1. The development of indigenous suicide drones with reusable technology is a significant milestone for the Indian Army and the country's defense industry.
2. It enhances the army's capability to execute shallow strikes across the border when necessary, while minimising risk to soldiers.
3. The use of indigenous technology also reduces dependence on foreign vendors and saves costs.

Comparison:

1. Similar systems have been used in contemporary conflicts, including the Ukraine-Russia war and the Armenia-Azerbaijan conflict.
2. Earlier, the armed forces had purchased similar systems from foreign vendors under emergency acquisitions, though their cost was much higher.

Way Forward:

1. The Indian Army is likely to continue to develop and acquire more advanced technologies to enhance its capabilities.
2. The development of indigenous suicide drones with reusable technology is expected to pave the way for further innovation in the defense industry.
3. The use of such technologies is likely to become more widespread in modern warfare, and India's development of indigenous capabilities in this area is a significant step forward.

EXERCISE RED FLAG

Date : June 16, 2024

Event: The Indian Air Force (IAF) contingent participated in Exercise Red Flag 2024, an advanced aerial combat training exercise, conducted at Eielson Air Force Base, Alaska, USA, from June 4 to 14, 2024.

Participating Countries: The exercise witnessed participation from the Indian Air Force, Republic of Singapore Air Force (RSAF), Royal Air Force (RAF) of the United Kingdom, Royal Netherlands Air Force (RNLAf), German Luftwaffe, and the US Air Force (USAF).

IAF Contingent: The IAF contingent participated with Rafale aircraft and personnel comprising aircrew, technicians, engineers, controllers, and subject matter experts.

Logistics: The transatlantic ferry of Rafale fighter aircraft was enabled by the IL-78 Air to Air Refuellers (AAR), while the transportation of personnel and equipment was undertaken by the C-17 Globemaster aircraft.

Exercise Red Flag: Red Flag is an air combat exercise conducted with multiple scenarios designed to provide realistic combat settings. The exercise involves a demarcation of forces, with the Red Force simulating Air Defence elements, and the Blue Force simulating the Offensive Composite elements.

Key Features:

- The IAF Rafale aircraft participated in Exercise Red Flag for the first time.
- The exercise included Beyond Visual Range (BVR) combat exercises as part of Large Force Engagements (LFE), in Offensive Counter Air and Air Defence roles.
- The IAF crew were actively involved in mission planning and assumed the role of Mission Leaders for designated missions during the exercise.
- The exercise was conducted in challenging weather conditions, with temperatures almost at sub-zero levels.

Outcomes:

- The exercise provided insight into interoperability with international partners and a collaborative understanding of employment philosophy in a multinational environment.
- The IAF gained experience in ferrying long distances while undertaking Air to Air refuelling enroute.
- The exercise helped in enhancing the skills and capabilities of IAF personnel.

Future Plans:

- The IAF contingent will participate in exercises with Air Force elements of Greece and Egypt on their return journey.
- The IAF will host the participating contingents from other countries during Ex-Tarang Shakti-2024, the first ever Indian multinational air exercise, to be held later this year.

Significance:

- The exercise demonstrates the IAF's capability to operate with international partners and its commitment to enhancing its operational capabilities.

- The exercise also highlights the importance of interoperability and cooperation among air forces in the region.

Key Terms:

- Exercise Red Flag: An advanced aerial combat training exercise conducted by the US Air Force.
- Rafale aircraft: A French-made multi-role fighter aircraft operated by the IAF.
- IL-78 Air to Air Refuellers (AAR): A Russian-made aerial refuelling tanker aircraft operated by the IAF.
- C-17 Globemaster: A US-made military transport aircraft operated by the IAF.
- Beyond Visual Range (BVR) combat: A type of aerial combat that takes place beyond the range of visual contact.
- Large Force Engagements (LFE): A type of aerial combat exercise that involves multiple aircraft and scenarios.



Crux of The Hindu & Indian Express

Internal Security

SECURITY IN THE PARLIAMENT

DMK Rajya Sabha MP M Mohamed Abdulla has complained to Chairman Jagdeep Dhankhar about “unprecedented misbehaviour” by personnel of the Central Industrial Security Force (CISF) who allegedly “questioned [him] on the purpose of [his] visit” to the Parliament complex on June 18.

THE DISCONTENT AMONG THE OPPOSITION:

Opposition MPs amplified Abdulla’s grievance on Wednesday. There has been disquiet among MPs ever since the Parliament complex was brought under a new security regime in May, and the Parliament Security Service (PSS) was replaced by CISF, a Central Armed Police Force under the Union Home Ministry.

THE EARLIER MECHANISM FOR SECURITY OF PARLIAMENT

Security responsibilities in the complex were with the PSS which replaced almost-100-year-old Watch and Ward Committee.

They had the training and experience required for the specialised job of securing a complex that is packed, when Parliament is in session, with almost 800 MPs, dignitaries, officials, and media personnel with sensitivity and competence.

WHY WAS THE SECURITY MECHANISM CHANGED?

The change was prompted by an extraordinary breach of security at Parliament House on December 13 last year, when two men jumped into the Lok Sabha chamber from the visitors’ gallery and set off smoke canisters.

WATCH & WARD COMMITTEE

Repercussion of bomb throwing incident in Lok Sabha Chamber, the then Central Legislative Assembly on 8 April 1929, the then president of Central Legislative Assembly, Shri Vithalbhai Patel (24 August 1925 – April 1930), set up a ‘WATCH AND WARD COMMITTEE’ on 3 September 1929.

The Watch & Ward has been renamed as Parliament Security Service (PSS) since 15 April 2009.

ABOUT PSS

PSS OF RAJYA SABHA:

- The Parliament Security Service of the Rajya Sabha Secretariat looks after the security set up in the Parliament House Complex.
- Director (Security) of the Rajya Sabha Secretariat exercises security operational control over Parliament Security Service in the Rajya Sabha Sector under the administrative control of the Rajya Sabha Secretariat.

PSS OF LOK SABHA:

- Joint Secretary (Security), Lok Sabha Secretariat is the overall in-charge of security operations of entire Parliament Security including Parliament Security Services of both the Secretariats
- It is also responsible for coordination between Delhi Police, Parliament Duty Group (PDG) and all the other allied security agencies operating within the Complex.

STRUCTURE FOR ENSURING SECURITY

- Access Control such as frisking & scanning the baggage is the responsibility of the Delhi Police.
- An Armed wing of Central Reserve Police Force- Parliamentary Duty Group is responsible for intervention in case of an armed intervention is required.
- The Parliament Security Service under the Lok Sabha Speaker is the overall incharge of security.

ABOUT CENTRAL INDUSTRIAL SECURITY FORCE (CISF)

HISTORY:

The CISF came into existence in 1969, following a major fire incident in HEC, Ranchi. Over the last 50 years the force has seen many ups and downs, given the unique mandate with which the force came into existence i.e. to give protection and security

to the employees and the property of the Public Sector Undertakings. In keeping with changing demands of the **dynamic nature of security**, the force has evolved, re-oriented and updated the nature of professional services rendered and metamorphosed from being an industrial security force into a **multi-talented, multi-tasking and multi-faceted force**, ready to face newer challenges in the future.

FUNCTIONS:

- CISF has **12 reserve battalions**, 08 training institutes and 63 other formations.
- According to the mandate, **CISF provides security to the premises staff along with the security of property and establishments.**
- CISF is providing **security to the strategic establishment**, including the Department of Space, the Department of Atomic Energy, the Airports, the Delhi Metro, the ports, the historical monuments and the basic areas of Indian economy such as petroleum and natural gas, electricity, coal, steel and mining.
- CISF is providing **protection to some private sector units** and important government buildings in Delhi.
- Presently, CISF is also providing security to the protected persons classified as **Z Plus, Z, X, Y.**
- CISF is the **only force with a customized and dedicated fire wing.**

Consultancy services offered by CISF:

- Threat Perception & Risk analysis
- Access Control & Perimeter protection
- Assessment of Manpower requirements
- Security systems applications
- Security & Fire Audit
- Document security
- Procedures for material Security.
- Internal intelligence.
- Fire protection measures
- Crisis management schemes
- Executive Protection.
- Crowd control and management procedures
- Training in security & fire protection matters to the officers and men of the organization & Security Wing.

WHAT OPERATIONS HAS CISF TAKEN OVER? (AS OF NOW)

- Central Pass Issuing Cell (CPIC) for both Rajya Sabha and Lok Sabha to issue radio frequency tags for vehicles and verify the character and antecedents of applicants;

- Access regulation for MPs, VIPs, senior government functionaries;
- Positioning of staff at the various gates;
- Regulation and coordination of VIP movement inside the complex;
- Regulation of movement of stores in and out of the complex;
- Maintenance of order in the complex, access control in the lobbies and movement regulation and discipline in the public galleries and press gallery;
- Reception office, issue of temporary passes, and operation of gadgets in the complex;
- Coordination with other security agencies, security arrangements during meetings and conferences, rehearsal of drills, security arrangements during presidential addresses;
- Presidential and vice presidential elections; assistance and protection to the Chair.

REASI TERROR ATTACK

Multiple operations were launched on Monday to track at least **two or three Lashkar-e-Taiba (LeT) militants** involved in an attack on a bus in the **Pouni area of Reasi** in Jammu and Kashmir, which left **9 pilgrims dead and over 33 injured.**

WHO IS INVOLVED?

Official sources said the early inputs analysed by the security agencies point to the involvement of **three non-local LeT militants.**

A **fourth accomplice**, suspected to be a local, **“could have acted as a lookout for the three terrorists”.**



Framework Related to Terrorism in India

- **Terrorism:** The deliberate use of violence and intimidation to achieve political, religious, or ideological goals.
- **India's Stance:** “Zero tolerance” policy against terrorism.
- **Challenges:** Lack of a universally accepted definition, making it difficult to classify terrorist acts.

Domestic Laws

- **Unlawful Activities (Prevention) Act (UAPA) (1967):** Designates terrorist organizations, criminalizes activities, and empowers authorities for investigation and prosecution.
- **National Investigation Agency (NIA) Act (2008):** Establishes a central agency for investigating and prosecuting terror-related offenses.

Institutional Framework

- **National Security Council Secretariat (NSCS):** Oversees and coordinates national security strategy, including counter-terrorism efforts.
- **Ministry of Home Affairs (MHA):** Leads domestic counter-terrorism operations and intelligence gathering.
- **National Investigation Agency (NIA):** Investigates and prosecutes major terror-related cases.

International Agreements

- India is a signatory to various United Nations (UN) conventions against terrorism.

Emerging Forms of Terrorism

- **Lone Wolf Attacks:** Self-radicalized individuals carrying out attacks without being part of a larger group.
- **Bioterrorism:** The weaponization of viruses, bacteria, or other biological toxins.
- **Drone Threats:** The use of unmanned aerial vehicles (UAVs) for attacks and surveillance.
- **Terrorist Safe Havens:** Ungoverned regions providing refuge and training grounds for terrorists.
- **Terror-Crime Nexus:** Collaboration between terrorists and transnational organized criminal syndicates.
- **Technological Exploitation:** Use of encryption, the dark web, and other technologies for terrorist activities.

Challenges for India

- **Cross-border Terrorism:** From neighboring countries, particularly Pakistan.
- **Left-Wing Extremism (LWE):** Naxalite insurgency in several states.
- **Separatist Movements:** In the Northeast and Punjab regions.
- **Radicalization and Online Propaganda:** Recruitment and spread of extremist ideologies through online platforms.
- **Cyber Terrorism:** Threats to critical infrastructure and data.

- **Pakistan's Financial Action Task Force (FATF) Grey List Exit:** Reduced international pressure on Pakistan regarding terrorism financing.

Measures to Curb Terrorism

- **Rehabilitation Programs:** Deradicalization and reintegration of individuals caught in the early stages of radicalization.
- **National Counter-Terrorism Database:** Centralized intelligence database with advanced analytics.
- **Enhanced Physical Security:** Improved surveillance, access control, and crisis management at critical locations.
- **Open-Source Intelligence (OSINT) Training:** For police forces to analyze publicly available data for threat detection.
- **Cybersecurity:** Protection against cyberattacks and espionage.
- **Community Empowerment:** Education and awareness programs, reporting suspicious activity.
- **Socio-Economic Development:** Addressing grievances in vulnerable areas.
- **Financial Tracking:** Utilizing blockchain technology to track and identify suspicious financial transactions.

• AGNIPATH SCHEME

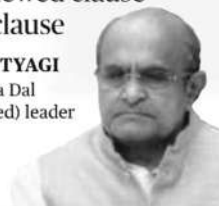
New govt. should review Agnipath scheme: JD(U)

Remove shortcomings of the scheme, says the party: LJP (Ram Vilas) chief Chirag Paswan says it should be looked into at the 'appropriate' time; NDA meeting today; Modi to take oath on June 9

Amid meetings being held by the **National Democratic Alliance (NDA)** partners to form a government, **two allies of the BJP** said on Thursday that the new government should **review the Agnipath scheme** for short-term recruitments to the armed forces.

There is anger among certain sections on the Agnipath recruitment scheme.. it should be reviewed clause by clause

K.C. TYAGI
Janata Dal
(United) leader



If they [parties] believe that a scheme has not worked for the country, they can always discuss it. Either you convince me, or I will convince you, that is how we will go ahead

CHIRAG PASWAN
Lok Janshakti Party
(Ram Vilas) chief



THE AGNIPATH SCHEME

The **Agnipath scheme** was announced on **June 14, 2022**, and is in force with the **initial batch of Agniveers**, already inducted in armed forces units after completion of their recruit training.

IS THIS SUCCESSFUL?

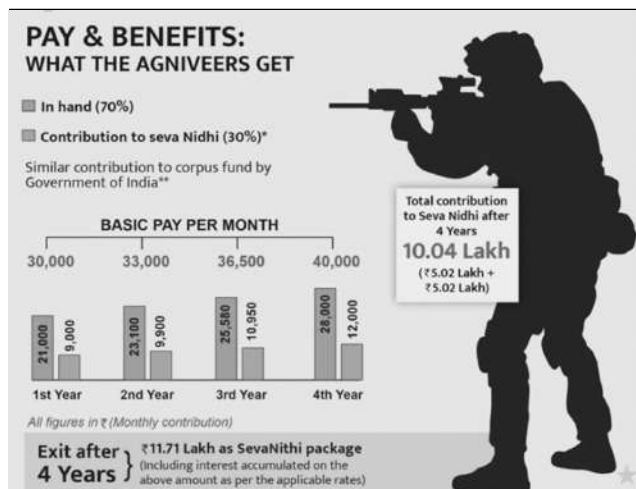
There are certain apprehensions related to **Physical fitness, Organisational solidarity, etc** but as of now **the initial feedback** on Agniveers from the units in terms of **motivation levels, intelligence, physical standards** is by and large **positive**.

AGNIPATH SCHEME

It is a major **defence policy reform** pertaining to Human Resource policy of the **three Services**.

- Idea of a short-term recruitment model or 'Tour of Duty' (ToD) was first mooted around two years back for the selection of officers and jawans, for a limited number of vacancies.
- Youth (**from 17.5 years to 23 age group**) selected under this scheme will be known as **Agniveers** who will be enrolled for a **period of four years**. They would form a distinct rank in the Armed Forces, different from any other existing ranks.
- Upon the completion of four years of service, Agniveers **will be offered an opportunity** to apply for permanent enrolment in the Armed Forces. (Up to **25% of each specific batch will be enrolled** in regular cadre based on objective criteria including performance during their four-year engagement period.)

PAY PACKAGE OF AGNIVEERS



30% of monthly pay will go in the **Seva Nidhi**. This amount will be reimbursed (with interest) at the end of 4 years period.

(Accumulation of 10.04 lakhs, but disbursement of 11.71 lakhs)

CONCERNS

- **Building cohesion:** Time period for Agnipath is too short to build cohesion as it is built over a long period of living, training and experiencing rigours of field/operations/high altitude/counter-insurgency tenures together.
- **Might not attract best candidates:** As they are likely to apply for more permanent avenues like police or paramilitary forces first. This might result in young aspirants opting for the army as second or third choice.
- **Unfair to the potential recruit:** As the absence of a continued employment guarantee at the expiry of four years when he's still in his 20s and without the skillsets or credentials required to thrive in the civilian/corporate world, could be demoralizing.
- **Less training time:** It reportedly takes two to three years to train a member of the army, but as a part of the Agnipath scheme, soldiers will only be trained for six months.
- **Potentially militarize the society:** With their ambitions of serving in the military for a full 15 years, frustrated and unemployed, the demobilised Agniveers could fall prey to the lure of crime syndicates and radical political outfits.

GLOBAL PRACTICES IN THIS CONTEXT

- The Russian military is a hybrid format combining a traditional cadre-and-reserve conscript system (includes one year of training and one year of service) and a contract-professional system.
- In Israel, the period of active-duty conscript is 32 months for men and 24 months for women, followed by a decades-long period of compulsory reserve duty.
- For French soldiers there are two types of enlistment: 1 year contract or 3-5 years contract (both renewable)



PART - 1

FORTS IN INDIAN HISTORY

Forts are historically significant **structures for defense** that have evolved from natural defenses to elaborate constructions **using local resources and technological advancements**.

HOW WAS SECURITY ENSURED ?

They were **strategically built** based on the terrain, with **hill forts** on rocky terrains and **massive walls** in plains.

WAS DEFENCE THE ONLY PURPOSE OF FORTS ?

Initially focused on defense, forts later incorporated **residential and religious structures**, expanding beyond military functions.

TYPES OF FORTS

Forts can be classified based on their physical nature, landscape in which they are located, functions which are performed from the fort, etc.

These are :

- **Dhanva Durg or Desert Fort:** This type of fort is **surrounded by a desert or an arid stretch of land** which can inhibit the swift movement of enemies.
- **Mahi Durg or Mud Fort:** This type of fort is **protected by earthen walls and ramparts**. Walls constructed of bricks and stones can also come under this category.
- **Jala Durg or Water Fort:** This type of fort is **surrounded by water bodies** which could either be natural (sea or rivers) or artificial (moats, artificial lakes etc.)
- **Giri Durg or Hill Fort:** This type of fort is situated on either the summit of a hill or a valley that is surrounded by hills.
- **Vriksha or Vana Durg, or Forest Fort:** This type of fort has a thick forest cover as a preliminary line of defense.
- **Nri Durg or fort protected by soldiers:** This type of fort primarily relies on man-power, i.e., a strong army to defend itself.
- **Palace Forts:** Fort complexes, including palaces for royalty and nobility, can transition from military outposts to administrative and residential hubs. Some forts serve dual purposes as strategic military stations and residential centers.
- **City Forts:** Forts can attract populations and lead to the development of cities nearby. Existing cities were sometimes enclosed within fortifications for

protection, with complexes including schools, worship areas, residential quarters, palaces, and farms.

- **Trading Forts:** Forts were built as hubs for commercial and financial activities, with some evolving from warehouses or trade links to fortified structures for protection. European forts in India exemplify this transformation.

Many a time, the forts of India display a **combination of these categories**. For example :

- * The **Jaisalmer Fort is also a hill fort in addition to being a desert fort**.
- * The Kalinjar Fort is a Giri Durg as well as a Vana Durg.
- * The Gagron Fort of Rajasthan combines the features of a water fort and a hill fort.

ROLE OF FORTS IN INDIAN HISTORY

The term '**fort**' typically refers to a **strong protective structure or place**, often enclosed by a **wall, wooden palisade, or fence**, and further protected by moats, ditches, or multiple fortified walls.

These structures were **guarded by warriors and strategically located** to enhance the defensive features of a town, city, or kingdom capital.

Over centuries, India has seen the **rise of numerous forts**, from **full-fledged complexes to minor defensive posts**, scattered across its landscape.

EARLY FORTIFICATION

Prehistoric Era:

Fortifications date back to prehistoric times when **natural and artificial means** were used for protection. The Harappan civilization (c. 3000-1500 BCE) provides the earliest archaeological evidence of fortified cities like **Dholavira and Harappa**, with impressive **walls and citadels**.

Historic Period:

By the **4th century BCE**, fortified cities such as **Pataliputra, Kosambi, Ujjain, and Takshashila** emerged. These cities often had **ramparts, gates, and bastions** for protection.

FORTS THROUGH DYNASTIES

- **Rajput Forts:** Examples include Chittorgarh, Kumbhalgarh, and Jaisalmer, characterized by their massive stone walls and strategic locations.
- **Sultanate and Mughal Forts:** Forts like Agra Fort and Delhi's Red Fort represent Mughal architectural grandeur with their extensive use of red sandstone and intricate designs.

- **Maratha and Sikh Forts:** Maratha forts like Raigad and Rajgad, and Sikh forts like Qila Mubarak in Patiala, illustrate regional defensive strategies and architectural styles.
- **Colonial Forts:** European powers built forts such as Fort St. George in Chennai and Fort William in Kolkata, incorporating European defensive techniques.

SIGNIFICANCE

- **Strategic Importance:** Forts were crucial for the defense of kingdoms, protecting against invasions and serving as military strongholds.
- **Political and Administrative Centres:** Many forts served as administrative hubs and royal residences, symbolizing the power and authority of rulers.
- **Cultural and Architectural Heritage:** Forts are a testament to India's rich cultural and architectural heritage, reflecting the diverse influences and engineering prowess of different periods.
- **Economic and Trade Control:** Strategically located forts controlled trade routes and economic resources, enhancing the wealth and stability of kingdoms.

PART - 2

GOLCONDA FORT

Golconda Fort, derived from the Telugu word 'Golla Konda' meaning **shepherd's hill**, is a historic fortress located in **Hyderabad, Telangana**.

It has played a significant role in the history of the **Deccan region**.



HISTORY

- **Early History:** Originally ruled by the Kakatiyas, Golconda was fortified and expanded under the Bahmani Sultanate from 1363 AD onwards.
- **Qutb Shahi Dynasty:** Sultan Quli Qutb-ul-Mulk founded the Qutb Shahi dynasty in 1518 AD and established Golconda as the capital.
- **Cultural Patronage:** The Qutb Shahi rulers were patrons of Deccani and Telugu literature, contributing significantly to the cultural landscape of the region.

ARCHITECTURE

Fortifications: Golconda Fort features a robust three-tiered fortification with a moat and eight entrance

gates, including Fateh Darwaza, Moti Darwaza, and others.

Structures: It includes mosques like Jama-e-Masjid and Taramati Mosque, palaces, audience halls (Diwan-e-Aam, Diwan-e-Khas), and functional buildings like the Aslah Khana (Armoury).

SIGNIFICANT STRUCTURES

- **Jama-e-Masjid:** Founded by Sultan Quli Qutb Shah I, this mosque is a notable architectural piece inside the fort.
- **Taramati Mosque:** Known for its elegant design with three arches and minarets, it reflects the artistic prowess of the Qutb Shahi period.
- **Baradari (Darbar Hall):** A double-story building serving as the General Assembly, offering panoramic views from its high elevation.



- **Aslah Khana (Armoury):** A three-story structure once used to store weapons, displaying intricate architectural details.
- **Fateh Darwaza:** To the east of fort is this double gate which was opened by ABdullah Khan Panni in 1687 AD to allow the Aurangzeb army to enter.



- **Water Management**
Durg Tank : A reservoir that supplied water to the fort and its gardens, showcasing advanced hydraulic engineering for the time.
Cisterns : Various cisterns distributed water throughout the fort, ensuring a steady supply for domestic and military needs.

ISSUES

- **Preservation Challenges :** Golconda Fort faces challenges in preservation due to its age and exposure to natural elements.
- **Tourism Impact :** Managing tourism while preserving historical integrity is a continuous challenge.

SIGNIFICANCE

- **Cultural Heritage** : Golconda Fort stands as a testament to the rich cultural and architectural heritage of the Qutb Shahi dynasty.
- **Tourist Attraction** : It attracts tourists and historians alike, offering insights into medieval Indian fortification and lifestyle.

FORTS & PORTS IN MEDIEVAL INDIA

Maharashtra's coastal geography has played a significant **role in its history**, especially during the medieval period.

The **Sahyadri mountain range** gives rise to **numerous rivers** that flow into the Arabian Sea, forming creeks along the coast.

These **geographical features facilitated the construction of various forts**, particularly at the mouths of these creeks, to protect trade and commerce.

COASTAL FORTS

- The coastal region of Maharashtra is characterized by bays with narrow inlets or creeks, coastal plains, and headlands. Numerous forts were constructed at strategic points to guard against invasions and to control trade routes. Examples include :
 - Revdanda and Korlai Forts on Kundalika Creek.
 - Janjira Fort near Danda Rajpuri Creek.
- Out of twenty-eight major creeks in Maharashtra, twenty-one have forts at their mouths as well as further upstream.

INLAND/ HINTERLAND FORTS

Forts situated more than **two kilometres from the coast are known as inland or hinterland forts**.

These forts **played a crucial role** in securing the hinterland and ensuring the safe passage of goods to and from the ports.

Notable inland forts include :

- Birwadi Fort
- Avchitgad Fort

PORTS & TRADE

Maharashtra's ports were hubs of trade, interacting with various regions and countries. Significant ports included :

- Sopara
- Sanjan
- Chaul
- Thana
- Kalyan

These ports facilitated **extensive trade with the West** and were mentioned in historical records and travel accounts from various periods.

DECLINE OF PORTS:

The rise of Mumbai as a **major port led to the decline of smaller ports** like **Chaul and Dabhol**. Siltation of rivers also contributed to the reduced navigability of these ports, further diminishing their significance.

SIGNIFICANCE

- The forts and ports of medieval Maharashtra were instrumental in shaping the region's trade and defense mechanisms.
- They facilitated the flow of goods and people, contributing to the economic and cultural exchanges between India and other parts of the world.
- The strategic construction of forts ensured the protection of these vital trade routes from foreign invasions and internal conflicts.

PART - 3

INDIA ON THE WORLD HERITAGE LIST

Over **750 cultural, natural, and mixed** sites have been inscribed in the UNESCO World Heritage List.

Their splendour enriches our lives, and illustrates the diversity of our planet, and its inhabitants.

THE CONVENTION:

The **Convention Concerning The Protection of the World Cultural and Natural Heritage**, an international agreement adopted by the **General Conference of UNESCO In 1972**, was founded on the premise that **certain places on Earth are of outstanding universal value** and as such should form part of the Common heritage of humankind.

The **nations or States Parties** that **adhere to the Convention** have become **part of an international community** united in a common mission to identify and safeguard our world's most outstanding natural and cultural heritage.

THE NOMINATION PROCESS

Only countries that have signed the World Heritage Convention, pledging to protect their natural and cultural heritage, **can submit nomination** proposals for properties on their territory to be considered for inclusion in UNESCO's World Heritage List.

THE STEPS IN THE PROCESS:

1. Tentative List

The **first step** a country must take is to **make an 'inventory' of its important natural and cultural heritage sites** located within its boundaries.

This 'inventory' is known as the Tentative List, and provides a forecast of the properties that a State Party may decide to submit for inscription in the **next five to ten years and which may be updated at any time**. It is an important step since the World Heritage Committee cannot consider a nomination for inscription on the World Heritage List unless the property has already been included on the State Party's Tentative List.

2. The Nomination File

- * By preparing a Tentative List and selecting sites from it, **a State Party can plan when to present a nomination file.**
- * **The World Heritage Centre** offers advice and assistance to the State Party in preparing this file, which needs to be as exhaustive as possible, making sure the necessary documentation and maps are included. **The nomination is submitted to the World Heritage Centre** for review and to check it is complete.
- * Once a nomination file is complete the **World Heritage Centre sends it to the appropriate Advisory Bodies** for evaluation.

3. The Advisory Bodies

A nominated property is independently evaluated by **two Advisory Bodies mandated by the World Heritage Convention:**

- **The International Council on Monuments and Sites (ICOMOS)** and
- **The International Union for Conservation of Nature (IUCN)**, which respectively provide the World Heritage Committee with evaluations of the cultural and natural sites nominated.

The **third Advisory Body is the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)**, an intergovernmental organization which provides the Committee with expert advice on conservation of cultural sites, as well as on training activities.

4. The World Heritage Committee

Once a site has been nominated and evaluated, **it is up to the intergovernmental World Heritage Committee** to make the final decision on its inscription. Once a year, the Committee meets to decide which sites will be inscribed on the World Heritage List. It can also defer its decision and request further information on sites from the States Parties.

THE CRITERIA FOR SELECTION

To be included on the World Heritage List, sites must be of outstanding universal value and meet at least one out of ten selection criteria.

These criteria are explained in the Operational Guidelines for the Implementation of the World Heritage Convention which, besides the text of the Convention, is the main working tool on World Heritage.

The criteria are regularly revised by the Committee to reflect the evolution of the World Heritage concept itself.

THE 10 SELECTION CRITERIAS

- (i) To represent a masterpiece of human creative genius.

- (ii) To exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.
- (iii) To bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.
- (iv) To be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.
- (v) To be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.
- (vi) To be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria).
- (vii) To contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.
- (viii) To be outstanding examples representing major stages of earth's history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.
- (ix) To be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants & animals.
- (x) To contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

HOW MANY UNESCO WORLD HERITAGE SITES IN INDIA ?

Now, with the recent addition of Shantiniketan & Sacred Ensembles of Hoysalas in 2023, India has 42 UNESCO heritage sites. (34 CULTURAL; 7 NATURAL & 1 MIXED).

<https://whc.unesco.org/en/statesparties/in/>

Which Country has the highest no. of sites?

Italy>China>Germany> France> Spain> India.



Persons in News

Major Radhika Sen



Major Radhika Sen is an Indian peacekeeper who was awarded the UN Military Gender Advocate of the Year in 2023 for her outstanding service and contributions to gender-sensitive projects at the UN peacekeeping operation MONUSCO in the Democratic Republic of the Congo. As the

commander of the Engagement Platoon for the Indian Rapid Deployment Battalion, she improved the safety and well-being of local people, particularly in the conflict-torn North Kivu area. She advocated for gender sensitivity, creating a welcoming environment for all, and went beyond military service to provide education and vocational training to marginalized groups, including women and children. She empowered women to fight for their rights and participate in community discussions on peace and safety.

Who is Julian Assange?

Julian Assange, the 52-year-old Australian founder of WikiLeaks, was released from a UK prison on June 24 after a long battle with governments worldwide, particularly the US. Assange reached a deal with the US Department of Justice, admitting guilt to a single criminal count of obtaining and disclosing classified information without permission, and will not face additional prison time beyond the five years he has already served. Assange founded WikiLeaks in 2006, a website known for promoting transparency by disclosing confidential government and corporate documents. WikiLeaks gained international recognition for releasing classified US documents, including accounts of the US military's actions in Afghanistan and Iraq, and US diplomatic cables in 2010, which strained US relations with other countries.



Julian Assange

Who is Mark Rutte, next Secretary-General of NATO?



Mark Rutte

Mark Rutte, the current Prime Minister of the Netherlands, has been named the next Secretary-General of NATO, taking over from Jens Stoltenberg of Norway on October 1. Rutte's appointment was backed by all 32 NATO member countries after his main opponent, Romanian President Klaus Iohannis, dropped out of the race. As a vocal opponent of Russian aggression and strong supporter of Ukraine, Rutte has the support of major NATO countries like the US, UK, France, and Germany. As Secretary-General, Rutte will face significant challenges, including maintaining NATO's support for Ukraine during its ongoing war with Russia and addressing concerns about the potential return of Donald Trump to the US presidency, which could impact the alliance's unity. Rutte's priority will be to ensure NATO's collective security and maintain unity among its member countries.

Arundhati Roy Awarded PEN Pinter Prize 2024

Indian author Arundhati Roy has been awarded the 2023 PEN Pinter Prize, a prestigious literary award that recognizes outstanding literary merit and critical engagement with global issues. Roy, 62, is a renowned author and outspoken activist, known for her powerful writing and advocacy on human rights, minority rights, and press freedom in India. Her debut novel, "The God of Small Things", won the Booker Prize in 1997, and her work has had a broader impact beyond literature, addressing important global and local issues with wit and style. As an "internationalist thinker", Roy's writing and activism continue to inspire and influence people around the world, earning her a reputation as a powerful and controversial figure in modern debate.



Arundhati Roy

Ebrahim Raisi



Iran's President Ebrahim Raisi and Foreign Minister Hossein Amir-Abdollahian tragically died in a helicopter crash on May 19, 2024, near the Azerbaijan-Iranian border.

The crash, which occurred in heavy fog and mountainous terrain, resulted in the deaths of all onboard, including several officials and bodyguards. Raisi's death comes at a critical time, with Iran facing international scrutiny over its nuclear program and military actions. His passing will trigger elections for a new president within 50 days, with the vice president set to assume interim leadership pending confirmation from the supreme leader.

First Indian Space Tourist Completes Sub-Orbital Flight

Gopi Thotakura, a commercial pilot from India, made history by becoming the first Indian to embark on a recreational space trip on May 19. He flew on a Blue Origin-owned spaceship, reaching an altitude of 105 km above Earth, crossing the Karman line, which marks the boundary between the Earth's atmosphere and space. The entire flight lasted only 10 minutes, but marked a significant milestone for India in the field of space travel.



Claudia Sheinbaum

Claudia Sheinbaum, a 61-year-old climate scientist and academic, has made history by becoming the first female President of Mexico in 200 years. She won the election on June 6, 2024, and will take office on



October 1, 2024, succeeding President Andres Manuel Lopez Obrador. Sheinbaum, a member of the MORENA Party, will also become the first person of Jewish background to lead the predominantly Catholic country. Prior to her presidency, she served as the head of government of Mexico City.



Current Affairs MCQ'S

- Consider the following statements and mark the correct one:
 - Pulses prices go up during El Nino years in India.
 - Pulses imports are made less restrictive during El Nino Years in India.(A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
- Consider the following statements and mark the correct one:
 - Pulses production in India has fallen regularly in the last three years.
 - Pulses imports were the highest in India in 2023-2024 in the last three fiscal years.(A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
- Which of the following organisations is/are responsible for releasing the Global Hunger Index?
 - Welthungerhilfe
 - Concern Worldwide
 - International Food Policy Research Institute (IFPRI)(A) Only 3 (B) Only 1 & 2
(C) Only 2 & 3 (D) All of these
Ans. (D)
- Which one among the following statements is/are true about IFPRI?
 - IFPRI is headquartered in New York.
 - It is a specialised agency under the UN.(A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (D)
- Consider the statements and mark the correct one:
 - Agniban is the first private Launch Vehicle of India.
 - The cryogenic stage of Agniban is developed by 3D printing.(A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (B)
- Which of these can be the benefits of 3D printed rocket?
 - The cost is lowered.
 - It can carry small satellites.
 - It can reduce the probability of failure.(A) Only 1 (B) Only 3
(C) Only 1 & 3 (D) All of the above
Ans. (C)
- Which among the following can be considered as the reason for Water Crisis in Delhi?
 - Increasing temperatures leading to increased demand.
 - In - Migration(A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
- Which agency has launched the James Webb Space Telescope?
 - NASA
 - Canadian Space Agency
 - European Space Agency
 - All of the aboveAns. (D)
- Consider the following statements and mark how many of them are correct?
 - James Webb Space Telescope is located in the Lagrange Point 2.
 - Hubble Space Telescope is located at Lagrange Point 1.
 - James Webb Space Telescope can detect objects in the near & mid infrared spectrum.(A) Only 1 statement is correct
(B) Only 2 statements are correct
(C) Only 3 statements are correct
(D) All the statements are correct
Ans. (B)
- Which of the following have been the probable benefits of Digital India?
 - Increase in Transparency & Accountability.
 - Better delivery of services to the people.
 - Reduction of poverty.(A) Only 1 (B) Only 1 & 2
(C) Only 1 & 3 (D) All of the above
Ans. (D)
- Which among the following categories of people are allowed to cast their vote via postal ballot?
 - Service Men
 - Voters deployed in Election Duty.
 - All the voters detained in the prisons of India.
 - Cricketers playing for India in an ongoing series during elections.(A) 1, 2 & 3 (B) 1 & 2 only
(C) 1, 2 & 4 (D) None of these
Ans. (B)

12. Consider the statements and mark the correct one:
- The postal Ballot counting begins before EVM counting and has to mandatorily end before the EVM counting completes.
 - It is mandatory to count VVPAT slips from 5 polling booths in a state.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (D)
13. Which one of the statements is correct wrt Electronically Transmitted Postal Ballot System for Service men?
- The E postal ballot is sent to the voter via electronic means.
 - The E postal ballot is sent to the Commanding Officer of the voter via electronic means.
 - The E postal ballot is sent via electronic means but received back by ECI via post.
 - None of the above
- Ans. (C)
14. Which among can be probabilities in a Coalition govt.
- Economic Reforms will be difficult.
 - A sense of political instability will always loom.
 - Better accountability of the govt.
- (A) Only 1 & 2 (B) Only 2
(C) Only 1 & 3 (D) All of these
Ans. (D)
15. Which of the following reforms/laws have been adopted during a coalition government in the center?
- National Food Security Act, 2013
 - The Farm laws of 2020-2021
 - FRBM Act, 2003.
- (A) Only 1 (B) Only 1 & 3
(C) Only 3 (D) All of these
Ans. (B)
16. Which of these policies/laws have been categorised under the Rights Based Approach?
- MGNREGA
 - Fiscal Responsibility & Budgetary Management Act
 - National Food Security Act
 - Right to Information
- (A) 1, 2 & 3 (B) 2 & 4
(C) 1, 3 & 4 (D) 1 & 4
Ans. (C)

17. NOTA was introduced for:
- Upholding the Right to Privacy of the voter.
 - Increasing voter turnout.
 - Conducting re elections in any parliamentary constituency if NOTA votes are the highest.
 - None of the above
- Ans. (A)
18. Consider the statements and mark the correct one:
- NOTA is applicable in all the 3 tiers of electoral processes.
 - If, at the panchayat level, the NOTA votes are maximum in any constituency of any state, re elections will be ordered for that constituency.
- (A) Only 1
(B) Only 2
(C) Both 1 & 2
(D) Neither 1 nor 2
Ans. (A)
19. When and by which body was the Special Category Status introduced?
- 1969; 4th Finance Commission.
 - 1969; 5th Finance Commission.
 - 1969; Planning Commission.
 - None of the above
- Ans. (B)
20. Which among these are the factors considered for providing Special Category Status?
- Difficult and hilly terrain.
 - Low population density.
 - Non viable nature of state finances.
- (A) 1 & 2 only (B) 1 & 3 only
(C) 1 only (D) All of these
Ans. (D)
21. Consider the following statements and mark the correct one:
- It has been mandated by the constitution to allow jailed lawmakers to go for administering oath.
 - According to Parliamentary conventions, if an MP is absent for over 60 days from all the meetings without permission, then her seat would be declared vacant.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (D)

22. Consider the statements and mark the correct one:
1. A candidate once convicted for any offence and punished by 2 years or more, stands disqualified as per article 105 of the constitution.
 2. For attending a Parliament session or to cast a vote in the Parliament, the lawmaker will have to move court for permission.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (B)
23. Consider the following statements and mark the correct one:
1. There are more women MPs in Lok Sabha in 2024 as compared to 2019.
 2. Women contesting 2024 Lok Sabha polls were the highest in the polling history of India.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (B)
24. Consider the statements and mark the correct one:
1. The CPEC is part of the Belt & Road Initiative (BRI).
 2. The CPEC passes through the PoK & Balochistan regions of Pakistan.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
25. The CPEC connects which province in China to which province of Pakistan?
- (A) Hainan to Balochistan
(B) Xinjiang to Balochistan
(C) Guangdong to Balochistan
(D) Yunnan to Balochistan
Ans. (B)
26. Which of the following are the features of CPEC?
1. Transform Pakistan's economy by building infrastructure.
 2. Developing Special Economic Zones for Industrial Development in Pakistan.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
27. Which of these can cause Antimicrobial Resistance?
1. Overuse of Antibiotics in Poultry Farms.
 2. Overuse of Antibiotics in Humans especially children.
 3. Incomplete dosage of antibiotics.
- (A) Only 1 & 2 (B) Only 2 & 3
(C) Only 2 (D) All of the above
Ans. (D)
28. What are peptides?
- (A) These are lab grown antimicrobials.
(B) These are good bacterias present in the Human Gut.
(C) These are viruses having the potential to cause a deadly pandemic.
(D) None of the above
Ans. (D)
29. Consider the following statements wrt Agnipath Scheme and mark the correct one:
1. Agnipath Scheme is a scheme for temporary employment for all entry level ranks for the Armed forces & Central Armed Police Forces.
 2. The tenure of temporary employment is 4 years under the scheme.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (B)
30. Which of the following forces can have recruits via the Agnipath Scheme?
- (A) Indian Air Force
(B) Border Security Force
(C) Indian Coast Guard
(D) Central Reserve Police Force
Ans. (A)
31. Consider the statements and mark the correct one:
1. The MPC has to meet at least once in two months as per the RBI Act.
 2. The MPC is mandated to keep the repo rate in the range of 4+/-2%.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (D)
32. Consider the statements and mark how many of them are correct?
1. The Monetary Policy Committee (MPC) is a 6 member committee comprising of all the members nominated by the government.
 2. The MPC decides on Policy Interest Rates by majority.
 3. The Chairman of MPC is chosen by majority vote from among the members.
- (A) Only 1 statement is correct
(B) Only 2 statements are correct
(C) All the statements are correct
(D) None of the statements are correct
Ans. (A)
33. Consider the statements and mark the correct one:
1. If MPC fails to maintain inflation in the target range of 2-6%, for 1 quarter, then it has to submit a report to the government.
 2. If during voting in MPC, there is a tie situation, then the Chairman of the committee has the power of casting vote.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (B)

34. Consider the statements and mark the correct one:
1. Bangladesh is India's top export destination in South Asia in 2023-24.
 2. Many anti India separatist groups have taken shelter in Bangladesh.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
35. Consider the following statements and mark the correct one:
1. India & Seychelles share a strategic partnership.
 2. India recently constructed an air strip in Agelega recently which lies in Seychelles Jurisdiction.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (A)
36. Who administers oath to the President of India?
- (A) The outgoing President
(B) The Vice President
(C) The Chief Justice of India
(D) None of the above
Ans. (C)
37. Consider the statements and mark the correct one:
1. The Cabinet Committees are set up by the President of India.
 2. Cabinet Committees are formed after allocation of ministerial portfolios.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (B)
38. How many of the following statements wrt Cabinet Committees are true?
1. The Cabinet Committees do not have a fixed composition.
 2. Only Cabinet Ministers are part of these Committees.
 3. If the PM is part of any committee, he is the de facto head.
 4. Members from the alliance partners can be part of the committee.
- (A) Only 1 statement is correct
(B) Only 2 statements are correct
(C) Only 3 statements are correct.
(D) All four statements are correct
Ans. (C)
39. Which of the following countries is/are part of BRICS?
1. UAE 2. Argentina
 3. Bangladesh 4. Saudi Arabia
 5. Ethiopia
- (A) 1, 2, 4 & 5 (B) 1, 4 & 5
(C) 1 & 4 (D) 1, 3 & 5
Ans. (B)
40. Which of the following is the reason for Argentina backing out from BRICS?
- (A) Argentina's Economy does not qualify it to be a member.
(B) Argentina's Leadership is pro west.
(C) Argentina does not want to be in a grouping where Brazil is.
(D) None of the above
Ans. (B)
41. What was Operation Cactus?
- (A) An operation undertaken by India to support Maldives in the aftermath of Tsunami of 2004.
(B) An operation undertaken by China in Maldives to weed out India.
(C) An operation undertaken by India to support Maldives during the breakdown of a desalination plant there in 2014.
(D) None of the above.
Ans. (D)
42. Which among the following factors is signifying strategic importance of Maldives for India?
1. Maldives can help India to counter the Belt & Road Initiative (BRI).
 2. Maldives can help India to extend its influence on the Indian Ocean Region.
 3. Various Sea Lines of Communication passes in the vicinity of Maldives.
 4. Maldives is part of the India Middle East Europe Economic Corridor- a multimodal connectivity project to counter China's BRI.
- (A) Only 1 & 2
(B) 1, 2 & 3
(C) 1, 2 & 4
(D) All of the above
Ans. (B)
43. Consider the statements and mark the correct one:
1. European Parliament makes the budget for EU countries.
 2. European Parliament meets in France.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)

44. Consider the following pairs and mark how many of them are correctly matched:
1. European Commission: Comprises of ministers of EU countries for coordination of policies.
 2. The Council of EU: The Executive arm of European Parliament.
 3. The European Parliament: Makes laws & budget for EU.
- (A) Only 1 pair is correctly matched.
 (B) Only 2 pairs are correctly matched.
 (C) All the pairs are correctly matched.
 (D) None of them are correctly matched.
 Ans. (A)
45. Consider the statements and mark the correct one:
1. The seats in the European Parliament are allocated by progressive proportionality principle.
 2. No country can have fewer than 6 or more than 96 MEPs.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (B)
46. Which of the following is/are notified disasters?
1. Tsunami 2. Cyclone
 3. Heat waves 4. Lightning
- (A) Only 1 & 3 (B) Only 1 & 2
 (C) 1, 2 & 4 (D) All of the above
 Ans. (B)
47. Consider the statements and mark the correct one:
1. Whenever a notified disaster occurs, the states can utilize funds from National Disaster Response Fund.
 2. The funds from State Disaster Response Fund can be utilized for a non notified disaster also.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (A)
48. Consider the statements and mark the correct one:
1. The G7 was formed in the aftermath of oil shocks of the 1970s.
 2. Russia was a founding member of G7.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (A)
49. Consider the statements and mark the correct one:
1. Nitrous Oxide's main source of emission is agriculture.
 2. Nitrous Oxide can stay longer in the atmosphere than Carbon Dioxide and cause Global Warming.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (A)
50. Which of the following statements is true?
1. Mercy petition against death penalty can be filed with the governor only when the HC of the state has approved the sentence.
 2. Article 161 of the constitution gives the governor the power to pardon a sentence.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (B)
51. In which of the following cases the President can pardon but the governor cannot?
- (A) A death sentence
 (B) A court Martial
 (C) A Union Law
 (D) All of the above
 Ans. (D)
52. A curative petition can be filed in which of the following scenarios?
- (A) When the petitioner is not satisfied with the judgement.
 (B) When the petitioner appeals to correct an error in judgement.
 (C) When you want to appeal to a larger bench.
 (D) None of the above
 Ans. (B)
53. Which of the following ministries administers NTA?
- (A) Ministry of Human Resources Development
 (B) Ministry of Skill Development
 (C) Ministry of Home Affairs
 (D) None of the above
 Ans. (D)
54. Which of the following examinations are conducted by NTA?
- (A) JEE (B) CAT
 (C) CUET (D) Both A & C
 Ans. (D)
55. In which country India constructed the Agalega Air Strip?
- (A) Seychelles (B) Madagascar
 (C) Mauritius (D) Ethiopia
 Ans. (C)
56. Consider the statements and mark the correct one:
1. India announced about its membership to the I2U2 grouping in the G20 Summit of 2023.
 2. It is anticipated that India's influence in West Asia will increase with the materialisation of India Middle East Europe Economic Corridor.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (B)

57. CoP 29 is scheduled to be conducted in which city/country?
 (A) Dubai/UAE
 (B) Sharm-el-sheikh/Egypt
 (C) Baku/Azerbaijan
 (D) Astara, Azerbaijan
 Ans. (C)
58. Consider the statements and mark the correct one:
 1. New Collective Quantified Goal is about keeping the global temperatures within the 1.5 degree celsius limit by 2100.
 2. In CoP 15 (2009), it was mandated for the Annexure 2 countries to provide 100 billion USD funds to developing countries every year starting from 2010.
 (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (D)
59. For how many of the following purposes is the Climate Fund required by developing countries?
 1. For gathering climate related data.
 2. For installing renewable energy projects.
 3. For constructing climate resilient infrastructure.
 (A) For only 1 purpose.
 (B) For only 2 purposes.
 (C) For all purposes.
 (D) For none of the mentioned purposes.
 Ans. (C)
60. Which among the following was the agenda of the recently concluded Peace talks wrt Russia Ukraine war in Switzerland?
 1. Nuclear Safety 2. Global Food Security
 (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (C)
61. Which of the following countries have refused to sign the Communique issued post the Peace talks in Switzerland in June 2024?
 1. India 2. Germany
 3. The UAE 4. Mexico
 5. The UK
 (A) Only 1 & 3 (B) Only 1, 2 & 5
 (C) Only 1, 3 & 4 (D) Only 1 & 4
 Ans. (C)
62. Consider the following statements and mark the correct one:
 1. The Union COM which sworn in 2024, is the highest ever in strength.
 2. The constitution defines the rank & hierarchy of COM.
 (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (D)
63. The Constitution has imposed restrictions on the strength of the Council of Ministers under which of the Constitution Amendment Act?
 (A) 71st CAA (B) 72nd CAA
 (C) 91st CAA (D) 92nd CAA
 Ans. (C)
64. Which of these are areas of cooperation under Initiative on Critical & Emerging Technologies (iCET)?
 1. Overall Supply Chain Resilience
 2. Defence Technology
 3. Space
 4. Shale gas
 (A) Only 2 & 3 (B) Only 1 & 2
 (C) Only 1,2 & 3 (D) All of the above
 Ans. (A)
65. Consider the following statements and mark the correct one:
 1. Prevention of Sexual harassment is for giving protection to women Against sexual harassment in Organised Sector Only.
 2. It is mandatory for organisations in the formal sector to constitute and Internal Complaints Committee headed by a woman.
 (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (B)
66. Which of the following wrt cases under PoSH Act is true?
 (A) The reported cases under the act has been on the rise since 2016.
 (B) The PoSH act is applicable in the entire government & private sector.
 (C) The PoSH act was enacted in 2010.
 (D) None of the above
 Ans. (B)
67. Consider the following statements and mark the correct one:
 1. Indira Point is located on the Great Nicobar Island.
 2. Andaman & Nicobar group of islands are separated by 10 degree channel.
 (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (C)

68. Consider the following pairs and mark how many of them are correctly Matched?
- Galathea National Park: Great Nicobar Island
 - Great Nicobar Biosphere reserve: UNESCO World Heritage site
 - Nicobarese Tribes: Particularly Vulnerable Tribal Group
- (A) Only 1 pair is correctly matched
 (B) Only 2 pairs are correctly matched
 (C) All the pairs are correctly matched
 (D) None of the pairs are correctly matched
 Ans. (C)
69. The Red Flag Exercise is hosted by which country?
- (A) India (B) NATO Countries
 (C) Australia (D) USA
 Ans. (D)
70. Consider the statements and mark the correct one:
- The progress of monsoon is rapid until central India and thereafter it slows down.
 - The prediction of an above average monsoon for 2024 is due to La Nina conditions replacing the el nino conditions.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (C)
71. A positive Indian Ocean Dipole means:
- Excessive warming of Eastern Indian Ocean leading to increased rainfall in India.
 - Excessive warming of Eastern Indian Ocean leading to decreased rainfall in India.
 - Excessive warming of Western Indian Ocean leading to increased rainfall in India.
 - Excessive warming of Western Indian Ocean leading to decreased rainfall in India.
- Ans. (C)
72. Who appoints the Pro-tem Speaker?
- The outgoing Speaker
 - The Prime Minister
 - The newly elected members of Lok Sabha
 - None of the above
- Ans. (D)
73. The oath of which of the following is included in the third schedule?
- A judge of a HC
 - The Minister of Union
 - The CAG of India
 - The Attorney general of India
 - The Speaker of Lok Sabha
- (A) 1, 2 & 3 (B) 2 & 3
 (C) 1, 3 & 4 (D) All of the above
 Ans. (A)
74. Consider the statements & mark the correct one.
- Pro-tem Speaker administers oath to the new ministers.
 - Pro-tem Speaker finds mention in the constitution of India.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (A)
75. Which of the following are components of the newly signed strategic partnership between Russia & North Korea?
- Both countries will support each other militarily in case of an attack on any one of them by a third party.
 - Energy ties will strengthen.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (C)
76. Consider the statements & mark the correct one:
- Juneteenth is celebrated as a federal holiday in USA to commemorate the end of slavery.
 - It was June 19 1863 when officially slavery ended in USA.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (A)
77. Consider the statements & mark the correct one:
- The Parliamentary Security Service replaced the Watch & Ward Committee in 2010.
 - The Parliamentary Security Service was responsible for overall security of the Parliament.
- (A) Only 1 (B) Only 2
 (C) Both 1 & 2 (D) Neither 1 nor 2
 Ans. (B)
78. Who was the President of the Central Legislative Assembly when Bhagat Singh & Batukeshwar Dutt threw bombs in the chamber?
- RC Dutt
 - Sir Dadabhai Naoroji
 - Vithalbhai Patel
 - Moti Lal Nehru
- Ans. (C)
79. Consider the statements & mark how many of them are true?
- CISF is under the administrative control of Ministry of Defence.
 - Delhi Police is under the administrative Control of Ministry of home Affairs.
 - CISF is the only paramilitary force to have its own dedicated fire wing.
- (A) Only 1 statement is correct
 (B) Only 2 statements are correct
 (C) All the statements are correct
 (D) None of the statements are correct.
 Ans. (B)

80. Consider the statements & mark the correct one:
1. The proposal to recognise 21 June as World Yoga Day was tabled by India in the 67th session of UNGA.
 2. The International Day for Yoga aims to increase awareness about yoga & Ayurveda as an alternate form of medicine.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (D)
81. What is the theme for International Day of Yoga, 2024?
- (A) Yoga for self & world
(B) Yoga for women
(C) Yoga for society
(D) None of the above
Ans. (D)
82. Consider the statements and mark the correct one:
1. The Bill empowers any officer to "intercept, open or detain any item" in the interest of state security, friendly relations with foreign states, public order, emergency, public safety, or contravention of other laws.
 2. The Post Office Act, 2023 aims to regulate private courier companies.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
83. Which of the following changes can happen with the passage of Post Office Act, 2023?
1. It will enable post offices to carry out other activities apart from mail delivery.
 2. It will remove exclusivity of mail delivery on Post Offices in India.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
84. China refers to Tibet as?
- (A) Xinjiang (B) Hunan
(C) Xizang (D) None of the above
Ans. (C)
85. Lok Adalats aim for which of the following?
- (A) Grievance Redressal
(B) Better Governance of Courts
(C) Out of Court Settlements
(D) None of the above
Ans. (C)
86. Which among the following dignitaries is above the Leader of Opposition in the order of precedence?
- (A) Chief Minister of a state
(B) The Former Presidents
(C) A Judge of the SC
(D) Union Cabinet Minister
Ans. (B)
87. Consider the statements and mark the correct one:
1. The Leader of Opposition is a Constitutional post & can be given to the leader of the largest party in opposition in Lok Sabha.
 2. The Leader of Opposition post is exclusive for Lok Sabha.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (D)
88. Consider the following privileges & mark how many of them are enjoyed by the LoP:
1. LoP is member of a high powered Committee for appointment of the Lokpal.
 2. LoP is member of a high powered Committee for removal of any judge of Supreme Court.
 3. LoP escorts the Speaker-elect to the rostrum.
- (A) Only 1 (B) Only 2
(C) All three (D) None of them
Ans. (B)
89. Consider the following statements and mark the correct one.
1. Chang'e 6 is the first sample bring back mission of China from the moon.
 2. China is the only country to bring back samples from the far side of the moon.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (B)
90. Consider the following statements wrt sample bring back missions from the Moon & mark the correct one:
1. USA became the first country to bring back samples from the Moon.
 2. Chang-e 5 was China's first lunar sample bring back mission.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
91. Which among the following are among the Pañcaśīla of Buddhism?
1. Peaceful Coexistence
 2. Abstinence for theft
 3. Avoiding Sexual Misconduct
- (A) Only 2 (B) Only 1 & 2
(C) Only 2 & 3 (D) All of the above
Ans. (C)

92. Consider the statements and mark the correct one:
1. By signing the Panchsheel Agreement, India, for the very first time, recognised Tibet as part of China.
 2. The five Principles of Panchsheel Agreement became the core Principles of the NAM.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
93. Which of the statements wrt the Coalition for Disaster Resilient Infrastructure is/are true?
1. It is headquartered in India.
 2. It is a financing agency for funding infrastructure projects with the aim of making them Disaster resilient.
 3. It was formed in CoP 25 of UNFCCC in 2019.
- (A) Only 1 & 3 (B) Only 1
(C) Only 1 & 2 (D) All of the above
Ans. (B)
94. How many of the following infrastructure systems can be impacted due to extreme weather events?
1. Telecommunications
 2. Transportation
 3. Electricity Transmission lines
- (A) Only 1
(B) Only 2
(C) All the three can be impacted
(D) None of them can be impacted
Ans. (C)
95. Consider the statements and mark the correct one:
1. Investments in Early Warning Systems can reduce the overall expenditure to manage the disasters.
 2. Early Warning Systems have no connection with the fatality rate due to disasters.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (A)
96. Consider the following statements and mark the correct one:
1. Boeing is the second private owned space agency in USA after SpaceX.
 2. SpaceX has the capabilities of launching manned missions to Low Earth Orbit.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (B)

97. Which of the following space agencies is not part of the International Space Station?
- (A) Roscosmos (Russia)
(B) European Space Agency (EU)
(C) JAXA (Japan)
(D) CNES (France)
Ans. (D)
98. Consider the following statements and mark the correct one:
1. The ISS is located in the Low Earth Orbit.
 2. The ISS acts like a laboratory in the space.
- (A) Only 1 (B) Only 2
(C) Both 1 & 2 (D) Neither 1 nor 2
Ans. (C)
99. Consider the statements and mark the correct one:
1. France has a bicameral legislature with members elected directly by the people in both the houses.
 2. The President of France is elected directly by the people.
- (A) Only 1
(B) Only 2
(C) Both 1 & 2
(D) Neither 1 nor 2
Ans. (B)
100. Consider the following and mark how many of them are correct:
1. Cohabitation is a situation in french politics where the President & Prime Minister belongs to different Political factions.
 2. The President of France can remove the Prime Minister from Office.
 3. The Cabinet of France is appointed by the President.
- (A) Only 1 statement is correct.
(B) Only 2 statements are correct.
(C) All the statements are correct.
(D) None of the statements is correct
Ans. (B)





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16
Rank

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17
Rank

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20
Rank

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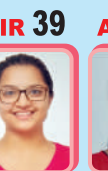
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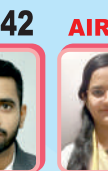
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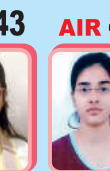
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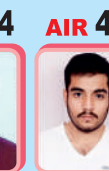
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