

CivilsTap

Quality & Affordable Education



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For HPAS & Other Competitive
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Mains

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GENERAL STUDIES 1.

GEOGRAPHY

HEAT DOME EFFECT

Context: The state of Assam has recently experienced unprecedented temperatures nearing 40°C in September, unusual for the region, which may be attributed to the Heat Dome Effect.

About Heat Dome Effect

- ❖ The heat dome effect is a type of high-pressure system (also known as anticyclone) that forms over a large area in the atmosphere, and causes extremely hot and dry weather conditions.
- ❖ The system traps hot air and prevents it from flowing to rise and cool.
- ❖ This air then becomes compressed and heats up, leading to a dome-shaped area of hot air that can persist for several days or even weeks.
- ❖ Due to climate change, heat domes have not only become more frequent but also a lot more intense.
 - ✓ The rising temperatures and changes in weather patterns are creating conditions that are assisting their formation.

Impact of Heat Domes

- ❖ Heat domes can cause dangerous heat waves causing the temperatures to shoot up.
- ❖ They can also lead to drought conditions and wildfire as the hot and dry weather can quickly dry out vegetation and make it more susceptible to catching fire.
- ❖ It can also have severe impacts on human health, agriculture, and ecosystems.
- ❖ Heat domes can persist for several days to weeks, depending on atmospheric conditions. The longer they last, the more severe the impacts can become.

Heat Domes vs Heat Waves

- ❖ While many people use 'heat domes' and 'heat waves' interchangeably, heat domes are just one of the atmospheric conditions that can contribute to the formation of a heat wave.
- ❖ A heat wave is a prolonged period of excessively hot weather, often accompanied by high humidity.
- ❖ Heat waves can occur for a variety of reasons, including the presence of a heat dome.
- ❖ Heat waves can also occur without the presence of a heat dome, such as when warm, humid air masses from the tropics move to an area and stagnate for an extended period.

SPONGE CITIES: A SOLUTION FOR URBAN FLOODING

Context: Heavy rainfall in northern India has caused widespread flooding, landslides, that damage basic infrastructures and food supplies can be tackled using the innovative concept of sponge cities.

Urban Flooding in India

- ❖ Urban flooding occurs when built-up areas — such as cities and towns — experience inundation due to heavy rainfall, rapid snowmelt, or other sources of water runoff.
- ❖ Unlike rural floods, which typically affect flat or low-lying regions, urban flooding is a man-made disaster exacerbated by factors like unplanned urbanisation and inadequate drainage systems.
- ❖ As our cities grow, they alter natural processes, replacing permeable land surfaces with concrete and asphalt, which limits the ground's ability to absorb rainwater.
- ❖ Consequently, surface runoff overwhelms drainage systems, leading to disruptions, property damage, and even loss of life.

Causes of Urban Flooding in India

- ❖ **Unplanned Urbanisation:** Rapid urban growth often occurs in low-lying areas due to rising land prices and limited availability in city centres.
 - ✓ Unfortunately, these developments often encroach upon lakes, wetlands, and riverbeds, reducing the capacity of natural drains and exacerbating flooding.
- ❖ **Impervious Surfaces:** Roads, buildings, and other impervious structures prevent rainwater from seeping into the ground.
 - ✓ As cities expand, the natural ability of soil to absorb water diminishes, leading to increased surface runoff.
- ❖ **Ground Subsidence:** The weight of heavy buildings and excessive groundwater extraction can cause ground subsidence, making urban areas more susceptible to flooding.

Sponge Cities: A Nature-Based Solution

- ❖ The concept of 'sponge cities' originated in China and has gained attention worldwide. These cities prioritise flood management by emphasising green infrastructure over traditional grey infrastructure (pipes and pumps).
- ❖ **Green Infrastructure:** Instead of relying solely on concrete drainage systems, sponge cities incorporate natural elements like plants, trees, wetlands, and permeable pavements. These act as 'sponges' by absorbing rainwater, slowing down its flow, and purifying it.

Working

- ❖ **Permeability:** Sponge cities prioritise permeable surfaces. Instead of vast concrete jungles, they incorporate green spaces, parks, and porous pavements. These surfaces allow rainwater to infiltrate the ground, replenishing aquifers and reducing surface runoff.
- ❖ **Storage and Retention:** These cities store rainwater strategically. They create retention ponds, wetlands, and underground storage tanks to capture excess water during heavy rainfall. By doing so, they prevent sudden floods downstream.
- ❖ **Natural Drainage:** Sponge cities restore natural drainage systems. They revive rivers, streams, and wetlands, allowing water to flow naturally. This approach mimics nature's hydrological cycle, preventing urban floods.

Benefits

- ❖ **Flood Reduction:** By retaining and gradually releasing rainwater, sponge cities prevent flash floods.
- ❖ **Ecological Biodiversity:** Urban parks, green spaces, and wetlands improve biodiversity and provide habitats for wildlife.
- ❖ **Heat Island Mitigation:** Vegetation helps cool urban areas, reducing the heat island effect.
- ❖ **Water Scarcity Alleviation:** Capturing rainwater contributes to water availability during dry spells.

Conclusion

- ❖ As India faces the dual challenges of rapid urbanisation and climate change, adopting sponge city principles could be transformative.

By blending nature with urban design, sponge cities can create resilient, sustainable cities that effectively manage water, reduce flooding, and enhance overall livability.

GENERAL STUDIES 2.

POLITY, CONSTITUTION

REFORMING THE PROCESS OF JUDICIAL APPOINTMENTS

Context: In India, the appointment of judges has long been a matter of debate, closely tied to the challenge of pending cases. As of April 2024, a staggering 60 lakh cases remained pending across various High Courts, while 30% of judicial seats remained vacant.

About the Judicial Appointments (Historical Context)

- ❖ Before the National Judicial Appointments Commission (NJAC) Act, 2014, the appointment process was primarily guided by conventions. For instance: The collegium system, where a group of senior judges recommended appointments, played a significant role.
- ❖ The senior-most judge of the Supreme Court was traditionally appointed as the Chief Justice of India.

Collegium System

- ❖ It is a novel mechanism devised to ensure a democratic system of appointment and transfer of judges. It came into existence through Second and Third Judges Case judgments.
- ❖ There is no such law or Constitutional Provision that mentions or defines the collegium system.
- ❖ It is headed by the CJI and comprises 4 other senior-most judges of the court.
- ❖ High Court (HC) Collegium: An HC collegium is led by its Chief Justice (CJ) and four other senior-most judges of that court.

Evolution of Collegium System

- ❖ **Article 124:** Supreme Court judges should be appointed by the President after consultation with such judges of the High Courts and the Supreme Court as the President may deem necessary.
- ❖ The CJI is to be consulted in all appointments except his or her own.
- ❖ **Article 124(2) of the Constitution of India:** Every judge of the Supreme court is appointed by the President of India in consultation with such of the judges of the Supreme court and High courts as the President may deem necessary.
- ❖ **Article 217:** High Court judges should be appointed by the President after consultation with the CJI and the Governor of the state.
- ❖ The Chief Justice of the High Court concerned too should be consulted.

However, the actual process has gone through various changes due to the Apex court verdict.

- ❖ First Judges Case, 1981 (S P Gupta Vs Union of India): A seven judge Constitution Bench held that the President of India is the final authority to appoint and he need not follow the advice of the judges whom he consults.
- ❖ It meant 'consultation is not concurrence'.
- ❖ Second Judges Case, 1993 (Supreme Court Advocates-on-Record Association Vs Union of India): A nine-judge Constitution Bench overruled the decision given in SP Gupta Case and devised a specific procedure called 'Collegium System' for the appointment and transfer of judges in the higher judiciary.
- ❖ It accorded Primacy to the CJI in matters of appointment and transfers while also ruling that the term 'consultation' would not diminish the primary role of the CJI in judicial appointments.
- ❖ The role of the CJI is primal in nature because this being a topic within the judicial family, the executive cannot have an equal say in the matter. (Article 50 of Constitution of India: Separation of powers between Judiciary and Executive)
- ❖ **Third Judges Case (1998):** The 1993 decision was reaffirmed with minor modifications in 1998, on a reference made by the President under Article 143 of the Constitution.

- ❖ It was held that the recommendation of appointment etc should be made by the chief justice of India and his four senior most colleagues instead of earlier two and is referred to as the Collegium.
- ❖ Both 1993 decision and 1998 opinion lay down that the senior most judge of the SC should be made as CJI.
- ❖ **Fourth Judges Case (2015):** The constitutional validity of both the Ninety-Ninth Constitutional Amendment and the NJAC Act, 2014, was challenged in the Supreme Court in 2015.
- ❖ A constitutional bench of five judges with a majority of 4:1 struck down the NJAC, declaring them unconstitutional and void, stating that it posed a threat to the independence of the judiciary.

Collegium System vs. NJAC

- ❖ The collegium system, where senior judges recommend appointments, has been the prevailing method. However, it has faced criticism for its lack of transparency, accountability, and nepotism.
- ❖ In 2014, the NJAC Act sought to replace the collegium system. The NJAC would have included members from both the judiciary and the executive, aiming for a balanced approach.

However, the NJAC faced legal challenges, and in 2015, the Supreme Court declared it unconstitutional. Consequently, the collegium system was reinstated as the primary mechanism for judicial appointments.

- ❖ Some legal professionals argue that the NJAC could be a better system, especially if we want faster appointments.

Why Reform Needed in Judiciary?

- ❖ **Charges of Nepotism and Favouritism:** The Collegium does not provide any guidelines in selecting the candidates for the judge position of the Supreme Court because of which it leads to wide scope for nepotism and favouritism.
- ❖ It may lead to the wrong choice of the candidate while overlooking the right candidate.
- ❖ **Misuse of Power:** In India, three organs work partially independently but they keep check and balance and control on the excessive powers of any organ. Collegium gives the immense power to Judiciary to appoint Judges, and misuse of powers could happen.
- ❖ **Lack of Transparency:** Collegium system leads to non-transparency of the judicial system, which is very harmful for the regulation of law and order in the country.
- ❖ **Inequitable representation of backward and minority communities:** As per the data available with the Union Law Ministry, out of 537 appointments to High courts between 2018 and 2022, 424 (79%) were from the general category (upper caste), 57 (11%) were from Other Backward Castes (OBCs), 15 (2.8%) were from Scheduled Castes (SCs) and 7 (1.3%) were from Scheduled Tribes (STs).
- ❖ There is no provision for reservation in judicial appointments from marginalised communities to ensure social diversity, as the government appoints only those persons as judges of Supreme Court and high courts who are recommended by the SC collegium.
- ❖ **Issue of Social Diversity:** In the last three decades, the collegium system has failed to address the issue of social diversity in higher judiciary, as originally devised by the Supreme Court.
- ❖ **Judicial Vacancies:** Presently, India has 25 High courts with a total sanctioned strength of 1,114 judges, and only 782 judges are working while the remaining 332 judges' posts are vacant.
- ❖ **Lack of Representation of Women:** Only 107 judges, or 13% of all HC judges, are female. There are currently four women justices out of the sitting 33 in the Supreme Court.
- ❖ Additionally, delays in appointments often arise due to disagreements between the executive and the judiciary.

Way Forward: Suggested Reform

- ❖ **Consultation and Consensus:** Before finalising any plan, all relevant stakeholders—judiciary, legislature, civil society, and Bar Associations—should be consulted.
- ❖ There should be focus on the inclusivity of marginalised sections of society including women while appointing in the higher judiciary.

- ❖ **Reform the Memorandum of procedure (MoP):** There is a need to reform the MoP for the appointment of the Chief Justice of India, Judges of the Supreme Court and High Courts.
- ❖ **Creating a Cadre of Public Service for Retired Judges:** Another interesting proposal is to create a cadre of public service for retired judges. From this pool, appointments could be made to constitutional and statutory posts, as well as special assignments.
- ❖ These judges would continue to receive the full pay and facilities of a Supreme Court judge for life.
- ❖ **Comprehensive Judicial Reform:** Beyond appointments, India needs comprehensive judicial reform. Our current system faces challenges related to enforcement of contracts, high litigation costs, and inconsistency in judicial outcomes.
- ❖ Addressing these issues would contribute to a more efficient and effective judiciary.

Lessons from Other Countries

- ❖ Many countries have commissions responsible for judicial appointments. These commissions typically involve members from the judiciary, legal academia, politicians, and laypersons.
- ❖ For instance, the U.K. established the Judicial Appointments Commission, which oversees nominations for judges in England and Wales.
- ❖ Learning from these international models, India could explore a similar committee-based approach to ensure a broader perspective and reduce delays.

Best Practices

- ❖ **In the USA:** The appointments are made by the President. Judges of the Supreme Court are nominated by the President and confirmed by the United States Senate.
- ❖ **In Germany:** The appointment of the Judges is made through the process of the election. Half the members of the Federal Constitutional Court are elected by the executive and half by the legislative.
- ❖ **In the UK:** The SC Judges are appointed by a five peoples selection commission. That committee consists of the SC President, his deputy and one member each appointed by the JACs which consist of lay persons, members of judiciary and the bar; of England, Scotland and Northern Ireland.

Conclusion

- ❖ Achieving a balance between judicial independence, transparency, and efficiency is crucial. Reforming the process of judicial appointments requires thoughtful consideration and collaboration among all stakeholders.

ALL-INDIA JUDICIAL SERVICE (AIJS): TOWARDS JUDICIAL REFORM AND SOCIAL INCLUSION

Context: Recently Chief Justice D Y Chandrachud pitches for implementing All India Judicial Services (AIJS) for quick filling of vacancies for expeditious disposal of cases and reducing pendency.

All-India Judicial Service (AIJS)

- ❖ Article 312 of the Constitution, as amended by the 42nd Amendment, provides for the creation of an AIJS.
- ❖ It also requires a resolution adopted by the Council of States with a two-thirds majority and a parliamentary law.
- ❖ The AIJS is a reform push to centralise the recruitment of judges at the level of additional district judges and district judges for all states.
- ❖ In the same way that the Union Public Service Commission conducts a central recruitment process and assigns successful candidates to cadres, judges of the lower judiciary are proposed to be recruited centrally and assigned to states.

Arguments favouring AIJS

- ❖ Fresh talent: A properly framed All India Judicial Service is important to strengthen the overall justice delivery system.
- ❖ A national service for judges not inferior to the post of district judges, with a superannuation age of 60, will be an attractive proposition for young lawyers to apply for it.
- ❖ This will give an opportunity for induction of suitably qualified fresh legal talent selected through an all-India merit selection system
- ❖ **Representation to deprived sections:** It will also address the issue of social inclusion by enabling suitable representation to marginalized and deprived sections of society.
- ❖ It may also facilitate inclusion of competent persons from marginalized sections and women in the judiciary.
- ❖ Reducing the pendency of the cases: Data from earlier this year said the backlog in the lower judiciary comprising the district and subordinate courts stood at 3.8 crore cases, thus accounting for the bulk of the more than 4.4 crore cases pending across the Indian judiciary.
- ❖ **Judge-to-population ratio:** In India there are about 19 judges per 10 lakh population even though the Law Commission had recommended that it should be at least 50 per 10 lakh people.
- ❖ All this points to an urgent need to ensure swift filling up of vacancies and ramping up of recruitment to the lower judiciary, for which the Centre has long proposed the creation of the AIJS.

Challenges

- ❖ **Concern of centralisation:** This Constitution recognises that rules governing the subordinate judiciary in the States will have to be superseded by a central law for this proposal to achieve fruition.
- ❖ It is unlikely that all States will agree to one more subject from their domain being consumed by centralisation.
- ❖ Key concerns were the dilution of the federal structure and that the proposal does not address structural issues plaguing the lower judiciary.
- ❖ **Lack of consensus:** There is no consensus on the proposal. Only two High Courts agreed to the idea, while 13 were against it.
- ❖ There is divergence of views on eligibility, age, selection criteria, qualification and reservation.
- ❖ **Issue of language:** Since cases in lower courts are argued in local languages, there have been apprehensions about how a person from north India can hold hearings in a southern state.
- ❖ **Advantages of current system:** The current system of recruitment of district judges through the respective High Courts and other subordinate judicial officers through public service commissions is more conducive to ensuring diversity, as there is scope for both reservation and a clear understanding of local practices and conditions.
- ❖ **Unattractive career option:** After enrolling, lawyers typically consider judicial service based on practical experience rather than academic brilliance.
- ❖ According to critics, toppers, especially from the few elite law schools, are unlikely to sit for a national judicial service recruitment examination.
- ❖ In comparison, options such as litigation, joining law firms and going into the corporate sector may appear more beneficial.
- ❖ Further, given that the number of district judges elevated to the High Courts is much lower than those from the Bar, the lack of certainty on career progression may also render a national judicial service unattractive.
- ❖ Different from civil services: Unlike the civil service, judges are not assisted by an experienced lower bureaucracy in decision-making, and they are required to be well-versed in the issues involved in judicial functioning.

Way ahead

- ❖ The AIJS has been pitched as a solution to judicial vacancies, lack of representation for the marginalized on the bench and the failure to attract the best candidate.

- ❖ AIJS needs to be designed in a way to get rid of its shortcomings and it is able to be a powerful technique for the vacancy in the judiciary.
- ❖ Adequate judges may be made to be handiest if they're recruited in huge energy through AIJS similar to IAS, IPS, IFS, and different civil offerings.

LOKPAL FORMS INQUIRY WING TO PROBE GRAFT CASES AGAINST PUBLIC SERVANTS

Context: Anti-corruption ombudsman Lokpal has constituted an inquiry wing for conducting preliminary probe into graft-related offenses committed by public servants.

Inquiry Wing of Lokpal

- ❖ To discharge its statutory functions, Section 11 of the Lokpal and Lokayuktas Act 2013, obligates the Lokpal to constitute an inquiry wing.
 - ✓ The purpose of the wing is conducting preliminary inquiry into any offense punishable under the Prevention of Corruption Act, 1988, alleged to have been committed by the specified public servants and functionaries.
- ❖ The Lokpal chairperson has been authorized to commence the selection process for appointment of a specified number of suitable persons as officers and staff required to provide logistical assistance in the inquiry wing.

Structure of the Inquiry Wing

- ❖ The bench of the Lokpal had approved organogram providing for the staffing pattern and specified number of suitable officers and staff for the inquiry wing.
- ❖ According to the organogram, there will be a Director of Inquiry under the Lokpal chairperson.
 - ✓ The director will be assisted by three Superintendents of Police (SPs) — SP (general), SP (economic and banking) and SP (cyber).
 - ✓ Each SP will be further assisted by inquiry officers and other staff.

Lokpal in India

- ❖ In India, the ombudsman is known as Lokpal(“protector of people”) or Lokayukta(People’s appointee).
- ❖ The Lokpal, established as an independent anti-corruption ombudsman at the central level to investigate allegations of corruption against public officials, including PM, derives authority from the Lokpal and Lokayuktas Act, 2013.

1. Social activist Anna Hazare’s movement against corruption in 2011 fueled public demand, leading to the eventual passage of the Lokpal Act.

Structure of Lokpal

- ❖ The institution of Lokpal is a statutory body established by the Lokpal Act 2013.
- ❖ Members: Lokpal is a multi member body, made up of one chairperson and maximum of 8 members.

1. Half members will be judicial members and should be either a former Judge of the Supreme Court or a former Chief Justice of a High Court.
2. The non-judicial member should be an eminent person with impeccable integrity and outstanding ability.
3. Minimum fifty per cent of the Members will be from SC / ST / OBC / Minorities and women.

- ❖ Selection committee: The members are appointed by the president on the recommendation of a selection committee, composed of:

1. The Prime Minister who is the Chairperson;
2. Speaker of Lok Sabha ,
3. Leader of Opposition in Lok Sabha ,

4. Chief Justice of India or a Judge nominated by him / her, and One eminent jurist.

Jurisdiction of Lokpal

- ❖ The jurisdiction of the Lokpal will include the Prime Minister except on: Allegations of corruption relating to international relations, security, the public order, atomic energy and space.
- ❖ Ministers and MPs: The Lokpal will also have jurisdiction over Ministers and MPs except not in the matter of anything said in Parliament or a vote given there.
- ❖ Public Servants: Lokpal's jurisdiction will cover all categories of public servants within and outside India.
- ❖ Related to CBI: It has the powers to superintendence over, and to give direction to CBI.

1. If Lokpal has referred a case to CBI, the investigating officer in such case cannot be transferred without the approval of Lokpal.

Issue with Lokpal

- ❖ **Operational Delays:** Operational efficiency is hampered by delays in appointments. For instance, there was a 21 month delay in appointing a new Lokpal after the post fell vacant in May 2022.
 - ✓ Although the Lokpal Act was enacted in 2014, the institution only became functional in 2019, which reflects significant delays in its operationalization.
- ❖ **Pending Complaints:** According to recent data, the Lokpal has a backlog of pending complaints. As of July 2024, 52 graft-related complaints were still awaiting action, indicating that the institution struggles to manage its caseload effectively.
- ❖ **Jurisdictional Conflicts:** Overlapping jurisdictions with other vigilance agencies cause conflicts, creating confusion over authority and responsibility in investigations, which delays action against corrupt officials.
- ❖ **Prosecution Wing Not Constituted:** Despite the provision in the Lokpal Act for setting up a prosecution wing headed by a Director of Prosecution, this has yet to be constituted.
- ❖ **Political Influence and Interference:** The Lokpal's appointment committee includes members from political parties, which raises concerns about political interference.
- ❖ **Ambiguity in Selection of Eminent Jurists:** The vague criteria for appointing "eminent jurists" and "persons of integrity" can be manipulated to favor political choices.
- ❖ **No Constitutional Backing:** The Lokpal lacks constitutional status, which weakens its institutional authority and durability.

Way Forward

- ❖ The Lokpal remains a significant institution in India's fight against corruption. A powerful and independent Lokpal can play a pivotal role in fostering a culture of transparency and accountability within the Indian government.
- ❖ By addressing the challenges and implementing necessary reforms, India can maximize the effectiveness of this crucial anti-corruption institution.
- ❖ There is a need to grant greater powers to the Lokpal to independently initiate investigations, enforce prosecutions, and implement punishments to enhance its effectiveness.

IMPACT OF EMERGENCY PROVISIONS ON CENTRE-STATE RELATIONS

Context: The recent violence in Manipur has reignited debate on Centre-State relations and the use of emergency provisions.

About Federal set-up in India

- ❖ India is a federation with governments at the Centre and the States.
- ❖ The Seventh Schedule to the Indian Constitution distributes the power between the Union and States.
 - ✓ Under this scheme, it is the domain of the State governments to maintain law and order in their respective States.

Emergency Provisions in the Constitution

- ❖ The emergency provisions are provided in Part XVIII of the Constitution.
- ❖ Articles 355 and 356 deal primarily with the affairs of government in a State under this part.
 - ✓ Article 355 imposes a duty on the Centre to protect every State from external aggression and internal disturbance.
 - It also specifies that the Centre should ensure that every State government operates according to the Constitution.
 - ✓ Article 356 allows for the imposition of the President's rule if a State's government cannot function in accordance with constitutional provisions.
- ❖ **Comparison with Other Countries:** In the U.S. and Australia, federal functions also include protecting states, but they do not have provisions for removing state governments.

B.R. Ambedkar's View

- ❖ B.R. Ambedkar explained that Article 355 was designed to ensure that any interference by the Centre in a State's administration under Article 356 is justified and constitutionally mandated.
 - ✓ It serves to prevent arbitrary or unauthorized use of Article 356, maintaining a check on federal power and preserving the federal structure of the polity.

Issues and Concerns

- ❖ It was hoped that Articles 355 and 356 would never be called into operation and would remain a dead letter
- ❖ However, Article 356 was misused several times to dismiss elected state governments with majorities, often for reasons ranging from electoral losses to issues with law and order, undermining constitutional principles and federalism.

Judicial Rulings

- ❖ The Supreme Court's S.R. Bommai case (1994) restricted misuse of Article 356
 - ✓ it should only be used for constitutional breakdowns, not ordinary law and order issues. The imposition is subject to judicial review.
- ❖ The scope of Article 355 has expanded over time through various Supreme Court rulings.
 - ✓ Initially, in State of Rajasthan Vs Union of India (1977), Article 355 was narrowly interpreted as justifying the use of Article 356.
 - ✓ However, in later cases like Naga People's Movement (1998), Sarbananda Sonowal (2005), and H.S. Jain (1997), the Supreme Court broadened the interpretation of Article 355, allowing the Union to take all necessary statutory and constitutional actions to protect states and ensure they adhere to constitutional governance.

Recommendations by Commissions

- ❖ The Sarkaria Commission (1987), the National Commission (2002), and the Punchhi Commission (2010) have all stated that
 - ✓ Article 355 requires the Union to protect states and allows it to take necessary actions to fulfill this duty.

- ✓ They have also emphasized that Article 356, which imposes President's rule, should be used only as a last resort in extreme and urgent situations.

Conclusion

- ❖ The emergency provisions are essential for maintaining constitutional order, their impact on Centre-State relations is significant and complex.
- ❖ They necessitate a delicate balance between central authority and state autonomy, and their application must be guided by principles of fairness, necessity, and constitutional integrity.
- ❖ As India continues to evolve, ensuring that these provisions are used judiciously and within the framework of federal principles will be key to preserving the democratic and federal fabric of the nation.

UNION CABINET APPROVED ONE NATION, ONE POLL PROPOSAL

Context: The Union Cabinet unanimously approved the 'one nation, one election' proposal, paving the way for simultaneous elections for Lok Sabha, state Assembly and local bodies.

About

- ❖ The Union Cabinet has accepted the recommendations of the High-Level Committee on One Nation, One Election (ONOE), chaired by former President Ram Nath Kovind.
- ❖ The Committee has recommended a two-phase approach.
 - The first phase involves holding Lok Sabha and Assembly elections simultaneously, while the second phase proposes conducting local body elections within 100 days of the general elections.
- ❖ The Cabinet also recommended creating a common electoral roll for all elections and setting up an implementation group to oversee detailed nationwide discussions.
- ❖ It has recommended 18 constitutional amendments, most of which will not need ratification by state assemblies. However, these would require certain Constitution amendment bills that would have to be passed by Parliament.
- ❖ The Bill is likely to be introduced in the Parliament in the upcoming winter session.

What are Simultaneous Elections?

- ❖ Simultaneous Elections (One Nation One Election) refer to the idea of holding Lok Sabha and State legislative assembly elections together, with the aim of reducing the frequency of elections and their associated costs.
- ❖ Simultaneous elections in India to the Lok Sabha and State Legislative Assemblies were held in the years 1951-52, 1957, 1962 and 1967.
- ❖ Thereafter, the schedule could not be maintained and the elections to the Lok Sabha and the State legislative assembly have still not been realigned.

Arguments In Favour of One Nation One Election

- ❖ **Reduced Expenditure:** It will reduce the huge expenditure incurred for conducting separate elections every year.
- ❖ **Streamlined Process:** Managing one election cycle is logistically simpler than conducting multiple elections at different times. This can lead to more efficient use of administrative resources.
- ❖ The problem of frequent elections leads to imposition of Model Code of Conduct (MCC) over prolonged periods of time which affects the normal governance. Simultaneous elections can overcome such issues.
- ❖ The focus on governance will increase, instead of being constantly in election mode.
- ❖ **Direct Accountability:** With simultaneous elections, voters can hold parties accountable for both central and state governance at the same time, making it clearer how local and national policies impact their lives.

Arguments Against One Nation One Election

- ❖ **Logistical Challenges:** All states and the central government face massive logistical challenges including coordinating the schedules, resources etc.
- ❖ **Local Priorities:** It may help the dominant national party at the cost of regional parties and regions issues can be overshadowed by the national issues.
- ❖ **Complex Reforms Needed:** Implementing simultaneous elections would require significant constitutional amendments and changes to existing electoral laws, posing legal complexities.

Way Ahead

- ❖ Synchronized polls for all 3 tiers of government will improve governance architecture. It will enhance “transparency, inclusivity, ease and confidence of voters.
- ❖ Separately, the law commission is also likely to come up soon with its own report on simultaneous elections.
- ❖ The law commission is likely to recommend holding simultaneous polls for all three tiers of the government – the Lok Sabha, state assemblies and local bodies like municipalities and panchayats – starting 2029.

FEDERALISM IN INDIA

Context: In recent years, disputes between the Union government and the States have become more frequent.

Federalism in India

- ❖ **Meaning:**
 - ✓ Federalism refers to a vertical division of power in a political system. It is a system in which power is divided between a central authority and other constituents.
 - ✓ For e.g. in India, political power is divided between the Central government, state governments and the institutions of local governance.
- ❖ **Features of a federal system:**
 - ✓ **Multiple levels of government:** Federalism, by its very definition, requires multiple levels of government functioning within their defined territory.
 - ✓ **Division of Power:** The power is divided by the division of subjects between the entities so that the chances of conflict are reduced to a minimum.
 - ✓ **Written Constitution:** It ensures there is clarity in the respective division of power. Again, a rigid constitution ensures that this division of power is not easily disturbed.
 - ✓ **Independent Judiciary:** It acts as a dispute resolution mechanism between the different levels of government.
- ❖ **Interdependence of state and Central Government:**
 - ✓ India consciously adopted a version of federalism that made the Union government and State governments interdependent on each other (latter more vis-a-vis the former).
 - ✓ Thereby violating the primal characteristic of a federal constitution i.e., autonomous spheres of authority for Union and State governments.
- ❖ **‘Holding together’ Federalism:**
 - ✓ India’s centralised federal structure was not marked by the process of ‘coming together’ but was an outcome of ‘holding together’ and ‘putting together’.
- ❖ **Indestructible & Flexibility:**
 - ✓ B. R. Ambedkar called India’s federation a Union as it was indestructible which is why the Constitution does not contain words related to federalism.
 - ✓ He also said that India’s Constitution holds requisite flexibility to be federal and unitary on a need basis.

Types of Federalism

❖ **Cooperative Federalism:**

- ✓ It refers to the horizontal relationship between the entities in a federal structure.
- ✓ Cooperative federalism refers to the cooperation between the two entities in pursuit of unified socio-economic development of the country.

❖ **Competitive Federalism:**

- ✓ It refers to promoting healthy competition between the states to keep them motivated in pursuit of economic development.
- ✓ The laggard states are expected to put in extra efforts to catch-up with the front-runners, while the front-runners are expected to work hard to retain their ranking in the indices.

❖ **Fiscal Federalism:**

- ✓ It deals with the division of financial powers as well as the functions between multiple levels of the federal government.
- ✓ It has within its ambit the imposition of taxes as well as the division of different taxes between the Centre and the constituent units.
- ✓ Similarly, in the case of joint collection of taxes, an objective criterion is determined for the fair division of funds between the entities.
- ✓ Usually, there is a constitutional authority (like Finance Commission in India) for the purpose to ensure fairness in the division.

About the increasing federal frictions

❖ **Dependence over public expenditure:**

- ✓ Continuing economic reforms since 1991 has led to the relaxation of many controls on investments, giving some room to States.
- ✓ But the autonomy regarding public expenditure policies is not absolute as State governments depend on the Centre for their revenue receipts.
- ✓ This equation between the Centre and the States has given way to friction between them in recent days, leaving little room to negotiate.

❖ **Others:** Apart from issues around resource sharing, there are other areas that have emerged as sites of conflict.

These include:

- ✓ The homogenisation of social sector policies,
- ✓ Functioning of regulatory institutions and
- ✓ The powers of central agencies.

❖ **Increasing influence of centre:**

- ✓ Ideally bulk of the policies in these spheres should be at the discretion of States, with an apex central body overseeing the process of resource allocation.
- ✓ However, the apex bodies have often attempted to increase their influence and push States in directions that are amenable to the Centre.

Economic consequences of the federal frictions

❖ **Dilemma of investments:**

- ✓ The spread of the Centre's span of activities leads to a situation where the Centre starts crowding out the States in terms of investments.
- ✓ Consider a case of infrastructure development in recent years.
- ✓ The Centre launched the PM Gati Shakti, a digital platform, to incorporate schemes of various Ministries and State governments to achieve integrated planning and coordinated implementation of infrastructure connectivity projects.
- ✓ All States and UTs had to prepare and operationalise a State master plan in line with the national master plan for seamless implementation.

- ✓ However, the flexibility of States in formulating their master plan is curtailed by the centralisation of planning and implementation of the national master plan.
- ✓ This leads to underinvestment by States.

❖ **Concentrated spending:**

- ✓ The centre's spending has become more concentrated within the three largest States of Uttar Pradesh, Maharashtra and Gujarat, accounting for nearly half of the expenditure by 16 States between 2021-22 and 2023-24.
- ✓ Data for 25 States shows that a total of ₹7.49 lakh crore was budgeted for by these States but they spent only ₹5.71 lakh crore which is 76.2% of the total.
- ✓ Investment by these States is important in terms of their impact on regional economies as they induce more local level linkages while national infrastructure projects forge more linkages with the global economy.

❖ **Little competition:**

- ✓ In a scenario of friction with the Centre, State governments will engage in competition with other States and with the Centre. Welfare provisioning is one such area.
- ✓ The Centre with enhanced fiscal space has more spending power, while States' revenues, especially non-tax revenues, remain flat as possibilities of raising non-taxes are confined to a smaller sphere due to the direct provisioning of many utilities and services by the Centre.

❖ **Inefficiencies associated with 'parallel policies':**

- ✓ Federal abrasions lead to either the Centre or the States duplicating the other's policies.
- ✓ The emergence of parallel schemes is mainly due to the trust deficit prevailing in the federal system, the fiscal costs of which have long run consequences on the economy.

Way ahead

- ❖ For securing the implementation of many of its laws and policies, the Centre depends on the States, particularly in the concurrent spheres.
- ❖ The States also entrust their executive functions, with the consent of the Centre, to the government or agencies of the Centre (Article 258A).
- ❖ Such interdependence is inevitable, especially in a large, diverse, developing society and needs to be preserved.

GOVERNANCE

GENDER BUDGETING

Context: The Gender Budget reached 1% of GDP estimates in 2024-25 for the first time. Women-led development remains at the core of announcements made by the Finance Minister (FM) in this year's Budget.

Overall allocations currently stand at more than ₹3 lakh crore for pro-women programmes.

- ❖ There has been a remarkable 218.8 percent rise in the budget allocation for women's welfare from FY14 to FY25.

What is Gender Budgeting?

- ❖ Gender budgeting is a strategy that includes **gender considerations in the budgeting** process.
- ❖ It was first introduced in **2005-06**.
- ❖ It involves **analysing and allocating budget resources** in a way that addresses the specific needs and priorities of women and girls and promotes gender-sensitive policies and programs.

Gender Budget 2023-24

- ❖ The previous Gender Budgets consistently reported **an average share of 5% of the total** budgetary allocations.
- ❖ This year the share of allocations to pro-women schemes stands at approximately **6.8% of the** total budget expenditure for 2024-25, which is way above the usual trends.
- ❖ The Gender Budget is divided into three parts.
- ❖ While Part A covers schemes with 100% provision for women, Part B includes schemes with 30-99% allocations for women.
- ❖ For the first time ever, Part C includes schemes with allocations of up to 30% for women.

Significance

- ❖ The Economic Survey highlights the importance of women-led development, starting with the **health and education of the girl child**.
- ❖ Key indicators show progress in this area, with the national sex ratio at birth (SRB) improving from 918 to 930, and the maternal mortality rate decreasing from 130 to 97 per lakh live births.

Women's participation in skill development has increased.

- ❖ Under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), it grew from 42.7 per cent in FY16 to 52.3 per cent in FY24.
- ❖ The Jan Shikshan Sansthan (JSS) Scheme has 82 percent female beneficiaries.
- ❖ Women's involvement in Industrial Training Institutes (ITIs) and National Skill Training Institutes (NSTIs) rose from 9.8 per cent in FY16 to 13.3 percent in FY24.
- ❖ In the National Apprenticeship Promotion Scheme (NAPS), it went up from 7.7 percent in FY17 to 20.8 per cent in FY24.

Government initiatives

- ❖ **Mission Shakti** is a women empowerment programme launched by the Ministry of Women and Child Development (MWCD) for the period 2021-2025.
- ❖ It aims to strengthen interventions for women's welfare, safety, and empowerment, making women equal partners in nation-building.
- ❖ **Initiatives like Beti Bachao, Beti Padhao, Sukanya Samridhi Yojana, Janani Shishu Suraksha Karyakram, and PM Matru Vandana Yojana** have also contributed to significant improvements in the welfare and empowerment of women and girls.

- ❖ **The Mission Saksham Anganwadi and Poshan 2.0 programmes** focus on improving women's health beyond just calorie intake and improving overall health and immunity with proper micronutrients.
- ❖ The Women in Science and Engineering-KIRAN (WISE KIRAN) program has supported nearly 1,962 women scientists from 2018 to 2023.

Conclusion

- ❖ Incorporating explanations for allocations in GBS would not only ensure accounting accuracy but will help in gender audits and provide pathways for improved gender outcomes in government programmes.
- ❖ Several years of advocating for improved reporting in the GBS by experts is reflected in the inclusion of a third part.
- ❖ Gender responsive budgeting is a powerful tool to close the gender gaps in an economy.

INDIA'S OLYMPIC CHALLENGE: STRIVING FOR MORE

Context: The recently concluded Paris Olympics saw the Indian contingent return with six medals, with overall ranking of 71st out of 84 countries highlighted the discrepancy between investment and outcomes.

About

- ❖ India celebrated the achievements of athletes like **Neeraj Chopra** (who secured a silver medal), **Manu Bhaker** (with two bronze medals in shooting), and the hockey team (adding a bronze) in the Paris Olympics.
- ❖ However, there were disappointments—particularly in badminton, where no medals were won, and weightlifting, where Mirabhai Chanu narrowly missed the podium with a fourth-place finish.
- ❖ Earlier, India sent our **largest-ever contingent (124 athletes)** to Tokyo 2020, but returned with just 7 medals, including Neeraj Chopra's historic javelin gold. Still, India ranked a rather dismal 47th.
- ❖ Abhinav Bindra's 10m rifle shooting Gold in 2008 was a breakthrough—an individual shining bright amidst the team sports.
- ❖ Our golden era was in hockey, where we clinched eight gold medals. But that was a while ago—like, pre-Independence era.
- ❖ Despite the encouraging signs, India's total tally of 41 Olympic medals since its debut in 1900 is a stark reminder of the need for introspection and strategic planning.

Why does India struggle to secure more medals at the Olympics?

- ❖ **Potential vs. Performance:** India, with its whopping population of 1.4 billion, should theoretically be an Olympic powerhouse. But alas, potential doesn't always translate into podium finishes.
- ❖ **Funding and Training:** India's Ministry of Sports and the Sports Authority of India invested ₹470 crore across 16 disciplines for athlete training. Despite this funding, the overall performance left room for introspection.
- ❖ The discrepancy between investment and outcomes is evident when its overall ranking—71st out of 84 countries. It raises questions about the effectiveness of our strategies.
- ❖ **Mass Participation:** While India has made strides, mass participation remains a challenge. We need more accessible sports facilities, especially in rural areas, to encourage widespread engagement.
- ❖ **Sporting Culture:** Cultivating a sporting culture from an early age is crucial. Schools, colleges, and local communities must actively promote sports beyond academics.
- ❖ **Diverse Sports:** India's sporting ecosystem should embrace a variety of sports. While cricket dominates, disciplines like badminton, wrestling, athletics, and boxing have seen remarkable growth.
- ❖ **Infrastructure Maintenance:** Developing infrastructure is essential, but maintaining and upgrading existing facilities is equally important.

Changing Landscape

- ❖ **Sports Authority of India (SAI):** It plays a crucial role in developing sports infrastructure. It manages various sports facilities, provides coaching, and promotes talent across the country. Regional centres and academies set up by SAI contribute significantly to nurturing young athletes.
- ❖ **Inclusivity and Diversity in Sports:** India is focusing on inclusivity and diversity in sports. Initiatives like the Khelo India Games, Khelo India Youth Games, Khelo India Winter Games, and the upcoming Khelo India Para Games are nurturing talent across various disciplines.
- ❖ **Khelo India Scheme:** Launched in 2018, it aims to create a robust sports ecosystem at the grassroots level. It provides financial support for training and development, identifying and nurturing talent across different sports. Through this scheme, young athletes get a platform to showcase their skills.
- ❖ Out of the 117 athletes representing India in Paris, 28 were Khelo India athletes.
- ❖ **Sports Infrastructure:** India now boasts approximately 100 sports facilities that meet international standards. These include stadiums, sports complexes, college and university grounds, community centres, and private facilities.
- ❖ The National Investment Pipeline (NIP) and the National Monetization Pipeline (NMP) are two key initiatives to further enhance sports infrastructure:
- ❖ **NIP:** Over 90 NIP projects for stadiums and sports complexes are underway, with a total investment of \$1.49 billion. Private sector participation is encouraged, with a 21% share in project implementation.
- ❖ **NMP:** Two national stadiums and two SAI regional centres are earmarked for monetization. The mode of monetization involves operation, management, and development agreements (OMDA) with private concessionaires.
- ❖ **Private Players Participation:** The sports bureaucracy, once underfunded and stained by corruption, is now getting some attention. Private ventures are stepping in, training elite athletes with upward trajectories.

Target Olympic Podium Scheme (TOPS)

- ❖ The TOPS program was launched in 2014 with a clear mission: to identify, groom, and prepare potential medal prospects for the Olympics, and to elevate India's medal prospects. It includes:
- ❖ **Elite Athlete Identification:** The heart of TOPS lies in identifying elite athletes who have the potential to stand on the Olympic podium. A committee — the TOPS Elite Athletes' Identification Committee — was formed to meticulously select these athletes. The focus is on sports that are deemed 'High-Priority' including archery, badminton, boxing, hockey, shooting, and wrestling.
- ❖ **Financial Support:** Once identified, these athletes receive targeted assistance. The scheme aims to add a premium to their preparations, ensuring they have the necessary resources for rigorous training and competition. Financial disbursements are made to support customised training programs tailored to each athlete's needs.

Conclusion and Way Ahead: Improve India's Global Standing in Sports

- ❖ **Promoting Fitness at the Grassroots Level;** Integrating Schools; Broadcasting More Sports; Corporate sponsorship, investment, and philanthropy; Upgrading Sports Infrastructure are crucial.
- ❖ NITI Aayog suggests including sports in school curriculum, roping in world-class coaches, and improving infrastructure through public-private partnerships.
- ❖ Strategic planning, improved infrastructure, and scientific training methods are essential. Additionally, addressing the mental and emotional aspects of competing at the highest level is crucial.
- ❖ After all, it's not just about physical prowess; it's about mental resilience, too.
- ❖ India confirmed its commitment about hosting the 2036 Summer Olympics along with expressing its willingness to host the 2029 Youth Olympics. It comes with significant challenges. Infrastructure, logistics, and ensuring a seamless experience for athletes and spectators—all of these factors need meticulous planning. But as our Prime Minister rightly said, India will leave "no stone unturned" in its efforts to bid for this prestigious event.
- ❖ After this, India will become only the fourth Asian country to host the Olympic Games.

- ❖ India's Olympic challenge is multifaceted. It's about more than just medals; it's about nurturing a culture of sports, supporting our athletes, and aiming for excellence.

ALLOCATIONS FOR HEALTH SECTOR: STATE-LEVEL CHALLENGES AND OPPORTUNITIES

Context

The Union Budget's allocations for health sector initiatives like the Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) and Human Resources for Health and Medical Education (HRHME) depend heavily on State-level implementation.

- ❖ These Centrally Sponsored Schemes (CSS) require States to share costs and manage operations.

Key Issues Pertaining to This

Low Fund Utilisation:

- ❖ In PM-ABHIM, only about 29% of funds were utilised in 2022-23. In HRHME, fund absorption was similarly low.
- ❖ Factors like complex grant structures and overlapping funding streams have slowed implementation. For instance, only 45% of the health grants from the 15th Finance Commission were utilised, highlighting inefficiencies in the system.

Construction Delays:

- ❖ Many scheme components involve construction, which is often delayed by rigid procedures and administrative hurdles. This affects fund absorption rates.

Faculty Shortages:

- ❖ A significant shortage of teaching faculty across newly created medical colleges, especially in Empowered Action Group (EAG) States like Uttar Pradesh, where 30% of teaching positions remain vacant. This shortage is particularly severe in rural Community Health Centres (CHCs), where two-thirds of specialist positions are unfilled.

Fiscal Constraints at the State Level

- ❖ States must bear the recurring costs of maintaining the health infrastructure built under PM-ABHIM and HRHME. Since the Union government's support for human resources is limited until 2025-26, States will need to plan for long-term financial commitments.
- ❖ Creating fiscal space will be essential for sustaining these health initiatives and meeting additional costs.

Way Ahead

- ❖ **Address Human Resource Shortages:** Filling teaching faculty and specialist vacancies is critical to ensuring that new medical infrastructure is fully utilised.
- ❖ Improving fund utilisation through better public financial management processes at both the State and central levels can help accelerate implementation.
- ❖ **Long-term Financial Planning:** States need to plan for the recurring expenditures required to maintain the infrastructure built under these schemes, ensuring sustainable health services beyond 2025-26.
- ❖ **Infrastructure Expansion:** Expanding infrastructure beyond urban centres, particularly in underserved areas, is crucial for addressing regional health disparities.

Conclusion

- ❖ The success of Union Budget allocations for the health sector largely depends on overcoming the challenges at the State level, including better fund utilisation, addressing faculty shortages, and ensuring long-term fiscal planning.
- ❖ Collaboration between the Union and State governments, along with improved implementation mechanisms, will be key to transforming these initiatives into meaningful health outcomes.

MICRONUTRIENTS MALNUTRITION IN INDIA

Context: A recent article in The Lancet has estimated that the Indian population's consumption of 15 dietary micronutrients is inadequate.

Major Highlights

- ❖ Over 5 billion people worldwide, which is 68% of the global population, do not consume enough iodine; 67% do not consume enough vitamin E; and 66%, calcium.
- ❖ More than 4 billion people (65% of the population) do not consume enough iron; 55%, riboflavin; 54%, folate; and 53%, vitamin C.
- ❖ Within the same country and age groups, estimated inadequate intakes were higher for women than men for iodine, vitamin B12, iron, and selenium; and higher for men than women for magnesium, vitamin B6, zinc, vitamin C, vitamin A, thiamin, and niacin.
- ❖ Calcium intake inadequacy is reported to be highest in countries in south Asia, sub-Saharan Africa and east Asia and the Pacific.
- ❖ Also, Intake inadequacy was high across all age–sex groups in these countries, but highest among people aged 10–30 years.

Micronutrients

- Micronutrients are vitamins and minerals needed by the body in very small amounts.
- Vitamins are organic compounds that are often categorized into two groups:
 1. **Water-Soluble Vitamins:** These include Vitamin C and the B vitamins (like B12, B6, folate). They dissolve in water and are typically not stored in the body, so regular intake through diet is necessary.
 2. **Fat-Soluble Vitamins:** These include Vitamins A, D, E, and K. They are absorbed along with dietary fat and can be stored in the body's fatty tissues and liver.
- Minerals are inorganic elements that are also classified into:
 1. **Major Minerals:** Such as calcium, potassium, and magnesium, which are needed in larger amounts.
 2. **Trace Minerals:** Such as iron, zinc, copper, and selenium, which are needed in smaller amounts but are still vital for health.

Significance of Micronutrients

- ❖ They perform a range of functions, including enabling the body to produce enzymes, hormones and other substances needed for normal growth and development.
- ❖ They support metabolic processes, bone development and maintenance, several micronutrients influence brain health and cognitive function.
- ❖ Iron, vitamin B12, and folate are vital for the production of red blood cells and the prevention of anemia.
- ❖ Vitamins C and A, as well as zinc, play roles in tissue repair and wound healing.
- ❖ Adequate intake of certain micronutrients can help prevent chronic diseases.
- ❖ Micronutrient deficiencies can cause visible and dangerous health conditions, but they can also lead to less clinically notable reductions in energy level, mental clarity and overall capacity.
- ❖ This can lead to reduced educational outcomes, reduced work productivity and increased risk from other diseases and health conditions.
- ❖ Many of these deficiencies are preventable through nutrition education and consumption of a healthy diet containing diverse foods, as well as food fortification and supplementation, where needed.
- ❖ Government of India Initiatives targeting Micronutrients Malnutrition

- ❖ **National Nutrition Mission (POSHAN Abhiyan):** Launched in 2018, it aims to reduce stunting, undernutrition, anemia, and low birth weight by improving the nutritional status of children, adolescent girls, pregnant women, and lactating mothers.
- ❖ **Integrated Child Development Services (ICDS):** It provides comprehensive services for children under six years of age, pregnant women, and lactating mothers. It aims to improve the nutritional status and health of these groups.
- ❖ **National Iron Plus Initiative (NIPI):** It was launched to combat iron deficiency anemia, especially in children and women. Initiative includes providing iron and folic acid supplements.
- ❖ **Food Fortification Programs:** Fortification programs focus on adding iodine to salt (iodized salt), iron and folic acid to wheat flour, and Vitamin A to edible oils.
- ❖ The Food Safety and Standards Authority of India (FSSAI) oversees the implementation of these fortification standards.
- ❖ **Mid-Day Meal Scheme (MDMS):** The scheme provides free lunches that are fortified with essential nutrients to schoolchildren, aiming to enhance their nutritional intake and promote regular school attendance.
- ❖ **Anemia Mukht Bharat (AMB):** The program includes regular iron and folic acid supplementation, deworming, and efforts to enhance dietary intake of iron-rich foods.
- ❖ It also emphasizes the need for community-based interventions and awareness campaigns.

SWACHH BHARAT MISSION AS A 'GAME-CHANGER' FOR PUBLIC HEALTH

Context: A study published in the Nature journal by the International Food Policy Research Institute suggests that the Swachh Bharat Mission (SBM) has led to a significant reduction in infant deaths by improving sanitation.

About SBM:

- ❖ Swachh Bharat Mission (SBM) was launched on October 2, 2014, to fulfil the vision of a cleaner India by October 2, 2019. The objective of the Mission was to eliminate open defecation, eradicate manual scavenging, and promote scientific solid waste management.

Key Findings of the Report:

- ❖ **Infant and Child Mortality:** The post-Swachh Bharat Mission (SBM) period showed accelerated reductions in infant and under-five mortality rates.
- ❖ **Toilet Coverage:** Districts with over 30% toilet coverage under SBM saw a 5.3 lower Infant Mortality Rate (IMR) and 6.8 lower Under-Five Mortality Rate (U5MR).
- ❖ **Improved Health Outcomes:** Higher SBM coverage corresponded with greater utilization of health programs such as antenatal care (ANC) and institutional deliveries.
- ❖ **Reduced Diarrheal Deaths:** WHO reported 300,000 fewer diarrheal deaths in 2019 compared to 2014 due to improved sanitation.
- ❖ **Child Wasting:** Non-ODF areas experienced 58% higher rates of child wasting (Bill & Melinda Gates Foundation).
- ❖ **Women's Safety:** 93% of women reported feeling safer at home with improved sanitation facilities (UNICEF).
- ❖ **Education:** Poor WASH facilities hinder student attendance and enrollment, particularly for girls.

Reasons for the success of the Swachh Bharat Mission (SBM):

- ❖ **Community Engagement:** SBM combined toilet construction with community involvement, encouraging local ownership of sanitation efforts.
- ❖ **Information, Education, and Communication (IEC):** Substantial investments in IEC campaigns helped bring about behavioural changes by raising awareness of the importance of sanitation and hygiene.

- ❖ **Capacity Building and Training:** Extensive training programs for government officials, frontline workers, volunteers, and communities enhanced the implementation and sustainability of SBM.
- ❖ **Waste Management Systems:** Developed systems for waste segregation, collection, transportation, disposal, and treatment, including recycling centres for effective waste management.
- ❖ **Citizen Engagement and Monitoring:** Introduced mobile and web applications for active citizen participation, feedback, and monitoring of sanitation progress.
- ❖ **National Annual Rural Sanitation Survey (NARSS):** Periodic assessment of progress through NARSS ensured accountability and data-driven decision-making in rural sanitation efforts.

Limitations of Swachh Bharat Mission:

- ❖ **Low Toilet Usage:** Despite achieving 100% sanitation coverage by 2019, only 85% of rural Indians utilize safe and hygienic toilets, indicating a usage gap.
- ❖ **Quality and Infrastructure Issues:** Problems such as malfunctioning facilities, unhygienic conditions, and structural defects like full pits or collapsing superstructures impede toilet usage.
- ❖ **Water Scarcity Impact:** Limited water access, particularly in rural areas like Gujarat's Dahod district, contributes to increased non-usage of toilets.
- ❖ **Behavioural and Social Norms:** Cultural norms and behaviours influence toilet usage, with some households repurposing toilets for activities other than defecation.
- ❖ **Caste-Based Variances:** Toilet access and usage exhibit variations across castes, with surprising trends showing higher non-usage rates among upper castes.
- ❖ **Challenges in Larger Households:** Overcrowding and inadequate facilities pose challenges to toilet usage in larger households.
- ❖ **Issues in solid waste management:** While toilet construction has been successful, scientific collection, segregation and disposal of growing waste volumes remain an issue due to resource and capacity constraints of urban local bodies.
- ❖ **Partial focus on plastic waste:** The mission has focused mostly on toilet construction and solid waste. Effectively tackling and recycling plastic waste is still a gap area.
- ❖ **Centralized approach and targets:** The focus has been on meeting toilet construction targets in a centralized, top-down manner. Decentralized, community-driven efforts have been fewer.

Way forward:

- ❖ Greater focus on behaviour changes communication and public awareness campaigns, especially for hygienic toilet use, waste segregation and not littering. Engaging school children and youth groups can be highly impactful.
- ❖ The "Darwaza Band" campaign and community-level awareness programs have promoted positive sanitation norms.
- ❖ **Innovations in Technology:** Decentralized sewage treatment plants, as seen in Devanahalli, highlight technological advancements in sanitation.
- ❖ Strengthening capacities of urban local bodies for scientifically collecting, segregating, transporting and processing different types of waste. Mechanized sweeping, underground waste bins can be expanded.
- ❖ **Linking with other programmes:** Align sanitation initiatives with other related programs like the Jal Jeevan Mission for better outcomes.
- ❖ Developing localized waste management models through community participation, and public-private partnerships, so that solutions are tailored to local needs.
- ❖ Programs like the "Nirmal Gram Puraskar" foster community involvement and awareness in achieving open-defecation-free villages.
- ❖ Expanding solid waste processing infrastructure through bio methanation plants, material recovery facilities, composting units etc. across towns and cities.
- ❖ Improved monitoring for functionality and maintenance of public/community toilets through citizen oversight and social audits.

- ❖ Expanding coverage of toilets to include slums and public spaces like bus stops, and parks, through customizable, prefabricated toilet models.
- ❖ Incentivizing waste segregation, recycling and reuse through both regulatory policies as well as awareness programs on circular economy principles.

Other initiatives for sanitation:

- ❖ **Central Rural Sanitation Programme (CRSP):** Launched in 1986, it was India's initial step towards improving rural sanitation with substantial subsidies.
- ❖ **Total Sanitation Campaign:** Started in 1999, this marked a shift to a lower subsidy, demand-driven approach.
- ❖ **Phase II of SBM-G:** Focuses on sustainability, promoting solid and liquid waste management, and covering households left out earlier.
- ❖ **National Annual Rural Sanitation Survey (NARSS):** Conducted to assess rural sanitation coverage, showing 95% of rural India having toilet access.
- ❖ **Rural Sanitation Strategy 2019 to 2029:** The Ministry of Jal Shakti's Department of Drinking Water and Sanitation (DDWS) has initiated a 10-year Rural Sanitation Strategy spanning from 2019 to 2029.

Conclusion

- ❖ The mission should transition from a toilet-construction-focused programme to a more holistic, decentralized, community-driven cleanliness model relying on public participation for sustainability. The aim should be to make Swachhata a national way of life.

SEXUAL VIOLENCE AND CRIMINAL JUSTICE REFORM

Context: The recent rape and murder of a doctor at R G Kar Medical College and Hospital in West Bengal have once again spotlighted the issue of sexual violence in India.

- ❖ In response, the West Bengal government introduced the Aparajita Woman and Child Bill, 2024, proposing the mandatory death penalty for rape resulting in death or a permanent vegetative state.
- ❖ This move raises critical debates around the effectiveness of harsher punishments in deterring sexual violence and the broader challenges within India's criminal justice system.

Background

- ❖ Over 90% of rape cases in India involve perpetrators known to the victims, underscoring the societal nature of this crime, as opposed to it being the isolated acts of deviant individuals.
- ❖ High-profile cases like the 2012 Delhi gang rape have led to significant public outrage, often resulting in demands for harsher punishments.
- ❖ However, despite these measures, the problem persists, highlighting the need for a more comprehensive approach to addressing sexual violence.

Legal and Constitutional Aspects

- ❖ The Indian judicial system has addressed the question of the death penalty in cases of sexual violence through landmark judgments.
- ❖ In *Mithu v State of Punjab* (1983), the Supreme Court declared the mandatory death penalty unconstitutional, as it violated the principle of judicial discretion in sentencing.
- ❖ Additionally, state-level amendments to central laws, such as the Indian Penal Code (IPC), require Presidential approval, complicating the implementation of region-specific legislation like the Aparajita Bill.
- ❖ India also struggles with low conviction rates in rape cases, hovering under 30%.
- ❖ The causes of this include delayed investigations, inadequate prosecutorial capacities, and institutional challenges within the judiciary. These problems impede the delivery of swift and fair justice.

Challenges in Addressing Sexual Violence

- ❖ India faces significant challenges in effectively addressing sexual violence:
- ❖ **Ineffective Investigations:**
- ❖ Police investigations in sexual violence cases are often delayed, leading to loss of crucial evidence and weakening the case.
- ❖ **Prosecutorial Inefficiency:**
- ❖ A lack of skilled prosecutors and the inability to handle sensitive cases results in poor legal representation for the victim.
- ❖ **Judicial Delays:**
- ❖ The institutional capacity of courts is insufficient to handle the volume of cases, leading to delays in trials.
- ❖ **Witness Protection:**
- ❖ Despite legal frameworks, there is a lack of effective witness protection, discouraging victims and witnesses from participating in trials.
- ❖ These issues undermine the criminal justice system's ability to ensure certainty of punishment, which is critical for deterring crime.

Societal Perspectives and Misconceptions

- ❖ There is a misconception that harsher punishments, such as the death penalty, are sufficient to prevent sexual violence. However, research and international practices emphasize that the certainty of punishment is a more effective deterrent than its severity.
- ❖ Additionally, there is often selective outrage over stranger rapes, particularly those involving visible violence, while other forms of sexual violence, especially those within domestic or known settings, receive less attention.

Victim-Centric Approach

- ❖ Efforts to address sexual violence must center on the needs and well-being of survivors. There are critical gaps in the criminal justice process:
- ❖ **Pre-trial and Trial Challenges:**
- ❖ Survivors often face multiple challenges during the pre-trial and trial stages, including hostile questioning, public scrutiny, and prolonged court cases.
- ❖ **Medical Examinations:**
- ❖ Humane treatment during medical examinations is essential to avoid re-traumatizing survivors.
- ❖ **Justice Beyond Punishment:**
- ❖ Survivors often seek various forms of justice, such as recognition, support, and rehabilitation, which cannot be achieved solely through harsher punishments.
- ❖ The Witness Protection Scheme, though available in theory, lacks adequate implementation and is a crucial aspect of a victim-centric approach to ensure their safety and cooperation in legal proceedings.

International Best Practices

- ❖ Globally, the emphasis is on the certainty of punishment rather than its severity as a deterrent for sexual violence.
- ❖ Countries that have successfully reduced crime rates focus on strengthening criminal justice institutions, ensuring swift investigations, and providing timely prosecutions.
- ❖ In addition, addressing the root causes of sexual violence—such as gender inequality, poverty, and lack of education—through social reforms is key to long-term solutions.

Way Forward

- ❖ **Broader Social Reforms:**
- ❖ Addressing the root causes of sexual violence requires significant social reform, including education on gender equality, societal awareness, and better economic opportunities for marginalized communities.

❖ **Strengthening Criminal Justice Institutions:**

- ❖ Enhancing the capacity of investigative agencies, improving prosecutorial efficiency, and reducing judicial delays are essential to delivering timely and effective justice.
- ❖ Increased investment in witness protection schemes and victim support systems is also crucial.

❖ **Focus on Victim Support and Rehabilitation:**

- ❖ Rather than focusing solely on punitive measures, reforms should prioritize the needs of survivors, ensuring their rehabilitation and reintegration into society.
- ❖ Medical, legal, and psychological support should be made accessible to all survivors of sexual violence.

Conclusion

- ❖ While there is public demand for stricter punishments, including the death penalty, the focus must shift towards certainty of justice, institutional reforms, and victim-centered approaches.

Sexual violence is not just a criminal issue but a deeply rooted societal problem that requires multi-faceted solutions—spanning legal, social, and cultural domains.



CivilsTap Hlmachal

INTERNATIONAL

INDIA-PAKISTAN RELATIONS

Context: A new survey by the Centre for Policy Research (CPR) found that the relations between India and Pakistan are unlikely to become better in future.

- ❖ The downturn in ties between India and Pakistan since 2016, after which no high-level bilateral talks have been held, is clearly mirrored in the survey.
- ❖ Previous surveys in 2011 and 2013 had indicated a much higher optimism for reconciliation in the subcontinent.

Brief on India- Pakistan Relations

- ❖ India-Pakistan relations are complex and have been marked by periods of tension, conflict, and occasional cooperation since the two countries gained independence from Britain in 1947.

Timeline

- ❖ **Partition and Early Conflicts:** The partition of British India into India and Pakistan in 1947 led to large-scale migrations and violence.
- ❖ The first major conflict came with the First Kashmir War (1947-48) over the disputed region of Jammu and Kashmir.
- ❖ **Wars and Conflicts:** The two countries fought three more major wars:
 - ❖ **1965 War:** Another conflict over Kashmir, resulting in a UN-mandated ceasefire.
 - ❖ **1971 War:** Resulted in the independence of Bangladesh (formerly East Pakistan) after a brutal conflict.
 - ❖ **1999 Kargil Conflict:** A brief but intense conflict in the Kargil district of Kashmir where India emerged victorious.
- ❖ **Nuclearization:** Both countries conducted nuclear tests in 1998, this has added a new dimension to the strategic calculus.
- ❖ **Peace Efforts and Dialogues:** There have been numerous attempts at dialogue and peace-building, including the Agra Summit (2001) and the Lahore Summit (1999).

However, progress has often been stymied by various issues, including terrorism and cross-border violence by Pakistan.

- ❖ **Terrorism and Security Issues:** Attacks like the 2001 Indian Parliament attack and the 2008 Mumbai attacks have significantly strained relations.
- ❖ The Inter-Services Intelligence (ISI) of Pakistan has been accused of playing a role in several terrorist attacks in India.
- ❖ **Pulwama Attack:** In February 2019, an attack on a convoy of Indian paramilitary forces in Pulwama, Kashmir, killed at least forty soldiers.
- ❖ The attack, claimed by the Pakistani militant group JeM, was the deadliest in Kashmir in three decades.
- ❖ India retaliated by conducting an air strike that targeted terrorist training camps within Pakistani territory.
- ❖ **Current Dynamics:** The relations remain strained, with sporadic dialogue and efforts at normalization, but ongoing issues like the Kashmir dispute, cross-border terrorism, and political tensions continue to dominate the relationship.

Areas of Cooperation

- ❖ **Indus Water Treaty:** This treaty, established in 1960, governs the use of the Indus River and its tributaries.
- ❖ Despite ongoing disputes, it has largely been successful in managing water resources between the two countries.

- ❖ **Kartarpur Corridor Agreement (2019):** An Agreement between India and Pakistan for the facilitation of pilgrims to visit Gurdwara Darbar Sahib Kartarpur, Pakistan, was signed in 2019 in order to fulfill the the long-standing demand of the pilgrims to have easy and smooth access to the holy Gurudwara.
- ❖ **Cricket:** Cricket matches between India and Pakistan often attract widespread attention and have sometimes been used as a platform to ease tensions and foster goodwill.
- ❖ **Bilateral Talks:** Periodic diplomatic dialogues and summits, despite their ups and downs, provide platforms for addressing various issues and finding common ground.
- ❖ **Peace Agreements:** Simla Agreement (1972), Lahore Summit Declaration (1999), Agra Summit (2001) are the major peace establishing agreements signed between both the countries.

Way Ahead

- ❖ Both countries have significant internal and external challenges that impact their bilateral relations.
- ❖ In keeping with its “Neighbourhood First Policy”, India desires normal neighbourly relations with Pakistan.
- ❖ India has made clear that it will not compromise on issues relating to national security and will take firm and decisive steps to deal with all attempts to undermine India’s security and territorial integrity.

A BRIEF HISTORY OF IRAN-US TIES

Context: The Iranian Supreme Leader indicated that while the U.S. is not to be trusted, there is no harm in engaging in negotiations with them about nuclear cooperation.

Iran-US relations:

- ❖ The US and Iran have longstanding tensions over Iran’s nuclear program, missile capabilities, and regional influence.
- ❖ The US believes Iran’s nuclear program could lead to weapons development, while Iran insists its program is for civilian use.

Historical Linkages

- ❖ In 1953, the U.S. and the UK orchestrated a coup to remove Iran’s democratically elected leader, Mohammad Mosaddegh, who had sought to nationalize oil resources.
- ❖ The U.S. supported the Shah, Mohammad Reza Pahlavi, who established a repressive regime.
- ❖ In 1979, The Iranian Revolution led by Ayatollah Khomeini resulted in the establishment of an Islamic Republic and severed diplomatic ties with the U.S.
- ❖ Since 1979, the U.S. has imposed various sanctions on Iran, including trade embargoes, arms embargoes, and sanctions on foreign banks.

Previous Engagement

- ❖ The last time the Iran-US seemed close to bilateral cooperation was in 2015, when Iran and Western countries signed the Joint Comprehensive Plan of Action (JCPOA)
- ❖ It was aimed to limit Iran’s nuclear weapons development in exchange for relief from Western economic sanctions.
- ❖ In 2018, the Trump administration withdrew from the JCPOA, leading to further deterioration in the U.S.-Iran relations.

Impact:

- ❖ The JCPOA represented a thaw in relations but was undermined by the U.S. exit in 2018.
- ❖ Iran has since accelerated its nuclear program, though it claims not to seek nuclear weapons.
- ❖ The ongoing hostility between the U.S. and Iran contributes to regional instability, with the U.S. supporting Israel and Iran opposing U.S. and Israeli policies.
- ❖ Iran faces severe economic challenges due to US sanctions, including a drop in oil exports, inflation, and decreased growth.

- ❖ Despite these troubles, Iran has historically managed to cope with sanctions.

Developments Favouring Iran:

- ❖ **Saudi-Iran Peace Deal:** The China-brokered peace deal with Saudi Arabia in March 2023 and Iran's inclusion in the SCO and BRICS have improved Iran's regional standing.
- ❖ **Gaza War:** Iran's military capabilities were highlighted by its involvement in the Gaza conflict.
- ❖ **Iran's Strategic Partnerships:** Iran has strengthened ties with Russia and China and is exploring opportunities with India.
- ❖ **Oil and Gas Reserves:** Iran has vast reserves of oil and natural gas, making it a key player in global energy markets.
- ❖ **India's Engagement with Iran:**
 - ❖ India has enhanced its outreach in West Asia, but relations with Iran have not fully matched potential due to geopolitical and economic factors.
 - ❖ India maintains multilateral ties with Iran through platforms like SCO and BRICS.
 - ❖ Key agreements include the Tehran Declaration (2001) and the New Delhi Declaration (2003), although relations have been strained by sanctions and geopolitical factors.
 - ❖ India and Iran signed a 10-year agreement to develop the Shahid Beheshti terminal at Chabahar port, marking a new phase in India's long-term interest in the port.

Response of US and India's Dilemma

- ❖ The U.S. has raised concerns about potential sanctions related to the Chabahar deal.
- ❖ There has been no clear exemption provided for this project, despite previous exemptions for humanitarian aid and support to Afghanistan.
- ❖ India faces pressure from the US to stop Iranian oil imports while maintaining strong bilateral ties with Iran
- ❖ Indian oil companies have reportedly ceased placing new orders for Iranian oil due to sanctions.

Conclusion and Way Forward

- ❖ The upcoming U.S. presidential elections could influence Iran's situation.
- ❖ And India should monitor potential tougher actions from the U.S. and navigate its diplomacy carefully.
- ❖ India's options include finding informal ways to continue oil imports or negotiating with the US for an exemption, while enhancing investments in Chabahar and other projects to maintain relations with Iran without directly defying US policy.

REVIVAL OF SAARC

Context: Muhammad Yunus, the head of Bangladesh's interim government, has called for the revival of the "spirit of SAARC", stressing that the eight-member South Asian Association for Regional Cooperation (SAARC) can solve many of the region's pressing issues.

SAARC's Dormancy

- ❖ The 2016 SAARC Summit to be held in Islamabad, was cancelled after the Uri terrorist attack in India, with several countries including Bangladesh, Bhutan, and Afghanistan declining to participate.
- ❖ Last SAARC biennial summit was hosted by Nepal in 2014.
- ❖ The various South Asian leaders highlight the urgent need for SAARC to become a more active and functional body to address regional challenges, including security concerns, economic cooperation, and humanitarian crises such as the Rohingya situation.

Reasons for SAARC's Failures

- ❖ **Lack of Political Will:** Member states often prioritize national interests over regional cooperation. The absence of strong political commitment from leaders to resolve conflicts or work together hampers SAARC's progress.
- ❖ Unlike the European Union, where member states have overcome historical differences, South Asian leaders have been less proactive in fostering cooperation.
- ❖ **Structural Weakness:** SAARC operates on the principle of unanimity, meaning that all decisions require the consent of every member state. This structure allows any country, particularly India or Pakistan, to veto or block initiatives, resulting in deadlock. This inability to bypass political differences or manage regional conflicts has restricted SAARC's effectiveness.
- ❖ **Economic Disparities:** The member countries of SAARC have significant economic disparities. India dominates the region in terms of economic power, which creates resentment among smaller member states who feel overshadowed (India's Big Brother hegemony)
- ❖ **Limited Scope of Cooperation:** While SAARC has had success in areas such as health, education, and disaster management, it has struggled in more critical areas like security, trade, and economic development. Regional agreements such as the South Asian Free Trade Area (SAFTA) have not been fully implemented, limiting economic cooperation.
- ❖ **External Influence:** The geopolitical influence of external powers, such as China and the United States, has added complexity to SAARC's internal dynamics. China's growing presence in South Asia, especially through initiatives like the Belt and Road Initiative (BRI), has drawn some SAARC members away from a unified approach to regional issues.
- ❖ **Internal Conflicts and Political Instability:** Several SAARC countries face internal political instability or conflicts, such as civil wars, military coups, and ethnic insurgencies, which detract from their ability to engage meaningfully in regional cooperation.
For example, Afghanistan's internal conflict, Bangladesh's crisis further undermine SAARC's cohesion.

Need for SAARC Revival

- ❖ **Regional Cooperation for Peace and Security:** A functional SAARC can provide a platform for diplomatic dialogue, confidence-building measures, and peaceful conflict resolution among member nations.
- ❖ Cooperation on security-related issues like terrorism, cross-border disputes, and cybersecurity is vital for regional stability.
- ❖ **Economic Integration and Development:** South Asia remains one of the least economically integrated regions in the world. A revived SAARC can facilitate greater intra-regional trade, investment, and economic cooperation through agreements like the South Asian Free Trade Area (SAFTA).
- ❖ Enhanced economic ties can lead to job creation, poverty reduction, and sustainable development for the region's 1.8 billion people.
- ❖ **Addressing Common Challenges:** The region faces shared challenges such as climate change, natural disasters, food security, public health crises, and water resource management. A stronger SAARC could coordinate joint efforts to address these issues more effectively through regional initiatives and disaster response mechanisms.
- ❖ **Rohingya and Refugee Crisis:** Regional cooperation is crucial for handling humanitarian crises, such as the Rohingya refugee crisis. SAARC can help facilitate discussions on repatriation, resource-sharing, and addressing the root causes of refugee migrations, providing relief to countries like Bangladesh that are under immense strain.
- ❖ **Geopolitical Balance:** With China's growing influence in South Asia, reviving SAARC would allow member countries to collaborate more strategically in balancing external powers. This could promote regional autonomy and strengthen South-South cooperation.

- ❖ **Leveraging Global Forums:** A revived SAARC can provide South Asia with a stronger collective voice in global forums such as the United Nations, World Trade Organization, and climate summits, ensuring that the region's interests are represented and advanced on the global stage.

India's Role and Contribution

- ❖ Despite challenges, India continues to support SAARC through initiatives such as the launch of the South Asian Satellite and the establishment of the South Asian University. These initiatives have strengthened regional collaboration in technology, education, and research.
- ❖ However, India has also been focusing on interregional initiatives like BIMSTEC and its Act East Policy, highlighting the need for SAARC to revitalize itself to remain relevant in the changing geopolitical landscape.

Way Ahead

- ❖ **Strengthening Political Will:** Member states, especially India and Pakistan, need to prioritize regional cooperation over bilateral conflicts. Diplomatic dialogue and confidence-building measures should be initiated to ensure smooth functioning of SAARC.
- ❖ **Boosting Intra Regional Trade:** Simplifying trade procedures, enhancing connectivity, and fully implementing the South Asia Free Trade Agreement (SAFTA) can help unlock the region's untapped trade potential and promote economic growth.
- ❖ **Leveraging Sub-Regional Initiatives:** While continuing to engage in BIMSTEC and the Act East Policy, India and other members can align these efforts with SAARC goals to ensure mutual growth and regional stability, fostering integration without sidelining SAARC.

INDIA'S STRATEGIC CHALLENGES IN SOUTH ASIA

Context: India faces significant strategic challenges in South Asia, highlighted by ongoing issues such as the military standoff between Indian and Chinese forces in Ladakh, the inconclusive 31st meeting of the India-China Border Affairs diplomatic mechanism, and the growing influence of China in neighbouring countries.

These developments underscore the complex geopolitical landscape that India must navigate in its pursuit of regional stability and security.

Background

- ❖ **Border Disputes with China and Pakistan:**
 - ❖ The Line of Actual Control (LAC) with China and the Line of Control (LoC) with Pakistan are flashpoints for military confrontation, as evidenced by recent standoffs in Ladakh and the continued insurgency in Jammu & Kashmir.
 - ❖ These disputes undermine regional stability and impede diplomatic resolutions.
- ❖ **China's Belt and Road Initiative (BRI) and Maritime Silk Road:**
 - ❖ China's Belt and Road Initiative (BRI) and the Maritime Silk Road are viewed with suspicion by India.
 - ❖ The China-Pakistan Economic Corridor (CPEC), a major BRI project, passes through Pakistan-occupied Kashmir (PoK), which India claims as its own territory.
 - ❖ Furthermore, China's growing presence in the Indian Ocean through infrastructure investments in countries like Sri Lanka and the Maldives raises concerns of strategic encirclement, also known as the "String of Pearls" theory.
- ❖ **Shifting Political Dynamics in Neighbouring Countries:**
 - ❖ Political shifts in India's neighbouring countries have added to its challenges.
 - ❖ For example, Maldives and Bangladesh, traditionally close allies, are showing increasing openness to Chinese investment and influence.
 - ❖ Meanwhile, India's strained relations with Nepal and Sri Lanka, partly due to internal political dynamics and perceived interference, pose challenges for India's leadership in the region.

Economic Implications

❖ **Trade Deficit with China:**

- ❖ India's trade deficit with China has ballooned to \$85 billion, creating a significant economic vulnerability.
- ❖ India relies on China for crucial imports in sectors such as electronics, machinery, and pharmaceuticals.
- ❖ This dependency has strategic ramifications, particularly during times of heightened tension, as disruptions to supply chains could impact key industries.

❖ **Mass Poverty and Jobless Growth:**

- ❖ India continues to grapple with significant economic challenges, including mass poverty and jobless growth.
- ❖ Economic inequality and underemployment pose internal threats to India's aspirations for development and global leadership.
- ❖ These domestic issues limit India's ability to channel resources towards strategic objectives like defense modernization.

Defense and Security Challenges

❖ **Dependence on Defense Imports:**

- ❖ India's continued reliance on foreign defense imports constrains its strategic autonomy.
- ❖ Despite being one of the world's largest arms importers, the country still lags behind in the domestic production of advanced military equipment.
- ❖ This dependency limits India's capacity to respond independently to emerging security threats and undermines its long-term defense posture.

❖ **Modernization of Military Capabilities:**

- ❖ The modernization of India's military capabilities is essential to counter the growing threats posed by its regional adversaries.
- ❖ China's rapid military advancements, coupled with Pakistan's continued development of its nuclear arsenal, necessitate urgent upgrades to India's conventional and nuclear forces.
- ❖ Emerging security threats, such as cyber warfare and hybrid warfare, further complicate India's defense requirements.

❖ **Nuclear Deterrence:**

- ❖ India's nuclear deterrence strategy faces increasing challenges, as both China and Pakistan continue to enhance their nuclear capabilities.
- ❖ The evolving nuclear landscape in South Asia requires India to reassess its nuclear doctrine and develop robust countermeasures to ensure credible deterrence.

Diplomatic Considerations

❖ **Perception of India as a "Big Brother":**

- ❖ India's relationships with its neighbours have often been strained by perceptions of India as a regional "bully" or "big brother."
- ❖ Countries like Nepal and Sri Lanka have expressed concerns about India's interference in their domestic affairs. This perception complicates India's ability to forge close, cooperative relationships in South Asia.

❖ **Impact of Domestic Politics:**

- ❖ Domestic political developments in India, including internal political polarization and challenges to democratic norms, have impacted its international image.

❖ **Strategic Alliances:**

- ❖ India's diplomatic strategy must focus on building strong alliances and partnerships to counter regional threats.
- ❖ The Quad (India, the U.S., Japan, and Australia) represents a crucial platform for countering China's growing influence in the Indo-Pacific region.

- ❖ Strengthening ties with Southeast Asian countries through initiatives like the Act East Policy is also essential.

Future Prospects

❖ **Economic Potential:**

- ❖ India is on track to become one of the largest economies by 2047, coinciding with the centenary of its independence.
- ❖ To achieve this, India must invest in technological advancements, infrastructure development, and manufacturing capabilities.
- ❖ Becoming a global manufacturing powerhouse is crucial to reducing economic vulnerabilities, particularly in sectors where India relies heavily on imports.

❖ **Addressing Domestic Challenges:**

- ❖ India must overcome significant domestic challenges, including mass poverty, inadequate healthcare, and low levels of education, to realize its full potential.

❖ **Cooperative Neighbourhood:**

- ❖ A stable and cooperative neighbourhood is essential for India's aspirations of becoming a global power.
- ❖ Ensuring positive relations with neighbouring countries and reducing external threats through diplomacy and strategic partnerships will allow India to focus on internal development and international leadership.

Government Schemes

❖ **Atmanirbhar Bharat:**

- ❖ The Atmanirbhar Bharat (Self-reliant India) initiative aims to boost domestic manufacturing, including in the defense sector.

❖ **Neighbourhood First Policy:**

- ❖ India's Neighbourhood First Policy emphasizes improving relations with its immediate neighbours.
- ❖ Strengthening bilateral ties and fostering regional cooperation are essential for maintaining stability and countering external threats.

❖ **Act East Policy:**

- ❖ India's Act East Policy seeks to strengthen economic and strategic ties with Southeast Asian countries.

Way Forward

❖ **National Security Strategy:**

- ❖ India must develop a coherent national security strategy that addresses its deterrence failures and prepares it to face both conventional and unconventional threats from China and Pakistan.

❖ **Diversify Trade Partnerships:**

- ❖ India should reduce its economic dependence on China by diversifying trade partnerships and investing in self-reliant industries.

❖ **Self-reliance in Defense:**

- ❖ Accelerating the Atmanirbhar Bharat initiative in defense production will be crucial for India to maintain its strategic autonomy and counter regional threats.

❖ **Update Nuclear Deterrence Strategy:**

- ❖ Given the evolving nuclear landscape in South Asia, India should reassess and update its nuclear deterrence strategy to ensure that it remains a credible force against both China and Pakistan.

Conclusion

- ❖ India's path to regional leadership and global power status is fraught with challenges, but by addressing the above issues with foresight and strategic planning, India can navigate the complexities of South Asia's geopolitical landscape.

INDIA MIDDLE-EAST EUROPE ECONOMIC CORRIDOR TO BOOST MARITIME SECURITY

Context: The Union Minister of Commerce & Industry stated that the India-Middle East-Europe Economic Corridor (IMEC) can add to India's maritime security and faster movement of goods between Europe and Asia.

India-Middle East-Europe Economic Corridor (IMEC)

- ❖ **Participants:** During the Delhi G20 Summit, India, USA, UAE, Saudi Arabia, France, Germany, Italy and the European Union signed a Memorandum of Understanding (MoU) to establish the India-Middle East-Europe Economic Corridor.
- ❖ **Objective:** The corridor will encourage and provide impetus to economic development through enhanced connectivity and economic integration between Asia, West Asia, the Middle East and Europe.

Components

- ❖ The India-Middle East-Europe Economic Corridor will consist of two separate corridors,
- ❖ The East corridor connecting India to West Asia/Middle East and
- ❖ The Northern corridor connecting West Asia/Middle East to Europe.
- ❖ The project would involve the building of a railway line across the Arabian Peninsula through the United Arab Emirates and Saudi Arabia and develop shipping connectivity to India and Europe on either end of this corridor.
- ❖ The corridor could be further developed to transport energy through pipelines and data through an optical fiber link.

Ports Which are Part of IMEC

- ❖ **India:** Ports in Mundra (Gujarat), Kandla (Gujarat), and Jawaharlal Nehru Port Trust (Navi Mumbai).
- ❖ **Europe:** Piraeus in Greece, Messina in Southern Italy, and Marseille in France.
- ❖ **Middle East:** Ports include Fujairah, Jebel Ali, and Abu Dhabi in the UAE, as well as Dammam and Ras Al Khair ports in Saudi Arabia.

Israel: Haifa port.

- ❖ **Railway Line:** The railway line will link Fujairah port in the UAE to Haifa port in Israel, passing through Saudi Arabia (Ghuwaifat and Haradh) and Jordan.

Maritime security for India

- ❖ The IMEC creates a robust and secure trade corridor across important maritime routes. It will give India a strategic role in patrolling and securing these areas
- ❖ India's involvement ensures its critical maritime chokepoints, like the Arabian Sea and the Strait of Hormuz, are safeguarded.
- ❖ The collaboration between countries in the corridor will facilitate increased intelligence-sharing and joint maritime exercises.
- ❖ It will help India to monitor maritime threats like piracy, trafficking, and terrorism, particularly in volatile zones like the Gulf of Aden or the Red Sea.
- ❖ As IMEC improves connectivity, India has an opportunity to expand its naval presence in strategic ports within the Middle East and Eastern Mediterranean.
- ❖ This bolsters India's power projection capability and ensures a protective watch over its trade routes.
- ❖ IMEC will ensure India that the strategic Indian Ocean region does not become dominated by Chinese investments, thereby preserving its maritime dominance and reducing external threats.

Other Opportunities for India

- ❖ **Bypassing Pakistan:** IMEC breaks Pakistan's veto over India's overland connectivity to the West. Since the 1990s, India has sought various trans-regional connectivity projects with Pakistan.
- ❖ But Pakistan was adamant in its refusal to let India gain access to land-locked Afghanistan and Central Asia.

- ❖ Indo-US collaboration in the Middle East: This project has broken the myth that India and the United States might work together in the Indo-Pacific but not in the Middle East.

Hurdle before IMEC

- ❖ The Israel-Palestine conflict has put a pause on the normalization of Arab-Israel relations which is a key element of the multi-nation initiative.
- ❖ Vulnerability of the Strait of Hormuz: The entire trade of the IMEC architecture flows through the Strait of Hormuz and with Iran's proximity and control over the strait, the risk of disruptions remains very high.
- ❖ The security challenges in the region have made other partners reluctant to invest in the project.

Way Forward

- ❖ The geopolitical concerns need to be managed by striking a delicate balance in accommodating the geopolitical interests of the participating nations and addressing potential political sensitivities.
- ❖ There is also a need to maintain the required security apparatus as the project passes through certain unstable regions of the world.

JAL SANCHAY JAN BHAGIDARI INITIATIVE

Context: The Prime Minister has launched the 'Jal Sanchay Jan Bhagidari' initiative to enhance rainwater harvesting and ensure long-term water sustainability.

- ❖ Under this program, approximately 24,800 rainwater harvesting structures are being constructed across the state to enhance rainwater harvesting and ensure long-term water sustainability.
- ❖ The 'Jal Sanchay Jan Bhagidari' initiative seeks to conserve water with a strong emphasis on community partnership and ownership.
- ❖ It is driven by a whole-of-society and a whole-of-government approach.

Rain Water Harvesting

- ❖ Rainwater harvesting is the collection and storage of rain water that runs off from roof tops, parks, roads, open grounds, etc.
- ❖ This water run off can be either stored or recharged into the ground water.
- ❖ A rainwater harvesting systems consists of the following components:
 - ❖ catchment from where water is captured and stored or recharged,
 - ❖ conveyance system that carries the water harvested from the catchment to the storage/recharge zone,
 - ❖ first flush that is used to flush out the first spell of rain,
 - ❖ filter used to remove pollutants,
 - ❖ storage tanks and/or various recharge structures.

Significance

- ❖ **Water Conservation:** Collecting rainwater reduces the demand on local water supplies, which can help conserve freshwater resources.
- ❖ **Reduced Stormwater Runoff:** Harvesting rainwater helps reduce the volume of runoff, which can decrease soil erosion and reduce the risk of flooding.
- ❖ This also helps minimize the impact on local waterways and ecosystems.
- ❖ **Groundwater Recharge:** Some systems are designed to allow harvested rainwater to seep back into the ground, helping to recharge groundwater supplies and maintain the water table.
- ❖ **Reduced Infrastructure Strain:** By decreasing the demand on municipal water systems, rainwater harvesting can help reduce the burden on existing water infrastructure, potentially delaying the need for costly upgrades and expansions.
- ❖ **Emergency Supply:** During droughts or natural disasters, having a reserve of rainwater can be crucial for maintaining water supply for essential needs.

- ❖ **Sustainability:** As climate change impacts water availability, rainwater harvesting becomes increasingly relevant as a sustainable practice to buffer against variability in rainfall and water supply.

Government Initiatives to Tackle Shortage of Water in India

- ❖ **National Water Mission (NWM):** NWM aims to conserve water, minimize wastage, and ensure equitable distribution of water across various sectors.
- ❖ It focuses on promoting water use efficiency, groundwater recharge, and sustainable development of water resources.
- ❖ **Jal Jeevan Mission (JJM):** Launched in 2019, the Jal Jeevan Mission aims to provide piped water supply to all rural households by 2024.
- ❖ The mission focuses on decentralized water management, community participation, and leveraging technology to ensure safe and sustainable water supply in rural areas.
- ❖ **Atal Bhujal Yojana (ABHY):** Launched in 2019, the Atal Bhujal Yojana aims to improve groundwater management and promote sustainable groundwater use in identified water-stressed areas across India.
- ❖ It focuses on community participation, demand-side management, and groundwater recharge measures.
- ❖ **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY):** It was launched in 2015-16 to enhance physical access of water on farm and expand cultivable area under assured irrigation, improve on-farm water use efficiency, introduce sustainable water conservation practices, etc.
- ❖ **The Atal Mission for Rejuvenation and Urban Transformation (AMRUT):** It was launched in 2015 in selected 500 cities and focuses on the development of basic urban infrastructure in the Mission cities in the sectors of water supply, sewerage & septage management, storm water drainage, green spaces & parks and non-motorized urban transport.
- ❖ **Namami Gange Programme:** Launched in 2014, it aims to rejuvenate the River Ganga and its tributaries by addressing pollution, promoting sustainable wastewater management, and restoring the ecological health of the river basin.
- ❖ **Interlinking of Rivers (ILR):** The National Water Development Agency (NWDA) has been entrusted with the work of inter-linking of rivers under the National Perspective Plan (NPP).
- ❖ NPP has two components, viz., Himalayan Rivers Development Component and Peninsular Rivers Development Component.
- ❖ 30 link projects have been identified under NPP.

Suggestions for Water Conservation

- ❖ Implementing efficient water management practices, such as rainwater harvesting and watershed management, can help replenish water sources.
- ❖ Investing in water treatment systems and improving irrigation techniques can reduce wastage and pollution.
- ❖ Raising awareness about water conservation among the public and encouraging responsible water use is vital.
- ❖ Additionally, policies that promote sustainable water allocation and management are essential for long-term solutions.
- ❖ By using modern technologies, such as IoT, AI, and remote sensing, water consumption can be measured and managed more effectively.

INDIA'S STRATEGIC CHALLENGES IN SOUTH ASIA

Context: India faces significant strategic challenges in South Asia, highlighted by ongoing issues such as the military standoff between Indian and Chinese forces in Ladakh, the inconclusive 31st meeting of the India-China Border Affairs diplomatic mechanism, and the growing influence of China in neighbouring countries.

- ❖ These developments underscore the complex geopolitical landscape that India must navigate in its pursuit of regional stability and security.

Background

❖ **Border Disputes with China and Pakistan:**

- ❖ The Line of Actual Control (LAC) with China and the Line of Control (LoC) with Pakistan are flashpoints for military confrontation, as evidenced by recent standoffs in Ladakh and the continued insurgency in Jammu & Kashmir.
- ❖ These disputes undermine regional stability and impede diplomatic resolutions.

❖ **China's Belt and Road Initiative (BRI) and Maritime Silk Road:**

- ❖ China's Belt and Road Initiative (BRI) and the Maritime Silk Road are viewed with suspicion by India.
- ❖ The China-Pakistan Economic Corridor (CPEC), a major BRI project, passes through Pakistan-occupied Kashmir (PoK), which India claims as its own territory.
- ❖ Furthermore, China's growing presence in the Indian Ocean through infrastructure investments in countries like Sri Lanka and the Maldives raises concerns of strategic encirclement, also known as the "String of Pearls" theory.

❖ **Shifting Political Dynamics in Neighbouring Countries:**

- ❖ Political shifts in India's neighbouring countries have added to its challenges.
- ❖ For example, Maldives and Bangladesh, traditionally close allies, are showing increasing openness to Chinese investment and influence.
- ❖ Meanwhile, India's strained relations with Nepal and Sri Lanka, partly due to internal political dynamics and perceived interference, pose challenges for India's leadership in the region.

Economic Implications

❖ **Trade Deficit with China:**

- ❖ India's trade deficit with China has ballooned to \$85 billion, creating a significant economic vulnerability.
- ❖ India relies on China for crucial imports in sectors such as electronics, machinery, and pharmaceuticals.
- ❖ This dependency has strategic ramifications, particularly during times of heightened tension, as disruptions to supply chains could impact key industries.

❖ **Mass Poverty and Jobless Growth:**

- ❖ India continues to grapple with significant economic challenges, including mass poverty and jobless growth.
- ❖ Economic inequality and underemployment pose internal threats to India's aspirations for development and global leadership.
- ❖ These domestic issues limit India's ability to channel resources towards strategic objectives like defense modernization.

Defense and Security Challenges

❖ **Dependence on Defense Imports:**

- ❖ India's continued reliance on foreign defense imports constrains its strategic autonomy.
- ❖ Despite being one of the world's largest arms importers, the country still lags behind in the domestic production of advanced military equipment.
- ❖ This dependency limits India's capacity to respond independently to emerging security threats and undermines its long-term defense posture.

- ❖ Modernization of Military Capabilities:
- ❖ The modernization of India's military capabilities is essential to counter the growing threats posed by its regional adversaries.
- ❖ China's rapid military advancements, coupled with Pakistan's continued development of its nuclear arsenal, necessitate urgent upgrades to India's conventional and nuclear forces.
- ❖ Emerging security threats, such as cyber warfare and hybrid warfare, further complicate India's defense requirements.

Nuclear Deterrence:

- ❖ India's nuclear deterrence strategy faces increasing challenges, as both China and Pakistan continue to enhance their nuclear capabilities.
- ❖ The evolving nuclear landscape in South Asia requires India to reassess its nuclear doctrine and develop robust countermeasures to ensure credible deterrence.

Diplomatic Considerations

❖ **Perception of India as a "Big Brother":**

- ❖ India's relationships with its neighbours have often been strained by perceptions of India as a regional "bully" or "big brother."
- ❖ Countries like Nepal and Sri Lanka have expressed concerns about India's interference in their domestic affairs. This perception complicates India's ability to forge close, cooperative relationships in South Asia.

❖ **Impact of Domestic Politics:**

- ❖ Domestic political developments in India, including internal political polarization and challenges to democratic norms, have impacted its international image.

❖ **Strategic Alliances:**

- ❖ India's diplomatic strategy must focus on building strong alliances and partnerships to counter regional threats.
- ❖ The Quad (India, the U.S., Japan, and Australia) represents a crucial platform for countering China's growing influence in the Indo-Pacific region.
- ❖ Strengthening ties with Southeast Asian countries through initiatives like the Act East Policy is also essential.

Future Prospects

❖ **Economic Potential:**

- ❖ India is on track to become one of the largest economies by 2047, coinciding with the centenary of its independence.
- ❖ To achieve this, India must invest in technological advancements, infrastructure development, and manufacturing capabilities.
- ❖ Becoming a global manufacturing powerhouse is crucial to reducing economic vulnerabilities, particularly in sectors where India relies heavily on imports.

❖ **Addressing Domestic Challenges:**

- ❖ India must overcome significant domestic challenges, including mass poverty, inadequate healthcare, and low levels of education, to realize its full potential.

❖ **Cooperative Neighbourhood:**

- ❖ A stable and cooperative neighbourhood is essential for India's aspirations of becoming a global power.
- ❖ Ensuring positive relations with neighbouring countries and reducing external threats through diplomacy and strategic partnerships will allow India to focus on internal development and international leadership.

Government Schemes

❖ **Atmanirbhar Bharat:**

- ❖ The Atmanirbhar Bharat (Self-reliant India) initiative aims to boost domestic manufacturing, including in the defense sector.
- ❖ Neighbourhood First Policy:
- ❖ India's Neighbourhood First Policy emphasizes improving relations with its immediate neighbours.
- ❖ Strengthening bilateral ties and fostering regional cooperation are essential for maintaining stability and countering external threats.
- ❖ **Act East Policy:**
- ❖ India's Act East Policy seeks to strengthen economic and strategic ties with Southeast Asian countries.

Way Forward

❖ **National Security Strategy:**

- ❖ India must develop a coherent national security strategy that addresses its deterrence failures and prepares it to face both conventional and unconventional threats from China and Pakistan.

❖ **Diversify Trade Partnerships:**

- ❖ India should reduce its economic dependence on China by diversifying trade partnerships and investing in self-reliant industries.

❖ **Self-reliance in Defense:**

- ❖ Accelerating the Atmanirbhar Bharat initiative in defense production will be crucial for India to maintain its strategic autonomy and counter regional threats.
- ❖ Update Nuclear Deterrence Strategy:
- ❖ Given the evolving nuclear landscape in South Asia, India should reassess and update its nuclear deterrence strategy to ensure that it remains a credible force against both China and Pakistan.

Conclusion

- ❖ India's path to regional leadership and global power status is fraught with challenges, but by addressing the above issues with foresight and strategic planning, India can navigate the complexities of South Asia's geopolitical landscape.

INDIA AND UAE MoU FOR NUCLEAR COOPERATION

Context: India and the United Arab Emirates (UAE) signed a Memorandum of Understanding (MoU) for civil nuclear cooperation.

About

- ❖ During the 2015 visit of Prime Minister Narendra Modi to the UAE, both countries had agreed to cooperate in "peaceful use of nuclear energy", including in areas of "safety, health, agriculture, and science and technology."
- ❖ The agreement is part of the UAE's policy of expanding investments into the nuclear energy sector.
- ❖ LNG Supply: Apart from the nuclear cooperation-related MoU, the two sides signed an MoU for long-term LNG supply between Abu Dhabi National Oil Company (ADNOC) and Indian Oil Corporation Limited.

India's Civil Nuclear Cooperation

- ❖ Civil nuclear cooperation involves collaboration between countries or organizations to develop and use nuclear technology for peaceful purposes.
- ❖ **It can encompass a variety of activities, including:** Energy Production, Regulatory and Safety Standards, Nuclear Fuel Supply, and Non-Proliferation Efforts.
- ❖ India's civil nuclear program is aimed at harnessing nuclear energy for peaceful purposes, primarily electricity generation, and other applications.
- ❖ India has Nuclear cooperation with France, Russia, U.S.A and Japan.

Related Agreements

- ❖ **Indo-U.S. Nuclear Deal (2005):** The deal was instrumental in improving India's access to global nuclear markets.
- ❖ Civil Nuclear Cooperation Agreement with the U.S. (2008): It allowed India access to civilian nuclear technology and fuel from the international market.
- ❖ This agreement required India to separate its civilian and military nuclear facilities, with the civilian facilities subject to safeguards by the International Atomic Energy Agency (IAEA).

Key Reactors and Projects:

- ❖ Major nuclear power plants in India include those located in Tarapur, Kudankulam, and Rajasthan.
- ❖ These facilities play a significant role in India's nuclear energy production.
- ❖ **Fast Breeder Reactors:** India is developing advanced nuclear reactors, such as Fast Breeder Reactors (FBRs), which use plutonium to generate more fuel than they consume.
- ❖ **Thorium-Based Reactors:** India has a long-term vision of utilizing its abundant thorium resources in nuclear reactors.
- ❖ The country is working on thorium-based reactors, including the Advanced Heavy Water Reactor (AHWR), as part of its three-stage nuclear program.

Brief overview of the UAE and India relations

- ❖ **Political:** India and the United Arab Emirates (UAE) established diplomatic relations in 1972.
- ❖ **Multilateral Cooperation:** India and the UAE are currently part of several plurilateral platforms such as I2U2 (India-Israel-UAE-USA) and UFI (UAE-France-India) Trilateral, etc. UAE was also invited as a Guest Country to the G-20 Summit
- ❖ **Economic & Commercial:** India UAE trade, valued at US\$ 180 million per annum in the 1970s, is today US\$ 84.84 billion making UAE, India's third largest trading partner for the year 2021-22 after China and US.
- ❖ Moreover, UAE is the second largest export destination of India (after the US) with an amount of nearly US\$ 31.61 billion for the year 2022-23.
- ❖ The Comprehensive Economic Partnership Agreement (CEPA) was signed in 2022 as a major step in deepening trade relations.
- ❖ **Defence cooperation:** It is steered through a Joint Defence Cooperation Committee (JDCC) at the Ministry level, with the signing of Agreement on Defence Cooperation in 2003, which came into effect in 2004.
- ❖ **Space Cooperation:** Indian Space Research Organisation (ISRO) and the UAE Space Agency signed an MoU regarding cooperation in the exploration and use of outer space for peaceful purposes in 2016.
- ❖ **Indian Community:** Indian expatriate community of approximately 3.5 million is the largest ethnic community in UAE constituting roughly about 35 percent of the country's population.

INDIA AND GCC: JOINT ACTION PLAN FOR 2024-2028

Context

India and the Gulf Cooperation Council (GCC) held their inaugural Foreign Ministers meeting in Riyadh, where they adopted a Joint Action Plan for 2024-2028.

About

- ❖ This plan encompasses various collaborative activities in health, trade, agriculture, food security, transportation, energy, and culture.
- ❖ The plan allows for additional cooperative areas based on mutual agreement.
- ❖ EAM S. Jaishankar also held separate bilateral meetings with his counterparts from Qatar, Saudi Arabia, Oman, Kuwait and Bahrain on the margins of the India-GCC Ministerial meeting.

Gulf Region

- ❖ The Gulf Region typically refers to the countries surrounding the Persian Gulf in the Middle East.
- ❖ It includes nations like Saudi Arabia, Kuwait, Bahrain, Qatar, Oman, and the United Arab Emirates (UAE).
- ❖ This region is known for its vast oil reserves, which have significantly influenced global economics and politics.

Gulf Cooperation Council (GCC)

- ❖ It is a political and economic alliance of six Middle Eastern countries—Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman.
- ❖ It was established in 1981.
- ❖ It is Headquartered at Riyadh, Saudi Arabia.
- ❖ It aims to achieve unity among its members based on their common objectives and their similar political and cultural identities, which are rooted in Arab and Islamic cultures.
- ❖ Presidency of the council rotates annually.

Importance of Gulf Region for India

- ❖ India's priorities include attracting investments to increase economic growth, addressing regional security concerns (including in the Arabian Sea and the Gulf), and enhancing its regional presence and influence.
- ❖ **Energy Security:** The Gulf countries are major suppliers of crude oil and natural gas to India.
- ❖ India is highly dependent on Gulf oil for its energy needs, making the region crucial for India's energy security.
- ❖ **Remittance:** Remittances from Indian expatriates working in the Gulf contribute significantly to India's economy.
- ❖ Remittance is the non-commercial transfer of money by an individual to his/her home country or family.
- ❖ **Security Cooperation:** The Gulf region is strategically important for India's security interests, given its location and influence in the Arabian Sea and Indian Ocean regions.

India's Relations with GCC

- ❖ **Strategic Partnership:** GCC is a major trade and investment partner for India. While India has close economic and political ties with all countries, the strategic partnership exists with only Saudi Arabia, UAE, and Oman.
- ❖ **Energy Security:** The Gulf region fulfilled 55.3% of India's total crude oil demand in 2022–23, compared to 63.9% in 2021–22. However, oil imports from Russia have been declining in 2023–24, and there are signs that India's decreasing dependence on Gulf oil is already reversing.
- ❖ **Trade and Investment:** The GCC is India's largest regional bloc trading partner. Trade with the GCC comprised 15.8 percent of India's total trade in FY2022-23, compared to 11.6 percent of total trade with the European Union.
- ❖ The UAE has consistently been India's principal trading partner within the Gulf and is India's third-largest trading partner overall, with Saudi Arabia in fourth place.
- ❖ India also has a significant trade deficit with the GCC which is driven by India's dependence on GCC countries for oil and gas imports.
- ❖ India's regional geo-economic focus has driven it to engage with the I2U2 grouping and to join the India–Middle East–Europe Economic Corridor (IMEC).
- ❖ The two sides signed an inter-governmental framework agreement on IMEC. However, both initiatives risk being delayed by the Hamas–Israel war.
- ❖ **Defence Relations:** India's defense engagements with these countries are gaining significant momentum.
- ❖ The Indian Navy established bilateral exercises with the UAE in 2018, with Qatar in 2019, and with Bahrain and Saudi Arabia in 2021.

- ❖ The Indian Army held its first exercises with the UAE and Saudi Arabia in 2024.
- ❖ The UAE is becoming India's key regional defence partner; the UAE and Oman are the only regional countries with which India holds army, air force and navy exercises.
- ❖ India and the UAE have started trilateral military cooperation with France, holding a maritime exercise in 2023 and an air-force exercise in 2024.

Challenges Ahead

- ❖ The outbreak of the Hamas–Israel war and shipping attacks in the Red Sea directly impact India's energy security and economic growth.
- ❖ Yet India remains reluctant to take an active role in the complex politics of the Middle East and is back to its long-standing balancing act between the Gulf, Iran and Israel. This could become more difficult if the war escalates further.
- ❖ The war has also impacted the I2U2 minilateral group, through the continued postponement of a senior-officials meeting since 2023.
- ❖ India has called for economic initiatives such as I2U2 and IMEC to progress despite the conflict.
- ❖ Other challenges include finalising the India–GCC Free Trade Agreement (FTA), which was initially delayed due to a change in the GCC's chief trade negotiator.
- ❖ The key issue will be reaching an agreement that satisfies all GCC states.
- ❖ Additionally, India must manage diplomatic relations carefully following Islamophobic comments made by Indian officials in 2022.
- ❖ Any Islamophobic rhetoric from Indian nationals stands in contrast to the growing government-to-government display of religious tolerance between India and the Gulf.

Way Forward

- ❖ Growing security challenges are sharpening the need for India to become a key 'strategic partner' of the Gulf states and to enlarge its regional presence and influence.
- ❖ Increased strategic convergence spanning political, economic and security interests has resulted in a new framework for India–Gulf relations, which, if successfully maintained, will enhance trust levels and enable cooperation to become more ambitious in scope.

BORDER MANAGEMENT AND DEVELOPMENT IN INDIA

Context: While addressing the Border Area Development Conclave, Defence Minister said that Border area development is the best way to deal with geo-strategic challenges.

About

- ❖ India's geo-strategic position is such that it is exposed to different kinds of challenges and the best way to deal with them is to ensure border area development, as border villages are the country's first villages and not remote areas.
- ❖ He highlighted the objective is to transform the villages along the Northern borders, especially in Uttarakhand, Himachal Pradesh and Arunachal Pradesh, which are suffering from limited connectivity and infrastructure, into model villages.

Borders in India

- ❖ India currently has more than 15000 km of land borders and more than 7500 km of maritime borders.
- ❖ It shares borders with seven countries including Afghanistan, Pakistan, China, Nepal, Bhutan, Bangladesh and Myanmar.

Border Management in India

- ❖ Border guarding responsibility initially was with the state forces post-independence, however, the same was found inadequate to handle the challenges and threats.

- ❖ Central armed police forces (CAPFs) were raised under the Ministry of Home Affairs (MHA) and were tasked to guard the borders under the control of the ministry.
- ❖ In case of active hostilities, the Army is given the responsibility to man the borders.

Need for Border Management

- ❖ **India- Pakistan Border:** The border with Pakistan has been a problematic one since India's independence.
 - ✓ Despite the accession of Jammu and Kashmir (J&K) to India as per the Indian Independence Act of 1947, Pakistan fought four conventional wars with India namely in 1947-48, 1965, 1971 and 1999.
 - ✓ It has also been engaged in a proxy war as well both in the state of J&K and Punjab.
 - ✓ The border is active in the form of LC where the Army has been deployed in addition to the BSF.
- ❖ **India- China Border:** India has disputed borders with China in Ladakh, Middle Sector, and in Arunachal Pradesh. Despite many levels of talks, very little progress has been made to resolve the dispute.
- ❖ **India-Bangladesh Border:** The relations between India and Bangladesh have been moving up and down based on the government in power.
 - ✓ The current relations with Bangladesh are good but Pakistani efforts to create a religious divide, Chinese inroads and present political situation in the country have made the peace process prone to disruption.
- ❖ **India-Bhutan Border:** India is responsible for the defence of Bhutan and therefore responds to Chinese aggression even in Bhutan which happened in Doklam in 2017.
 - ✓ The Chinese threat manifesting through Bhutan always remains which rises the need to secure this border.
- ❖ **India-Nepal Border:** Due to close relations between India and Nepal, Nepalese are working in the Indian Army as soldiers and porous border management remains a challenge.
 - ✓ Several Chinese activities in terms of infrastructure development have come up in Southern Nepal close to Indian borders.
 - ✓ Pakistan's ISI is also using the porous nature of this border to infiltrate militants for anti-national activities in India.
- ❖ **India-Myanmar Border:** India and Myanmar share a large land boundary with the northern end bordering China and the southern end bordering Bangladesh.
 - ✓ The border remains porous as local communities are divided into both sides of the border.
 - ✓ There are a large number of refugees moving into the northeastern (NE) states, primarily in Manipur.

Challenges In Managing the Borders

- ❖ **Length and Diversity:** India shares borders with multiple countries totaling thousands of kilometers.
 - ✓ Each of these borders has unique geographical features, ranging from mountains to rivers and plains, making effective monitoring and control challenging.
- ❖ **Porosity of Borders:** Many parts of India's borders are porous, allowing illegal crossings of people, goods, and contraband such as drugs and weapons.
 - ✓ The difficult terrain, along with dense forests and riverine areas, facilitate such activities, posing a significant challenge to border security forces.
- ❖ **Cross-Border Terrorism:** India faces threats of cross-border terrorism, particularly from Pakistan-based militant groups operating in Jammu and Kashmir.
 - ✓ These groups exploit the porous borders to infiltrate into Indian territory and carry out attacks, leading to security concerns and tensions between the two countries.
- ❖ **Transnational Crime:** Transnational criminal activities, including smuggling of narcotics, arms, and counterfeit currency, thrive along India's borders.

- ❖ **Ethnic and Tribal Dynamics:** India's border regions are often inhabited by diverse ethnic and tribal communities with historical, cultural, and social ties across borders.
 - ✓ Managing these communities' aspirations, addressing their grievances, and preventing their exploitation by external forces require nuanced approaches to border management.
- ❖ **Dispute over Borders:** India has unresolved border disputes with neighboring countries, most notably with China and Pakistan.
 - ✓ These disputes lead to occasional tensions and confrontations, necessitating constant vigilance and diplomatic efforts to maintain peace and stability along the borders.
- ❖ **Infrastructure Development:** Many border areas in India lack basic infrastructure such as roads, communication networks, and border outposts, hampering the effectiveness of border management efforts.
 - ✓ Developing infrastructure in these remote and often inhospitable regions is crucial for enhancing surveillance capabilities and response mechanisms.
- ❖ **Humanitarian Concerns:** India shares borders with countries experiencing political instability, humanitarian crises, and refugee influxes.
 - ✓ Managing such situations while upholding humanitarian principles and international obligations poses additional challenges for border management authorities.

Conclusion

- ❖ The Border Roads Organisation (BRO) has constructed over 8,500 kms of roads and more than 400 permanent bridges.
 - ✓ Atal Tunnel, Sela Tunnel and Shikun-La Tunnel, which is going to be the world's highest tunnel, will prove to be milestones in border area development.
- ❖ The transmission and distribution infrastructure of north-eastern States is being strengthened.
- ❖ Ongoing efforts have not only ensured prompt military deployments in sensitive regions, but have also connected the people residing in border areas with the rest of the country.
- ❖ Infrastructure development; smart borders comprising communication networks and power supply; economic development with employment generation; border area tourism and empowerment of the next generation by providing skill enhancement and education opportunities are key pillars of the vision of border area development.

INDIA SENT NOTICE TO PAKISTAN TO REVIEW INDUS WATER TREATY

Context: India has sent a formal notice to Pakistan, seeking the "review and modification" of the Indus Water treaty (IWT).

About

- ❖ The latest notice is issued under Article XII (3) of the IWT, signaling India's intent to revoke and renegotiate the 64-year-old treaty.
 - **Article XII (3) states:** "The provisions of this Treaty may from time to time be modified by a duly ratified treaty concluded for that purpose between the two Governments".
- ❖ The two notifications come amidst a prolonged controversy over the construction of two hydel power projects by India in Jammu & Kashmir — one on Kishanganga, a tributary of Jhelum, in Bandipora district, and the other (Ratle Hydroelectric Project) on Chenab in Kishtwar district.
 - Both are "run-of-the-river" projects, meaning they generate electricity (330 MW and 850 MW respectively) using the natural flow of the river, and without obstructing its course.
 - However, Pakistan has repeatedly alleged that both these projects violate the IWT.

The Indus Water Treaty

- ❖ The Indus Water Treaty was signed in 1960 between India and Pakistan after nine years of negotiations arranged by the World Bank.

- ❖ It governs the management and use of the Indus River system.
- ❖ **Water Allocation:** The treaty allocates the waters of the three eastern rivers (Beas, Ravi, and Sutlej) to India and the three western rivers (Indus, Chenab, and Jhelum) to Pakistan.
 - The treaty gave India about 30% of the water carried out by the Indus Rivers System while Pakistan got 70% of the waters.
- ❖ **Permanent Indus Commission:** The treaty established a commission to facilitate communication and cooperation between the two countries regarding water management.
- ❖ **Dispute Resolution:** Provisions are included for addressing disputes, primarily through consultation and negotiation.
 - According to the treaty, there is a sequential, three-level mechanism where disputes are first decided at the level of the Indus Commissioners of the two countries, then escalated to the Neutral Expert who is appointed by the World Bank, and only then escalated to the Hague-based Permanent Court of Arbitration (PCA).
- ❖ **Development Projects:** India is allowed to develop hydroelectric projects on the western rivers, provided they do not affect Pakistan's water supply.

Concerns for India

- ❖ There is a significantly altered population demographics, coupled with connected agricultural and other uses of the waters.
- ❖ There is a need to accelerate the development of clean energy to meet India's emission targets.
- ❖ It is the impact of persistent cross-border terrorism in Jammu and Kashmir which has impeded the smooth operations of the Treaty and undermined full utilization of India's rights.
- ❖ The Indian Government has also asserted that the dispute resolution mechanism of the Treaty requires reconsideration.

Way Forward

- ❖ The Indus Waters Treaty is considered one of the most successful water-sharing endeavours in the world today.
- ❖ However, there is a need to update certain technical specifications and expand the scope of the agreement to address climate change.

2024 QUAD LEADERS' SUMMIT

Context: Leaders of the Quad group of countries met at their sixth summit-level meeting at Archmere Academy, Delaware, to announce a broad range of outcomes.

Quadrilateral Security Dialogue (QUAD)

- ❖ It is an informal multilateral grouping of India, the U.S., Australia, and Japan aimed at cooperation for a free and open Indo-Pacific region.
- ❖ **Origin:** The Quad began as a loose partnership after the 2004 Indian Ocean tsunami when the four countries joined together to provide humanitarian and disaster assistance to the affected region.
 - ✓ It was formalized by former Japanese Prime Minister Shinzo Abe in 2007, but then fell dormant.
- ❖ After a decade it was resurrected in 2017, reflecting changing attitudes in the region toward China's growing influence

Key Initiatives of QUAD 2024

- ❖ Quad Cancer Moonshot, a groundbreaking partnership to save lives in the Indo-Pacific region.
 - ✓ Under this, India will provide \$7.5 million worth of HPV sampling kits, detection kits and cervical cancer vaccines to countries in the Indo-Pacific.
 - ✓ A commitment from the Serum Institute of India, in partnership with Gavi and the Quad, to support orders of up to 40 million HPV vaccine doses for the Indo-Pacific region.

- ❖ **Coast Guard Cooperation:** The First-ever “Quad-at-Sea Ship Observer Mission” in 2025 to improve interoperability and advance maritime safety between our Coast Guards across the Indo-Pacific.
- ❖ The Quad Indo-Pacific Logistics Network pilot project, in order to support civilian response to natural disasters more rapidly and efficiently across the Indo-Pacific region.
- ❖ The “Quad Ports of the Future Partnership” will harness the Quad’s collective expertise to support sustainable and resilient port infrastructure development across the Indo-Pacific.
- ❖ The “Semiconductor Supply Chains Contingency Network Memorandum of Cooperation” to enhance Quad resilience in semiconductor supply chains.
- ❖ Reform at the UN Security Council: The Leaders recognised the urgent need to make it more representative, inclusive, and democratic through expansion in permanent and non-permanent categories of membership
- ❖ Quad Principles for Development and Deployment of Digital Public Infrastructure were welcomed for the region and beyond.
- ❖ The Maritime Initiative for Training in the Indo-Pacific” (MAITRI) to enable regional partners to monitor and secure their waters, enforce their laws, and deter unlawful behavior.
 - ✓ India will host the first MAITRI workshop in 2025.

The Strategic Significance of Quad

- ❖ **Act East policy:** India’s participation in the Quad emphasizing deeper engagement with East Asian nations and strengthening maritime security cooperation.
- ❖ **Military cooperation:** It provides a platform for military cooperation, intelligence sharing, and joint exercises aimed at maintaining maritime security and ensuring the rule of law.
- ❖ **Counterbalancing China’s Influence:** QUAD is crucial for India’s interests in safeguarding its maritime trade routes and ensuring freedom of navigation in international waters.
- ❖ India has supported a rule-based multipolar world and QUAD can help it in achieving its ambition of becoming a regional superpower.

PACT OF THE FUTURE’ PROMISING TO REFORM THE UNSC

Context: The United Nations’ General Assembly adopted the ‘Pact of the Future’, promising to “reform the United Nations Security Council (UNSC).

About

- ❖ In the ‘Pact of the Future’, world leaders agreed to redress the historical injustice against Africa as a priority and improve the representation of the under-represented and unrepresented regions and groups including Asia-Pacific, Latin America and the Caribbean.
- ❖ They also agreed to enlarge the Security Council to be more representative of the current United Nations membership and reflective of the realities of the contemporary world.

Key issues for Reform at UNSC

- ❖ Categories of membership,
- ❖ The question of the veto held by the five permanent members,
- ❖ Regional representation,
- ❖ The size of an enlarged Council and its working methods, and
- ❖ The Security Council-General Assembly relationship.

Need for UN Reforms

- ❖ **Non-representative Council membership:** When the UN was founded in 1945, the Council consisted of 11 members out of 51 members of UN; around 22%.
 - ✓ Today, there are 193 member-states of the UN, and only 15 members of the Council — fewer than 8%.

- ❖ **More financial contribution of non permanent members:** There are countries whose financial contributions to the UN outweigh those of four of the five permanent members.
 - ✓ For example, Japan and Germany have for decades been the second and third largest contributors to the UN budget.
- ❖ **Unable to discharge basic functions:** The Security Council cannot discharge its basic function as one of the permanent members of the Security Council attacked its neighbour.
 - ✓ Russia, a permanent member of the UN, has vetoed UNSC resolutions on Ukraine issues.
- ❖ **Im-balance of Power:** The composition of the Council also gives undue weightage to the balance of power of those days.
 - ✓ Europe, accounting for 5% of the world's population, controls 33% of the seats in any given year (and that does not count Russia, another European power).
- ❖ **India's contribution & representation:** Opportunities are also denied to other states such as India, which by its sheer size of population, share of the world economy, or contributions to the UN have helped shape the evolution of world affairs in the seven decades since the organisation was born.

Challenges

- ❖ **Lack of Political Will:** Although there is a general agreement towards change in the system, different countries have different perceptions of the requirement for change.
- ❖ **Coffee Club:** Uniting for Consensus (UfC) or Coffee Club, is a movement that developed in the 1990s in opposition to the possible expansion of permanent seats in the United Nations Security Council.
 - ✓ Under the leadership of Italy, it aims to counter the bids for permanent seats proposed by G4 nations (Brazil, Germany, India, and Japan).
- ❖ **Chinese Opposition:** China being a permanent member blocks the growth of India becoming a Permanent Member.

Concluding remarks

- ❖ India has long sought a permanent seat in the Security Council to better represent the interests of the developing world. The nation's quest has gained momentum with support from the international community.
- ❖ The U.N. Secretary-General, in his remarks warned that the 15-nation United Nations Security Council, which he described as "outdated" and whose authority is eroding, will eventually lose all credibility unless its composition and working methods are reformed.

INDIA-INDONESIA: 75TH ANNIVERSARY OF DIPLOMATIC RELATIONS

Context: 8th India-Indonesia Foreign Office Consultations were held in New Delhi

- ❖ Both sides undertook a comprehensive review of bilateral ties, including political exchanges, defense and security, the maritime domain, trade and investment, healthcare, and connectivity. They also exchanged perspectives on regional and global issues of mutual interest.
- ❖ The two sides discussed the ongoing commemoration of the 75th anniversary of the establishment of India-Indonesia diplomatic relations and the various activities organized to mark this milestone.
- ❖ Both sides expressed satisfaction with the progress made across different sectors of engagement and agreed to explore new avenues of cooperation. It was agreed to hold the next FOC at a mutually convenient date.

India -Indonesia Bilateral Relations

- ❖ **Cultural & Historical Ties:** India and Indonesia share over two millennia of close cultural and commercial contacts.
 - ✓ Hinduism, Buddhism, and later Islam spread to Indonesia from India.
 - ✓ Indian epics like Ramayana and Mahabharata influence Indonesian folk art and dramas.

- ✓ The Bali Yatra festival is celebrated in both countries with enthusiasm.
- ❖ **Political Relations:** Both countries have common experiences of colonialism, democracy, pluralism, and progressive leadership.
 - ✓ President Sukarno of Indonesia was the Guest of Honour during India's first Republic Day in 1950.
 - ✓ Both nations were instrumental in the independence movements of Asia and Africa, and contributed to the Bandung Conference (1955) and the formation of the Non-Aligned Movement (1961).
 - ✓ India's 'Look East Policy' (1991) and 'Act East Policy' (2014) have accelerated bilateral relations, particularly in politics, security, defense, commerce, and culture
- ❖ **G20 Engagement:** Indonesia chaired the G20 Presidency in 2022 with the theme "Recover Together, Recover Stronger."
 - ✓ India participated actively in G20 events hosted by Indonesia, and Prime Minister Modi attended the G20 Leaders' Summit in Bali in November 2022.
 - ✓ India assumed the G20 presidency in December 2022, hosting over 100 meetings with strong Indonesian participation.
- ❖ **Economic Relations:** Bilateral trade for 2022-23 was USD 38.85 billion, with Indian exports at USD 10.02 billion and imports at USD 28.82 billion.
 - ✓ India is a major buyer of Indonesian coal, crude palm oil, and other resources. India exports refined petroleum, vehicles, agricultural products, and more.
- ❖ **Investment:** Indian investment in Indonesia reached USD 1,219 million in 4,750 projects (2000-2022).
 - ✓ Much of Indian investment enters Indonesia via Singapore and other gateways, so the actual volume may be higher.
 - ✓ Areas for Indian investment include joint ventures in diverse sectors.
- ❖ **Blue Economy Opportunities:** The blue economy focuses on sustainable economic activities related to oceans and seas.
 - ✓ Indonesia is a leader in leveraging its maritime resources for sustainable economic growth.
- ❖ **Digital & Technological Cooperation:** Both India and Indonesia are highly digitalized and use technology for public services and e-governance.
 - ✓ India's success with Digital Public Infrastructures (DPI) can serve as a model for Indonesia, which is also developing its DPis.
 - ✓ Cybersecurity is a key area for cooperation as both countries face new security risks in digital public services.
- ❖ **Defence: India** and Indonesia have strong defence and security cooperation. In May 2018, during Prime Minister Narendra Modi's visit, both nations signed a new Defence Cooperation Agreement, marking the elevation of their relationship to a Comprehensive Strategic Partnership.
 - ✓ Exercise GARUDA SHAKTI is a joint training exercise between Indian Special Forces and the Indonesian Special Forces.

Future outlook

- ❖ Cooperation in the blue economy and digital technology offers promising opportunities for India and Indonesia.
- ❖ These collaborations will not only strengthen bilateral ties but also contribute to the broader Indo-Pacific region's prosperity.
- ❖ There is potential for India and Indonesia to collaborate on marine pollution, overfishing, sea farming, maritime security, waste management, blue carbon spaces, and marine resource utilization for fuel and food production.

INDIA AND UZBEKISTAN SIGNED BILATERAL INVESTMENT TREATY (BIT)

Context: India and the Republic of Uzbekistan signed a Bilateral Investment Treaty in Tashkent.

About

- ❖ The signing of the BIT reflects both nations' shared commitment towards enhancing economic cooperation and creating a more robust and resilient investment environment.
- ❖ The BIT is expected to pave the way for increased bilateral investments, benefiting businesses and economies in both countries.
- ❖ It will increase the comfort level and boost the confidence of investors by assuring a minimum standard of treatment and non-discrimination, while providing for an independent forum for dispute settlement through arbitration.

Bilateral Investment Treaty (BIT)

- ❖ A BIT is a reciprocal agreement between two countries to provide protection to investments made by nationals and companies of one country in the other. It aims to create a favourable investment climate and promote economic cooperation between the signatory nations.
- ❖ India's BIT Framework: India adopted a new Model BIT in 2015, replacing the earlier version from 1993. The new text serves as the template for negotiating future BITs and the investment chapters of Free Trade Agreements (FTAs) and Economic Partnership Agreements.

Key Features of India's Model BIT (2015)

- ❖ **National Treatment:** Foreign investors are to be treated equally and fairly, similar to domestic investors, in all matters except in specific sectors where exceptions are mentioned.
- ❖ **Protection from Expropriation:** Limits the ability of the host country to expropriate (take over) foreign investments except for public purposes, in a non-discriminatory manner, and with adequate compensation.
- ❖ **Fair and Equitable Treatment:** Ensures fair treatment of foreign investors, but does not automatically guarantee broader rights like those found in older treaties.
- ❖ **Full Protection and Security:** Investments by foreign investors will be given full protection and security, consistent with the laws of the host country.
- ❖ **Dispute Settlement:** Exhaustion of Local Remedies: Investors must first attempt to resolve disputes within the legal framework of the host country, and only after exhausting all local remedies can they initiate international arbitration.
- ❖ **Non-Discriminatory Treatment:** Ensures protection from discrimination, particularly with respect to domestic investors, and guarantees Most-Favored-Nation (MFN) treatment.

India -Uzbekistan Relations

Historical Ties:

- ❖ India and Uzbekistan have centuries-old ties dating back to the time of the Silk Road, where cultural, religious, and trade exchanges flourished.
- ❖ The shared heritage between the two nations is evident in the cultural and historical similarities, including influences from Persian and Mughal eras.
- ❖ India's relationship with Uzbekistan grew stronger after the latter's independence following the collapse of the Soviet Union in 1991.

Political Relations:

- ❖ **Strategic Partnership:** India and Uzbekistan elevated their relationship to a Strategic Partnership during Uzbek President Shavkat Mirziyoyev's visit to India in 2018.

- ❖ **Regular High-Level Visits:** Both countries regularly engage in high-level visits to deepen political, economic, and strategic ties. Indian Prime Minister Narendra Modi and President Mirziyoyev have met on several occasions, underlining the importance of the bilateral partnership.
- ❖ **Multilateral Engagement:** India and Uzbekistan collaborate in various multilateral forums, including the United Nations, Shanghai Cooperation Organisation (SCO), and the India-Central Asia Dialogue.

Economic and Trade Relations:

- ❖ **Trade:** India-Uzbekistan trade has witnessed growth over the years, though the potential remains largely untapped. The main exports from India include pharmaceuticals, machinery, electronic products, and textiles, while Uzbekistan exports items like fruits, fertilizers, and raw materials.
- ❖ **Bilateral Trade Agreement:** Both nations have a Bilateral Investment Treaty (BIT) in place, which protects and promotes investments. They are also working on finalizing a Preferential Trade Agreement (PTA) to enhance trade relations.
- ❖ **Pharmaceuticals:** Indian pharmaceutical companies have a significant presence in Uzbekistan, and there have been ongoing efforts to enhance this partnership further. India supplies about 25% of Uzbekistan's pharmaceutical needs. Information Technology: Uzbekistan is increasingly seeking India's expertise in Information Technology and digital governance.

Defense Cooperation:

- ❖ **Military Exercises:** India and Uzbekistan regularly engage in joint military exercises such as DUSTLIK, aimed at enhancing counter-terrorism cooperation.
- ❖ **Defense Training:** India provides military training to Uzbek armed forces through its various institutions, enhancing capacity-building efforts.
- ❖ **Security Cooperation:** Both nations cooperate on counterterrorism, anti-radicalization, and intelligence-sharing, particularly in the context of growing security concerns in Afghanistan and Central Asia.

Cultural Relations:

- ❖ **Cultural Exchanges:** India and Uzbekistan have vibrant cultural exchanges that focus on arts, music, dance, and yoga. Hindi is also widely taught in Uzbekistan, and Bollywood is extremely popular.
- ❖ **People-to-People Ties:** There is growing interest among the Uzbek population in India's traditional medicine systems like Ayurveda and Yoga. Uzbekistan regularly participates in cultural festivals in India, and vice versa.

Connectivity and Transportation:

- ❖ **Chabahar Port:** India, Uzbekistan, and Iran are working on utilizing Chabahar Port to enhance connectivity with Afghanistan and Central Asia, bypassing Pakistan. This would open up opportunities for trade and economic engagement between India and Uzbekistan.
- ❖ **International North-South Transport Corridor (INSTC):** Uzbekistan has shown interest in the INSTC, a project that aims to reduce the time and cost of transporting goods between India and Central Asia.

Energy and Renewable Resources:

- ❖ **Energy Cooperation:** Uzbekistan is rich in natural resources, and India has expressed interest in developing energy partnerships in areas like natural gas and renewable energy.
- ❖ **Nuclear Cooperation:** Both countries signed a civil nuclear cooperation agreement for peaceful purposes, focusing on the exchange of knowledge and technology in nuclear energy.

India's Developmental Assistance:

- ❖ **Lines of Credit:** India has extended various lines of credit to Uzbekistan to help fund infrastructure projects like road construction, water treatment plants, and renewable energy projects.

- ❖ Capacity Building Programs: **Through the Indian Technical and Economic Cooperation (ITEC) program, India provides** training and capacity-building assistance to Uzbek professionals in various sectors, such as health, agriculture, and IT.

Challenges

- ❖ **Geopolitical Concerns:** Afghanistan's instability remains a concern for both India and Uzbekistan, particularly after the Taliban takeover. Both nations are working to address common security challenges.
- ❖ **Trade Barriers:** Despite the growing relationship, bilateral trade remains below potential due to connectivity issues, regulatory barriers, and lack of direct transportation links.

Recent Developments

- ❖ **India-Central Asia Summit:** India hosted the India-Central Asia Summit in January 2022, where both nations reiterated their commitment to strengthen ties, especially in trade, security, and energy sectors.
- ❖ **Afghanistan Issue:** India and Uzbekistan have expressed common concerns over terrorism emanating from Afghanistan and the importance of ensuring that Afghan territory is not used for terrorism



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GENERAL STUDIES 3.

ECONOMY

DIGITAL AGRICULTURE MISSION

Context: Recently, the Union Cabinet Committee approved the Digital Agriculture Mission with an outlay of Rs. 2817 Crore, including the central share of Rs. 1940 Crore.

About the Digital Agriculture Mission

- ❖ It aims to nurture agri-tech start-ups by harnessing cutting-edge advancements in cloud computing, earth observation, remote sensing, data analytics, and artificial intelligence/machine learning models.
- ❖ It is conceived as an umbrella scheme to support digital agriculture initiatives, such as creating Digital Public Infrastructure, implementing the Digital General Crop Estimation Survey (DGCES), and taking up other IT initiatives by the Central Government, State Governments, and Academic and Research Institutions.

Mission's Roots

- ❖ At its core, DAM seeks to transform India's agricultural landscape by infusing it with digital nutrients.
- ❖ Digital Public Infrastructure (DPI) for Agriculture: It aims to provide authenticated demographic details, land holdings, and crop information for cultivators and tenant farmers.
- ❖ It's like giving each farmer a digital identity (akin to Aadhaar) – a trusted 'Kisan ki Pehchaan' (a digital Farmer ID) – while connecting them to relevant state and central government databases.
- ❖ This data-driven approach promises innovative, farmer-centric services.

Three Pillars of Digital Agriculture Mission

- ❖ **Agristack:** The farmer's digital toolbox. It's a federated structure, collaboratively built by various agencies of both central and state governments. Agristack houses three foundational registries:
- ❖ **Farmers' Registry:** A virtual farmer directory.
- ❖ **Geo-referenced Village Maps:** For every village, with crop details overlaid.
- ❖ **Crop Sown Registry:** A digital ledger of what's sprouting where.
- ❖ **Krishi Decision Support System:** It provides timely and reliable information to farmers, helping them make informed decisions. It aims to create a comprehensive geospatial system to unify remote sensing-based information on Crops, Soil, Weather, water resources, etc.
- ❖ **Soil Profile Mapping:** It maps soil properties, moisture levels, and nutrient content, empowering precision agriculture.

Significances of Digital Agriculture Mission

- ❖ **Efficient Services:** Farmers will access services and schemes faster, like a well-timed monsoon shower.
- ❖ **Data-Driven Insights:** AI-powered crop predictions and personalised advice are helpful for better interventions and future policy support.
- ❖ **Inclusive Growth and Employment:** It is aiming to have a catalytic effect in creating both direct and indirect employment in the agriculture sector, and is expected to provide employment opportunities to about 2.5 lakh trained local youth and Krishi Sakhis.
- ❖ **Resilience:** When pests strike or drought looms, DAM will be the farmer's digital scarecrow, alerting them in advance.

Conclusion

- ❖ As the sun rises on DAM, India's agri-tech landscape blossoms. It's not just about bytes and algorithms; it's about nurturing the roots that feed our nation.

Digital Agriculture Mission aligns with this grand vision – nurturing a developed India by 2047 (Viksit Bharat@2047).

HUNGER FREE WORLD BY 2030

Context: Recent triennial International Conference of Agricultural Economists (ICAE-2024) highlighted malnutrition, hunger are worsening due to geopolitical unrest and climate change, and focused on **'Transformation Towards Sustainable Agri-Food Systems'**.

About

- ❖ **Goal 2 of the United Nations Sustainable Development Goals (SDGs)** is all about creating a world free of hunger by 2030. It's a bold and essential mission—one that resonates with our shared humanity.
- ❖ The vision of a hunger-free world by 2030 is both inspiring and daunting. It's a goal that resonates with the collective desire for a more equitable and compassionate planet.

Why Does Zero Hunger Matter?

- ❖ A world with **zero hunger positively impacts our economies**, health, education, equality, and social development. It's a cornerstone for building a better future for everyone.
- ❖ Moreover, hunger limits human development, making it challenging to achieve other sustainable development goals like education, health, and gender equality.
- ❖ **Economies:** Productive, well-nourished individuals contribute to economic growth.
- ❖ **Health:** Proper nutrition prevents diseases and improves overall well-being.
- ❖ **Education:** Hungry children struggle to learn effectively.
- ❖ **Gender Equality:** Empowered women play a pivotal role in eradicating hunger.

Challenges Ahead

- ❖ Despite progress in agricultural productivity, over two billion people globally still lack access to sufficient, nutritious, and safe food. Projections indicate that the world is not on track to achieve zero hunger by 2030.
- ❖ **Rising Hunger and Food Insecurity:** Since 2015, the global issue of hunger and food insecurity has intensified. Factors such as geopolitical unrest, climate change, and deepening inequalities have exacerbated the situation.
- ❖ In 2022, approximately 735 million people—about 9.2% of the world's population—experienced chronic hunger —a staggering rise compared to 2019.
- ❖ An additional 2.4 billion people faced moderate to severe food insecurity, meaning they lacked access to sufficient nourishment. This number escalated by an alarming 391 million people compared to 2019.
- ❖ **Stunted Growth and Malnutrition:** Extreme hunger and malnutrition hinder sustainable development. Stunted growth affects 148 million children, while 45 million children under the age of 5 suffer from wasting.
- ❖ These conditions not only impair physical health but also limit cognitive development and economic productivity.

Achieving Zero Hunger

- ❖ **Multi-dimensional Approach:** We need a comprehensive strategy. This includes:
- ❖ **Social Protection:** Ensuring safety nets for vulnerable populations.
- ❖ **Sustainable Agriculture:** Promoting practices that enhance food security while safeguarding the environment.
- ❖ **Investment in Agriculture:** Critical for reducing hunger, poverty, and building resilience to disasters.

- ❖ **Nutrition:** Ensuring safe and nutritious food, especially for children.
- ❖ **Transforming Food Systems:** Creating a more inclusive and sustainable world.
- ❖ **Social Protection:** Ensuring safety nets for vulnerable populations, especially children, to safeguard access to safe and nutritious food.
- ❖ **Transforming Food Systems:** We need inclusive and sustainable food systems that prioritise nutrition, reduce waste, and promote resilience.

India's Efforts

- ❖ India, once a net importer of food grains, has transformed into a net exporter. During the pandemic, the government efficiently distributed food grains through the Public Distribution System, providing emergency assistance to families.
- ❖ However, India also faces challenges related to malnutrition and climate change.
- ❖ **Malnutrition and Anaemia:** While malnutrition has decreased over the past decade, the Comprehensive National Nutrition Survey 2016-18 revealed that more than 40 million Indian children suffer from chronic malnutrition.
- ❖ Additionally, over half of Indian women aged 15-49 years are anaemic.
- ❖ Programs like the Integrated Child Development Services (providing meals to children under six and pregnant/lactating mothers) and the mid-day meal scheme demonstrate India's commitment to addressing these challenges.

Way Forward (Road to Zero Hunger by 2030)

- ❖ **Food as the Essence of Life:** Food isn't just sustenance; it's woven into our cultures and communities. It has the power to bring people together, nourish our bodies, and sustain the planet.
- ❖ **UN Food Agencies' Pledge:** On World Food Day, the food agencies of the United Nations (UN) pledged to work collaboratively to end hunger, eradicate food insecurity, and achieve SDG 2.
- ❖ **Shared Commitment:** World leaders, during the SDG Summit in New York, reaffirmed their commitment to eradicating poverty and ending hunger. However, it's clear that concerted efforts are needed to bridge the gap between aspiration and reality.

US-INDIA PARTNERSHIP FOR SEMICONDUCTOR

Context: US announced a "new partnership" with India to explore semiconductor supply chain opportunities.

About

- ❖ It will include a comprehensive assessment of India's existing semiconductor ecosystem, regulatory framework, workforce and infrastructure needs.
- ❖ It will serve as the "basis for potential future joint initiatives" to strengthen and grow this critical sector.
- ❖ The US Department of State will partner with the India Semiconductor Mission, to explore opportunities to grow and diversify the global semiconductor ecosystem under the International Technology Security and Innovation (ITSI) Fund, created by the CHIPS Act of 2022.
- ❖ The Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act is intended to lure microchip manufacturing back to the US after decades of companies offshoring the technology.

What are Semiconductors?

- ❖ Semiconductors are materials with electrical properties that fall between those of conductors (like metals) and insulators (like rubber).
- ❖ They have a unique ability to conduct electricity under certain conditions while acting as insulators under others.
- ❖ They are sometimes referred to as integrated circuits (ICs) or microchips made from pure elements, typically silicon or germanium.

- ❖ In a process called doping, small amounts of impurities are added to these pure elements, causing large changes in the conductivity of the material.
- ❖ **Applications:** Semiconductors are used in a vast range of electronic devices.
- ❖ Transistors, which are fundamental components of modern electronic circuits, rely on semiconductor materials.
- ❖ They act as switches or amplifiers in everything from computers to cell phones.
- ❖ Semiconductors are also used in solar cells, LEDs, and integrated circuits.

India's Semiconductor Industry

- ❖ In 2022, the Indian semiconductor market was valued at US\$ 26.3 billion and is projected to expand at a CAGR of 26.3% to US\$ 271.9 billion by 2032.
- ❖ Semiconductor devices include diodes, transistors and photovoltaic cells assembled or not assembled in modules or panels, light-emitting diodes (LEDs) and mounted piezo-electric crystals.

Factors favouring India

- ❖ **Skilled Workforce:** India leads the world with record number of Science, Technology, Engineering and Mathematics (STEM) graduates, offering the much-needed skilled workforce required in semiconductor manufacturing, design, research, and development.
- ❖ **Cost Advantage:** India offers a substantial cost advantage for semiconductor manufacturing due to the lower labour cost, supply chain efficiency and emerging ecosystem.
- ❖ **Global Supply Chain Diversification:** India has become a preferred destination for back-end assembly and testing operations amidst this industry relocation, with potential for future front-end manufacturing.
- ❖ **Policy support:** The Indian government has promptly seized the opportunity following the global semiconductor supply chain glut after the pandemic and showed great intent through policy support to present India as an alternative to China in the global semi supply chain.

India's Semiconductor Ecosystem

- ❖ Supply disruptions during the Covid-19 pandemic and the geopolitical tensions arising out of China's aggressive moves in the Taiwan Strait and the South China Sea have brought urgency to India's efforts to develop its own semiconductor ecosystem.
- ❖ The global chip industry is dominated by companies from a very small number of countries, and India is a late entrant into this high-tech and expensive race.
- ❖ **India Semiconductor Mission:** It functions as a dedicated division within the Digital India Corporation.
- ❖ Its main goal is to nurture a strong semiconductor and display ecosystem to position India as a prominent global player in electronics manufacturing and design.

Under ISM, there are several schemes in place:

- ❖ **The government offers incentives for manufacturing setup in India:**
- ❖ Under the Semiconductor Fab Scheme, fiscal support of 50% of the project cost on an equal footing for all technology nodes.
- ❖ Under the Display Fab Scheme, fiscal support of 50% of the project cost on an equal footing basis.
- ❖ Under the Compound Semiconductor Scheme, fiscal support of 50% of the capital expenditure on an equal footing basis, including support for discrete semiconductor fabs.
- ❖ In February 2024, the government approved the establishment of three semiconductor plants, two in Gujarat and one in Assam.

Conclusion

- ❖ Taiwan produces more than 60 percent of the world's supply of semiconductors and more than 90 percent of the most advanced chips.

- ❖ Given the critical importance of semiconductor chips in almost everything, from missiles to mobile phones and cars to computers, the partnerships with the US have geo-strategic and geo-economic importance.

STICK TO FISCAL DEFICIT AS THE NORM FOR FISCAL PRUDENCE

Context: In the 2024-25 Union Budget, the Finance Minister stated, “From 2026-27 onwards, we aim to reduce the fiscal deficit each year to ensure Union government debt declines as a percentage of GDP.”

- ❖ The speech also says that the Centre’s fiscal deficit would be reduced to 4.5% of GDP in 2025-26 from its budgeted level of 4.9% in 2024-25.

What is the fiscal deficit?

- ❖ Fiscal Deficit is defined as excess of total budget expenditure (revenue and capital) over total budget receipts (revenue and capital) excluding borrowings during a fiscal year.
- ❖ Fiscal Deficit = Total Expenditure – (Revenue Receipts + Non-Debt Creating Capital Receipts).

National Debt

- ❖ The fiscal deficit is different from the national debt.
- ❖ The national debt is the total amount of money that the government of a country owes its lenders at a particular point in time.
- ❖ It is usually the amount of debt that a government has accumulated over many years of running fiscal deficits and borrowing to bridge the deficits.

Implications of fiscal deficit

- ❖ Inflationary Pressure: When a country’s government runs a persistently high fiscal deficit, this can eventually lead to higher inflation as the government will be forced to use fresh money issued by the central bank to fund its fiscal deficit.
- ❖ Higher fiscal deficit causes higher debt which eventually leads to the higher ratio of interest payment to revenue receipts. Hence there will be lower shares for financing non-interest expenditures.
- ❖ **Crowding Out effect:** When the government borrows a large portion of available funds from financial markets to finance its deficit, it crowds out private investment with reduced access to credit for businesses and individuals.
- ❖ This can hinder economic growth and productivity.
- ❖ **Reduced Fiscal Space:** A high fiscal deficit limits the government’s ability to respond to economic shocks or crises.
- ❖ With limited fiscal space, the government may be unable to implement countercyclical fiscal policies such as increased spending or tax cuts to stimulate economic growth during downturns.
- ❖ **Difficulty in borrowing:** As a government’s finances worsen, demand for the government’s bonds begins to drop, forcing the government to offer to pay a higher interest rate to lenders.

Benefits of lower fiscal deficit

- ❖ A consistent reduction in the fiscal deficit will improve credit ratings by international rating agencies. Higher credit ratings make it cheaper for India to borrow in global markets, reducing the cost of external debt.
- ❖ When the fiscal deficit is lower, less money is diverted to debt servicing, leaving more funds for development projects like infrastructure, education, and healthcare.
- ❖ Lower deficits will improve the balance of payments in favor of India, by reducing the reliance on foreign borrowing. It will help in stabilizing the exchange rate and the overall current account.
- ❖ A lower fiscal deficit signals fiscal discipline and responsible government management of finances. This can enhance investor confidence, leading to increased foreign and domestic investment.

The reforms needed

- ❖ There is a need to follow the recommendations of the NK Singh committee, 2017 which proposed a draft Debt Management and Fiscal Responsibility Bill, 2017.
- ❖ **Incentivizing Financial Savings:** Promoting higher household financial savings through tax incentives on financial products, improving returns on long-term savings schemes, and enhancing financial literacy.
- ❖ **Infrastructure Finance Reforms:** Improving mechanisms for financing infrastructure projects by involving the private sector through public-private partnerships (PPP), infrastructure bonds, and development of finance institutions.

Concluding remarks

- ❖ The recent pronouncements talk of the debt-GDP ratio as the policy variable, however they do not specify what that target is for India and what the path would be to reach that target from the current levels of debt-GDP ratio.
- ❖ With the current lower levels of household financial savings, it is better for the central government to stick to 3% of GDP as a limit to fiscal deficit. Any relaxation of this rule will only lead to fiscal imprudence.

INDIA'S PATH TO 2047: KEY PARAMETERS AND CHALLENGES

Context: India's recent announcement of its goal to become a developed country by 2047 has sparked a renewed debate on what defines a developed nation and the key parameters necessary to achieve this status.

About the Developed Country

- ❖ The term 'Developed Country' (aka Advanced Country) doesn't have a single accepted definition. It stands out for its high quality of life, robust economy, and advanced technological infrastructure. These nations have typically surpassed the initial stages of industrialization and agrarian economies.
- ❖ The United Nations Development Programme (UNDP) has a threshold of the 75th percentile in Human Development Index (HDI) distribution to be classified as a developed country, whereas the World Bank classifies countries whose Gross National Income (GNI) per capita is above \$13,845 as 'high-income countries'.

Key Features

- ❖ **Economic Prosperity:** Developed countries boast impressive economic metrics. These often include a high Gross Domestic Product (GDP) and Gross National Product (GNP) per capita. Essentially, their citizens enjoy a relatively comfortable standard of living.
- ❖ **Industrialization and Infrastructure:** Developed nations have well-established infrastructure—think efficient transportation networks, modern airports, and reliable electricity grids. Their cities showcase towering skyscrapers, bustling commercial centres, and well-maintained roads.
- ❖ **Quality of Life:** Access to quality education, healthcare, and public services is widespread. Citizens benefit from robust social safety nets, ensuring a decent quality of life for all.
- ❖ **Environmental Stewardship:** Developed countries prioritise environmental protection. You'll find recycling programs, clean energy initiatives, and strict adherence to civic norms.
- ❖ **Technological Advancements:** Cutting-edge technology permeates daily life. From seamless digital services to advanced research institutions, these nations lead the way.

How Can India Bridge the Gap?

- ❖ India, with its rich history and diverse culture, has set ambitious goals, and declared that India should achieve developed country status by 2047—marking the 100th year of our independence.
- ❖ **Economic Growth:** India's GDP growth is crucial. According to projections, India could become the world's third-largest economy by 2030 and even surpass the US in GDP by 2060.
 - ✓ However, sustaining an annual growth rate of at least 8% is essential.

- ❖ **Investment in Infrastructure:** India must continue investing in infrastructure—modernising roads, railways, and digital networks. Connectivity is key to progress.
- ❖ **Education and Healthcare:** Ensuring quality education and accessible healthcare for all citizens is non-negotiable. A well-educated workforce drives innovation and productivity.
- ❖ **Environmental Responsibility:** Balancing growth with environmental conservation is critical. India can lead by adopting sustainable practices and clean energy solutions.
- ❖ **Inclusive Development:** Addressing income inequality and poverty eradication is paramount. No one should be left behind on the path to development.

Opportunities For India

- ❖ **Demographic Dividend:** India's young population can be an asset. Properly harnessing their potential through education, skill development, and employment can drive growth.
- ❖ **Robust Information Technology Sector:** India's IT industry has been a global success story. Continued investment in technology and innovation can propel the nation forward.
- ❖ **Entrepreneurship Ecosystem:** India has seen a surge in startups and entrepreneurial ventures. Nurturing this ecosystem can create jobs and foster innovation.
- ❖ **Strategic Investments:** Focused investments in human capital (education, healthcare) and infrastructure (roads, ports, digital connectivity) are crucial.
- ❖ **Global Partnerships:** Collaborating with other nations, sharing knowledge, and participating in global value chains can accelerate development.

Challenges India Faces in Achieving Developed Status and Related Solutions

- ❖ **Population Management:** Our sheer population can strain resources. Sustainable population management strategies are essential to ensure equitable growth.
- ❖ **Inequality and Social Justice:** Income disparities persist. Addressing this gap requires targeted policies that uplift marginalised communities, promote social justice, and provide equal opportunities.
 - ✓ Gender equality, LGBTQ+ rights, and inclusivity in all spheres of life contribute to a more developed and harmonious society.
 - ✓ Bridging the gap between urban and rural areas is crucial.
- ❖ **Socioeconomic Inclusion of Rural India:** By 2030, an estimated 40% of Indians will be urban residents. However, rural areas still grapple with inadequate infrastructure, limited access to quality education, and healthcare disparities. Achieving balanced development across urban and rural regions is vital.
 - ✓ Empowering rural communities through education, skill-building, and better livelihood opportunities is a pressing challenge.
- ❖ **Bureaucracy and Corruption:** Streamlining administrative processes, reducing red tape, and promoting transparency are perennial challenges. Efficient governance is crucial for sustained progress.
- ❖ **Education Reform:** Quality education is the cornerstone of development. India needs reforms that enhance both access and quality. Vocational training and digital literacy are equally important.
- ❖ **Health and Sustainability:** A healthy population is the bedrock of any developed nation. India faces health challenges ranging from malnutrition to non-communicable diseases. Improving healthcare infrastructure, preventive measures, and access to quality medical services is imperative.
 - ✓ **Moreover, sustainability**—both environmental and economic—is critical. Balancing growth with ecological responsibility is a tightrope walk. India must lead in adopting clean energy solutions, efficient waste management, and climate-conscious policies.
- ❖ **Skill Development and Employment:** As the world evolves, so do the skills required for success. According to the World Economic Forum, more than half of Indian workers will need reskilling to meet the demands of the future job market. Bridging this skills gap is crucial for sustained economic growth.
 - ✓ Additionally, ensuring meaningful employment opportunities for our burgeoning workforce—especially in the context of automation and digital transformation—is essential.

- ❖ **Infrastructure and Connectivity:** While India has made significant strides in infrastructure development, there's still work to be done. Modernising transportation networks, ensuring reliable electricity supply, and bridging the digital divide are ongoing tasks.
 - ✓ Connectivity—both physical and digital—fuels economic progress. Investments in roads, railways, and high-speed internet are essential.

Conclusion

- ❖ India's journey toward becoming a developed country is multifaceted. It lags behind in HDI rank mainly because of its low life expectancy and per capita income, which can be improved with government spending in the education and health sectors.
- ❖ It requires a delicate balance of economic growth, social inclusion, environmental stewardship, and visionary leadership. With determination, strategic planning, and collective effort, we can transform our nation into a beacon of progress.

MODIFICATION OF SCHEME OF BUDGETARY SUPPORT FOR HYDRO ELECTRIC PROJECTS

Context: The Union Cabinet has approved the proposal of the Ministry of Power for modification of the scheme of budgetary support for the cost of Enabling Infrastructure for Hydro Electric Projects (HEP).

About

- ❖ The scheme would be implemented from FY 2024-25 to FY 2031-32.
- ❖ The Government of India has been taking several policy initiatives to address the issues impeding Hydro Power development, viz., remote locations, hilly areas, lack of infrastructure etc.
- ❖ The scheme will be applicable to all Hydro Power Projects of more than 25 MW capacity including the private sector projects which have been allotted on a transparent basis.
- ❖ This scheme will also be applicable to all Pumped Storage Projects (PSPs).

Benefits:

- ✓ This revised scheme would help in faster development of hydro electric projects, improve infrastructure in the remote and hilly project locations and would provide a large number of direct employment to the local people.
- ✓ It would encourage fresh investments into the hydro power sector and incentivize timely completion of new projects.

What is Hydropower?

- ❖ Hydropower, or hydroelectric power, is one of the oldest and largest sources of renewable energy, which uses the natural flow of moving water to generate electricity.
- ❖ Hydropower currently generates more electricity than all other renewable technologies combined and is expected to remain the world's largest source of renewable electricity generation into the 2030s.
- ❖ Classification of Hydro Projects based on Installed Capacity:
 - ✓ **Micro:** Upto 100 KW
 - ✓ **Mini:** 101KW to 2 MW
 - ✓ **Small:** 2 MW to 25 MW
 - ✓ **Mega:** Hydro projects with installed capacity \geq 500 MW
- ❖ **India:** In 2022-23, hydropower accounted for 12.5 percent of power generation in India. India had about 4745.6 MW pumped storage capacity in operation in 2023.
 - ✓ The hilly States of India mainly Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir and Uttarakhand constitute around half of this potential.
 - ✓ Other potential States are Maharashtra, Chhattisgarh, Karnataka and Kerala.

Significance of Hydro Power

- ❖ **Renewable Energy Source:** Hydropower is a renewable energy source because it relies on the water cycle, which is continuously replenished by rainfall and snowmelt.
- ❖ **Clean Energy:** Hydropower produces minimal greenhouse gas emissions compared to fossil fuels, making it an environmentally friendly option for generating electricity.
- ❖ **Reliable and Predictable:** Unlike solar and wind energy, which are intermittent and dependent on weather conditions, hydropower provides a consistent and reliable source of electricity.
- ❖ **Flexible and Controllable:** Hydropower plants can quickly adjust their output to match changes in electricity demand.
- ❖ **Multipurpose Use:** Hydropower projects often serve multiple purposes beyond electricity generation.
 - ✓ They can provide flood control by regulating water flow, irrigation for agriculture, water supply for communities, and recreational opportunities such as boating and fishing.
- ❖ **Long Lifespan:** Hydropower infrastructure, such as dams and turbines, can have long lifespans, often exceeding 50 years with proper maintenance. This longevity ensures a stable and enduring source of energy for a longer period of time.

Challenges

- ❖ **Environmental Impact:** Large-scale hydropower projects often require damming rivers, which alter ecosystems, disrupt fish habitats, and impact local biodiversity.
 - ✓ It also leads to issues like sediment buildup and water temperature changes downstream, affecting aquatic life.
- ❖ **Social Impacts:** Building dams and reservoirs displace communities and disrupt livelihoods, especially those relying on the affected rivers for fishing or agriculture.
- ❖ **High Initial Costs:** Constructing hydropower facilities involves significant upfront investment costs.
- ❖ **Climate Change Vulnerability:** Hydropower generation relies on consistent water flow, which can be affected by climate change-induced variations in precipitation patterns and glacial melt.
 - ✓ A UK based thinktank found that the drought — likely exacerbated by climate change — drove an 8.5% drop in hydroelectricity around the world over the last two decades.
- ❖ **Sedimentation:** Dams trap sediment flowing downstream, leading to reservoirs gradually filling up with sediment over time.
 - ✓ This reduces the reservoir's capacity and impacts the efficiency and lifespan of the hydropower facility.
- ❖ **Maintenance Challenges:** Hydropower infrastructure requires regular maintenance to ensure safe and efficient operation.

Way Ahead

- ❖ The solution for the countries is to diversify their power sources by incorporating other renewable technologies — such as wind and solar — into their energy mix.
- ❖ Innovations around placing floating solar panels on the water's surface in hydropower plants — as countries such as China and Brazil are exploring — have significant potential.
- ❖ Building more medium scale plants, rather than the mega dams of the past, would help mitigate the climate-risks associated with overdependence on one big piece of infrastructure.
- ❖ Without major policy changes, global hydropower expansion is expected to slow down this decade.

TURKEY'S BID TO JOIN BRICS

Context: Turkey's bid to join BRICS could be a political move to gain leverage in its stalled EU accession process or signal frustration with the EU.

Benefits:

1. Increases Turkey's global influence.
2. Provides economic cooperation with emerging markets.

3. Strengthens Turkey's political leverage in EU negotiations.

Concerns:

1. Strains relations with the EU and NATO.
2. Undermines Turkey's credibility within Western alliances.
3. Risks diplomatic isolation from Western powers.

India's stance on expansion:

India welcomed the consensus-based expansion of the BRICS grouping during the 15th BRICS summit in Johannesburg.

- ❖ The move strengthens BRICS as a representative of developing countries
- ❖ India has proposed creating a BRICS space consortium, investing in skill mapping, technology, and education, and emphasising cooperation for conservation efforts.
- ❖ The expansion is aimed at making BRICS future-ready by enhancing cooperation, digital solutions, and development initiatives.

Significance for India:

- ❖ The addition of new members to BRICS holds significance for India in terms of expanding partnerships and geopolitical influence, while also raising concerns about potential pro-China dominance within the alliance.

About BRICS:

- ❖ BRICS (founded: 2009; HQ: Shanghai) is an acronym for the grouping of the world's leading emerging economies, namely Brazil, Russia, India, China, and South Africa (included in 2010)
- ❖ **Origin:** The term "**BRIC**" was coined by the British Economist Jim O'Neill in 2001 to describe the four emerging economies of Brazil, Russia, India, and China.
- ❖ **Share of BRICS:** BRICS brings together five of the largest developing countries, representing 41% of the global population, 24% of the global GDP, and 16% of the global trade (By 2028, BRICS is expected to make up 35 per cent of the global economy)
- ❖ **Chairmanship:** The chairmanship of the forum is rotated annually among the members, in accordance with the acronym B-R-I-C-S. South Africa is the chair for 2023.

Initiatives of BRICS

1. New Development Bank (NDB)
 2. Contingent Reserve Arrangement (CRA)
 3. BRICS Payment System
 4. Customs Agreements
 5. Remote Sensing Satellite
- ❖ **New Initiative:** BRICS is planning to launch its own "new currency" system, a major step towards de-dollarization (reducing dependence on the US dollar for trade)

Challenges for BRICS:

- ❖ **Economic Divergence;** Brazil and Russia have been experiencing economic recessions in recent years, while China and India have sustained high growth rates. South Africa's economy has been performing poorly, with high levels of unemployment and inequality.
- ❖ **Political Differences;** Russia's annexation of Crimea and involvement in conflicts in Ukraine and Syria have strained its relations with other BRICS members. China's territorial claims in the South China Sea have been a source of tension with other BRICS countries that have competing claims in the region.
- ❖ **Institutional Constraints;** The New Development Bank (NDB), established by BRICS in 2014 to provide development financing, has faced challenges in disbursing loans and identifying viable projects. The Contingent Reserve Arrangement (CRA), a pool of foreign exchange reserves, has not been tested yet.

- ❖ **Coordination Difficulties;** Disagreements over the governance structure of the NDB and the CRA, as well as differing priorities in areas such as trade, investment, and climate change, have made it difficult for BRICS to present a unified front on many issues.
- ❖ **External Pressures;** The rise of protectionism, nationalism, and populism in some advanced economies has posed challenges for BRICS in terms of trade, investment, and access to capital.

Way forward for BRICS:

- ❖ **Reform of Multilateral Institutions:** BRICS countries could jointly advocate for the reform of the UN Security Council, calling for the inclusion of more developing countries as permanent members.
- ❖ **Resolve to Combat Terrorism:** BRICS countries could share best practices and intelligence to combat terrorism, as well as work together to cut off funding and resources for terrorist groups.
- ❖ **Promoting Technological and Digital Solutions for the SDGs:** BRICS countries could share their experiences in adopting and implementing digital solutions in these sectors
- ❖ **Expanding People-to-People Cooperation:** BRICS countries could organize joint cultural events and exhibitions, establish more student exchange programs and scholarships, and encourage more tourism and business visits to each other's countries.

Conclusion:

- ❖ While BRICS membership might strengthen Turkey's global presence, it could strain relations with the EU, which expects alignment with its values and foreign policy. Turkey's balancing act between the West and non-Western alliances could backfire, further diminishing its credibility within transatlantic circles. However, Turkey remains crucial due to its strategic location, making its foreign policy a complex balancing act.

INNOVATING E-COMMERCE IN INDIA

Context: The e-commerce sector in India has seen remarkable growth since the pandemic and is driven by increasing internet penetration, smartphone usage, and an expanding middle class.

- ❖ Though these technological advancements provide agility, scale and cost advantage they also expose the companies to significant risks and challenges.

Overview of India's E-commerce Sector

- ❖ India's e-commerce market is projected to reach \$150 billion by 2025, up from approximately \$75 billion in 2022.
- ❖ The sector has been growing at a CAGR of 27%, making India one of the fastest-growing e-commerce markets globally.
- ❖ India had over 900 million internet users in 2023, with over 650 million smartphone users, driving e-commerce penetration across urban and rural areas.
- ❖ E-commerce accounted for around 7-8% of total retail sales in India in 2022, with expectations of rising to 11% by 2025.

Benefits of India's E-commerce Sector

Economic Growth:

- ❖ **Job Creation:** The e-commerce sector is expected to create 1.5-2 million direct and indirect jobs by 2025, in areas such as logistics, IT, digital marketing, and customer service.
- ❖ **MSME Empowerment:** Over 1.2 million MSMEs are selling products through various e-commerce platforms, contributing to their growth and providing them with access to new markets. The Government e-Marketplace (GeM) has played a significant role in facilitating public procurement for MSMEs.
- ❖ **Exports Boost:** Platforms like Amazon and Flipkart have enabled Indian sellers to access global markets. Amazon's "Global Selling" initiative has surpassed \$8 billion in cumulative exports as of 2023.

Consumer Benefits:

- ❖ **Convenience:** E-commerce offers consumers convenience, enabling 24/7 shopping and access to a wide range of products. M-commerce (mobile commerce) is particularly driving growth, with over 60% of e-commerce transactions occurring via mobile devices.
- ❖ **Discounts and Offers:** E-commerce platforms are known for offering competitive pricing, discounts, and deals. Festive sales like Flipkart's Big Billion Days and Amazon's Great Indian Festival see billions in sales annually (in 2022, festive sales hit \$5.7 billion).
- ❖ **Wide Product Range:** Consumers can access a wide variety of products, from groceries to high-end electronics, with platforms like JioMart, Amazon, BigBasket, and Flipkart covering diverse sectors.

Technological Advancements:

- ❖ **AI and Big Data:** E-commerce companies are investing in AI and ML to offer personalized shopping experiences. AI-driven recommendations have improved user experience, increasing customer retention.
- ❖ **Cloud Infrastructure:** Companies have scaled their operations using cloud services, improving site performance and customer satisfaction. Cloud adoption allows for quick scaling during peak shopping periods (e.g., Diwali sales).
- ❖ **IoT in Supply Chain:** Real-time inventory management and smart warehousing are becoming key to optimizing supply chains. IoT devices help monitor stock levels, improving logistics and delivery efficiency.

Rural and Small Town Penetration:

- ❖ **Rural Expansion:** E-commerce platforms have reached rural areas, with Tier-2 and Tier-3 cities contributing 57% of total e-commerce sales. Companies like Meesho are empowering small sellers in rural regions.
- ❖ **Inclusivity:** Government programs such as Common Service Centres (CSCs) allow rural populations to access e-commerce platforms, thus enhancing digital inclusivity.

Boost to Allied Industries:

- ❖ **Logistics and Warehousing:** E-commerce has driven rapid growth in the logistics industry, with the logistics market projected to reach \$380 billion by 2025. Companies like Delhivery, Ecom Express, and Blue Dart are crucial players.
- ❖ **Digital Payments:** The adoption of digital payments has increased significantly due to e-commerce. UPI transactions hit a record \$180 billion in July 2023, driven by e-commerce and mobile payments.

Government Revenues:

- ❖ **Increased Tax Revenues:** The formalization of the retail sector through e-commerce contributes to higher GST collections. In FY 2022-23, India's e-commerce GST collection grew by 16%, showcasing the sector's impact on government revenues.
- ❖ **Public Procurement:** The Government e-Marketplace (GeM) has facilitated over ₹3 lakh crore worth of transactions since its inception, helping streamline government procurement and increase transparency.
- ❖ **Environmental and Sustainable Practices:**
- ❖ **Sustainable Packaging:** E-commerce companies are increasingly adopting sustainable packaging solutions, contributing to environmental sustainability. Flipkart, for instance, has pledged to move to 100% recyclable packaging by 2025.
- ❖ **Optimized Logistics:** Companies are using AI and route optimization technologies to reduce delivery-related carbon footprints. This also helps reduce fuel consumption, making operations more sustainable.

Challenges and Risks in E-commerce Operations

- ❖ **Data Breaches and Hacks:** With a massive influx of users and transactions, e-commerce platforms are highly vulnerable to cyberattacks, including phishing, malware, and hacking. For example, in 2020, BigBasket suffered a data breach where personal data of around 20 million users was compromised.
- ❖ **Last-Mile Delivery:** Delivering to rural and remote areas poses significant logistical challenges, including poor road infrastructure and lack of delivery networks. E-commerce platforms such as Flipkart and Amazon have made significant investments in their delivery networks, but still face hurdles in reaching remote locations.
- ❖ **Data Privacy and Compliance:** Compliance with the upcoming Personal Data Protection Bill and other global data privacy standards like GDPR presents challenges for e-commerce companies, particularly in the way they collect, store, and process data.
- ❖ **Fraudulent Transactions:** Despite advancements in secure payment gateways, e-commerce platforms in India still face issues related to financial fraud and chargebacks. According to a 2021 study, over 52% of Indian businesses have experienced some form of payment-related fraud.
- ❖ **Fake Products and Counterfeits:** The sale of counterfeit goods on online platforms is a significant issue in India. For instance, Amazon has been battling with sellers offering fake products, particularly in the electronics and fashion categories. In 2021, 40% of consumers in a survey reported receiving fake products via e-commerce.
- ❖ **Risk of Bias in AI/ML Algorithms:** While AI and ML algorithms are powerful, they can result in biased recommendations or decisions. This presents a social and ethical dimension to technology use in e-commerce. Regular reviews and ethical guidelines are needed to prevent unintended consequences.

Way Ahead and Conclusion

Strengthen Cybersecurity and Data Privacy:

- ❖ E-commerce companies must invest in advanced cybersecurity infrastructure to safeguard customer data, including encryption, multi-factor authentication, and AI-powered threat detection.
- ❖ Compliance with global data privacy standards, like GDPR and the upcoming Personal Data Protection Bill, is essential to build consumer trust.

Improve Logistics and Infrastructure:

- ❖ Strengthening last-mile delivery, particularly in rural and remote areas, by leveraging technologies such as drones, electric vehicles, and AI-driven logistics optimization.
- ❖ Investments in smart warehousing and supply chain automation can streamline operations and reduce delivery times.

Develop Sustainable Practices:

- ❖ E-commerce companies should adopt sustainable packaging solutions and reduce their carbon footprint by investing in green technologies such as electric delivery vehicles and eco-friendly packaging materials.
- ❖ Implement circular economy practices for better waste management, particularly in return logistics.

Enhance Consumer Protection and Trust:

- ❖ Introduce robust quality checks to prevent counterfeit goods from entering the market and enhance after-sales services to improve customer satisfaction.
- ❖ Establishing consumer education campaigns to raise awareness about cyber fraud and phishing attacks can also help increase trust.

Focus on Tier-2, Tier-3 Cities, and Rural Markets:

- ❖ Expanding the reach of e-commerce to rural India by improving digital literacy, building local infrastructure, and customizing offerings to meet local demand.
- ❖ Collaborate with government programs like Common Service Centres (CSCs) and GeM to make digital commerce more accessible in underserved regions.

Regulatory Support and Policy Reforms:

- ❖ Harmonizing regulations related to FDI, data privacy, and e-commerce operations to ensure smooth functioning of global and domestic platforms.
- ❖ Promote policies that support MSMEs and local sellers, enabling them to thrive in the online marketplace while ensuring a level playing field for all participants.
- ❖ Adopt Ethical AI and Machine Learning Practices:
- ❖ Ensure the ethical use of AI and ML algorithms by addressing potential biases and improving transparency in recommendation systems.
- ❖ Regularly audit algorithms to maintain fairness and prevent discriminatory outcomes.

SMART PRECISION HORTICULTURE PROGRAMME

Context: The Union Ministry of Agriculture is planning a Smart Precision Horticulture Programme under the existing Mission for Integrated Development of Horticulture (MIDH) scheme.

About

- ❖ The government has also set up 22 Precision Farming Development Centres (PFDCs) across the country to test new technologies and modify them according to local needs.
- ❖ It will cover 15,000 acres of land in five years from 2024-25 to 2028-29 and is expected to benefit about 60,000 farmers.
- ❖ At present, the Agriculture Infrastructure Fund (AIF), launched in 2020, has provisions for financing infrastructure projects for smart and precision agriculture.
 - ✓ Under AIF, individual farmers as well as farmers' communities such as Farmer Producer Organization, Primary Agricultural Credit Societies and SHGs are eligible for loans with interest subvention of 3% for using technological solutions in farm practices.

What is Precision Farming?

- ❖ Precision farming (PF) is an approach to farm management that uses information technology to ensure that the crops and soil receive exactly what they need for optimum health and productivity.
- ❖ Rather than applying similar inputs across the entire field, the approach aims to manage and distribute them on a site specific basis to maximize long-term cost benefit as well as prevent any waste.
- ❖ Over the last few decades, many technologies have been developed for PF; they can be divided into 'soft' and 'hard.'
 - ✓ Soft precision agriculture depends on visual observation of crops and soil management decisions based on experience and intuition, rather than statistical and scientific analysis.
 - ✓ Hard precision agriculture uses all modern techniques such as GPS, remote sensing, and variable rate technology.

Precision Farming in India

- ❖ In India, the practice is so far developed for nutrient-use efficiency (NUE) and water-use efficiency (WUE).
- ❖ PF in the Indian landscape is yet to become an integral part of mainstream farming systems.
- ❖ However, technological advances and rising interest among scientific institutions bring new perspectives and reinvent the technology to suit all farm types and economic capabilities.

Use of Technology in Agriculture

- ❖ It includes integrating cutting-edge digital technology into the farm production system, including artificial intelligence (AI), robotics, uncrewed aviation systems, sensors, and communication networks.
- ❖ These innovations will increase returns, and enhance the efficacy of irrigation and other inputs.

Role of Technology for Agriculture in India

- ❖ **Assess Soil Health:** Technological interventions based on soil sensors, remote sensing unmanned aerial surveying and market insights, etc., will permit farmers to assess crop and soil health conditions at different levels of production.
- ❖ **Improvement in Crop Yield:** Technologies like Artificial Intelligence/Machine Learning (AI/ML) algorithms can help in generating real-time actionable insights for improving crop yield, controlling pests, assisting in soil screening, providing actionable data for farmers, and reducing their workload.
- ❖ **Use of Blockchain Technology:** It will be offering tamper-proof and precise data about farms, inventories, quick and secure transactions, and food tracking.

Significance

- ❖ Increasing agriculture productivity and lowering production cost,
- ❖ Inhibits soil degradation,
- ❖ Lessening of chemical application in crop production,
- ❖ Promoting effective and efficient use of water resources,
- ❖ Uplifting socio-economic statuses of farmers,
- ❖ Reducing environmental and ecological impacts,
- ❖ Augmenting worker safety.

Challenges in Implementation

- ❖ **Limited Digital Infrastructure:** Rural areas often lack robust digital infrastructure such as internet connectivity and electricity, hindering the adoption of digital technologies by farmers.
- ❖ **Digital Divide:** There's a significant digital divide between urban and rural areas in India.
- ❖ **Cost of Technology:** Many digital agriculture solutions require huge investments which are unaffordable for smallholder farmers with limited resources.
- ❖ **Fragmented Agriculture Sector:** India's agriculture sector is fragmented, with a large number of smallholder farmers and diverse crops grown across different regions.
 - ✓ Developing digital solutions that cater to this diversity is challenging.
- ❖ **Capacity Building:** Training farmers to effectively use digital tools and interpret the data generated is a major challenge.

Government Initiatives

- ❖ **India Digital Ecosystem of Agriculture (IDEA):** It is a framework designed to lay down the architecture for a federated farmers' database, facilitating innovative agri-focused solutions using emerging technologies to enhance the agricultural ecosystem.
- ❖ **National e-Governance Plan in Agriculture (NeGP-A):** Funds are allocated to states/UTs for projects involving modern technologies such as Artificial Intelligence (AI), Machine Learning (ML), Robotics, Drones, Data Analytics, and Blockchain in agriculture.
- ❖ **National Agriculture Market (e-NAM):** A pan-India electronic trading portal connecting Agricultural Produce Market Committee (APMC) mandis to create a unified national market for agricultural commodities, providing digital services to traders, farmers, and mandis.
- ❖ **PM KISAN Scheme:** Direct transfer of funds to eligible farmers' bank accounts under Direct Benefit Transfer mode, with self-registration available through the Farmers Corner in the portal and a dedicated mobile app for broader access.
- ❖ **Integrated Scheme for Agricultural Marketing (AGMARKNET):** Supports the creation of agricultural marketing infrastructure by providing backend subsidy support and offers services through the AGMARKNET portal for stakeholders including farmers, industry, and policymakers.
- ❖ **Mobile Apps by ICAR:** More than 100 mobile apps developed by ICAR, State Agricultural Universities, and Krishi Vigyan Kendras are offering valuable information to farmers on crops, horticulture, veterinary, dairy, poultry, fisheries, and natural resources management.

- ❖ **Soil Health Card Scheme:** The Soil Health Card Scheme aims to assess the nutrient status of soil and provide customized recommendations for nutrient management to farmers.
- ❖ **Promotion of Precision Farming:** Initiatives like the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) promote precision farming techniques, including drip irrigation and fertigation, which enable more efficient use of fertilizers, including urea, by delivering nutrients directly to plants' root zones.

Conclusion

- ❖ Modernizing the agriculture sector by adding cutting-edge technologies can benefit farmers' incomes as well as the nation's food and nutrition security while also being environment- friendly.
- ❖ The agricultural sector is ready to be taken over by science and technology to boost output and efficiency so that more people can be fed while growing more food on less land, however, this transition has to be inclusive.

INDIA'S DEMOGRAPHIC DIVIDEND & EMPLOYMENT CHALLENGES

Context: With 63% of its population in the working-age group and a median age of 28 years, India has a unique opportunity to harness its demographic dividend. However, realizing this potential requires overcoming significant employment challenges.

Key Analysis

Economic Dimension:

- ❖ India is the world's fastest-growing large economy and the fifth-largest economy globally. The nation's demographic dividend presents an opportunity for sustained growth.
- ❖ At 55.2% in 2022 (ILO report), the LFPR is lower than desired. Economic growth has been driven by the services sector, which typically creates fewer jobs than manufacturing, resulting in a decline in labour intensity.

Challenges:

- ❖ Although India isn't experiencing jobless growth, the service-led growth pattern is insufficient to absorb the growing labor force.
- ❖ 45% of the workforce remains in agriculture, which only contributes 18% to GDP. This indicates low productivity and underemployment in agriculture.
- ❖ Around 19% of the workforce is employed in unorganized, non-agricultural sectors with low productivity.

Social Dimension (Labour Market)

- ❖ Sectors like toys, apparel, tourism, and logistics are labor-intensive and hold potential for job creation, but they remain underdeveloped.
- ❖ Only 4.4% of the workforce (15-29 years old) is formally skilled, indicating a vast skill deficit. This hinders employability and economic productivity.

Challenges:

- ❖ The informal economy employs a large share of the workforce but suffers from low productivity, lack of social security, and poor working conditions.
- ❖ The backbone of employment, Micro, Small, and Medium Enterprises (MSMEs), are reluctant to scale up due to compliance burdens from outdated labor laws.

Technological Dimension

- ❖ The AI/ML revolution poses a risk to repetitive, low-skill jobs, but also creates opportunities for high-skill jobs in emerging tech sectors.
- ❖ Despite India having the second-largest talent pool in AI globally, the current gap between demand and supply is 51% (NASSCOM).

Challenges:

- ❖ Low-skill jobs are increasingly under threat due to automation, especially in sectors like manufacturing and services.
- ❖ There is a need for large-scale upskilling to prepare the workforce for a tech-driven economy.

Policy and Governance Dimension

- ❖ The impasse over the implementation of new labor codes is creating uncertainty, especially in labor-intensive sectors. Reform in labor laws is essential to ease compliance for MSMEs and attract investment.
- ❖ India's economic growth has been capital-intensive, while labor-intensive growth is more suitable for its demographic profile.

Challenges:

- ❖ Much of the reform agenda, particularly in manufacturing and labor markets, requires action from state governments. Coordination between the Centre and States is crucial.
- ❖ The Centre's influence in investments crowds out states, leading to inefficiencies in resource allocation.

Government Initiatives

- ❖ **Make in India:** Aims to promote manufacturing in India, creating jobs in labor-intensive sectors.
- ❖ **Skill India Mission:** Focuses on upskilling the workforce to meet industry requirements, with a focus on youth and marginalized communities.
- ❖ **Production Linked Incentive (PLI) Scheme:** Provides incentives to companies in manufacturing sectors to boost production and job creation.
- ❖ **PM Gati Shakti:** Aims at integrated infrastructure development by coordinating between Ministries and States, enhancing logistics and connectivity.
- ❖ **National Apprenticeship Promotion Scheme (NAPS):** Encourages skill development through apprenticeship training programs with industry participation.
- ❖ **Startup India:** Supports entrepreneurs and MSMEs in creating new jobs, with a focus on innovation and technological development.
- ❖ **Atmanirbhar Bharat Abhiyan:** A comprehensive economic package focusing on self-reliance, including measures to support MSMEs and create employment.

Way Ahead

- ❖ **Accelerating Reforms at State Level:** States should lead the way in implementing labor codes to ease the regulatory burden on businesses and create an investor-friendly environment.
 - ✓ Encouraging states with strong manufacturing ecosystems to drive labor-intensive industries will help absorb excess labor from agriculture.
- ❖ **Addressing the Skill Gap:** Skilling must be seen as a lifelong process. Public-Private Partnerships (PPPs) must be scaled up to integrate industry-relevant skills into formal education and vocational training.
 - ✓ As AI/ML and automation expand, upskilling workers for high-skill tech roles is essential. Collaboration with tech companies will be crucial to build the required talent pool.
- ❖ **Boosting MSMEs:** Streamlining compliance processes and providing incentives for MSMEs to grow and scale will lead to more job creation.
 - ✓ Expanding access to affordable credit for MSMEs will help them invest in capacity expansion and improve productivity.
- ❖ **Leveraging AI/ML:** While AI/ML will create new jobs, India must ensure appropriate regulations are in place to govern their use. AI/ML education should be integrated into the national curriculum and skill development programs.

- ❖ **Promoting Labour-Intensive Sectors:** Sectoral Focus: Special focus should be placed on high-growth potential sectors like toys, apparel, tourism, and logistics to create jobs and absorb unskilled labor.
- ❖ **Value Chain Upgradation:** Gradually, sectors should move up the value chain, creating opportunities for higher-paying, skill-based jobs as the workforce matures.
- ❖ **Fostering Centre-State Cooperation:** Collaborative Planning: The Centre and States must work in tandem on infrastructure projects like PM Gati Shakti, ensuring that state governments have the flexibility to design and implement region-specific solutions.
 - ✓ Strengthening fiscal decentralization and empowering state governments to take ownership of job creation efforts will yield better results.

WHITE REVOLUTION 2.0

Context: Union Home and Cooperation Minister Amit Shah launched the standard operating procedure for 'White Revolution 2.0'.

About

- ❖ Government also launched an action plan on the formation and strengthening of two lakh new Multipurpose Primary Agriculture Cooperative Societies, dairy and fishery cooperatives.
- ❖ The White Revolution 2.0 focuses on four key areas – empowering women farmers, enhancing local milk production, strengthening dairy infrastructure and boosting dairy exports.
- ❖ White Revolution 2.0 aims to increase milk procurement by dairy cooperative societies by 50 percent over the next five years.
 - ✓ The dairy cooperatives will procure one thousand lakh litre of milk daily by the end of the fifth year significantly enhancing the livelihoods of rural producers.
- ❖ The plan involves setting up and strengthening 100,000 new and existing district cooperative societies, multi-purpose district cooperative societies, and multi-purpose PACS, which will be linked to milk routes with necessary infrastructure.

White Revolution

- ❖ The White Revolution in India, also known as Operation Flood, was a significant dairy development program implemented to enhance milk production and address the country's milk scarcity issues.
- ❖ It was launched in 1970 by the National Dairy Development Board (NDDB) under the leadership of Dr. Verghese Kurien, often referred to as the "Father of the White Revolution."

Key features and Achievements of the White Revolution:

- ❖ **Cooperative Model:** It introduced the cooperative model in the dairy industry, encouraging farmers to form dairy cooperatives.
- ❖ **Amul:** The most prominent outcome of the White Revolution was the success of the Gujarat Cooperative Milk Marketing Federation (GCMMF), which marketed its products under the brand name Amul.
- ❖ **Increased Milk Production:** The program led to a substantial increase in milk production across the country by improving the quality of livestock.
- ❖ **Infrastructure Development:** Infrastructure such as milk processing plants, cold storage facilities, and transportation networks were developed to support the growing dairy industry.
- ❖ **Economic Impact:** It boosted the income of farmers involved in dairy farming, contributing to the overall economic development of rural areas.
- ❖ **Replication in Other States:** The success of Operation Flood in Gujarat led to its replication in other states, further expanding the reach and impact of the White Revolution across India.

Dairy Sector in India

- ❖ **Production:** India is the largest producer of milk in the world, contributing 24% of global milk production in 2021-22.
 - ✓ **The top 5 milk-producing states are:** Rajasthan, Uttar Pradesh, Madhya Pradesh, Gujarat and Andhra Pradesh. They together contribute 53.11% of total Milk production in the country.
- ❖ **Value-Added Products:** The dairy sector in India has diversified beyond liquid milk to produce various value-added products such as butter, ghee, cheese, yogurt, and ice cream.
- ❖ **Economy:** The industry contributes 5% to the national economy and directly supports more than 8 crore farmers.
 - ✓ The sector is an important job provider, especially for women, and plays a leading role in women's empowerment.

Challenges of Dairy Sector in India

- ❖ **Low Productivity:** The quality of animals is critical in determining its milk productivity and hence overall production.
 - ✓ Despite being the world's largest milk producer, India's productivity per animal is very low, compared with the global average.
- ❖ **Animal health and breeding services provision:** Issues such as diseases, lack of proper breeding practices, and insufficient healthcare facilities affect the overall health and quality of livestock.
- ❖ **Scarcity of fodder resources:** There is a lack of regulations to ensure quality. In the absence of a coherent policy, all kinds of substandard feeds are available in the market.
- ❖ **Infrastructure Constraints:** Inadequate infrastructure such as the lack of a robust cold chain result in spoilage of milk and dairy products, especially in regions with inconsistent power supply.
- ❖ **Technology Adoption:** Lack of awareness, education, and training among farmers impede the implementation of advanced practices such as artificial insemination, efficient feeding methods, and disease management.
- ❖ **Market Fluctuations and Price Volatility:** The lack of stable and remunerative prices for milk affect the income of dairy farmers, making it challenging for them to plan and invest in their operations.
- ❖ **Quality Standards:** Ensuring that products meet both domestic and international quality standards requires investments in quality control measures and adherence to hygiene practices.

Government Initiatives for the Promotion of Dairy Sector

- ❖ **Rashtriya Gokul Mission:** It was launched in 2014, to conserve and develop indigenous cattle breeds.
 - ✓ **Aim:** To enhance the productivity and genetic improvement of indigenous cattle.
- ❖ **National Programme for Dairy Development (NPDD):** NPDD has been in place since 2014 and aims to build or strengthen infrastructure for the production of high-quality milk as well as for the procurement, processing, and marketing of milk and milk products through the State Cooperative Dairy Federation.
- ❖ **Dairy Entrepreneurship Development Scheme (DEDS):** DEDS is being implemented by the Department of Animal Husbandry, Dairying, and Fisheries to create self-employment opportunities in the dairy industry.
 - ✓ It provides financial assistance to individuals for setting up small to medium-scale dairy ventures.
 - ✓ The National Bank for Agriculture and Rural Development is carrying out the programme.
- ❖ **National Animal Disease Control Programme (NADCP):** It is a flagship scheme launched in 2019 for control of Foot & Mouth Disease and Brucellosis by vaccinating 100% cattle, buffalo, sheep, goat and pig population.
- ❖ **National Livestock Mission (NLM):** The NLM, launched by the Ministry of Agriculture, aims to ensure sustainable development of the livestock sector, including dairy farming.
 - ✓ It focuses on increasing the productivity of livestock, improving their health, and providing support for fodder and feed resources.

Way Ahead

- ❖ Faster vaccination drives to overcome situations like Lumpy skin disease death.
- ❖ Robust and effective value chain to overcome the supply chain disruption to maintain the demand for milk and milk products.
- ❖ By implementing strategies in a coordinated manner, it's possible to reduce the cost of milk production in India while improving the livelihoods of dairy farmers and ensuring a sustainable and thriving dairy industry.

7 YEARS OF GOODS AND SERVICES TAX

Context: Goods and Services Tax (GST) has completed seven years of implementation.

About

- ❖ The government is now aiming to slowly move towards discussions on rationalise rates, from a current four-tier structure, probably, to a three-tier slabs.
- ❖ Another area can be the ceasing of the compensation cess, the cess was introduced for five years, to help states tide over the initial revenue loss and for the system to stabilise so that as revenues grow.
 - ✓ States are back in financial health and this five-year period was to provide the cushion for the financial comfort.

Goods and Services Tax

- ❖ The GST was introduced in 2017 by the 101st Constitutional Amendment Act, 2016 as a comprehensive indirect tax for the entire country.
- ❖ It is a destination-based tax on consumption of goods and services.
- ❖ It is levied at all stages right from manufacture up to final consumption.
 - ✓ Only value addition will be taxed and burden of tax is to be borne by the final consumer.
- ❖ It accrues to the State or the Union Territory where the consumption takes place. It is of 3 types:
 - ✓ Central GST (CGST): Levied by the Center.
 - ✓ State/Union Territory GST (SGST/UTGST): Levied by States or UTs.
 - ✓ Integrated GST (IGST): Tax levied and collected by the Center on all inter-state supplies of goods and/or services.
 - The Center settles accounts with the States/UTs by transferring the SGST/UTGST portion of IGST to the destination state where goods/services were consumed.
- ❖ Four slabs for taxes for both goods and services: 5%, 12%, 18%, and 28%.
 - ✓ Different tax slabs were introduced because daily necessities could not be subject to the same rate as luxury items.
- ❖ A cess is levied on the highest tax slab of 28% on luxury, sin and demerit goods.
 - ✓ The collection from the cess goes to a separate corpus called Compensation fund. It is used to make up for revenue loss suffered by the state due to GST rollout.
- ❖ The GST Council is a constitutional body under Article 279A.
 - ✓ It is a federal body comprising the Union Finance Minister as its Chairman and Finance Ministers of all States as members
 - ✓ The GST Council members take almost all decisions on GST with consensus
- ❖ **Exempted Items:** The GST applies to all goods other than alcoholic liquor for human consumption and five petroleum products (common for the Center and the States): petroleum crude, motor spirit (petrol), high speed diesel, natural gas, aviation turbine fuel.
- ❖ The GST has replaced the following taxes which were used to be levied Government:

Need for the GST

- ❖ **Elimination of Cascading Taxation:** Prior to GST, the multiple layers of indirect taxes led to a cascading effect, where taxes were levied on taxes.
 - ✓ GST simplifies this by allowing input tax credits, reducing the overall tax burden.

- ❖ **Ease of Doing Business:** A single tax regime reduces complexity, making it easier for businesses to operate across state lines, thereby promoting interstate trade.
- ❖ **Broader Tax Base:** GST aims to increase the tax base by bringing more businesses into the formal economy, which enhance revenue for both central and state governments.
- ❖ **Reduction in Tax Evasion:** The real-time tracking and electronic filing processes associated with GST help improve transparency and reduce the chances of tax evasion.
- ❖ **Equitable Distribution of Revenue:** GST aims to fairly distribute tax revenue between the central and state governments, ensuring that states receive adequate revenue based on consumption.
- ❖ **Boost to the Economy:** By simplifying tax structures and promoting compliance, GST is expected to contribute to overall economic growth and attract foreign investment.
- ❖ **Digital Transformation:** GST promotes the use of technology in tax administration, leading to more efficient governance and improved taxpayer services.

Challenges

- ❖ **Complex Compliance:** The multiple tax slabs and detailed compliance requirements are overwhelming, especially for small and medium enterprises (SMEs).
- ❖ **Technology Dependence:** The reliance on the GST Network (GSTN) for filing returns and managing compliance lead to issues, especially during peak times, causing delays and disruptions.
- ❖ **Frequent Changes in Regulations:** The dynamic nature of GST regulations and the frequent changes create uncertainty for businesses trying to stay compliant.
- ❖ **Input Tax Credit Issues:** Disputes often arise regarding the eligibility of input tax credits, leading to challenges in claiming credits for taxes paid on inputs.
- ❖ **Anti-Profitteering Regulations:** The provisions to ensure that benefits of tax reductions are passed on to consumers lead to complications and disputes for businesses.

Way Ahead

- ❖ **Compensation Cess:** In its recent meeting, the GST Council recommended the formation of a Group of Ministers to study the future of the compensation cess beyond March 31, 2026, and how the surplus balance under the GST compensation fund would be used.
- ❖ **List of Exempted Items:** So far, petroleum, oils, and lubricants (POL) products remain outside the GST net.
 - ✓ One rationale for bringing them within the ambit of GST is to enable businesses to claim input tax credit on the same, which would help reduce costs and make them more competitive.
- ❖ **Anti-Profitteering Cases:** The Council decided to introduce a sunset clause for anti-profitteering cases, setting a termination date of April 1, 2025.
 - ✓ This move is seen as a step towards streamlining the adjudication process, especially as the Competition Commission of India (CCI) has struggled with handling these cases due to a lack of expertise.
- ❖ The road ahead for GST, apart from reducing rates is also focused towards bringing in more simplification in the law, ease the compliances and, later on bringing in more and more taxpayers under the formal economy, so that the entire system runs on an auto-pilot mode.

EMPOWERING INDIA'S INFORMAL ECONOMY

Context: The unorganised non-agriculture sector plays a vital role in value-creation and employment-generation in India. Understanding its dynamics is essential for shaping inclusive policies.

Unorganised Sector in India

About:

- ❖ The unorganised non-agriculture sector, often referred to as the informal or household sector, consists of economic activities operating outside formal regulatory frameworks. These include street vending,

construction, household services, and small-scale manufacturing. The sector lacks official labour laws and protections but is critical to India's economic growth.

Key Statistics:

- ❖ **Contribution to GVA:** In 2022-23, the unorganised sector contributed 44.25% to India's total Gross Value Added (GVA).
- ❖ **Employment:** It provides employment to 74.3% of India's workforce, making it a backbone of the economy.

Sectoral Trends:

- ❖ **Shift Toward Services:** Over the past decade, the unorganised sector has transitioned from manufacturing to services. Currently, 'Other Services' constitute 38% of all establishments, followed by Trade (35%) and Manufacturing (27%).
- ❖ **Rural Dominance:** Rural areas house 55% of unorganised establishments, emphasizing its strong roots in India's villages.
- ❖ **Productivity:** The 'Other Services' sector also leads in productivity, contributing 41% of total GVA with a GVA per establishment of ₹2.58 lakh.

Challenges Faced by the Unorganised Sector

- ❖ **Lack of Formalization and Regulation:** Workers lack formal contracts, social security, and legal protections, making them vulnerable to exploitation.
- ❖ **Job Insecurity:** Employment is precarious, with irregular income and uncertain prospects.
- ❖ **Low Productivity and Income Levels:** Outdated technology, lack of skills, and limited access to resources lower productivity.
- ❖ **Limited Access to Credit and Finance:** Informal enterprises struggle to access credit, hindering growth.
- ❖ **Gender Disparities:** Women face additional challenges such as unequal pay and balancing household responsibilities.
- ❖ **Health and Safety Hazards:** Workers are exposed to unsafe working conditions and hazardous substances.
- ❖ **Skill Gaps and Fragmentation:** Limited access to training, coupled with weak collective bargaining power, hampers worker advancement.
- ❖ **Access to Markets and Technology:** Informal businesses struggle to compete with larger, organised players and access formal markets.

Related Government Initiatives

- ❖ **MGNREGA:** Provides wage employment to rural workers, contributing to income security in unorganised sectors.
- ❖ **PMSYM (Pradhan Mantri Shram Yogi Maan-Dhan):** Offers social security in the form of pensions for unorganised workers.
- ❖ **e-Shram Portal:** A national database for unorganised workers, helping them access welfare schemes.
- ❖ **Expansion of ESI Scheme:** Extends health and social security benefits to more unorganised workers.
- ❖ **Webinars and Cross-Country Perspectives:** Initiated to shape policies for gig and platform workers in the informal sector.

Way Forward

- ❖ **Formalisation with Flexibility:** For India to achieve its \$5-trillion economy target, catalysing the unorganised sector is crucial. Policymakers should aim to bring unorganised enterprises under the regulatory umbrella, but with simplified processes and low compliance costs to avoid overburdening small businesses.
- ❖ **Skill Development:** Focus on creating training programs tailored to the unorganised sector to enhance worker skills and increase productivity.

- ❖ **Financial Inclusion:** Improving access to formal credit through digitization, microfinance, and government schemes will empower businesses in the unorganised sector to expand and invest in technology.
- ❖ **Social Security:** Expanding coverage of pension schemes, health insurance, and maternity benefits will provide a safety net for workers.
- ❖ **Enhancing Collective Bargaining:** Encouraging the formation of informal worker unions or associations could empower workers to negotiate for better working conditions and wages.

INDIA'S WIDENING TRADE DEFICIT

Context: India's trade deficit saw a significant rise in July and August 2024, as a result of falling exports and rising imports. This imbalance, though concerning, is a reflection of both domestic and global economic factors.

Understanding the Trade Deficit

- ❖ A trade deficit occurs when a country imports more than it exports, leading to a negative balance of trade. While trade deficits are not inherently harmful, they can have long-term economic implications, such as currency depreciation, increased debt, and challenges for domestic industries.
- ❖ **Key Factors Influencing Trade Deficits:** Exchange rates, global economic conditions, and domestic demand all play roles in determining the trade balance. For India, a combination of internal and external pressures has widened its deficit in recent months.

Reasons for the Widened Trade Deficit

A. Decline in Exports

Several of India's major export sectors saw a significant decline during this period:

- ❖ **Oil Exports:** Petroleum exports fell by 22.2% in July and 37.6% in August, driven by both lower global demand and falling oil prices.
- ❖ **Gems & Jewellery:** Exports in this sector fell by over 20% in both months, affecting overall export performance.
- ❖ **Pharmaceuticals and Electronics:** Slower growth in these sectors contributed to the decline, as global demand remained weak.

B. China's Economic Slowdown

India's exports to China, particularly in sectors like stone, plaster, cement, and iron ore, fell due to China's slowing economy. As China deals with internal economic troubles and reduced infrastructure spending, demand for raw materials has declined, impacting India's export revenue.

C. Surge in Gold Imports

India's gold imports surged to a record \$10.1 billion in August, more than doubling from previous months. This was driven by a reduction in gold import duty and increased domestic demand ahead of the festive season. The spike in gold imports significantly contributed to the widening deficit.

D. Decline in Oil Imports

On a positive note, India's oil import bill dropped by nearly a third due to falling global oil prices, resulting in the lowest petroleum trade deficit in three years. However, this reduction in import costs was not enough to offset the growing deficit in other areas.

Implications of the Widening Trade Deficit

- ❖ **Currency Depreciation:** A rising trade deficit can put pressure on the Indian rupee, leading to depreciation. This makes imports more expensive and can worsen the deficit further, as India relies heavily on imports for key commodities like oil and electronics.
- ❖ **Impact on Economic Growth:** A sustained trade deficit may slow down economic growth, as it reflects reduced competitiveness in exports and an over-reliance on imports.
- ❖ **Strain on Foreign Exchange Reserves:** Although India's foreign exchange reserves remain strong, a prolonged trade deficit could erode these reserves, making it harder to stabilize the rupee in the future.

Long-term Challenges and Outlook

India's trade deficit is influenced by several global and domestic factors:

- ❖ **Weak Global Demand:** Global economic conditions, particularly in developed markets like the U.S. and the EU, remain weak. This reduces demand for Indian exports, particularly in sectors like pharmaceuticals and textiles.
- ❖ **China's Economic Troubles:** China may turn to non-U.S. markets to offload surplus goods, potentially flooding markets like India with cheap exports. This could harm domestic industries by creating greater competition.
- ❖ **Trade Barriers and Regulations:** New international trade policies, such as the EU's carbon and deforestation policies, create additional challenges for Indian exporters, as they must comply with stricter environmental regulations.

Conclusion and Way Forward

While India's growing trade deficit is a concern, it is not insurmountable. Policymakers must take strategic measures to address the structural issues in India's trade.

- ❖ **Boosting Exports:** India must focus on improving the competitiveness of its export sectors by investing in technology, enhancing product quality, and expanding into new markets. Trade agreements with key partners should be strengthened to secure better market access.
- ❖ **Reducing Unnecessary Imports:** Reducing dependency on non-essential imports, particularly luxury items like gold, can help balance the trade deficit. Promoting domestic manufacturing and self-reliance in key sectors can reduce reliance on imports.
- ❖ **Developing Domestic Industries:** Investment in sectors like electronics manufacturing, renewable energy, and pharmaceuticals will reduce the need for imports and strengthen India's export base.
- ❖ **Managing Currency and Debt Levels:** Effective management of the Indian rupee's value, along with maintaining healthy levels of foreign exchange reserves, will be key in mitigating the impact of the trade deficit.

India's goal of achieving \$1 trillion in exports each for both goods and services by 2030 is ambitious, but achievable with the right policies. However, it will require overcoming the current global economic slowdown, navigating new trade regulations, and building a more self-reliant domestic economy. By addressing these challenges strategically, India can reduce its trade deficit and maintain its economic growth trajectory.

10 YEARS OF MAKE IN INDIA

Context: On September 25, 2014, the "Make in India" initiative completed 10 years as a pivotal step in India's nation-building efforts.

Pillars of 'Make in India'

- ❖ **New Processes:** The "Make in India" initiative identified 'ease of doing business' as a crucial factor for promoting entrepreneurship.
- ❖ **New Infrastructure:** The government focused on developing industrial corridors and smart cities, integrating state-of-the-art technology and high-speed communication to create world-class infrastructure.
- ❖ **New Sectors:** Foreign Direct Investment (FDI) was significantly opened up in various sectors including Defence Production, Insurance, Medical Devices, Construction, and Railway infrastructure.
- ❖ **New Mindset:** The government embraced a role as a facilitator rather than a regulator, to foster a collaborative environment that supported industrial growth and innovation.

Major Achievements under Make in India

- ❖ FDI inflows have steadily risen, starting from \$45.14 billion in 2014-15 to a record \$84.83 billion in 2021-22.

- ❖ India made remarkable progress in improving its business environment, climbing from 142nd in 2014 to 63rd in the World Bank's Doing Business Report (DBR) published in October 2019 before its discontinuation.
- ❖ India recorded merchandise exports worth \$437.06 billion in FY 2023-24, reflecting the country's growing role in global trade.
- ❖ The textile industry has created a staggering 14.5 crore jobs across the country, significantly contributing to India's employment landscape.
- ❖ Vande Bharat Trains, India's first indigenous semi-high-speed trains, are a shining example of the success of the 'Make in India' initiative.
- ❖ India became a major exporter of life-saving vaccines to many developing and underdeveloped countries across the world.
- ❖ India's electronics sector has experienced rapid growth, reaching USD 155 billion in FY23.

What are the concerns?

- ❖ The share of manufacturing in India's GDP was 17.3 percent in 2013-14, and it was still stagnant at 17.7 percent in 2023 far from the target of 25% by 2030.
- ❖ The share of the manufacturing sector in total employment in the country has marginally declined from 11.6 percent in 2013-14 to 10.6 percent in 2022-23.
- ❖ India's exports as a share of GDP has fallen from 25.2 percent in 2013-14 to 22.7 percent in 2023-24.
 - ✓ Exports are also relatively concentrated in goods and services that tend not to be labor-intensive.

Conclusion

- ❖ As the "Make in India" initiative celebrates its 10th anniversary, it stands as a testament to India's determination to reshape its manufacturing landscape and enhance its global standing.
- ❖ Though the efforts and achievements fall short when the fundamental indicators of the manufacturing sector show lackluster growth, With strategic reforms, investment-friendly policies, and a strong focus on infrastructure development, the initiative has significantly enhanced India's industrial capabilities.

INDIA, AUSTRALIA PUSH FORWARD ON CECA TALKS

Context: India and Australia are in talks for a Comprehensive Economic Cooperation Agreement (CECA), after already having signed the Economic Cooperation and Trade Agreement (ECTA) in 2022.

About

- ❖ The talks focused on strengthening trade ties to achieve the countries' shared goal of \$100 billion in bilateral trade by 2030.
- ❖ The ECTA, which came into effect in 2022, has led to about \$30 billion worth of Australian exports entering India tariff-free, with Australians saving around \$225 million on goods from India.
- ❖ India is one of Australia's largest trading partners, with two-way trade in goods valued at over \$6.7 billion in 2023-24.
 - ✓ Bilateral trade between both sides, including goods and services, stood close to \$50 billion at the end of calendar year 2023.

About CECA

- ❖ It is a free-trade agreement between two countries that strengthens their bilateral trade.
- ❖ Australia and India first embarked on negotiations for a CECA in 2011.
- ❖ Talks were suspended in 2016. In 2021, the two countries formally revived the CECA talks.
- ❖ Both countries are looking to expand their trade ties under CECA, to cover sectors like goods, services, rules of origin, government procurement, digital trade, and agri-technology.
 - ✓ It also aims to unlock the potential of sectors such as clean energy, agribusiness, education, skills development, and tourism.

Key Objectives:

- ❖ **Trade Liberalization:** Reduce tariffs and non-tariff barriers to promote bilateral trade.
- ❖ **Investment Facilitation:** Encourage mutual investments and provide a framework for better investment protection.
- ❖ **Service Sector Expansion:** Enhance cooperation in services, including education, healthcare, and professional services.
- ❖ **Technological Collaboration:** Foster innovation and technology exchange, especially in sectors like renewable energy and digital economy.

Significance:

- ❖ **Economic Growth:** Boost in GDP growth for both nations through increased trade volumes.
- ❖ **Job Creation:** Expansion of employment opportunities in various sectors.
- ❖ **Market Access:** Providing Australian businesses better access to the Indian market and vice versa.

Way Ahead

- ❖ The relationship between Australia and India has developed rapidly in recent years, particularly under the impetus of India's far-reaching process of economic reform and the resulting rapid globalization of the Indian economy.
- ❖ Both countries have grown in strength and importance and made rapid strides in all areas – trade, energy and mining, science & technology, information technology, education, and defence.
- ❖ The year 2022-23 saw increasing depth and breadth of engagements including establishing new mechanisms for cooperation.
- ❖ In the coming years, the overall relationship between India and Australia will continue to grow and has the potential to assume greater prominence.

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CYBER SECURITY

CYBER COMMANDOS TO DEAL WITH CYBERCRIME

Context: Union Home Minister Amit Shah addressed the first Foundation Day program of the Indian Cyber Crime Coordination Centre (I4C) and launched key initiatives for prevention of cyber crime.

About

- ❖ During the event, four platforms of the I4C were launched;
- ❖ Cyber fraud mitigation center (CFMC);
- ❖ Samanvaya Platform, for cybercrime data repository, sharing, mapping, and analytics, as well as a coordination tool for law enforcement agencies.
- ❖ The cyber commandos programme: The government has planned to train and prepare 5,000 cyber commandos over the next five years to enhance cybersecurity.
- ❖ Suspect registry: It is an initiative to strengthen fraud risk management by creating a registry of identifiers based on the National Cybercrime Reporting Portal in collaboration with banks and financial intermediaries.

What is Cybercrime?

- ❖ Cyber crime is the use of digital technologies such as computers and the internet to commit criminal activities.
- ❖ These cases are financial fraud (credit card fraud, online transaction fraud), crime against women and children with regard to sexually explicit material, and deep fake content etc.
- ❖ According to the Seventh Schedule of the Indian Constitution, cybercrimes are within the purview of State subjects.
- ❖ According to the 'Crime in India' report released by the National Crime Records Bureau (NCRB), there has been a 24.4 percent increase in Cyber Crime Cases across India.

Reasons for increase in Cybercrime

- ❖ **Rapid Digitalization:** With a growing number of individuals and businesses relying on the Internet and digital technologies there are more opportunities for cybercriminals to exploit vulnerabilities.
- ❖ **Large Internet User Base:** India has 95 crore Internet users. With a large population using the internet, there are more potential targets for cybercriminals, making it a lucrative market for cyberattacks.
- ❖ **Inadequate Cybersecurity Infrastructure:** In India the cybersecurity infrastructure is still developing. Many organizations, especially smaller businesses, may not have robust cybersecurity measures in place, making them easy targets for cybercriminals.
- ❖ **Insider Threats:** Insider threats, where employees or individuals with access to sensitive information misuse it for malicious purposes, are a significant concern in India, particularly in the corporate sector.
- ❖ **Payment Systems Vulnerability:** With the rise of digital payments and online transactions, there is an increased risk of financial crimes such as phishing, credit card fraud, and online scams.
- ❖ In 2024, India saw UPI (Unified Payments Interface) transactions worth about Rs 20,64,000 crore which is 46 percent of the global digital transactions.
- ❖ **Low digital literacy:** Lower awareness among the general public and digital gaps amongst nations create an unsustainable environment in the cyber domain.

Effects of Cybercrime

- ❖ **Financial Losses:** Cybercrime leads to substantial financial losses for individuals and organizations through theft of funds, fraudulent activities, or the cost of restoring compromised systems.
- ❖ **National Security Concerns:** Cyberattacks with a geopolitical motive pose national security threats. The attacks target government agencies, critical infrastructure, or defense systems, compromising a nation's security.

- ❖ **Data Breaches:** The unauthorized access and theft of sensitive data compromises the confidentiality of personal and financial information, causing reputational damage and potential legal consequences.
- ❖ **Disruption of Services:** Cyberattacks disrupt essential services and critical infrastructure, impacting businesses, governments, and individuals.
- ❖ **Loss of Intellectual Property:** Businesses suffer from the theft of intellectual property, trade secrets, and proprietary information which undermine competitiveness and innovation, leading to economic repercussions.

Government steps for Cybersecurity

- ❖ **Information Technology Act, 2000:** Section 43, 66, 70, and 74 of the IT Act, 2000 deal with hacking and cyber crimes.
- ❖ Indian Computer Emergency Response Team (CERT-In) issues alerts and advisories regarding latest cyber threats/vulnerabilities and countermeasures to protect computers and networks on a regular basis.
- ❖ National Cyber Coordination Centre (NCCC) has been set up to generate necessary situational awareness of existing and potential cyber security threats and enable timely information sharing for proactive, preventive and protective actions by individual entities.
- ❖ Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre) has been launched for detection of malicious programs and provides free tools to remove the same.
- ❖ **Bharat National Cyber Security Exercise 2023:** Bharat NCX will help strategic leaders to better understand cyber threats, assess readiness, and develop skills for cyber crisis management and cooperation.

Conclusion

- ❖ The increasing use of technology is also causing many threats. That is why cybersecurity is no longer limited to the digital world but has also become an important aspect of national security.

Most cyber crimes are trans-national in nature with extra-territorial jurisdiction. Therefore, 'data localisation' is required, so that enforcement agencies are able to get timely access to the data of suspected Indian citizens.

ENVIRONMENT

EU's 2030 EMISSION TARGETS 'ALARMINGLY OFF-TRACK' FROM PARIS AGREEMENT'S 1.5°C GOAL

Context: Recently, Non-profit groups in Europe have taken legal action against the European Commission, arguing that the European Union's (EU) 2030 emission targets are falling short of the ambitious goals set by the Paris Agreement.

About the Paris Agreement (2015)

- ❖ It was adopted during the UN Climate Change Conference (COP21) in Paris, France in 2015.
- ❖ It represents a collective effort by 196 Parties to address the urgent challenge of global warming.

Temperature Goals

- ❖ The overarching goal of the Paris Agreement is to limit the increase in the global average temperature to well below 2°C above pre-industrial levels.
- ❖ Additionally, there's a strong emphasis on efforts to limit the temperature rise to an even more ambitious target: 1.5°C above pre-industrial levels.
- ❖ **Why the Focus on 1.5°C:** Scientific evidence from the Intergovernmental Panel on Climate Change (IPCC) suggests that crossing the 1.5°C threshold could lead to severe climate impacts, including more frequent and intense droughts, heatwaves, and extreme rainfall events.

Emission Reductions

- ❖ To achieve these temperature goals, countries commit to reducing their greenhouse gas emissions.
- ❖ The Agreement recognises that emissions must peak before 2025 at the latest and decline by 43% by 2030 to stay on track for the 1.5°C target.

Nationally Determined Contributions (NDCs)

- ❖ Each country communicates its climate action plan through its NDC.
- ❖ NDCs outline both mitigation (emission reduction) and adaptation measures.
- ❖ Countries are encouraged to progressively enhance the ambition of their NDCs over time.

Long-Term Strategies

- ❖ The Paris Agreement invites countries to formulate and submit long-term low greenhouse gas emission development strategies (LT-LEDS).
- ❖ While not mandatory, these LT-LEDS provide a vision for future development and align with the NDCs.

Global Cooperation and Support

- ❖ The Agreement establishes a framework for financial, technical, and capacity-building support to countries.
- ❖ Developed nations pledge to assist developing countries in their climate efforts.

Five-Year Review Cycle

- ❖ The Paris Agreement operates on a five-year cycle.
- ❖ Countries periodically update their NDCs, aiming for increased ambition with each iteration.

What are the challenges faced by the EU?

- ❖ **Inadequate Targets:** CAN-Europe and GLAN contend that the EU's emission reduction goals are insufficient to meet the Paris Agreement's objective of limiting global warming to 1.5°C.
- ❖ It marks the first time the EU courts will scrutinise the adequacy of the bloc's climate targets.
- ❖ **Science-Based Approach:** The European Court of Human Rights previously emphasised that states must adopt science-based emissions targets consistent with the 1.5°C goal.
- ❖ However, the EU's 2030 targets were not derived from the best available climate science, a point that the Commission has not contested in its defence.

- ❖ **Request for Internal Review:** In August 2023, GLAN and CAN-Europe submitted a Request for Internal Review (RIR) regarding the Annual Emissions Allocations (AEA) set by the European Commission for individual member states.
- ❖ Unfortunately, the Commission denied the request, leading to the legal case filed on February 27, 2024.

Urgency

- ❖ **Climate Crisis:** Given the urgency of the climate crisis, the court has granted this case priority status, scheduling it for a hearing in 2025.
- ❖ AEAs related to emissions covered by the EU Effort-Sharing Regulation, which sets national goals for reducing greenhouse gas emissions in sectors like transport, buildings, agriculture, small industry, and waste.
- ❖ **Lack of Scientific Assessment:** The heart of the legal challenge lies in the EU's failure to conduct a proper scientific assessment of the necessary emissions reductions to keep global warming below 1.5°C.
- ❖ The targets currently in place are deemed insufficient and could lead to a disastrous 3°C rise by 2100 if all nations follow similar paths.

What's at Stake?

- ❖ **Raising Emissions Reduction Ambition:** If successful, this legal challenge could prompt the EU and its member states to significantly raise their emissions reduction ambitions.
- ❖ Aligning with EU environmental regulations is crucial to meeting the Paris Agreement's goals.
- ❖ **Global Impact:** The EU's actions matter globally. As one of the largest economies and a major emitter, the EU's commitment to aggressive climate targets sends a powerful signal to other nations.

GLOBAL E-WASTE & ITS IMPACTS

Context: The Global E-waste Monitor 2024, brought out by United Nations Institute for Training and Research (UNITAR), International Telecommunication Union (ITU), and Fondation Carmignac, a corporate foundation.

Key findings

- ❖ The world produced 62 billion kg of electronic waste (e-waste) in 2022.
 - ✓ That number is projected to rise to 82 billion kg in 2030
- ❖ The world's generation of electronic waste is rising five times faster than documented e-waste recycling
- ❖ The report also highlighted the composition of the 62 billion kg of e-waste.
 - ✓ It contained 31 billion kg of metals, 17 billion kg of plastics and 14 billion kg of other materials (minerals, glass, composite materials, etc.)
- ❖ **Region wise:** Among regions, Europe has the highest rate of documented formal collection and recycling of e-waste at 42.8 percent.
 - ✓ Meanwhile, Africa generates the lowest rates of e-waste but struggles to recycle it.
 - ✓ Countries in Asia generate almost half of the world's e-waste (30 billion kg) but have made limited advances in e-waste management; moreover, relatively few of them have enacted legislation or established clear e-waste collection targets.

Impacts and Challenges

- ❖ E-waste, any discarded product with a plug or battery, is a health and environmental hazard, containing toxic additives or hazardous substances such as mercury, which can damage the human brain and coordination system
- ❖ Challenges contributing to the widening gap include technological progress, higher consumption, limited repair options, shorter product life cycles, society's growing electronification, design shortcomings, and inadequate e-waste management infrastructure.

Global policy

- ❖ On the policy front, 81 countries have adopted e-waste policy, legislation or regulation. Sixty-seven countries have legal provisions on EPR for e-waste.
- ❖ Another 46 have provisions on e-waste collection rate targets. Finally, 36 countries have provisions on e-waste recycling rate targets.

Status in India

- ❖ The Ministry of Environment, Forest and Climate Change has comprehensively revised the E-Waste (Management) Rules, 2016 and notified the E-Waste (Management) Rules, 2022 in November, 2022 and the same is in force since 1st April, 2023.
- ❖ These new rules intend to manage e-waste in an environmentally sound manner and put in place an improved Extended Producer Responsibility (EPR) regime for e-waste recycling wherein all the manufacturer, producer, refurbisher and recycler are required to register on a portal developed by the CPCB.
- ❖ The new provisions would facilitate and channelize the informal sector to the formal sector for doing business and ensure recycling of E-waste in an environmentally sound manner.
- ❖ Provisions for environmental compensation and verification & audit have also been introduced.

Suggestions

- ❖ Amidst the hopeful embrace of solar panels and electronic equipment to combat the climate crisis and drive digital progress, the surge in e-waste requires urgent attention.
- ❖ There is an immediate call for greater investment in infrastructure development, more promotion of repair and reuse, capacity building, and measures to stop illegal e-waste shipments.
- ❖ Concrete steps are urgently needed to address and reduce e-waste.
- ❖ Improved e-waste management could result in a global net positive of US \$38 billion, representing a significant economic opportunity while addressing climate change and health impacts.
- ❖ We must seize the economic and environmental benefits of proper e-waste management; otherwise, the digital ambitions of our future generations will face significant risks.
- ❖ Monitoring the quantities and flows of e-waste is essential for evaluating developments over time, and to set and assess targets towards a sustainable society and circular economy.

MODIFIED PM-JI-VAN YOJANA

Context: The government has approved the modified Pradhan Mantri Jaiv Indhan Vatavaran Anukool Fasal Awashesh Nivaran (PM-JI-VAN) Yojana.

About

- ❖ The modified scheme extends the implementation timeline by five years, i.e., until 2028-29.
- ❖ It now includes advanced biofuels produced from lignocellulosic feedstocks—such as agricultural and forestry residues, industrial waste, synthesis (syn) gas, algae, etc.—within its scope.
- ❖ To promote multiple technologies and multiple feedstocks, preference would now be given to project proposals with new technologies and innovations in the sector.
- ❖ **Significance:** The scheme aims to provide remunerative income to farmers for their agricultural residue and address environmental pollution.
 - ✓ The scheme also helps create local employment opportunities and contributes to India's energy security and self-reliance.
 - ✓ It also supports the development of advanced biofuel technologies and promotes the Make in India Mission.
 - ✓ It also helps in achieving India's ambitious target for net-zero GHG emissions by 2070.

About Pradhan Mantri JI-VAN scheme:

- ❖ In 2019, Government had notified the “Pradhan Mantri JI-VAN (Jaiv Indhan- Vatavaran Anukool fasal awashesh Nivaran) Yojana”.
- ❖ It aimed at providing financial support to integrated bio-ethanol projects for setting up Second Generation (2G) ethanol projects in the country using lignocellulosic biomass and other renewable feedstocks.

What are Biofuels?

- ❖ Biomass can be converted directly into liquid fuels, called biofuels.
- ❖ The two most common types of biofuels in use today are ethanol and biodiesel, both of which represent the first generation of biofuel technology.
- ❖ **Ethanol:** Ethanol (CH₃CH₂OH) is a renewable fuel that can be made from various plant materials, collectively known as “biomass.”
- ❖ **Biodiesel:** It is a liquid fuel produced from renewable sources, such as new and used vegetable oils and animal fats and is a cleaner-burning replacement for petroleum-based diesel fuel.
 - ✓ It is nontoxic and biodegradable and is produced by combining alcohol with vegetable oil, animal fat, or recycled cooking grease.

SEA LEVELS RISING

Context: Antonio Guterres highlighted the threat of sea level rise to Pacific countries like Tonga, with severe global impacts on coastal communities.

Key Highlights

- ❖ **Rate of Sea Level Rise:** Global sea levels have risen over 20 cm since 1880, faster than any time in the last 3,000 years. The rate of rise has accelerated, with 2023 recording the highest sea levels.
- ❖ **Unequal Rise:** Sea levels are not rising equally across the globe; parts of the southwestern Pacific have seen rates nearly double the global average since 1993.
- ❖ Depending on climate action, sea levels could rise 38 cm by 2100 if global warming is limited to 1.5°C, or up to 56 cm with 2.7°C warming. Extreme cases predict up to 2 meters by 2100.

Causes of Sea Level Rise:

- ❖ Global warming caused by fossil fuel emissions.
- ❖ Thermal expansion as oceans heat up.
- ❖ Melting ice sheets and glaciers, particularly in Antarctica and Greenland.
- ❖ Groundwater pumping also contributes to rising sea levels.

Impact of Rising Seas:

- ❖ Every 2.5 cm of sea rise can result in 2.5 meters of lost beachfront, increased storm surge, and high tides.
- ❖ Each centimeter exposes an additional 6 million people to coastal flooding.
- ❖ Exceeding 1.5°C warming could lead to irreversible melting of the Greenland and West Antarctic ice sheets, significantly raising sea levels.

Vulnerable Regions:

- ❖ Low-lying islands (e.g., Fiji, Maldives, Tuvalu) face existential threats. Coastal cities, river deltas, and areas in tropical Asia (Bangladesh, India, China) are also highly vulnerable.
- ❖ Global Impact: Nearly 40% of the world’s population lives near coastlines, with major cities like Cairo, Mumbai, Lagos, and London at risk of severe impacts.

Measures

- ❖ Reducing emissions to prevent further rise.
- ❖ Adaptation strategies such as sea walls, storm surge barriers, and flood-resistant infrastructure.

- ❖ Nature-based solutions like regenerating mangroves and preventing coastal erosion.
- ❖ Relocating villages in low-lying areas or building floating cities in places like the Maldives and Tuvalu.



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